

EVERYTHING IN RADIO  
AND ELECTRONICS



**ALLIED RADIO**

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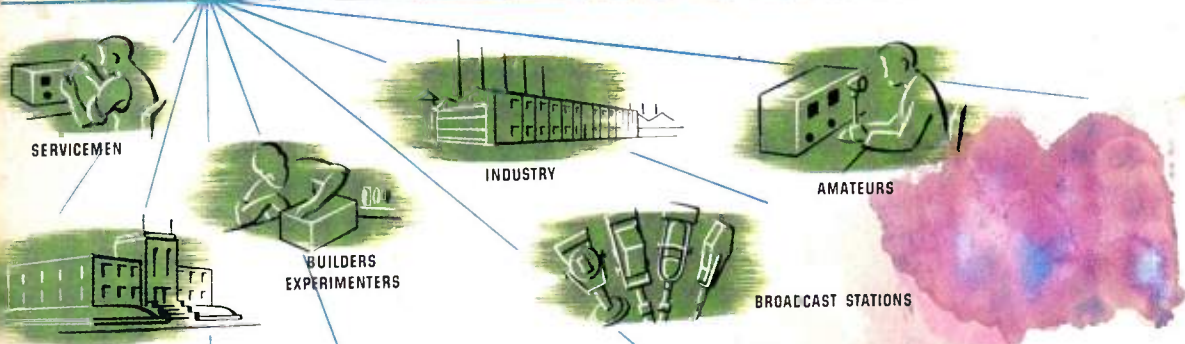
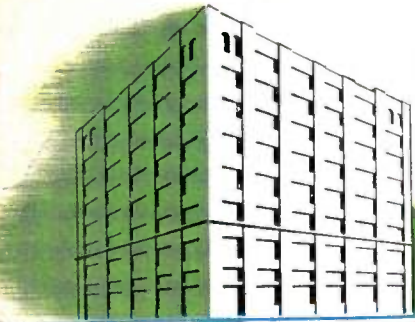
*Catalog No. III*

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**1946**

# ALLIED

*complete centralized service*



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INDUSTRY



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INSTITUTIONS



BUILDERS  
EXPERIMENTERS



BROADCAST STATIONS

## EVERYTHING IN RADIO AND ELECTRONICS



SOUNDMEN

Today . . . when service is so important . . . when time counts so much . . . your one dependable source of supply is ALLIED. Everything is centralized here for greatest speed and efficiency. Over 10,000 items are readily available from the world's largest and most complete stocks—all under one roof—nationally known makes of guaranteed quality at lowest prices. Your every need—great or small—gets prompt, personal attention from specialized staffs trained in every field of radio and electronics. Our close contact with all manufacturers assures constant supply data. This complete service simplifies your buying, saves you time and money. Technical experts are ready to assist you on any problem. Take full advantage of all the experience and all the resources of Radio's Leading Supply House. Thousands do—throughout the world. • This new Allied Buying Guide brings you latest, finest values in radio and electronic parts and equipment—makes it easy for you to order. Keep it handy for quick reference. See page 104 for index.

**ALLIED RADIO CORPORATION**  
833 West Jackson Blvd., Chicago 7 • All Phones Haymarket 6800



In the great drive for Victory, Allied was awarded the Certificate of Achievement in recognition of its services to the Armed Forces. Consistent with wartime limitations and regulations, Allied made every effort to take care of the essential needs of all customers. Now Allied's complete facilities are at your service again.

**GUARANTEE**—We guarantee that our merchandise conforms to the standards of the Radio Manufacturers' Association and will perform in the manner intended for such apparatus. Every item bought from us must satisfy in every way—or it may be returned at once for exchange, repair, or refund, as desired.

—ALLIED RADIO CORP.



## Knight 5 TUBE AC-DC SUPERHET

- Multi-purpose Tubes
- Full-acting Automatic Volume Control
- Superhet Circuit
- Beam Power Output
- 5-inch PM Dynamic Speaker
- Police Calls
- New Built-in Loop Aerial
- New Two-Toned Modern Plastic Cabinet
- Superb Tone Quality

**TUBES USED:** 14Q7 Oscillator-Converter (dual purpose); 14A7 IF Amplifier; 14B6 Detector, A.V.C., First Audio (triple purpose); 50A5 Beam-Power Output. Also 35Y4 Rectifier.

Here is just the radio set you've been waiting for. The small set with the modern touch for home, office, or workshop. Combines excellent tone quality, striking appearance, rugged construction and low cost. It's the **Knigh**t 1946 headliner—a low-priced radio receiver that achieves a new high in small set performance.

**Streamlined Design.** The attractive walnut cabinet, constructed of durable plastic material, is designed along simple modern lines to harmonize with any interior. The speaker has large baffle area for better tone. The smooth, neat styling of the louvred front enhances the rich appearance. The **Knigh**t 5 is compact and light weight for easy portability from room to room.

**Superior Tone Quality.** You'll enjoy every program you hear with the **Knigh**t 5 (with rectifier). Voice or music, a dramatic sketch or a popular orchestra, every word and every note is brought to you with remarkable fidelity and clarity of tone. Generous speaker baffle area assures even sound distribution.

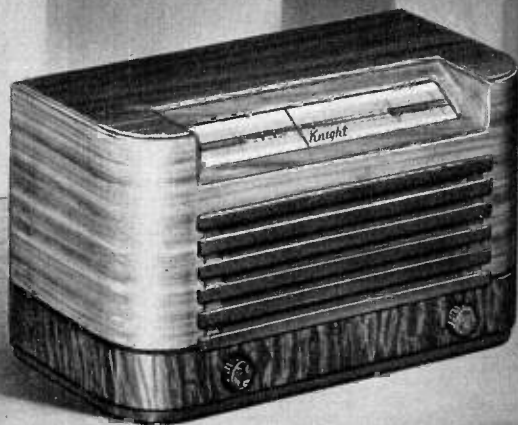
**Superhet Power.** The efficient RCA and Hazeltine licensed circuit incorporates modern radio developments for unsurpassed small set performance. The beam power output circuit feeds smooth, extra power to the heavy-duty 5-inch PM dynamic speaker for natural, full-tone reproduction.

**Plays Anywhere.** The **Knigh**t 5A-152 can be used with almost any type of electric power. It will operate at full efficiency on 105-125 volts, 40-60 cycles AC, or 105-125 volts DC. An adapter is listed below to permit 220 V. operation, AC or DC. A newly developed high-efficiency loop aerial is built right into the receiver for maximum convenience and portability. A connection is also provided for attaching an outside aerial.

**Extra-Value Features.** The tuning range, 530 to 1720 KC, gives full broadcast and upper police band coverage. A full-acting automatic volume control circuit assures uniformity of volume and the elimination of blasting or fading. The smooth operating illuminated dial is tilted for full visibility and clearly calibrated for maximum tuning ease. Up-to-date multi-purpose tubes provide greater power and exceptional performance.

**Outstanding 1946 Value.** The **Knigh**t 5A-152 brings you one of the year's leading values in an attractive, efficient and well-built radio set. For operation on 105-125 volts, 40-60 cycles AC, or 105-125 volts DC. Size 11 $\frac{1}{4}$ " wide x 5 $\frac{3}{4}$ " deep x 8 $\frac{3}{8}$ " high. Shipping weight, 10 lbs.

5A-152..... WRITE FOR PRICE  
49-580. Adapter for operating set from 220 volts AC or DC. NET..... 85c



### **Knight 5 TUBE PHONO-RADIO COMBINATION**

- **Powerful Superhet Circuit**
- **Built-in, Efficient Loop Aerial**
- **1½ ounce Crystal Pickup**
- **Brilliant Tone Quality**

**TUBES USED:** 14Q7 Oscillator-Converter; 14A7 IF Amplifier; 14B6 Detector, A.V.C., First Audio (triple purpose); 50A5 Beam Power Output. Also 35Y4 Rectifier.

A well-built, versatile phonograph-radio combination designed for dependable, efficient radio reception and phonograph performance. The handsome cabinet is styled in the functional, modern manner. Its simple lines will harmonize with any interior. Quality components and quality workmanship are combined in the **Knigh 5** (with rectifier) to bring you fine phonograph and radio enjoyment for years to come.

**Superb Phonograph Performance.** Enjoy the finest recorded music faithfully reproduced by this high-quality phonograph. Uses a silent, smooth-running, constant-speed phono motor and a wide-range crystal pickup of the new lightweight type. Needle pressure is only 1½ oz. All 10" and 12" records can be played with the lid closed. Designed for long record life and maximum record enjoyment, the **Knigh 5A-163** is the perfect phono-radio for both the lover of classical music and the "boogie-woogie" enthusiast.

**Beautiful Radio Reception:** A powerful superheterodyne circuit, RCA and Hazeltine licensed, incorporates the latest developments in radio design. Amazing tone quality is achieved—vivid, lifelike reception for full enjoyment. The tuning range is 535-1720 KC, for complete coverage of standard broadcast band and upper police channel. Here are some of the added features: Latest type multi-purpose tubes for greater efficiency; heavy-duty 5-inch PM dynamic speaker for full-bodied tone and extra power handling capacity; automatic volume control circuit to maintain constant volume level for maximum listening pleasure; easy-to-read, illuminated slide-rule dial for smooth tuning; built-in loop antenna for convenience and greater signal strength.

**Attractive Cabinet.** Made of selected, fine-grained walnut veneers, and styled for simple beauty, the **5A-163** presents a handsome appearance. The cabinet is solidly constructed for vibration-free performance even on heavy symphonic selections. Convenient size and light weight make it easily portable. Dimensions, 14½" wide, 11½" deep, 10½" high. For operation on 110-120 volts, 60 cycles AC. Shpg. wt., 18 lbs.

**5A-163** ..... WRITE FOR PRICE

### **Knight 5 TUBE AC-DC SUPERHET**

**TUBES USED:** 14Q7 Oscillator-Converter; 14A7 IF Amplifier; 14B6 Detector, A.V.C., First Audio (triple purpose); 50A5 Beam Power Output. Also 35Y4 Rectifier.

You've never seen the equal of the **Knigh 5A-154** for splendid radio performance and attractive appearance at this low price. Versatile and convenient. Use it as your No. 1 radio set or as that extra radio for kitchen, bedroom, den or office.

**1946 Superhet.** The RCA and Hazeltine licensed superhet circuit incorporates the best features of radio design for maximum efficiency. The use of multi-purpose tubes gives you extra power and better performance. The automatic volume control keeps volume uniform, minimizes fading. Beam Power Output delivers ample reserve power.

**New Built-in Loop Aerial.** The **Knigh 5A-154** has a highly sensitive loop antenna which provides strong signal pickup. A connection is provided for attaching an outside aerial for better long-distance reception.

**Plays Anywhere.** Just plug into any convenient electric outlet for immediate listening enjoyment. This modern AC-DC set operates efficiently from 105-125 volts, 40-60 cycles AC, or 105-125 volts DC. With the adapter, 49-580, listed below, the **Knigh 5** (including rectifier) may also be used on 220 volts, AC or DC.

**Additional Features.** The **Knigh 5A-154** has a heavy-duty 5-inch PM dynamic speaker for realistic reproduction of voice or music. The illuminated, tilted continental-type dial is clearly calibrated. Frequency range of 535-1720 KC covers American and Canadian standard broadcast stations and the upper police channels.

**Handsome Cabinet.** Sturdily built of selected walnut veneers, cabinet is styled along simple, modern lines. The louvred grill adds to the rich appearance. Size, 13½" wide, 6½" deep, 7½" high. For 105-125 volts, 40-60 cycles AC, or 105-125 volts DC. Shpg. wt., 10 lbs.

**5A-154** ..... WRITE FOR PRICE  
**49-580.** 220 volt adapter for above. .... **85c**



### ***Knight 6* TUBE, 2-BAND AC-DC SUPERHET**

**TUBES USED:** 12SG7GT RF Amplifier; 12SA7GT Oscillator, Converter (dual purpose); 12SK7GT 1F Amplifier; 12SQ7GT Detector, A.V.C., 1st Audio (triple purpose); 35L6GT Beam Power Output. Also 35Z5GT Rectifier.

**The All-Purpose Radio.** Efficient, modern circuit, attractive cabinet styling, broadcast and short-wave reception, built-in loop aerial, versatile AC-DC operation—these are the top features of this perfect companion radio.

**Rich Tone Quality.** You'll be impressed with the life-like tone of the **Knight 6A-122**. Music and speech are reproduced through the 4x6-inch oval PM dynamic speaker with the quality you would expect only from a much larger radio. A variable tone control permits adjustment to your individual taste.

**Foreign Reception.** You get full coverage of American and Canadian standard broadcast stations on 538 to 1620 KC, and thrilling, far reaching reception on the short-wave band, 5.7 to 18.3 MC. An **RF stage on both bands** provides extra sensitivity for all stations. It's easy to tune both bands with the smooth-acting, illuminated slide-rule dial, which is clearly calibrated and tilted for convenient reading from any angle.

**Special Features.** A loop antenna, newly designed for greater signal pickup, is built into the **Knight 6A-122**. Just plug in and play. An outside aerial connection is provided for improved short-wave and long distance reception. The powerful superhet circuit, RCA and Hazeltine licensed, includes beam power output for extra gain. Iron core IF transformers, a feature of the more expensive sets, are used for increased signal strength. A full-acting automatic volume control circuit keeps volume uniform.

**Handsome Cabinet Styling.** The gracefully proportioned cabinet is fashioned of finely grained walnut veneers, hand-rubbed to a lustrous finish. The attractive speaker grill adds to the rich appearance of the set. Size, 15" x 7 1/4" x 8 3/4" high. The **Knight 6** (with rectifier) operates from either 110-120 volts, 40-60 cycles AC, or 110-120 volts DC. (Use adapter below for 220 volt AC-DC operation.) Shipping weight, 12 lbs.

**6A-122.....WRITE FOR PRICE**

### ***Knight 5* TUBE AC-DC SUPERHET in Catalin**

**TUBES USED:** 12SA7GT Oscillator, Converter (dual purpose); 12SK7GT 1F Amplifier; 12SQ7GT Detector, A.V.C., First Audio (triple purpose); 50L6GT Beam Power Output. Also 35Z5GT Rectifier.

**Brilliant colors.** Grace your home, office or shop with the brightness and cheer that only color can add. The beauty and unrivalled richness of *Catalin*, a translucent material, "The Gem of Plastics," is brilliantly utilized in the design of the **Knight 5A-115**. Here is a radio of distinctive grace and style, presented in three beautiful color combinations: (1) Marble-grained maroon with white grill escutcheon and white knobs; (2) Dazzling white with maroon grill escutcheon and maroon knobs; (3) Marble-grained royal blue with white grill escutcheon and white knobs.

**Performance.** The efficiency of the 1946 engineered superhet circuit of the **Knight 5A-115** matches the unequalled beauty of the cabinet. You will marvel at the full range tone quality, sharp selectivity and unusual volume of this compact set. Frequency range is 530-1730 KC, covering the regular broadcast band and upper police channel.

**Added Features:** Built-in, new high efficiency loop aerial for easy portability and high signal strength; Iron-core IF transformers increase power and selectivity; Heavy-duty five inch PM dynamic speaker for extra power handling capacity and wide range tonal response; Automatic volume control circuit maintains uniform volume, makes listening more enjoyable; Angle-mounted, illuminated slide-rule dial is clearly calibrated and fully visible from any position; Up-to-the-minute RCA and Hazeltine licensed circuit uses multi-purpose tubes for power and performance comparable to many larger receivers.

**Plays Anywhere.** The **Knight 5** (with rectifier) operates from 110-120 volts, 40-60 cycles AC, or 110-120 volts DC. (Use adapter below for 220-volt AC-DC operation. This versatility plus the convenience of the self-contained loop aerial enable you to enjoy fine reception wherever you go. Size: 10 1/4" wide, 7 1/2" deep, 6 1/2" high. Shipping weight, 9 lbs.

**5A-115M.** Maroon with white trim.

**5A-115W.** White with maroon trim.

**5A-115B.** Blue with white trim.....**WRITE FOR PRICE**

**49-580.** 220 volt adapter for above sets. **NET.....85c**



## *Knight is the Radio for Your Money!*

★ All over the world today **KNIGHT** radios are performing faithfully and dependably—for enduring quality is a tangible part of every instrument bearing the **KNIGHT** name.

★ To give you the best possible radio value, skilled engineers and stylists critically review all available circuit and cabinet developments and design each **KNIGHT** model to embody the most worthwhile features. ★ Thus you are always assured that the **KNIGHT** receiver you select reflects the choice of experts who have combined their wealth of experience to bring you more for your money . . . in beauty, fine performance, and lasting quality. ★ Our fifteen-day trial will convince you that **KNIGHT** radios satisfy in every way.

★ Order the model you prefer. See it, hear it, try it yourself.

★ **YOU** be the judge. ★ Let your own tests prove that on every count **KNIGHT** Radios give you more for your money.

### **15-DAY TRIAL AND MONEY-BACK GUARANTEE**

Order any **KNIGHT RADIO** on our regular terms. Try it under your own operating conditions. Then, if within 15 days you are not fully satisfied, you may return the set to us, and we will promptly refund your full purchase price, less transportation charges. This Guarantee is further supplemented by the regular Radio Manufacturers' Association Guarantee against any defect in materials and workmanship.

**ALLIED RADIO CORPORATION**

(All radio set prices are subject to change without notice. We reserve the right to limit quantities. Where prices are quoted subject to OPA approval, prompt refund will be made after shipment if OPA-approved price is lower. If it becomes necessary to hold orders for any radio set model, shipment will be made in turn according to the date the order is received.)



## **Knight AUTOMATIC PHONO-RADIO** **6 TUBE 2-BAND MODEL**

**TUBES USED:** 7B7 RF Amplifier, 14Q7 Oscillator-Converter (dual purpose); 7B7 IF Amplifier; 14B6 Detector, A.V.C., Amplifier (triple purpose); 50A5 Beam Power Output. Also 35Y4 Rectifier.

Enjoy console-like quality in the convenience of a table model unit with the **Knight 6** (with rectifier) combination. Details of design, construction and selection of highest quality components were supervised by leading electronic engineers to bring you this truly remarkable instrument. You'll find new listening pleasure in vivid reproduction of your favorite radio programs and recordings. The **Knight 6A-175** brings you the best in phono-radio features.

**Velvet-Action Automatic Record Changer.** New record changer of post-war design plays ten 12-inch or twelve 10-inch records at a single loading. Last record repeats until changer is stopped. One control is used for starting and stopping or rejecting any record. Records may also be operated manually. This changer will treat your most treasured phonograph records with gentle care. Changing action is velvety smooth. The fine quality crystal pickup used is of lightweight construction, only 1½ oz. pressure.

If you've never before enjoyed the pleasure and convenience of an automatic record changer, you're in for a real treat. You can have forty minutes of uninterrupted recorded music—a complete dance program, symphony or opera without touching the instrument, once it is set.

**Superior Two-Band Radio Reception.** Frequency range is 530-1680 KC for American and Canadian broadcast stations and 7-18 MC for interesting foreign and domestic short-wave reception. The RCA and Hazeltine licensed circuit uses latest high-efficiency tubes for maximum performance. Reception on broadcast and short-wave bands is increased in range and sensitivity by the use of a radio frequency stage. The extra power of the beam power output circuit is capably handled by the five-inch PM dynamic speaker. Automatic volume control maintains uniform volume without fading\* or blasting. Tuning is easy with the clearly calibrated, fully illuminated slide-rule dial.

For added convenience and portability the **Knight 6A-175** is equipped with a built-in loop aerial of efficient design. Provision is made for the addition of an external antenna for improved short-wave and long-distance reception.

**Full Range Tone Quality.** Radio and recorded entertainment are brought to you with perfect realism and richness of tone. A variable tone control is provided to permit tone adjustment of any program or recording to your own personal taste.

**Distinctive Walnut Cabinet.** A product of fine craftsmanship, the cabinet is designed for compactness and beauty. Made of richly grained walnut veneers with recessed dial. Lid closes on both twelve- and ten-inch records. Size, 15¼" wide, 17½" deep, 13" high. For 110-120 volts, 60 cycles AC. Shpg. wt., 40 lbs.

**6A-175.**..... **WRITE FOR PRICE**



### **FEATURES**

- Gentle action, automatic record changer
- Handles 12 ten-inch or 10 twelve-inch records
- Lightweight, wide range crystal pickup
- RF stage on both bands
- Automatic volume control
- Individual tone control
- Beam power output
- Foreign reception
- Superior tone quality
- Built-in loop aerial
- Compact cabinet design



## FEATURES

- Tuned RF on all bands
- 3-gang condenser
- Push-pull output
- 8-inch dynamic speaker
- Efficient inverse feedback circuit for improved response
- Connections for phonograph or FM
- Bass and treble tone controls
- Built-in loop antenna
- Dual-purpose tubes for improved performance
- Shock-mounted chassis
- Dependable foreign reception
- Brilliant tone quality

## Knight 8 TUBE 3-BAND AC SUPERHET

**TUBES USED:** 6SK7GT RF Amplifier; 6SA7GT Oscillator, Converter (dual-purpose); 6SK7GT IF Amplifier; 6SQ7GT Detector, First Audio (dual-purpose); 6J5GT Second Audio, A.V.C. (dual-purpose); 2-6V6GT Push-Pull Beam Power Output. Also 5Y3GT Rectifier.

The **Knight 8** (with rectifier) is a luxurious radio which combines the most recent developments in radio engineering with the best pre-war features. Magnificently styled and sturdily constructed, this radio set has all the qualities to give you maximum radio enjoyment on standard broadcast, and foreign and domestic short-wave bands.

**Brilliant Tone Quality.** The **Knight 8** (with rectifier) brings music or speech to you with exceptional fidelity and clarity of tone. The generous proportions of the cabinet are acoustically designed to insure richness and fullness of program reproduction. An advanced feature of design is the inverse feedback output circuit developed by electronic engineers for greatly improved quality of reception. The unusual power of the modern superheterodyne circuit is smoothly handled by the efficient eight-inch electro-dynamic speaker. Bass and treble tone control permits adjustment of tonal emphasis to your own personal taste. The chassis and variable condenser are individually shock-mounted to assure vibration-free performance.

**Dependable Foreign Reception.** The standard broadcast band, 530-1710 KC, covers American and Canadian regular broadcast stations. The two short-wave bands, 2.2-7.4 MC and 7.4-24 MC, tune foreign and domestic programs, amateur, aviation and police signals. At a moderate price you become master of the air waves with this powerful, sensitive, well-designed receiver.

**Powerful Superhet Circuit.** Using multi-purpose tubes, push-pull output and inverse feedback, the **Knight 8A-183** circuit develops exceptional undistorted output. Automatic volume control smoothly maintains uniform volume level. Only the highest quality matched component parts are used to assure perfect performance and consistently enjoyable reception. Tuning is a pleasure with the 12 to 1 ratio vernier-drive dial which is smooth-acting, clearly calibrated, and fully illuminated.

**TRF on All Three Bands.** Incorporates a tuned RF stage on each band. This is a feature found only in the highest quality radios. It provides a considerable increase in sensitivity, resulting in greater distance-reach, finer tone quality, and freedom from background noises.

**KNIGHT Extras.** Ultra-modern features include: High-efficiency built-in loop aerial for utmost convenience and sensitivity; terminals for external antenna for improved short-wave and long-distance reception; three-gang tuning condenser; connectors for phonograph, record changer, or FM tuner.

**Handsome Table Cabinet.** There is impressive beauty in the appearance of this **Knight** receiver. Well-proportioned, with a gracefully designed sloping front, it is a piece of furniture you will be proud to own. Cabinet construction is extremely solid, and the selected, fine-grained walnut veneers used are rubbed to a rich, lustrous finish. Size, 23" wide, 11 1/8" deep, 12" high. For 110-120 volts, 50-60 cycles AC. Shipping weight, 32 lbs.

**8A-183** .....WRITE FOR PRICE



## Knight 8 TUBE AUTOMATIC PHONO-RADIO CONSOLE

Styled in magnificent Eighteenth Century design, this beautiful console houses a powerful all-wave radio receiver and a newly-developed automatic record changer. The acoustical qualities of console construction and the full-range response of the 12-inch Concert-Dynamic speaker used in the **Knight 8A-187** combine to bring you radio reception and recorded entertainment with superbly realistic and full-bodied tone quality. The mahogany cabinet has a convenient pull-out drawer for easy access to the record changer. The radio controls are concealed behind the upper right-hand panel. A roomy compartment is provided for record albums. Every detail of construction and design was carefully planned by expert engineers to bring you a truly fine instrument. Price is right, too. This Automatic Phono-Radio is yours for a very modest investment.

**Powerful Radio Reception.** The **Knight 8** (with rectifier) uses the same 3-band circuit as the receiver described to the left (chassis pictured below) featuring: Standard broadcast and short-wave reception, 530-1710 KC, 2.2-7.4 MC, and 7.4-24 MC; tuned radio frequency on all bands; inverse feedback output circuit; automatic volume control; bass and treble tone control; push-pull output; individually shock-mounted chassis and three-gang variable condenser; built-in loop aerial; terminal for external antenna; 12:1 ratio vernier drive, illuminated dial. You get a powerful, sensitive 1946 receiver to bring you dependable all-wave reception, vividly reproduced through the 12-inch Concert-Dynamic speaker.

**Enjoyable Automatic Phonograph Entertainment.** The record changer of simplified post-war design plays twelve 10-inch or ten 12-inch records automatically—forty minutes of uninterrupted entertainment at a single loading. Only one control is used for starting and stopping, or rejecting any records you do not wish to play. Provision is made for manual operation. Your records are treated with gentle care by the velvety-smooth action of the changer mechanism and the low needle pressure (only 1½ oz.) of the lightweight crystal pickup. An important feature of the **Knight 8A-187** is the tone compensating network built into the phono circuit which extends frequency range and greatly improves phonograph reproduction. You will find new pleasure in recorded music played through the **Knight 8A-187** Phono-Radio Combination.

**Deluxe Console Cabinet.** The authentic period cabinet is fashioned of beautifully grained, selected mahogany veneers, expertly matched and hand-rubbed to a rich, lustrous finish. It will bring enduring beauty into your home. Size, 34" wide, 16¼" deep, 34½" high. For 110-120 volts, 50-60 cycles AC. Shipping weight, 100 lbs.

**8A-187**.....WRITE FOR PRICE



## Knight 8 TUBE CHASSIS MODEL

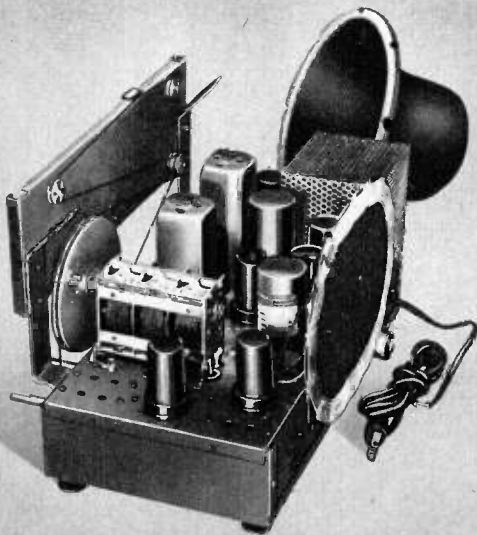
**TUBES USED:** 6SK7GT RF Amplifier; 6SA7GT Oscillator, Converter (dual-purpose); 6SK7GT IF Amplifier; 6SQ7GT Detector, First Audio (dual-purpose); 6J5GT Second Audio, A.V.C. (dual-purpose); 2-6V6GT Push-Pull Beam Power Output. Also 5Y3GT Rectifier.

The identical chassis used in the phono-radio combination described above is available separately, as illustrated at right. It makes a wonderful 1946 replacement for cabinets now housing obsolete radios. The **8A-189** chassis is also ideal for custom-built cabinets and wall or other special installations. Compactly designed to meet limited space requirements. Easily installed.

**Advanced Circuit Features.** The same remarkable features, described on page 6, are included: Three-band reception; tuned radio frequency stage on all bands; built-in loop aerial; inverse feedback and push-pull output; automatic volume control; bass and treble tone control; three-gang condenser; 12:1 ratio vernier drive, illuminated dial; connections for external antenna and phonograph, record changer, or FM tuner. Supplied with 12-inch Concert-Dynamic speaker. The chassis model is ruggedly constructed, reflecting expert craftsmanship in every electronic and mechanical detail. Size, 12" wide, 7½" deep, 8½" high.

**Chassis Complete.** The **Knight 8** chassis (with rectifier) is supplied with tubes, 12" speaker, loop aerial, dial, knobs, and hardware. For 110-120 volts, 50-60 cycles AC. Shpg. wt., 26 lbs.

**8A-189**.....WRITE FOR PRICE





## Knight 6 TUBE "SUPER SENSITIVE" 3-WAY PORTABLE

**TUBES USED:** 1N5GT RF Amplifier; 1A7GT Oscillator, Converter (dual purpose); 1N5GT IF Amplifier; 1H5GT Detector, Automatic Volume Control, First Audio (triple purpose); 3Q5GT Beam Power Output. Also 117Z6GT Rectifier.

**Enjoy perfect radio entertainment** wherever you go with the **Knight 6A-127** as your companion. Use it at home or outdoors; take it on trips, to the beach, picnics, or sporting events. A low-priced portable with many unusual features.

**Three-Way Operation.** The **Knight 6A-127** operates anywhere from self-contained batteries. Where electric current is available it will operate fully as well from the power line and conserve your batteries at the same time. This **Knight** portable can be used on 105-125 volts, 40-60 cycles AC, or 105-125 volts DC. The built-in, highly sensitive loop aerial increases versatility and convenience, and provides exceptionally strong signal pick-up.

**Tuned Radio Frequency.** For the maximum in sensitivity and your assurance of dependable, clear reception even at great distances from broadcasting stations, a tuned radio frequency stage, using a 3-gang condenser, is incorporated in the powerful superhet circuit. Here is that extra something not ordinarily found in receivers of this type. Now you can get dependable performance in remote locations where ordinary portables fail.

**Splendid Radio Reception.** The **Knight 6** (with rectifier) covers the broadcast band from 525-1650 KC; tunes in all your favorite stations easily. AVC assures uniform volume. Iron core IF's for increased signal strength and stability are another **Knight** extra. The slide-rule dial is mounted at an angle for clear vision. Electric-Battery change-over switch is mounted on the front panel. Extra power is developed by the beam power output circuit.

**300-Hour Battery Life.** Faultless radio performance is achieved at astoundingly low cost. The 1946 circuit, though powerful in operation, uses low-drain tubes for unusual battery life. The batteries (included with the receiver) provide 300 hours of service before replacement is needed. Batteries used are standard plug-in types, readily available.

**Brilliant Tone Quality.** You'd imagine you were listening to a fine table model home radio receiver when you hear the **Knight 6A-127**. The five-inch permanent magnet dynamic speaker easily handles full volume on every type of program with exceptionally fine tone quality. Whether you operate the **Knight 6** 3-way portable from electric power or from self-contained batteries, you get surprisingly pleasing reception.

**Rugged Luggage-type Case.** The sturdy wood cabinet is covered with handsome brown simulated leather that will withstand dampness and rough treatment. Like fine luggage, it has a strong leather handle and polished brass hardware. A bronze-finished expanded metal grill protects the speaker and adds to the attractive appearance of the set. Carrying weight (with batteries) only 14 lbs. Size, 12½" wide, 5¾" deep, 9¾" high. For operation from self-contained batteries or 105-125 volts, 40-60 cycles AC or 105-125 volts DC. Complete with a full set of batteries. Shpg. wt., 16 lbs.

**6A-127**..... WRITE FOR PRICE  
**80-578.** Extra battery kit, 6 lbs. NET..... \$2.74

## Knight 4 TUBE BATTERY FARM RADIO

**TUBES USED:** 1A7GT Osc.-Converter (dual purpose); 1N5GT Detector, A.V.C., 1st Audio (triple purpose); 1N5GT IF Amplifier; 1A5GT Beam Power Output.

The ideal set for use where electric current is not available. The **Knight 4A-119** brings the rural listener efficient, economical performance. Low-drain circuit assures maximum life for the **1,000-hour** battery.

**Powerful Superhet Circuit.** The superhet circuit has the best features in battery radio development: Iron core IF transformers; simplified slide-rule dial; beam-power output; automatic volume control. A 6-inch PM dynamic speaker reproduces your favorite radio programs with lifelike tone quality.

**Convenient.** The 1,000-hour battery fits right into the cabinet. A standard plug-in type, it is easily replaced. (For AC power packs see page 22.)

**Attractive Cabinet.** Designed along simple, functional lines, the cabinet is solidly constructed of fine-grained walnut veneers. Size, 18½" wide, 10½" deep, 11¼" high. Shpg. wt., less battery, 13 lbs.

**4A-119.** Set less battery..... WRITE FOR PRICE  
**4A-120.** As above but complete with long-life 1,000-hour AB battery pack. Shipping weight, 34 lbs..... WRITE FOR PRICE



# Latest Price and Delivery Information

At the time the main body of this catalog went to press, prices on radio sets and some test units were not available. Following is the latest information available when this section was printed:

## PRICES AND DELIVERY OF RADIO SETS

Stock Number	Page No.	Description	*Net Each	†Lots of 5, Each
5A-152	1	5-tube AC-DC superhet	\$17.95	\$17.05
5A-163	2	5-tube phono-radio	discontinued	
5A-154	2	5-tube AC-DC superhet	discontinued	
6A-122	3	6-tube 2-band AC-DC superhet	36.50	34.65
5A-115	3	5-tube AC-DC superhet. <i>Catalin</i> . Specify color	28.95	27.50
6A-175	5	6-tube 2-band automatic phono-radio	discontinued	
8A-183	6	8-tube 3-band AC superhet	discontinued	
8A-187	7	8-tube automatic phono radio-console	discontinued	
8A-189	7	8-tube chassis	discontinued	
6A-127	8	6-tube portable	39.95	37.95
4A-119	8	4-tube farm set. Less battery	discontinued	
4A-120	8	4-tube farm set with 1000-hour battery	discontinued	
5A-110	8B	5-tube Lincoln AC-DC superhet	27.30	25.95

\*These are approximate prices, subject to OPA approval of application in process. Shipment will be made at OPA-approved prices or less. Refund will follow if there is any excess remittance. Production plans on models marked "discontinued" were dropped due to prevailing conditions after the main body of this catalog was printed. Reasonable deliveries are expected on all other sets but it may be necessary to hold orders, from time to time, for 30 or 60 days. All orders will be shipped in turn, according to date the order is received.

†Quantity price applies on any one purchase of 5 or more radio sets whether of one model or assorted.

## TEST UNITS

Demand will exceed supply on test units for some time. We have, however, ordered heavily from all manufacturers and will receive a high quota of total production. Orders should be placed with the expectation that they may be held from 60 to 120 days. Shipments will be made as quickly as possible and in turn, according to the date the order is received. Send deposit with order. Orders may be cancelled and full refund obtained at any time before shipment.

## RADIO TUBES

New radio tube prices have been established by OPA as listed on page 8B. The tube supply situation remains critical. It may be necessary to limit quantities to each customer to permit equitable distribution of supplies reaching us from manufacturers.

## COMMUNICATIONS RECEIVERS

It may be necessary to hold orders for 30 to 60 days for receivers for radio amateurs and short wave listeners listed on pages 106 to 108, page 112, and the inside back and back covers. Because we have ordered early and heavily, we shall be among the first to receive these sets as they come off the production lines. Shipments of all orders will be made in turn. *To obtain earliest delivery on the set you want, place your order now with ALLIED.*

## KITS (Pages 66-68)

Due to the shortage of components, our supply of "Build Your Own" kits is limited. Orders may be held for 60 to 90 days. Orders will be accepted (except where delivery is indefinite) for shipment in turn according to the date of receipt by us.

# Last Minute Releases

## NEW PRICES ON RADIO TUBES

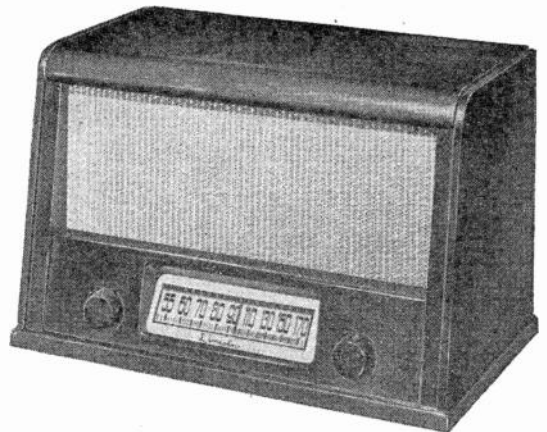
After the main body of this catalog went to press, new prices for radio tubes, as listed below, were established by O.P.A. These prices supersede those listed on page 9 of this catalog as well as any quoted in previous catalogs. Use the 1-to-49 lot prices on page 9 as your guide for determining new prices from the chart below.

Where Former Price Was	NEW OPA APPROVED PRICES ARE			Where Former Price Was	NEW OPA APPROVED PRICES ARE		
EACH	LIST EACH	NET 1-49	NET 50-100	EACH	LIST EACH	NET 1-49	NET 50-100
1-49				1-49			
\$0.36	\$0.85	\$0.43	\$0.41	\$0.60	\$1.30	\$0.72	\$0.67
.40	.90	.48	.45	.71	1.55	.84	.78
.42	.95	.51	.47	.88	1.90	1.06	.98
.45	1.00	.54	.51	1.08	2.35	1.29	1.20
.48	1.10	.58	.54	1.29	2.80	1.55	1.45
.53	1.20	.64	.60	1.58	3.40	1.89	1.76

### Lincoln AC-DC Superhet In Mahogany Veneer Cabinet

An ultra-modern RCA and Hazeltine licensed superhet in beautiful old-world finish mahogany veneer cabinet. Especially faithful tone quality of the audio system is enhanced by acoustically designed wood cabinet to insure richness and fullness of program reproduction. Components of high quality are used throughout in this finely constructed receiver. New features include: iron-core IF transformers for greater power and selectivity; built-in high-efficiency loop aerial; heavy-duty 5" PM dynamic speaker using new Alnico V magnet for extra power handling capacity; automatic volume control circuit maintains uniform volume; angle-mounted, illuminated slide-rule dial is clearly calibrated and visible from any position; full broadcast and upper police band frequency coverage, 530-1730 KC. Uses latest type multi-purpose tubes for extra power. Tubes are: 12SA7GT, 12SK7GT, 12SQ7GT, 50L6GT. Also 35Z5GT rectifier. Plays on 110-120 volts, 50-60 cycle AC, 110-120 volts DC; or 220 volts AC or DC with adapter listed below. Size: 12 $\frac{3}{8}$ " x 7 $\frac{1}{16}$ " x 8 $\frac{7}{8}$ ". Shpg. wt., 11 lbs. **\$27.30**  
**5A-110. NET EACH**.....

**LOTS OF 5, EACH**..... **\$25.95**  
**49-580. 220 Volt Adapter**..... **\$1.22**



- Iron-core IF transformers insure power and selectivity.
- Alnico V PM dynamic speaker for improved tone quality.
- New type, efficient loop aerial adds signal strength.
- Covers 530 to 1730 KC.
- Handsomely styled, modern cabinet.



**\$21<sup>17</sup>**

### Webster Record Changer

**MODEL 50.** Single post, floating spindle type, automatic record changer—exceptionally well designed, positive and quiet in operation. Plays twelve 10" or ten 12" records automatically, or can be operated manually to play home recordings and "inside-out" records. Provides up to 50 minutes of uninterrupted record playing entertainment when fully loaded. Positive action trip mechanism insures instant changeover as soon as needle reaches end of record. Non-jamming fingers assure maximum protection to your finest records, and handle warped records with safety. Last record is repeated. Counterbalanced tone arm contains crystal cartridge which takes any steel, alloy, or sapphire needle. Low pressure (only 1 oz.) assures minimum record wear. Records drop quietly on 10" turntable covered with velvet-soft pile. Dependable, heavy-duty, constant speed 78 R.P.M. motor is cushion mounted for silent operation. Equipped with stainless steel spindle. Rigid die-cast mounting plate. Measures 12 $\frac{1}{4}$ " wide x 12" deep. Mechanism extends 6 $\frac{1}{2}$ " above and 2 $\frac{1}{2}$ " below mounting plate. For use on 115 volts 60 cycles AC. With template, instructions and hardware for standard  $\frac{5}{8}$ " board. Less needle. Shpg. wt., 20 pounds.

**96-067. NET**..... **\$21.17**



AVAILABILITY OF TUBES

It may take many months for all manufacturers to produce enough tubes to meet existing demands. If RCA tubes are not available when your order reaches us, another standard brand will be supplied at the same price. All tubes we ship are guaranteed for six months. We will replace any that do not give efficient performance. (This does not apply to burned-out or broken tubes.) Average shpg. wt., per tube, 5 oz.

SALES PROMOTION AIDS

RCA sales aids will be supplied when available. In the meantime we offer the items listed below, to help you merchandise your tubes. 37-057. Price Cards. Supplied on request with tube orders. 37-059. Tube Charts. Supplied on request with tube orders. 37-575. RCA RC-14 Manual. Data on receiving tubes, etc. 255 pages. (Supplied no charge with orders for 10 tubes.) Wt., 1 lb. NET... 25c

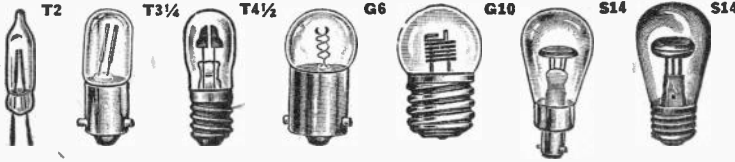
TUBES MAY BE ASSORTED FOR QUANTITY PRICES. WRITE FOR SPECIAL PRICES IN LOTS OF OVER 100

Tube Type	NET EACH		Tube Type	NET EACH		Tube Type	NET EACH		Tube Type	NET EACH	
	1-49	50-99		1-49	50-99		1-49	50-99		1-49	50-99
0A4G	\$0.95	\$0.95	6ABG	\$0.53	\$0.50	6SH7	\$0.71	\$0.66	12SL7GT	\$0.88	\$0.81
01A	.48	.45	6ABGT	.53	.50	6SJ7	.60	.56	12SN7GT	.71	.66
02A	.88	.81	6AB5/6N5	.88	.81	6SJ7GT	.60	.56	12SQ7	.53	.50
024G	.88	.81	6AB7/1853	1.08	1.00	6SK7	.53	.50	12SQ7GT/G	.60	.56
1A3	.71	.66	6AC5GT/G	.60	.56	6SK7GT/G	.60	.56	12SR7	.71	.66
1A4P	.88	.81	6AC7/1852	1.29	1.21	6SL7GT	.88	.81	12Z3	.53	.50
1A5GT/G	.60	.56	6AD7G	.88	.81	6SN7GT	.71	.66	14A7/12B7	1.08	1.00
1A6	.71	.66	6AE5GT	.71	.66	6SQ7	.53	.50	15	1.08	1.00
1A7GT/G	.71	.66	6AE6G	.71	.66	6SQ7GT/G	.60	.56	19	.71	.66
1B4P	.71	.66	6AE7GT	.71	.66	6SR7	.60	.56	20	1.58	1.47
1B5/25S	.71	.66	6AF5G	.71	.66	6SS7	.53	.50	22	1.29	1.21
1B7G	.71	.66	6AF6G	.88	.81	6ST7	.71	.66	24A	.48	.45
1C5GT/G	.71	.66	6AG5	1.29	1.21	6T7G/6Q6G	.71	.66	25A6	1.08	1.00
1C6	.71	.66	6B4G	1.08	1.00	6U5/6G5	.71	.66	25L6	.88	.81
1C7G	.71	.66	6B5	1.08	1.00	6U6GT	.71	.66	25L6GT/G	.60	.56
1D5GP	.71	.66	6B6G	.60	.56	6U7G	.53	.50	25Z5	.53	.50
1D7G	.88	.81	6B7	.71	.66	6V6	1.08	1.00	25Z6	.71	.66
1D8GT	1.08	1.00	6B7S	1.29	1.21	6V6GT/G	.60	.56	25Z6GT/G	.53	.50
1E5GP	.88	.81	6B8	1.08	1.00	6W7G	.88	.81	26	.40	.37
1E7G	1.29	1.21	6B8G	.71	.66	6X5	.88	.81	27	.36	.34
1F4	.71	.66	6C5	.60	.56	6X5GT/G	.53	.50	30	.53	.50
1F5G	.71	.66	6C5GT/G	.53	.50	6Y6G	.88	.81	31	.53	.50
1F6	.88	.81	6C6	.53	.50	6Y7G	.88	.81	32	.71	.66
1F7G	.88	.81	6C7	1.29	1.21	6Z7G	1.08	1.00	32L7GT	1.08	1.00
1G4GT/G	.71	.66	6C8G	.88	.81	6ZY5G	.71	.66	33	.71	.66
1G5G	.71	.66	6D6	.53	.50	7A4	.71	.66	34	.71	.66
1G6GT/G	.88	.81	6D8G	.88	.81	7A5	.71	.66	35/51	.53	.50
1H4G	.53	.50	6E5	.60	.56	7A6	.71	.66	35A5	.71	.66
1H5GT/G	.60	.56	6E6	1.08	1.00	7A7	.71	.66	35L6GT/G	.53	.50
1H6G	.71	.66	6F5	.60	.56	7A8	.71	.66	35Z3	.71	.66
1J5G	1.08	1.00	6F5GT/G	.53	.50	7B4	.71	.66	35Z4GT	.42	.39
1J6G	.71	.66	6F6	.60	.56	7B5	.71	.66	35Z5GT/G	.45	.42
1L4	.71	.66	6F6G	.48	.45	7B6	.71	.66	36	.53	.50
1LA4	1.29	1.21	6F6GT/G	.48	.45	7B7	.71	.66	37	.45	.42
1LA6	1.29	1.21	6F7	.88	.81	7B8	.71	.66	38	.60	.56
1LB4	1.29	1.21	6F8G	.71	.66	7C5	.71	.66	39/44	.53	.50
1LC6	1.29	1.21	6G6G	.71	.66	7C6	.71	.66	41	.45	.42
1LE3	1.08	1.00	6H6	.60	.56	7C7	.71	.66	42	.45	.42
1LH4	1.29	1.21	6H6GT/G	.60	.56	7E6	.71	.66	43	.60	.56
1LN5	1.29	1.21	6J5	.48	.45	7E7	.88	.81	45	.42	.39
1N5GT/G	.71	.66	6J5GT/G	.48	.45	7F7	.88	.81	45Z3	.53	.50
1P5GT/G	.88	.81	6J7	.71	.66	7G7/1232	1.08	1.00	45Z5GT	.60	.56
1Q5GT/G	.88	.81	6J7GT	.60	.56	7H7	1.08	1.00	46	.60	.56
1R5	.88	.81	6K6GT/G	.53	.50	7J7	1.08	1.00	47	.60	.56
1S4	.88	.81	6K7	.60	.56	7L7	1.08	1.00	48	1.58	1.47
1S5	.88	.81	6K7G	.60	.56	7N7	1.08	1.00	49	.71	.66
1T4	.88	.81	6K7GT	.53	.50	7Q7	.71	.66	50	1.29	1.21
1T5GT	.88	.81	6K8	.71	.66	7R7	1.08	1.00	50L6GT	.60	.56
1V	.53	.50	6K8G	.71	.66	7Y4	.71	.66	50Y6GT/G	.60	.56
2A3	1.08	1.00	6K8GT	.71	.66	10	1.58	1.47	53	.88	.81
2A4G	1.29	1.21	6L5G	.60	.56	12A5	1.29	1.21	55	.60	.56
2A5	.53	.50	6L6	1.08	1.00	12A7	1.08	1.00	56	.42	.39
2A6	.53	.50	6L6G	1.08	1.00	12A8GT/G	.53	.50	57	.48	.45
2A7	.60	.56	6L7	.88	.81	12AH7GT	.88	.81	58	.48	.45
2B7	.71	.66	6L7G	.88	.81	12C8	1.08	1.00	59	.88	.81
3ABGT	1.29	1.21	6N7	.88	.81	12F5GT	.53	.50	70L7GT	1.08	1.00
3Q4	.71	.66	6N7GT/G	.88	.81	12H6	.60	.56	71A	.48	.45
3Q5GT/G	.88	.81	6Q7	.71	.66	12J5GT	.53	.50	75	.45	.42
3S4	.88	.81	6Q7G	.48	.45	12J7GT/G	.60	.56	76	.48	.45
4A6G	1.08	1.00	6Q7GT	.48	.45	12K7GT/G	.53	.50	77	.48	.45
5T4	1.08	1.00	6R7	.88	.81	12K8	.71	.66	78	.48	.45
5U4G	.53	.50	6R7GT/G	.48	.45	12Q7GT/G	.48	.45	79	.88	.81
5V4G	.88	.81	6S7	.88	.81	12SA7	.53	.50	80	.36	.34
5W4	.60	.56	6S7G	.88	.81	12SA7GT/G	.71	.66	81	1.08	1.00
5X4G	.60	.56	6SA7	.53	.50	12SC7	.71	.66	82	.71	.66
5Y3GT/G	.36	.34	6SA7GT/G	.60	.56	12SF5	.60	.56	83	.71	.66
5Y4G	.40	.37	6SC7	.71	.66	12SF7	.71	.66	83V	1.08	1.00
5Z3	.60	.56	6SC7GT	.71	.66	12SG7	.60	.56	84/6Z4	.60	.56
5Z4	.71	.66	6SD7GT	.71	.66	12SH7	.60	.56	85	.48	.45
6A3	1.08	1.00	6SF5	.53	.50	12SJ7	.60	.56	89	.53	.50
6A4/LA	.88	.81	6SF5GT	.53	.50	12SJ7GT	.60	.56	117L7/M7GT	1.29	1.21
6A6	.88	.81	6SF7	.71	.66	12SK7	.53	.50	117N7GT	1.29	1.21
6A7	.53	.50	6SG7	.71	.66	12SK7GT/G	.60	.56	117P7GT	1.29	1.21
6A8	.71	.66						117Z6GT/G	.88	.81	





# NEON LAMPS - LINE CORDS - REGULATORS



## GENERAL ELECTRIC NEON GLOW LAMPS

Use as signals on test equipment, ignition or panel board indicators, fuse indicators, etc. Average useful life, 3,000 hours. Low drain. Vibration and shock resistant. For 105-125 volts, AC or DC. Av. shgp. wt., 4 oz. Prices include Federal excise taxes. \*AC only. †Red sprayed.

Type	Watts	Bulb	Base	Starting V. AC	DC	Length Inches	Stock No.	NET EACH	BOX OF 10
NE-2	1/25	T-2	Wire Term.	65	90	1 1/8	52-370	\$0.08	\$0.72
NE-51	1/25	T-3 1/4	S.C. Bay. Min.	65	90	1 1/8	52-373	.20	1.90
NE-26	1/10	C-6	S.C. Bay. Cand.	75	110	1 1/8	52-821	.35	3.17
NE-46	1/2	T-4 1/4	D.C. Bay. Cand.	65	90	1 1/8	52-812	.35	3.17
NE-45	1/2	T-4 1/2	Cand. Screw	65	90	1 1/2	52-807	.39	3.56
*NE-27	1/2	C-10	Med. Screw	105	.....	2 1/8	52-800	.39	3.56
*NE-28	1/2	C-10	Cand. Screw	105	.....	2 1/8	52-808	.45	4.00
NE-29	1/2	G-10	D.C. Bay. Cand.	105	.....	2 1/8	52-813	.45	4.00
NE-30	1	G-10	Med. Screw	60	85	2 1/8	52-801	.39	3.56
NE-31	1	C-10	Cand. Screw	60	85	2 1/8	52-809	.45	4.00
NE-32	1	G-10	D.C. Bay. Cand.	60	85	2 1/8	52-814	.45	4.00
NE-33	1	G-10	Med. Screw	105	140	3 1/8	52-802	.49	4.43
NE-34	2	S-14	Med. Screw	60	85	3 1/8	52-803	.49	4.43
†NE-34	2	S-14	Med. Screw	60	85	3 1/8	52-805	.54	4.88
NE-36	2	S-14	Sk. D.C. Bay. Cand.	60	85	3 1/8	52-815	.54	4.88
NE-40	3	S-14	Med. Screw	60	85	3 1/8	52-806	.59	5.32
NE-42	3	S-14	Sk. D.C. Bay. Cand.	60	85	3 1/8	52-816	.63	5.76
NE-21	.....	T-4 1/2	S.C. Bay. Cand. For flashers	80	115	1 1/2	52-822	.45	4.00

## GENERAL ELECTRIC CLEAR ARGON LAMPS

Clear glass. Average life, 2000 hours. \*For AC only. Life 1000 hours. Wt., 4 oz.

Type	Watts	Bulb	Base	Starting V. AC	DC	Length Inches	Stock No.	NET EACH	BOX OF 10
*AR-4	1/4	T-4 1/4	D.C. Bay. Cand.	80	115	1 1/2	52-819	\$0.45	\$4.05
*AR-3	1/4	T-4 1/2	Cand. Screw	80	115	1 1/2	52-811	.41	3.65
AR-2	2 1/2	S-14	Sk. D.C. Bay. Cand.	65	90	3 1/8	52-820	.70	6.45
AR-1	2 1/2	S-14	Med. Screw	65	90	3 1/8	52-810	.45	4.05

## GENUINE G-E MAZDA PILOT AND FLASHLIGHT BULBS

General Electric Mazda clear pilot light bulbs. Standard bead coloring. Types 40 and 47. Brown bead; types 41, 43, 50, 51, and 55. White bead; types 42 and 45. Green bead; types 44 and 46. Blue bead; types 48 and 49. Pink bead. Economical, low-cost operation assured. \*Indicates miniature bayonet base. †Indicates small round bulb. Av. shgp. wt., 3 oz. Prices include Federal excise taxes.

### RADIO PILOT LIGHT BULBS

Stock No.	Lamp No.	Volts	Amps	NET EACH	Box of 10
52-308	41	2.5	.50	\$0.09	\$0.58
52-306	43*	2.5	.50	.09	.58
52-307	42	3.2	.35	.12	.78
52-305	40	6-8	.15	.09	.58
52-315	50†	6-8	.20	.10	.64
52-316	51*†	6-8	.20	.07	.41
52-320	55*†	6-8	.40	.07	.41
52-313	48	2.0	.06	.15	.95
52-314	49*	2.0	.06	.15	.95
52-309	44*	6-8	.25	.09	.58
52-311	46	6-8	.25	.09	.58
52-310	45*	3.2	.35	.12	.78
52-312	47*	6-8	.15	.09	.58

### MAZDA FLASHLIGHT BULBS

Stock No.	Lamp No.	Cell	Volts	Amp.	NET EACH	Box of 10
52-331	223	2	2.2	0.25	\$0.09	\$0.58
52-334	233	2	2.3	0.27	.09	.58
52-300	13	3	3.8	0.30	.09	.58
52-301	14	2	2.5	0.30	.09	.58
52-302	31	5	6.2	0.30	.10	.64
52-327	136	1	1.3	0.60	.10	.64
52-339	248	2	2.4	0.80	.10	.64
52-342	605	5	6.0	0.50	.10	.64
52-325	112	1	1.1	0.22	.09	.58
52-330	222	2	2.2	0.25	.09	.58
52-344	PR-2	2	2.4	0.50	.13	.82
52-345	PR-3	3	3.6	0.50	.13	.82
52-328	195	2	1.93	0.45	.15	.97

DEDUCT 10% FROM "BOX" PRICES FOR 10 OR MORE BOXES OF ONE TYPE.

### S6 115 VOLT PILOT LAMP

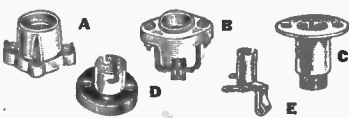
Rated 1500 hrs. av. use. Candelabra base; clear finish; 1 1/2" x 4 oz. 52-349. 6 Watt. NET... 16c

TYPE C7. As above, but cone shaped; 2 1/4" length, 7 watts. Wt., 4 oz. 52-355. Clear. 52-356. White. EACH... 11c

### TUBULAR 120-VOLT 4-WATT PILOT LAMP

Clear 4-watt candelabra-base pilot lamp. For use behind small panel openings, dials, etc. 1/2" dia., 1 1/8" long. Wt., 4 oz. 52-350. 10 for \$3.56 EA. 39c

## NEON LAMP SOCKETS



Easily mounted. \*Hard rubber insert. †For NE-51 lamps. Other sockets on page 44.

Stock No.	Base	Fig.	EA.	10 FOR
52-850	Edison	A	13c	\$1.17
52-851	Edison	B	19c	1.71
52-852	Candelabra	A	34c	3.06
52-853	Candelabra	A	15c	1.10
52-854	Intermediate	A	25c	2.25
*52-853	Bayonet	C	25c	2.25
52-856	Bayonet	D	40c	3.60
†52-403	Bayonet	E	6c	0.54

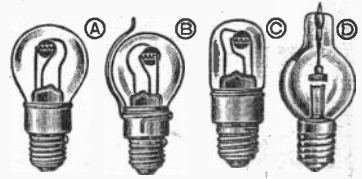
## MALLORY BIAS CELLS

Designed to bias first audio tubes in high gain amplifiers. Eliminate need for using high-capacity cathode bypass condensers. Illustration shows cell in No. 9-955 holder listed below. Size, 1 1/2" by 3/4". Provide a no-current potential of 1 or 1 1/4 volt ± 10%. May be used in series for higher voltages. 3 oz. 9-950. 1 Volt Type BC-1. 9-951. 1 1/4 Volt Type BC-2. EACH. 23c

## BIAS CELL HOLDERS

Stock No.	Type	For	EACH
9-955	GB11A	1 cell	10c
9-956	GB11A	1 cell	13c
9-957	GB12	2 cells	16c
9-958	GB13	3 cells	19c
9-959	GB14	4 cells	25c

## GENUINE G.E. TUNGAR BULBS



Used in many standard chargers. Select replacements by G.E. type No. Shgp. wt., 2 lbs.

Stock No.	G.E. Type	Amps.	Fig.	EACH
9-900	277465	2	A	\$2.94
9-901	195528	2	B	2.94
9-906	20X672	5	A	3.67
9-902	289881	0.5	A	2.94
9-903	189048	6	D	3.67
9-904	189049	6	D	3.67
9-905	217283	15	D	7.35

## AC-DC LINE CORD RESISTORS

6-foot resistor cord supplies proper voltage for tubes wired in series across 115 volt lines.



No.	Ohms	No.	Ohms	NET EACH
49-522	135	49-515	290	47c
49-520	160	49-524	300	
49-519	180	49-512	330	
49-518	200	49-511	350	
49-517	220	49-510	360	
49-516	250			

## HIGH RESISTANCE LINE CORDS

49-525. 560 ohms } NET  
49-526. 960 ohms } EACH... 73c

## UNIVERSAL AC-DC TYPE

6 resistance values up to 330 ohms. Select resistance needed and clip off remainder. 6' cord. Shgp. wt. 1 lb. 49-530. NET... 65c



## 220-110 VOLT AC-DC LINE CORD

Operates any 110 Volt AC-DC receiver from 220 Volt line. With plug and receptacle. 1 lb. 49-580. For sets using .15 amp. tubes. 49-581. For sets using .3 amp. tubes. NET EACH... 85c



## "MAKE-UR-OWN" RESISTANCE CORDS

Color-coded line-cord wires with asbestos-covered resistance wire. Easily cut to size. 49-560. 30 ohms resistance per foot. 49-570. 60 ohms resistance per foot. NET Per Foot... 5c  
25 feet for... 99c 100 feet... \$3.55

## JFD ADJUSTABLE BALLAST KIT

Handy kit of adjustable AC-DC ballasts designed to replace more than 2,500 different types of ballast tubes now in use. New, improved air-cooled tubes assure efficient, long-life service. Kit contains 2 type "A" 2 type "B" and 1 type "C" tubes. Includes complete instructions. Shgp. wt., 2 lbs. 9-875. Kit. NET EACH... \$4.41  
9-885. Type A-Octal Base } NET  
9-886. Type B-Octal Base } EA. 88c  
9-887. Type C-4 Prong Base }





# TRIPLET Quality TEST EQUIPMENT



## 625N VOLT-OHM-MILLIAMMETER

An ultra-sensitive volt-ohm-milliammeter. Red Dot lifetime guaranteed meter. Ideally suited for television and other high-resistance DC and AC circuit measurements, where it is important that very little current be consumed by the meter. 5" meter scale easily readable. All scale markings are black on white, except AC and DB ranges are red on white. Excellent for lab. and shop.

**20,000 OHMS PER VOLT DC  
10,000 OHMS PER VOLT AC**

Ranges: DC Volts, 0-1.25-5-25-125-500-2,500 at 20,000 ohms/v, and 0-2.5-10-50-250-1,000-5,000 at 10,000 ohms/v; AC Volts, 0-2.5-10-50-250-1,000-5,000 at 10,000 ohms/v; DC ma., 0-1-10-100-1,000; DC amperes, 0-10; Ohms, 0-400-50,000-10 megs; DB, —30 to +3, +15, +29, +43, +55, +69. Output range uses AC volts scales with capacitor in series. Housed in black molded plastic case with strap handle. Size, 6x5 1/2x2 1/2". Complete with batteries, instructions and 50" test leads.

**84-575.** Shpg. wt., 7 lbs. NET..... **\$44.10**  
**84-561.** No. 629 Leather Carrying Case for Mod. 625N. NET \$5.15

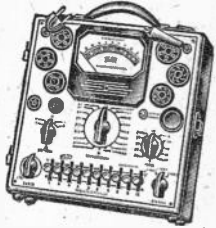
## MODEL 2413 TUBE TESTER

Features utmost speed and simplicity of operation. Continuity test provided for checking resistor and ballast tubes, pilot lamps, etc. 3" meter has red, yellow and green BAD-7-GOOD scale and is Red Dot lifetime guaranteed. A 19-step filament selector covers full range from 0.75 to 110 volts. For shop or field-service use.

### FLEXIBLE 3-POSITION SWITCHING

Nine 3-position lever type switches provide fingertip control over each tube element. Checks emission and shorted or open elements. Gives comparative mutual conductance test for matching triodes. Tests for shorts while cathode is hot. Sockets include 4, 5, 6, 7-prong large, 7-prong small, octal, loctal, bantam, and miniature types. Spare socket position and extra selector switch included for possible modification. Housed in durable steel case with attractive two-tone hammered finish and nickel trim. Size, 10x10x5 1/2". Detachable hinged cover has facilities for holding large, easy-to-read tube chart. Has black leather strap-handle and rubber bumper feet. For 115 v., 60 cyc. AC. Shpg. wt., 15 lbs.

**84-578.** NET..... **\$44.10**



## POCKET-SIZE VOLT-OHM-MILLIAMMETERS

### MODEL 666-H



Handy pocket-size instrument built around a 3" sensitive, accurate "Red Dot" lifetime guaranteed meter. Provides the following scales: 0-10-50-250-1,000-5,000 V. AC-DC at 1,000 ohms per volt; 0-10-100-500 ma. DC; 0-300-250,000 ohms. Scales are in three colors to facilitate reading. Higher resistance readings may be obtained with external battery. A compensated copper-oxide rectifier assures accurate AC voltage readings. Complete with battery and 50" insulated test leads with clips, tested at 11,000 volts. Black molded case and panel. Size, 3 3/4" x 5 1/4" x 2 1/4". Shpg. wt., 4 lbs.

**84-558.** NET..... **\$15.68**

### MODEL 666

Same as Model 666-H above, except has following ranges: AC and DC Volts 0-10-50-250-500-1,000 at 1,000 ohms per volt; DC ma., 0-1-10-50-250; Ohms 0-300-250,000. With battery and 50" test leads. Shipping weight, 4 lbs.

**84-556.** NET..... **\$15.09**

## WIDE RANGE VOLT-OHM-MILLIAMMETERS

### MODEL 2400

Ranges: 10-50-250-500-1,000 v. DC at 5,000 ohms/v; AC at 1,000 ohms/v; AC amps, 0.5-1-5-10; DC amps., 10; DC ma., 1-10-50-250; DC microamps, 250; Ohms 500-1,500; Megs., 1.5-7.5. Output uses AC volts scale with capacitor. Metal case, 10x10x5 1/2". With batteries and leads. Shipping weight, 13 lbs.

**84-576.** NET..... **\$38.95**

### MODEL 2405

Ranges: 0-10-50-250-500-1,000 volts, DC at 25,000 ohms/v, and AC at 1,000 ohms/v; AC amps., 0-0.5-1-5-10; DC amps., 0-10; DC ma., 0-10-50-250; DC microamps, 0-50; Ohms, 0-4,000-40,000; Megohms, 0-4-40. Output uses condenser in series with AC volts ranges. Two-tone enameled metal case with detachable hinged cover. Size, 10x10x5 1/2". Complete with batteries and 50" test leads.

**84-577.** NET..... **\$44.10**



## MODEL 3212 TUBE TESTER



New Triplet Model 3212 Counter-Type Tube Tester. Designed to speed and simplify complete tube testing with no sacrifice of accuracy. Also has continuity test for checking resistance and ballast tubes, pilot lights, flashlight bulbs, etc. Meter is "Red Dot" lifetime guaranteed.

### SIMPLIFIED SWITCHING

Nine 3-position lever-type switches give individual element control. Line test, "hot-cathode" short test, and quality test on one switch allowing fast operation. Sockets include 4, 5, 6, 7-prong large and small, octal, loctal, bantam and miniature types. A 19-position filament selector covers all ranges from 0.75 to 110 volts. Large 5 1/2" red, yellow, and green meter scale gives BAD-7-GOOD indication. Extra socket position and spare lever-switch provided for future modification. Housed in heavy streamlined steel case with enamel hammered finish, white markings, nickel trim and hardware. Size, 15 1/4" x 11 1/4" x 6". For 115 v., 60 cyc. AC. Complete with large, easy-to-read roll tube chart. Wt., 16 lbs.

**84-581.**..... FOR PRICE

### MODEL 2425



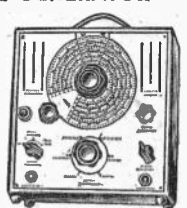
### TRANSCONDUCTANCE TUBE TESTER

Measures mutual conductance of tubes in microhm. Gives direct readings on 0-2-500 microhm scale with multiplying factor on tube chart. "Hot-cathode" leakage test. Three-position lever switching permits complete analysis of all tubes, including twin and multi-element types. Charts on new tubes furnished free for one year after purchase. Filament selector covers 0.75 to 110 volts. Sockets include 4, 5, 6, 7-large and small, octal, loctal, bantam, and miniature types. Red Dot lifetime guaranteed 3 1/2" meter also gives BAD-7-GOOD indication. Heavy steel case attractively finished in two-tone brown. Has detachable cover and leather strap-handle. For 115 v., 60 cyc. AC. Size, 10x10x5 1/2". Shipping weight, 14 lbs.

**84-585.**..... FOR PRICE

## 2432 SIGNAL GENERATOR

High-quality general-purpose r.f. signal generator. Has 6-position, fully shielded, turret-type coil switching device for fast, efficient band-changing. Two coaxial jacks provided for low-loss RF and AF output. Voltage regulator tube insures maximum accuracy under normal line voltage fluctuations.



### 6 BANDS FROM 75 KC to 50 MC

Frequency range is divided into six overlapping bands: 75-225, 220-750, 700-2500, 2450-8500 KC, and 8-25, 24-50 MC. Output is fed through a shielded attenuator network, providing both coarse and vernier adjustment. Signal selector provides for either unmodulated or 400-cycle sine-wave modulated output. Signal from internal 400-cycle generator is also fed through separate output jack for use in testing audio circuits. Output jacks are coaxial type. Metal case with baked enamel finish, hinged metal cover, nicked hardware, bumper feet, and leather strap-handle. Size, 10x10x5 1/2". For 115 volts, 60 cyc. AC. With instructions and 3 ft. coaxial cable. 13 lbs. Wt. WRITE

**84-579.**..... FOR PRICE

## MODEL 2450 ELECTRONIC V.O.M.



A highly versatile, wide-range vacuum-tube volt-ohm-milliammeter, with simple adjustment and control features that make it fast and easy to use. Has high-impedance diode-probe which can be used for complete signal tracing of any radio set from antenna to speaker. All AC and DC measurements are made electronically without circuit upset, thus permitting readings to be taken under actual operating conditions. Saves considerable time, and removes much guesswork in analyzing complete or partial operational failure due to defective parts or circuit mis-adjustments. Red-Dot lifetime guaranteed meter is fully protected against voltage overloads. Ranges: DC and AC volts, 0-2.5-10-50-250-500-1,000. DC ma., 0-0.1-1-10-100-500-1,000. Ohms, 0-2-1,000-10,000-100,000. Megohms, 0-1-10-100-1,000. Mmf., 5-5,000 impedance at 6 mmf on AC volts. Scale, 5 1/2" long on outer arc, black on white except AC volts read on white. Steel case with rubber feet and black leather handle. For 115 v., 60 cyc. AC. Size, 10x10x5 1/2". Shipping weight, 13 lbs. Wt. WRITE

**84-586.**..... FOR PRICE

## OTHER TRIPLET INSTRUMENTS

**Model 2470. Appliance Tester.** Ranges: AC Watts, 0-20-500-1,000-2,000-4,000. AC ma., 0-260. AC Amps. 0-6.5-13-26. AC Volts, 0-130-260. 4" Red Dot meter. Black metal case, 10x10x5 1/2". With leads **\$48.75**  
**84-580.** Wt., 14 lbs. NET.....  
**Model 3272. Vibrator Tester.** Checks all 6 v. vibrators. Reads 0-10 v. input; 0-100 v. output. Has Good-Bad merit scale. Operates from 6 v. storage battery (not supplied). 10 x 10 x 5 1/2". **84-583.** Wt., 21 lbs. NET..... **\$48.75**

We can supply all Triplet test equipment. Send for complete Triplet Catalog, 37-080, available Free on request.

# ELECTRONIC TEST EQUIPMENT

## HICKOK TEST INSTRUMENTS

### MODEL 532 TUBE TESTERS



Reads mutual conductance in microamhos. Also has "Replace-7-Good" scale. Accurately checks all receiving type tubes including magic-eye tubes, ballasts, and grid-controlled rectifiers. Has sensitive noise test. Checks shorts, hot or cold. Has accurate sensitive gas test. All test data on convenient roll chart. For 115 V., 50-60 cyc. operation. Model 532C in steel case, blue crackle enameled finish. Model 532P in hardwood case, imitation leather-covered. Each, size 15x14x6 1/2". Shipping weight, 26 lbs.  
**84-117.** 532C Counter Model. NET \$104.50  
**84-118.** 532P Portable Model. NET EACH \$104.50

### MODEL 534 TUBE AND SET TESTER

Tube tester same as Model 532-P above. Analyzer reads: AC and DC Volts, 0 to 1,000 at 1,000 ohms/v; DC ma, 0 to 200; Ohms, 0 to 25 meg.; Microfarads, .0001 to 50. Size, 15x14x6 1/2". Wt., 27 lbs. **\$129.50**  
**84-119.** NET

### 288X F.M.-A.M. UNIVERSAL SIGNAL GENERATOR



A highly accurate and versatile unit for AM, FM, and Television service work. R.f. outputs on fundamentals: 100 kc—110 Mc unmodulated, or 400 cycles a.m.; 100 kc—110 Mc, 30 kc sweep f.m.; crystal controlled 100 kc (good to 15 Mc), and 1,000 kc (good to 100 Mc), unmodulated or 400 cycle a.m.; 100 kc—133 Mc, 60 cycle 750 kc sweep f.m.; 1,000 kc—133 Mc, 400 cycle 150 kc sweep f.m. Audio freq.: 100—10,000 cycles, continuously variable; 400 cycles fixed. Meter reader: —10 to +38 db, and 3.5—140 AC volts. Size, 13x13x7". For 115 V. 60 cycles a.c. Shipping weight, 28 lbs.  
**\$128.95**  
**84-121.** NET  
**84-122.** Model 277-X. As above, but less power-level voltmeter. NET \$113.00

### MODEL 203 ELECTRONIC VOLT-OHM-MILLIAMMETER



A compact and practical instrument for shop or lab. Ranges: DC Volts, 0-2.5-10-50-250-1,000 at 14 megohm input resistance; AC Volts, 0-0.5-2.5-10-50-250-1,000 at 2.5 megohm input impedance on all ranges; DC mgs. 0-2.5-10-50-250-1,000; Ohms, 0.1 to 1,000 meg. in six ranges, 3" meter fully protected from damage due to over-voltage on any range. Voltage regulator insures maximum accuracy under normal line voltage fluctuations. Has jeweled hot-light and on-off switch on front panel. Metal case blue crackle lacquer finished. For 115 V., 50-60 cyc. AC. Size, 10 1/2 x 8 x 7 1/2". Shipping weight, 14 lbs.  
**84-120.** NET \$75.00

## OTHER FINE HICKOK TEST INSTRUMENTS

We can supply all Hickok test instruments. Send for complete Hickok catalog 37-060 containing full specifications. FREE on request.

**84-131.** 135. Sensitive VOM. AC-DC ranges, 25,000 ohms/v. Size, 11 1/2 x 12 1/2 x 5 1/2". Shipping weight, 0 lbs. **\$49.50**  
 NET

**84-124.** 536. Portable tube tester with 9" illuminated meter. Overall size, 15x14x6 1/2". Shpg. wt., 28 lbs. Write NET for Price

**84-125.** 538. Deluxe Combination Tube Tester and Circuit Analyzer. Size, 15x14x6 1/2". Wt., 28 lbs. Write NET for Price

**84-126.** 191X. Crystal Controlled Microvolt Generator. Output, 90 kc to 72 mc. Size, 13x16x7". Wt., 35 lbs. **\$133.10**  
 NET

**84-130.** 4975-S. Ultra Low Range Ohmmeter. For accurate measurements in any very low resistance circuit. Useful for checking voice-coils, motor armatures, ignition coils, etc. Ranges: 0-500 ohms. Size, 7 1/2 x 4 1/2 x 3 1/2". Complete with batteries and test leads. **\$35.70**  
 Shpg. wt., 5 lbs. NET

**84-132.** 4957. Compact VOM. AC-DC ranges at 1,000 ohms/volt. Size, 7 1/2 x 4 1/2 x 3 1/2". Wt., 7 lbs. NET \$32.40

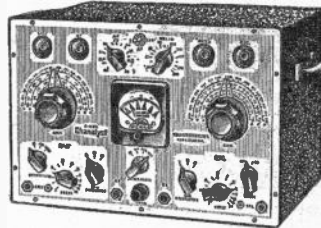
**84-128.** 305. 3" Oscilloscope. For a.m. and television. Size, 11x13x15 1/4". Shipping wt., 55 lbs. Write NET for Price

**84-129.** 125. Vacuum-Tube Volt-Ohm-Milliammeter, for lab. and shop. Size, 11x7x10". Wt., 23 lbs. NET \$94.95

**84-112.** 900. Volt-Ampere Wattmeter, for all appliance testing. Size, 9 1/2 x 6 1/2 x 3". Shpg. wt., 9 lbs. **\$39.60**  
 NET

## RCA TEST INSTRUMENTS

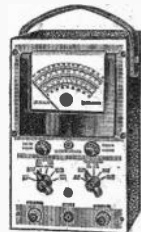
### 162-C RCA-RIDER CHANNELYST



RF-IF Channel covers 96 kc to 1,700 kc, calibrated to ± 2%. Oscillator Channel covers 600 kc to 15,000 kc, calibrated to ± 2%. Audio Frequency Channel covers 150 to 50,000 cycles at 0.1 volt sensitivity. Wattage Indicator Channel has input range, 30 to 250 watts. Utilizes magic eye tube as output indicator. Electronic Voltmeter ranges: DC volts, 0-5-25-125-500, on zero-center scale with positive and negative deflection. Operates on 115 V. 60 cycles AC. Tubes: 2—6K7, 1—6H6, 4—6E5, 1—76, 1—6X3GT, 1—6Q7GT, 1—6SK7, and 1—6AC7. Size, 9x16x10 1/2". Shpg. wt., 28 lbs. **\$125.00**  
**84-029.** NET

### MODEL 195A VOLTOHMYST

New RCA VoltOhmyst designed for signal tracing and dynamic testing. Incorporates a linear diode rectifier reading directly on the DC scale. Clear plastic meter front minimizes breakage. Zero center scale for FM discriminator alignment. Electronic overload control circuit protects meter against burn-out. Ranges: DC volts, 0-5-10-50-100-500-1,000 with 10 meg. constant input resistance and polarity reversing switch; AC volts, 0-5-10-50-100-500-1,000 on linear scales with flat response from 20 c.p.s. to 100 kc up to 100 volts, and with input impedance of 0.2 meg. and 170 mmf.; Resistance, reads from 0.1 ohm to 1,000 meg. DB, —20 to +16. Volume Unity, 1-10. For 115 V. 60 cycles AC. Size, 9 1/2 x 6 x 5 1/2". Complete with tubes, leather strap handle, common-ground lead, and two shielded cables, one with isolating probe for DC functions. Shpg. wt., 14 lbs.  
**\$57.50**  
**84-042.** NET



### "155-C" 3" OSCILLOSCOPE

A general purpose instrument for servicing and test use, yet suitable for laboratory and industrial applications where more exacting characteristics are required. Has improved max. deflection sensitivity, through amplifiers, of 1.0 volt r.m.s. per inch at 1 kc (27 V.r.m.s. direct to deflecting plates). Sine-wave response range, 10 c.p.s. to 200 kc. Saw-tooth sweep range, 10 c.p.s. to 60 kc. Input impedance: Vert., 0.5 meg. and 22 mmf; Hor., 2.2 meg. and 24 mmf. Built-in recessed light-shield permits operation in well lighted room. For 115 V. 60 cycles AC. Size, 14 1/2 x 8 x 1 1/4". Wt., 25 lbs. Complete with tubes. **\$95.00**  
**84-040.** NET



## OTHER RCA HIGH QUALITY TEST EQUIPMENT

We can supply all RCA test instruments. Write for complete descriptive circulars covering any specific unit.

**84-034.** 154. Beat-Frequency Audio Oscillator. 30-15,000 cycles. Size, 9 1/2 x 13 1/2 x 6 1/2". Wt., 19 lbs. **\$67.50**  
 NET

**84-028.** 167-B. General Purpose R.F. Signal generator. Size, 13 1/2 x 9 1/2 x 6 1/2". Shpg. wt., 16 lbs. **\$47.50**  
 NET

**84-023.** 160-B. Wide Range 5" Cathode-Ray Oscillograph. General purpose type. 14 1/2 x 8 x 19 1/2". 32 lbs. **\$160.00**  
 NET

**84-041.** 170-A. Audio Channelyst. A complete unit a.f. tester. Size, 14x21x10 1/2". Shipping wt. 49 lbs. **\$345.00**  
 NET

**98-560.** Dynamic Demonstrator 182A. See page 68 for complete description. NET \$99.50

## LABORATORY TYPE INSTRUMENTS

**84-044.** 327-A. Low Frequency Cathode-Ray Oscilloscope. Permits both AC and DC observations through internal amplifiers. Range 30 to 100,000 c.p.s. Amplifier responds down to zero c.p.s. Size: 20x12 1/2 x 23 3/4". Weight, 90 lbs. **\$720.00**  
 NET

**84-046.** 710-A. Ultra-High Frequency Signal Generator. 370 to 560 Mc at 2 microvolts to 99 volts. 720° direct reading dial. Calibrated attenuator to 95 db. Carrier-level meter. Frequency accurate to 0.5%. Size, 9 1/2 x 16 x 11". Shpg. wt., 44 lbs. **\$700.00**  
 NET

**84-045.** 709B. High frequency Wide-Band Sweep Generator. Center frequency range, 5 to 65 Mc. Adjustable sweep width, 1 to 20 Mc. Calibrated marker, 5 to 70 Mc. Adjustable output, .001 to 4 volts r.m.a. Size, 10x17x11". With electronically regulated power supply, 10x17x12". Shpg. wt., 83 lbs. **\$625.00**  
 NET

**84-047.** 715-A. Laboratory Type Cathode-Ray oscilloscope. For observation and measurement of transient or recurrent phenomena. Triggered aperiodic sweep, variable from 25 to 600,000 inches/sec. Extended range, to 10 Mc. Size: 49 1/2 x 21 x 26 1/2". **\$1350.00**  
 Shpg. wt., 385 lbs. NET

# SUPREME Test Equipment

## MODEL 571 OSCILLATOR



The 571 Signal Generator features extreme accuracy and stability. High "Q" coils plus air dielectric trimmers reduce error to less than 1/2 of 1%. Five bands cover from 65 KC to 20.5 MC on fundamentals, and to over 82 MC on harmonics. All five ranges are indicated by 2 scales

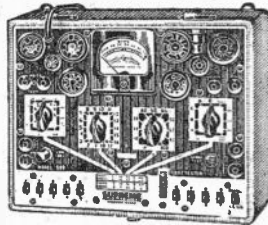
calibrated on an illuminated 6" dial with hair-line indicator for maximum reading accuracy. Two internal modulation output levels, 30% and 75% at 400 cycles. Also has provisions for external modulation. RF output on all bands is arranged to be continuously variable through a double shielded ladder-type attenuator. Oak case, 9 1/2 x 8 1/2 x 7 3/4". Has black panel with silver and red trim. Completely equipped with tubes, accessories and detailed instructions. For 115 V., 60 cyc. AC. Shpg. wt. 19 lbs. **84-839. NET. \$48.41**

## MODEL 592 SET TESTER



Model 592 Push-Button Set Tester with "double meter sensitivity." 14 push-button switches provide instant selection of 44 ranges. All DC meter readings can be made at either 1,000 or 25,000 ohms per volt. Ranges: DC volts, 0-3.5-7-35-140-350-700-1,400; AC volts, 0-7.35-140-350-

700-1400 through temperature compensated rectifier; Current, 0-70-700 DC microamps, 0-7-35-140-350 DC mills, and 0-1.4-14 DC amps; Resistance, 0-500-5,000-50,000-500,000 ohms, and 0-5-50 megs., all from self-contained batteries; DB, 0 to -46 in 4 ranges; Output, same as AC volts except through internal condenser. Resistance range of 50 megs. permits accurate condenser leakage check. Sturdy oak case, 9 3/4 x 6 3/4 x 5 3/4". Complete with battery, instructions, and conversion chart for db readings. Shpg. wt. 9 lbs. **84-820. NET. \$54.83**



## 599 TUBE AND SET TESTER

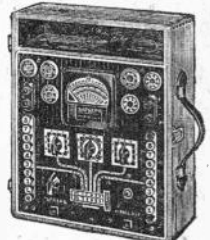
Tube tester and multi-range Volt-Ohm-Milliammeter for every type of radio service work. Also tests portable dry batteries. Completely modernized tube testing circuit includes short, leakage, and noise tests. Multimeter ranges include: DC volts, 0-6-15-150-600-1,500 at 1,000 ohms per volt; AC volts, 0-6-15-150-600; DC mills, 0-6-60-600; Resistance, 0-200-20,000 ohms and 0-2-20 megs. A low range at high current with 3.5 ohms center scale checks the current with 3.5 ohms center scale checks the resistance and continuity of RF; antenna, oscillator and IF coils. The 20 megohm range covers high values found in A.V.C., A.F.C., etc., circuits. Battery testing circuit provides proper load for testing 1.5-4.5-6.0-45-90 volt dry batteries. An electrostatic leakage test for electrolytic and paper condensers is provided by means of the highly sensitive 20 megs. range. Roll chart facilitates fast and accurate testing. Operates from 115 V. 60 cyc. AC. Housed in luggage type carrying case with removable lid. Size, 11 1/2 x 8 1/2 x 3 3/4". Less test leads. Shpg. wt., 11 lbs. **84-805. NET. \$48.95**

## 589 TUBE AND BATTERY TESTER

The 589 Supreme Tester provides a complete test of all of the newest as well as all of the older type tubes. Each tube is tested under proper load and correct anode potential. 3" meter with direct-reading scales. All test settings are shown on a convenient easy-to-read roller chart. Also checks all 1.5, 4.5, 6, 45 and 90 volt portable radio batteries. Brown luggage-type case with removable cover. Size is 11 1/2 x 8 1/2 x 3 3/4". For 115 V., 60 cycles AC. Less test leads. Shpg. wt., 12 lbs. **84-800. NET. \$37.73**

## MODEL 504A PORTABLE LAB.

Combines Tube Tester and 29-range Multimeter with push-button selector system. 4" square meter with "Good-7-Bad" scale, also reads: DC volts, 0-5-25-100-250-500-1,000-2,500 at 1,000 ohms per V.; AC volts, 0-5-10-50-250-1,000; Current, 0-500 DC microamps, 0-2.5-10-50-250 ma., and 0-1-10 DC amps; Resistance, 0-200-2,000-20,000 ohms, and 0-2-20 megs.; Output, 0-1,000 V. Condenser leakage test. Oak case, 14 1/2 x 12 1/2 x 5 7/8". For 110-130 V., 60 cyc. AC. Shpg. wt., 20 lbs. **84-810. NET. \$81.83**



## POCKET MULTIMETERS



Model 542. Fig. A. Sensitivity, 5,000 ohms/V. 3" square meter. Reads: DC volts, 6-150-300-1,500; AC volts, 6-30-150-600; DC ma., 0.3-6-30-150; Ohms, 2,000-20,000-200,000, 2 megs; DB, -6 to +50; Output 60-30-150-600 volts. Bakelite case, 5 3/4 x 3 3/4 x 2 1/4". With batteries. Shpg. wt. 2 lbs. **84-815. NET. \$20.33**

84-817. As above, but with metal case and cover. 3 lbs. NET. **\$22.49**

Model 543. Fig. B. 1,000 ohms/V. Reads: DC volts, 0-15-150-600-3,000; AC volts, 0-15-150-600-3,000; DC ma., 0-6-60-600; Resistance, 0-2,000-20,000 ohms. Size, 5 3/4 x 3 3/4 x 2 1/4". With batteries. Wt., 2 lbs. **84-816. NET. \$15.92**

84-818. As above, but with metal case and cover. 3 lbs. NET. **\$17.59**

## OTHER AVAILABLE SUPREME TEST INSTRUMENTS

Quality instruments by Supreme incorporating exclusive engineering and design features for high performance and long service.

84-821. Model 546. Oscilloscope with 3" screen. Sensitive, wide-range linear amplifiers provide undistorted output. Built-in sweep, 15 to 50,000 cycles. Size, 13 1/4 x 11 1/4 x 7 3/4". Shpg. wt. 23 lbs. **NET. \$80.85**

84-836. Model 581. Combination RF and AF Signal Generator. Electronic Frequency Modulator and Carrier Level Indicator. AF variable from 15 to 15,000 cycles; RF from 65 kc to 20.5 MC in 5 steps; and to over 60 MC on harmonics. Has means for varying percentage of audio modulation from 0 to 80%. Size, 15 1/2 x 11 1/2 x 8 3/4". Shpg. wt., 33 lbs. NET. **\$105.35**

We can supply all Supreme instruments. Complete Supreme catalog 37-077 containing full specifications mailed FREE on request.

84-835. Model 562. Audio Analyzer. Dynamic tester and signal tracer. Checks frequency. Measures gain. Locates distortion. Size, 15 1/2 x 11 1/2 x 8 3/4". Shpg. wt., 32 lbs. NET. **\$97.95**

84-840. Model 563. Audio Oscillator. Covers 15 to 15,000 cycles on directly calibrated 6" dial. Steel case measures 13 1/2" x 9" x 6 1/2". Shpg. wt. 21 lbs. NET. **\$55.03**

84-841. Model 565. Vacuum Tube Voltmeter. DC volts, 0-1-2.5-10-50-250-500; AC volts, 0-1-2.5-50-250. Determines DC voltages without disturbing operation of receiver. Wt., 12 lbs. NET. **\$62.23**

## CHICAGO INDUSTRIAL POCKET TEST INSTRUMENTS

### ECONOMY POCKET METERS



Model 371. Volt-Ohm-Milliammeter. Durable 2" magnetic vane type meter. Ranges: DC volts, 0-5-15-30-300; DC ma., 0-25; Resistance, 0-10,000 ohms. Black bakelite case, 1 7/8 x 2 3/4 x 3/4". With two self contained standard flashlight cells. Shpg. wt., 3 lbs. **84-300. NET. \$4.56**

### POCKET TYPE V.O.M.

Model 431. AC-DC Volt-Ohm-Milliammeter. Ranges: DC volts, 0-30-300-1,500 at 2,500 ohms/V.; AC volts, 0-15-150 at 1,000 ohms/V.; DC ma., 0-150; Resistance, 0-3,000-30,000 ohms. 35-3,500 center scale. Polarized jacks and rotor-switch range selection. Wrinkle finish steel case, 5 3/4 x 2 1/4 x 2 1/4". With battery and 48" test leads. Wt., 3 lbs. **84-309. NET. \$15.34**



### COMPACT WIDE-RANGE V.O.M.

Model 450. DC Volt-Ohm-Milliammeter. Ranges: DC volts, 0-5-10-50-500-1,000 at 1,000 ohms per volt; DC ma., 0-1; Resistance, 5,000-50,000-500,000 ohms, 30-300-3,000 ohms center scale. Bakelite case, 3 1/4 x 2 1/4 x 2". With batteries. Shpg. wt., 3 lbs. **84-310. NET. \$8.32**



### MODEL 412



AC-DC Volt-Ohm-Milliammeter. Wide-range test unit with 2" moving-vane type meter. Reads: AC-DC volts, 0-25-50-125-250; AC-DC ma., 0-50; Resistance, 0-100,000 ohms, 2,400 ohms center scale; Capacitance, 0-15 mfd. Jacks provide range selection. Operates from 115 V. DC or 60 cyc. AC. Housed in molded black bakelite case, 1 3/4 x 2 3/4 x 3/4". Complete with cord and plug. Shpg. wt., 3 lbs. **84-308. NET. \$5.88**

### MODEL 421

Volt-Ohm-Milliammeter. 2 1/2" meter. Ranges: AC and DC volts, 0-7.5-15-150-750-1,500 at 1,000 ohms/V.; DC ma., 0-7.5-75; Resistance, 5,000-500,000 ohms, 35-3,500 center scale. Jacks provide range selection. Operates from standard 4 1/2 V. battery. Steel case, 5 1/4 x 3 3/4 x 3". With battery and 48" test leads. Wt., 3 lbs. **84-308. NET. \$21.45**



Model 451. AC-DC V.O.M. Ranges: AC volts and output, 0-10-50-100-500-1,000 at 1,000 ohms/V.; DC volts, 0-10-50-100-500-1,000 at 1,000 ohms/V.; Resistance, 0-500,000 ohms, 7,200 center scale. Uses two standard self-contained dry cells. Bakelite case, 3 1/4 x 2 1/4 x 2". With batteries. Shpg. wt., 3 lbs. **84-311. NET. \$12.74**

Model 452. Volt-Ohmmeter. High sensitivity, 10,000 ohms/V. Ranges: DC volts, 0-10-50-100-500-1,000; Resistance, 2,000-20,000-200,000-2,000,000 ohms, 30-300-3,000-30,000 center scale. Uses two 1 1/2 V. standard dry cells. Bakelite case, 3 1/4 x 2 1/4 x 2". With batteries. Shpg. wt., 3 lbs. **84-312. NET. \$12.74**

# ELECTRONIC TEST EQUIPMENT

## GENERAL ELECTRIC TEST EQUIPMENT

### TC-3P TUBE TESTER



TC-3P portable model, dynamic mutual conductance tube checker. Provides a complete service shop of tube analyzing equipment. Has sockets for all tube types, with two spare positions. Ingenious permutation circuit with 18 lever operated switches makes it possible to connect any pin or combination of pins to any required voltage or test impedance. A 17 position switch provides 15 filament voltage ranges from 1 to 117 volts, plus two spare positions. 3" meter has illuminated good-bad scale; also reads 0-10-100-1000 DC volts for battery and DC power supply checks. Short-checks are made at 2 megs sensitivity while tube is hot. Checks are made between every element including cathode and heater. For 110V., 60 cyc. AC. Wood case with simulated leather covering. Complete with tubes. Size, 14 1/2 x 14 x 7 1/2". Shipping weight, 15 lbs.

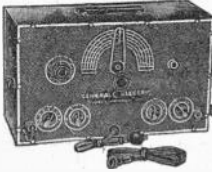
84-941. NET. \$49.98



### MODEL UM-3 UNIMETER

Portable volt-ohm-milliammeter. Has 3 1/2" red and black scale for easy reading. Reads 0-2.5-10-50-1,000-2,500 volts DC or AC at 2,000 ohms per volt DC and 1,300 ohms per volt AC; 0-1,000-100,000 1 megohm, with center scale readings of 40, 4,000 and 40,000 ohms respectively; Also 30 megs with external battery; 0-1-10-100 DC millamps, and 0-1-10 DC amps; -12 to +52 DB in 5 ranges with 6 milliwatts into 500 ohms, zero reference level. Welded steel case with removable snap cover and compartment for accessories. Wrinkle gray finish. Complete with test leads, instructions, tubes, and circuit diagram. Size, 9 1/2 x 10 1/2 x 5". Shpg. wt., 11 lbs.

84-942. NET. \$30.87



### SG-2A SIGNAL GENERATOR

New G-E type SG-2A signal generator. Frequency range 100 Kc to 32 Mc on fundamentals, in 5 bands. Easy-to-read dial accurate to within 0.5% on bands 1 to 4, and to within 1.0% on band 5. RF output is 0 to 100,000 microvolts through attenuator. Drift less than 0.2% during 1st hour of warm-up. Frequency changes less than 0.1% for a 10% change in line voltage, and practically no change with attenuator settings. RF output can also be modulated 30% at 400 cyc. from internal oscillator which also delivers 400 cyc. AC output at 0 to 1.2 volts through the attenuator. Audio output accurate to within 5% with less than 5% harmonic content. Modulated by constant current on the plate of an oscillator tube. Mechanical shock will not change calibration. For 110 volts, 60 cyc. AC with tubes. Size, 16x10x6". Shpg. wt., 48 lbs.

84-944. NET. \$53.41

## OTHER GE TEST INSTRUMENTS

84-943. UM-4 Unimeter. Reads 0-10,000 volts DC or AC at 20,000 ohms per volt on DC, and 5,000 ohms per volt on AC; 0-100 microamps, 0-100 ma., 0-10 amps DC; 0-10 megs resistance; -10 to +52 DB. With tubes and prods. Welded steel case with accessory-pocket and removable snap cover. Size, 9 1/2 x 10 x 5". Shpg. wt., 11 lbs.

NET. \$51.45

84-945. PM-9 Condenser Resistance Bridge. Reads 2 mmfd. to 200 mfd.; 2 ohms to 20 megs. Turns ratio .01 to 100. Checks leakage. With tubes. 110 V., 60 cyc. 12 lbs.

\$46.55

84-946. AO-2 Audio Oscillator. Continuously variable frequency range 25 to 15,000 cps. Less than 3% distortion above 50 cycles. For 110 V., 60 cyc. With tubes. Size, 10 x 13 x 7". Shipping weight, 18 lbs.

\$51.45

84-947. CRO-3A Oscilloscope. Uses 906P1 cathode ray tube. Sweep, 10-30,000 cps. With tubes. Size, 9 1/2 x 9 1/2 x 14". For 110 V., 60 cycles AC. Shipping weight, 20 lbs.

\$68.11

84-948. SG-3A Signal Generator. 100 Kc to 32 Mc range. Attenuated output 0.5 to 100,000 microvolts. Has zero level indicator. For 110 V., 60 cyc. With tubes. 16x10x6". Shipping weight, 25 lbs.

\$112.70

## DU MONT CATHODE-RAY EQUIPMENT

### Type 164E-3" OSCILLOGRAPH

Designed for radio service and laboratory use. Also practical for field work due to its small size, light weight, and low power consumption. Uses type 3AP1 standard 3" cathode-ray tube, with a green, medium-persistence screen. Has separate vertical (V) and horizontal (H) amplifiers. Input impedance V, is 1 meg.; H is 8 meg. Frequency range, both V and H, 5 to 100,000 cps. Sensitivity of V is 0.70 RMS volts/inch. H is 0.55 RMS volts/inch. Sweep 15 to 30,000 cps. Has 1100 volts accelerating potential to the cathode ray tube; 400 volts to amplifier and sweep oscillator circuits. For 115 volt, 40-60 cycle operation. Power consumption, 50 watts. Fuse protection, 1 amp. Complete with tubes, and a removable, calibrated scale, which fits over the screen of the cathode-ray tube. Mounted in a black, wrinkle-finished steel cabinet, with a convenient carrying handle. Panel controls are clearly marked. Size, 11 1/2 x 7 1/2 x 14". Shipping weight, 22 lbs.



\$105.00

### Type 208B-5" OSCILLOGRAPH

Type 208-B Cathode-ray Oscillograph utilizes a modern high-vacuum 5" cathode-ray tube for application to the great majority of laboratory and service oscillograph requirements. It insures good trace brilliance, and is excellent for high frequency studies because of its ability to remain in sharp focus at all deflecting frequencies. Employs an input circuit having a continuous attenuation control which permits undistorted frequency response regardless of attenuator setting. Has separate vertical (V) and horizontal (H) amplifiers. Input impedance (V) amplifier is 2 megohms with 30 mmfd. load to signal source. Input impedance (H) amplifier is 5 megs. with 25 mmfd. load. Frequency range V and H, is 2 to 100,000 cps. Voltage gain (V), is 2,000; (H) is 43. Sensitivity of (V) is 0.01 RMS volt-inch; (H) is 0.5 RMS volt-inch. Sweep circuit from 2 to 50,000 cps. left to right. With all tubes. Size: 14 1/2 x 8 1/2 x 20 1/4". For 115V., 40-60 cycles. Shpg. wt. 60. lbs.

\$235.00

### Type 247-5" OSCILLOGRAPH

The most universally equipped laboratory scope made. Sweep 0.5 to 50 kc, recurrent or single trace. Flat sinusoidal response V, axis, 2-100 kc. X axis, d.c.-100 kc. Z axis has sinusoidal range of 30 cyc. to 2 Mc. Impedance at amp. terminals 2 megs, 30 mmfd. Detailed descriptive literature available on request. For 115 V., 40-60 cyc. AC. Size, 20 1/2 x 14 1/2 x 26 1/4". Shpg. wt., 135 lbs.

\$835.00

### 185A ELECTRONIC SWITCH

The model 185-A Electronic Switch permits the simultaneous comparison, for the purposes of comparison, of two independent signals on the screen of a single cathode-ray oscillograph. Provided with two identical amplifiers in parallel, alternately biased to cut-off by a square wave generator continuously variable from 10-500 square wave cps. A balance control permits 2 signals to be superimposed for direct comparison, or separated for individual study. Switching rate is continuously variable from 10 to 2,000 times per second. There is no phase distortion from low frequency limit to 25,000 cycles per second. Voltage gain is 10 times for both amplifiers. Supplied complete with all tubes. Black wrinkle-finished metal cabinet with convenient carrying handle measures 11 1/2 x 7 1/2 x 13". For use on 115 V., 40-60 cycles. Shipping wt., 23 lbs.

\$105.00

### TYPE 215 LINEAR TIME BASE GENERATOR

Low frequency linear time base generator. Sweep frequency range of 0.2 to 125 cps; Single or continuous rectangular wave output. Balanced output signal, voltage 400 volt peak-to-peak maximum undistorted output. Single sweep initiated either manually or by observed signal. Excellent linearity assured by compensating circuit. Return trace blanking signal of either positive or negative polarity. Permits instantaneous plotting of curves. Operates on 115-230 volts, 40-60 cycles AC. Power consumption, 50 watts; 1 amp. fuse protection. Complete with tubes. Size, 14 1/2 x 8 1/2 x 19 1/2". Shipping weight 45 lbs.

\$215.00



### ELECTRONIC DESIGNS—MODEL 100 VACUUM TUBE VOLT-OHMMETER

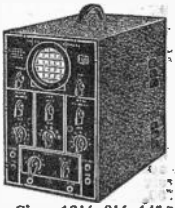
Sensitive, accurate, vacuum tube volt-ohmmeter. DC ranges; 0-1-10-30-100-300-1,000 volts. With constant input resistance of 11 megohms. Accuracy 3%. AC ranges; 0-10-30-100-300-1,000 volts. Sensitivity, 1,000 ohms per volt. Accuracy 5%. Ohmmeter ranges; 0-1,000 ohms, 0-10,000 ohms, 0-100,000 ohms, 0-1 megohms, 0-10 megohms and 0-1,000 megohms. Operates on 110-120 volts, 50-60 cycles. Jeweled on-off indicator on front panel. Complete with standard equipment when not in use. Complete leads, batteries and tube. Black crinkle finished steel case, 9 1/2 x 6 x 4 1/4". Shpg. wt., 11 lbs.

84-370. NET. \$47.50

### ELECTRONIC DEVELOPMENT

### MODEL 41-3" OSCILLOSCOPE

Model 41 is a 3" oscilloscope sturdily made to stand up under continued use and engineered to provide versatility and ease of operation. Wide frequency range, 10 to 100,000 cycles within 2 db., with a usable range up to 300,000 cycles. Deflection sensitivity, 1 volt RMS per inch. Input impedance, 5 megohms in parallel with approximately 20 mmfd. Sweep frequency, 10 to 60,000 cycles. For 110-120 volt, 50-60 cycle operation. Complete with tubes. Built into a black crinkle-finish cabinet. Size, 12 1/2 x 8 1/2 x 14". Shpg. wt., 23 lbs.



\$78.00

# ELECTRONIC TEST EQUIPMENT

## CORNELL-DUBILIER CAPACITOR ANALYZERS



**MODEL BF-50**  
This instrument quickly and accurately measures important characteristics of capacitors. Range from .00001 to 240 mfd. Will determine the exact condition of all paper, mica, and electrolytic condensers, including AC motor starting

types. Employs a Wien bridge. For 115 volts, 50-60 cycles. With test leads. Less tubes; requires 12A7 and 6E5. Size: 6 1/2" x 12" x 9 1/4". Shpg. wt. 10 lbs. **\$34.08**

**Model BN Bridge.** Wien bridge type. Reads .00001 to 50 mfd. Indicates power factor, opens, and shorts. Requires 1—12A7 and 1—6AF6G tubes. For 115 v. 60 cycles AC. Bakelite case, 3 1/2 x 5 x 3". With instructions and leads. Less tubes. Wt., 3 lbs. **\$13.54**  
**84-450. NET.**

## CAPACITOR DECADES

Cover wide range. Tolerance, ± 5%. Rated at 600 v. DC and 220 v. AC. May be used singly or in groups of two or three decades. Each decade has calibration chart for setting capacitance values. Average shipping wt., 4 lbs.

**Model CDA-5.** Covers .0001 to .011 mfd. in .0001 mfd. steps. Mica dielec. **\$7.39**  
**84-452. NET.**

**Model CDB-5.** Covers .01 to 1.1 mfd. in .01 mfd. steps. Oil-paper dielectric. **\$7.39**  
**84-453. NET.**

**Model CDC-5.** Covers 1.0 to 10 mfd. in 1.0 mfd. steps. Oil-paper dielectric. **\$13.13**  
**84-454. NET.**

## INDUSTRIAL INSTRUMENTS



### WHEATSTONE BRIDGE

**Model RN-1.** Sturdy Wheatstone Bridge for service in laboratory or plant. Moving-coil type galvanometer. Sensitivity, one microampere per millimeter. Pointer has 15 one-millimeter divisions each side of zero with adjusting knob and safety clamp. Ratio-dial settings, .001-.01-.1-1-10-100-1,000. Built-in resistance standards, 1-10-100-1,000 ohm decades. Ratios are accurate to .05%, decade to 1%. Decade may be used separately. Low resistance binding posts. In hardwood case with removable cover. Size, 9 1/4 x 7 1/2 x 6 1/4". With batteries. Shpg. wt., 12 lbs. **\$90.00**

**Model LB-2 DR-1.** Resistance Limit Bridge with resistance decade from 1,000 to 999,999 ohms in 1,000 ohm steps. Accurate to ± 1%. Size, 15 x 8 x 10". For 115 V. 60 cyc. AC. With tubes and test leads. Wt., 23 lbs. **\$4-351. NET. \$145.00**

**Model MB-8.** Megohm Bridge for insulation tests. Ranges: 1 to 1,000 meg; 100 to 100,000 meg. Accuracy, within 5%. Hardwood case, 7 x 8 x 5 1/4". For 115 V. 60 cyc. AC. With tubes and test leads. Wt., 8 1/2 lbs. **\$4-352. NET. \$75.00**

**Model DR-50.** Resistance Decade. Total resistance, 9,999.9 ohms. Decade steps, 9 x (1-1+10+100+1,000). Accuracy, ± 1%. Manganin wire coil, bifilar-wound on ceramic cores, oven aged, and dipped. Self-cleaning type switches. Rubbed hardwood case, 6 1/2 x 9 x 4 1/4". Shpg. wt., 7 lbs. **\$4-353. NET. \$55.00**

**Model DK-2A.** Capacitance Decade. Total capacitance, 1.11 mfd. in .001 mfd. steps. Accuracy, 1%. Power factor, .2%. Peak volts, 700 V. D.C.; 500 V. 60 cycles AC. Hardwood case, 5 1/2 x 7 x 8". Shpg. wt., 10 lbs. **\$4-354. NET. \$75.00**

## PRECISION INSTRUMENTS



### MODEL 920P

A Dynamic Mutual Conductance Tube Tester plus a V.O.M. and 33 range Set Tester. Uses a large 4 1/2" square meter; 400 micro-amperes full scale sensitivity. Tests all tubes including Loktals, Bantam Jr., "S," Television amplifiers, all octals, Glass miniature, Hearing aid, Button-type V. pin, and Ballast tubes. Tests miniature screw base and bayonet type pilot lights. Accommodates all filament voltages from 1.4 to 120 volts. Sensitive Neon indicator will detect shorts and leakages. Built-in double window roller tube chart. Ranges are: 0-12-60-300-600-1,200-3,000 V. AC and DC at 1,000 ohms per volt; 0-1-2-12-120-600 ma. DC; 0-12 amps. DC; 0-400-100,000 ohms; 0-1-10 meg-ohms; 6 db. ranges from -12 db. to +64; 6 output ranges. Tests radio batteries under load. For 115 V., 60 cycles. Portable hardwood case, 12 x 13 x 6". Shipping weight, 21 lbs. **\$4-407. NET. \$69.06**

**832-S.** 31-Range AC-DC tester. Reads 1,200 V. DC; 2,400 V. AC; 5 meg., and 600 ma. DC. Size, 7 x 4 1/2 x 3". With leads and batteries. Wt., 4 lbs. **\$4-410. NET. \$20.39**

**84-P.** 34-Range AC-DC V.O.M. 4% meter. Reads 6,000 V. AC and DC; 10 meg. and 12 amp. Size, 9 x 10 x 6". With leads and batteries. Shpg. wt., 9 lbs. **\$4-401. NET. \$34.56**

**856-P.** 44-Range tester. Covers ohms, volts, amp., ma., etc. With leads and batteries. Size, 9 x 10 x 6". Wt., 11 lbs. **\$4-405. NET. \$46.02**

**912P.** Mutual cond tube tester. 4% meter. Tests all tubes and dry batteries. Portable case, 12 x 13 x 6". With cord and plug. Shpg. wt., 19 lbs. **\$4-415. NET. \$48.32**

**EV-10-P.** Vacuum tube multi-range tester. 8 1/2" meter. Reads to 6,000 V. AC and DC; to 2,000 meg., and to 12 amp. DC. Wood case, 12 x 13 x 6". With tubes, batteries, test leads, and probes. Shpg. wt., 20 lbs. **\$4-417. NET. \$62.15**

**EV-10-MCP.** As above, but in metal case, 10 1/2 x 12 x 6". Complete with tubes, battery and probes. Shpg. wt., 20 lbs. **\$4-400. NET. \$57.55**

**E-200.** Signal Generator. For A.M., F.M., and television. Range, 90 KC to 88 MC. Accuracy, 1%. 6 1/2" dial. Size, 10 1/2 x 12 x 6". Shpg. wt., 20 lbs. **\$4-409. NET. \$46.02**

## SPECO SIGNAL TRACER



### MODEL STAP

New lightweight signal tracer. Consists of amplifier with tracer probe. Acts as a detector and sensitive RF and AF amplifier with a low capacity input and variable gain control. Provides means of making RF and IF gain-per-stage measurements. Locates cause of weak,

noisy or distorted signals. Tests radios, phone pick-ups, microphones, audio devices, etc. With tubes and probe. Wt., 10 lbs. **\$4-980. NET. \$39.95**

**Model STP.** Tracer probe only. For use with any amplifier and power supply. With instructions. Shpg. wt., 2 1/2 lbs. **\$4-981. NET. \$12.95**

## WESTON TEST INSTRUMENTS

### MODEL 772 ANALYZER

**New type 6.** This analyzer has a three position switch for 1,000 and 20,000 ohms per volt DC sensitivity and 1,000 ohms per volt AC sensitivity. 4 1/2" meter, rated at 50 microamp. DC accuracy within 2%. (1,000 v. range 3%). AC accuracy within 3%. AC and DC volts. 2.5-10-50-250-1,000; current, .1-1-10-50-250 DC ma., 1-10 DC amp; resistance, 0-3,000-30,000 ohms, 0-3-30 meg; decibels, -14 to +54. Size is 15 1/2 x 5 1/2 x 8 3/4". With batteries and test leads. Shpg. wt., 9 lbs. **\$4-851. NET. \$68.35**



**Model 697.** Volt-Ohm-Millammeter. Ranges: AC and DC volts, 0-7.5-15-150-750; DC ma, 0-7.5-75; Ohms, 5,000-500,000. Size, 5 1/2 x 3 1/4 x 3 3/4", 2 lbs. **\$4-850. NET. \$29.04**

**Model 785.** Circuit Tester. Has 27 ranges. Reads DC volts at 20,000 ohms per v., AC volts at 1,000 ohms per v., AC-DC current, and resistance. Size, 13 x 12 1/2 x 5 1/2". With batteries. Shpg. wt., 14 lbs. **\$4-852. NET. \$91.87**

**Model 777.** Type 7A Tube Tester. Tests all standard tubes including 4, 5, 6, 7 and 8 prong octal, 8-prong loktal, miniature and acorn types. For 115 V. 60 cyc. AC. Size, 14 1/2 x 10 1/2 x 6". Shpg. wt., 12 lbs. **\$4-853. NET. \$68.35**

**Model 665.** Type 1. Selective Analyzer. Ranges: AC and DC volts, 1-2.5-5-10-25-50-100-250-500-1,000; DC ma, 1-2.5-5-10-25-50-100-250-500; resistance, 1,000 ohms to 1 meg full scale, and 25-250-2,500-25,000 ohms center scale. Size, 15 1/2 x 8 1/4 x 3 1/4". With leads and batteries. Wt., 6 lbs. **\$4-855. NET. \$57.33**

**Model 663.** Volt-Ohm-Millammeter. Ranges: DC volts, 2.5-10-50-500-1,000; DC ma, 1-5-25-100; ohms, 0-200-1,000-10,000-100,000-1-10 megohms full scale, and 0-5-25-250-2,500-25,000-250,000 ohms center scale. Size, 8 1/4 x 5 1/2 x 3 1/4". Wt., 6 lbs. **\$4-856. NET. \$48.14**

## MEISSNER ANALYST

New improved Meissner Analyst tests receivers and locates faults by "Signal Tracing" method. Equipped with devices for simultaneous checks on various parts of receiver circuit. Five separate channels, each separated by its own panel division, are identified by functions performed and provided with accurately calibrated controls. Uses 12 tubes. For 115 V. 60 cyc. AC. Includes 4-range electronic voltmeter, wide-range audio channel, 95 to 1,700 kc RF-IF channel, four electric eye indicators, etc. With tubes, cables, prods and instructions. Size, 9 1/2 x 13 1/2 x 10 1/2". Shpg. wt., 35 lbs. **\$4-950. NET. \$94.32**



**Model DR-50.** Resistance Decade. Total resistance, 9,999.9 ohms. Decade steps, 9 x (1-1+10+100+1,000). Accuracy, ± 1%. Manganin wire coil, bifilar-wound on ceramic cores, oven aged, and dipped. Self-cleaning type switches. Rubbed hardwood case, 6 1/2 x 9 x 4 1/4". Shpg. wt., 7 lbs. **\$4-353. NET. \$55.00**

# TRIPLETT

# PANEL METERS

# AND METER ACCESSORIES

## TRIPLETT PRECISION PANEL METERS



321-221 DC  
331-231 AC

A very popular line of accurate and fully dependable meters, offered in a variety of sizes and ranges. DC meters have rugged D'Arsonval movement, fully protected against vibration and accurate within 2%. Polished jewelled bearings, precision set in adjustable screws.

Dial scales finished in white enamel with easily read scales in black. Zero adjusting screw accessible from front of meters. Bakelite cases. Av. shgp. wt., 1 1/2 lbs. Allied can supply all Triplet meters. Write to us for a copy of Triplet catalog No. 37-081, free on request.



227A-327A DC  
237A-337A AC

2" METERS					3" METERS				
Model	Flange	Body Dia.	Scale		Model	Flange	Body Dia.	Scale	
221	2 1/4"	1 7/8"	1.72"	2 3/4"	321	3 1/4"	2 1/4"	2.49"	
231	2 3/4" x 2 3/8"	2 1/2"	1.72"	2 3/4"	327A	3 3/8"	2 1/4"	2.49"	
227A	2 1/4"	2 1/8"	1.54"	2 3/4"	331	3 1/4"	2 1/4"	2.14"	
237A	2 3/8" x 2 3/8"	2 3/2"	1.54"	2 3/4"	337A	3 3/4"	2 1/4"	2.14"	

### DC MILLIAMMETERS

321	327A	EACH	Ma.	221	227A	EACH
66-100	66-120	\$5.04	0-1	66-150	66-170	\$4.16
66-101	66-121		0-1.5	66-151	66-171	
66-102	66-122		0-5	66-152	66-172	
66-103	66-123	\$4.16	0-10	66-153	66-173	\$3.23
66-104	66-124		0-15	66-154	66-174	
66-105	66-125		0-25	66-155	66-175	
66-106	66-126	\$4.16	0-50	66-156	66-176	\$3.23
66-107	66-127		0-100	66-157	66-177	
66-108	66-128		0-150	66-158	66-178	
66-109	66-129	\$4.16	0-200	66-159	66-179	\$3.23
66-110	66-130		0-250	66-160	66-180	
66-111	66-131		0-300	66-161	66-181	
66-112	66-132	\$4.16	0-500	66-162	66-182	\$3.23
66-113	66-133		0-750	66-163	66-183	

### AC MILLIAMMETERS

331	337A	EACH	Volts	231	237A	EACH
66-200	66-220	\$4.16	0-5	66-250	66-270	\$3.23
66-201	66-221		0-10	66-251	66-271	
66-202	66-222		0-15	66-252	66-272	
66-203	66-223	\$4.16	0-25	66-253	66-273	\$3.23
66-204	66-224		0-50	66-254	66-274	
66-205	66-225		0-100	66-255	66-275	
66-206	66-226	\$5.04	0-150	66-256	66-276	\$4.16
66-207	66-227		0-300	66-257	66-277	
66-208	66-228		0-500	66-258	66-278	

### TRIPLETT DC MICROAMMETERS

D'Arsonval moving coil type microammeters. Highest quality alloy magnets with uniform pole pieces. Accuracy, 2%. Black molded bakelite cases. Model 321 is round flush mounting type, with 2.49" scale. Model 327A is rectangular flush mounting type, with 2.49" scale.

321	327A	Range	Res.	EACH
66-050	66-060	0-50	1900	\$15.36
66-051	66-061	0-100	900	\$3.72
66-052	66-062	0-200	360	\$3.72
66-053	66-063	0-500	156	6.66

### THERMO-AMMETERS

Equipped with external couples which are connected to instruments by 2" leads. Easily replaced. Internal couple meters are available on special order. See above for physical specs.

321	327A	Amps.	Res.	EACH
66-080	66-090	0-1	.35	\$7.18
66-081	66-091	0-1.5	.21	
66-082	66-092	0-2.5	.13	
66-083	66-093	0-5	.06	

### TRIPLETT 7" FOUNDATION METER



An accurately-built 7-inch foundation instrument having 25,000 ohms-per-volt DC sensitivity when used with proper resistance values. Dial scale reads: 0-10-50-250-1,000 volts at 25,000 ohms per volt; 0-50-250 microamperes; 0-1-10-50

250 milliamperes DC; 0 to 500 ohms (back-circuit); 0-20,000-200,000 ohms; 0-2 meg resistance scale; AC scale reads 0-10-50-250-1,000 volts at 1,000 ohms per volt. Colored dial. With instructions. Wt. 3 lbs.  
66-500. \$19.76  
TYPE 726. NET



### PORTABLE FRAME FOR 3" METERS

Metal frame for mounting 3" meters with 2 1/4" bodies. Baked black enamel finish. Completely drilled. Binding posts on top for connecting test leads. Overall height 3 3/4"; width, 4"; depth at base, 3 3/4". Less meter. Shpg. wt., 1 lb.

66-506. NET. \$1.03

### HICKOK PANEL MOUNTING METERS

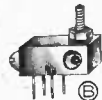
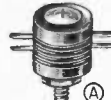
Famous Hickok meters. Accurate, dependable. DC meters have internal pivot construction resulting in shock-proof movements. Jewels permanently mounted in solid metal core. AC meters are of the magnetic vane type, ruggedly constructed. Rectangular molded phenolic case. Black finish. 3" x 3 1/4". Body diameter, 2 1/4". Contains a large opening, symmetrically designed to admit a maximum of light to the dial. Thick flange protects against breakage. Case constructed to pass N.E.M.A. requirements for insulation. Fits into smaller panel space than required for round flush-type instruments. Accurate within 1.5%. Average shgp. wt., 3 lbs.



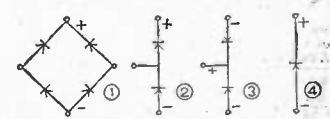
S46 DC MILLIAMMETERS				S47M AC AMMETERS				S47M AC VOLTMETER			
No.	Range	EACH		No.	Range	EACH		No.	Range	EACH	
66-800	0-1	\$7.13		66-850	0-1	\$6.38		66-870	0-150	\$8.06	
66-801	0-10	6.38		66-851	0-5	6.38					
66-802	0-100	6.38		66-852	0-25	6.38					
66-803	0-500	6.38						S46 DC VOLTMETERS 1,000 ohms per volt			
S46 DC MICROAMMETER				S47X AC VOLTMETERS							
No.	Range	EACH						No.	Range	EACH	
66-820	0-500	\$8.88		66-840	0-25	\$ 8.44		66-841	0-150	\$ 8.81	
				66-890	0-10	\$12.00		66-842	0-500	\$10.50	
				66-891	0-50	\$12.00					

### CONANT INSTRUMENT RECTIFIERS

The units listed below will cover most rectifier requirements. Series 500 rectifiers are for general applications requiring greater output current for meters, relays or other apparatus drawing above 1 ma. Recommended for use at commercial and lower audio frequencies. Will also operate up to 50,000 c.p.s. in special applications where accuracy of reading is not essential. Disc dia., .500". Area .15 sq. in. Nickel-plated end-plates. Series 160 and 160-C are for applications requiring good frequency response over the entire commercial and audio range and especially with the meter, relay, or other equipment needs less than 1 ma. for operation. May be used at frequencies up to 15,000,000 c.p.s. with special circuit treatment. Disc dia., .160". Area, .02 sq. in. Furnished in nickel-plated compact case of convenient size. Av. shgp. wt., 6 oz.



#### Internal Circuit Diagrams



Cat. No.	Type	Series	Fig.	Internal Circuit	No. of Term.	Intermittent		Continuous		EACH
						Volts	Ma.	Volts	Ma.	
68-041	M	500	A	1	4	30	10	30	30	\$2.06
68-043	HS	500	A	2	3	20	10	30	30	1.59
68-047	T	500	A	3	3	20	10	30	30	1.59
68-042	H	500	A	4	2	10	60	5	30	.88
68-040	B	160	B	1	4	20	10	10	5	2.06
68-044	BHS	160	B	2	3	10	10	5	5	1.59
68-046	BT	160	B	3	3	20	10	10	5	1.59
68-045	BHS-C	160-C	C	2	3	10	10	5	5	1.59

37-170. Conant Instrument Rectifier Book. Complete information on instrument rectifiers. Includes methods of compensating for instrumentation errors. NET \$15.





# BURGESS QUALITY BATTERIES



## STANDARD DRY BATTERIES

Suitable for all radio and laboratory requirements, incorporate the highest degree of purity in materials. Quality maintained by laboratory control and test. ALLIED'S stock of Burgess Batteries is always fresh, assuring you of full-rated efficient service. Letters following battery type numbers denote terminals: P.1.—plug-in; S.C.—spring clips; all others are equipped with screw terminals.

Stock No.	Burgess Type	Volt	Size	Shpg. Wt. Lbs.	Std. Pkg.	NET EACH	
						Single Lots	Std. Pkg.
STANDARD "B" BATTERIES							
80-500	21308PI	45	7 3/8 x 1 1/2 x 4 1/2"	15	6	\$2.23	\$2.03
80-501	21308SC	45	7 3/8 x 1 1/2 x 4 1/2"	15	6	2.23	2.03
80-504	10308PI	45	7 1/4 x 8 x 4"	13	6	1.85	1.68
80-505	10308SC	45	7 1/4 x 8 x 4"	13	6	1.85	1.68
80-506	2308PI	45	7 1/2 x 8 x 2 1/2"	8	6	1.33	1.21
80-507	2308SC	45	7 1/2 x 8 x 2 1/2"	8	6	1.33	1.21
80-508	5308	45	5 7/8 x 4 1/2 x 2 1/2"	2	10	1.16	1.05
80-517	230N	45	1 1/4 x 1 1/8 x 4 9/16"	1	10	1.27	1.15
80-511	5156PI	22 1/2	3 3/8 x 4 1/8 x 2 3/8"	2	6	.72	.65
80-512	5156SC	22 1/2	3 3/8 x 4 1/8 x 2 3/8"	2	6	.72	.65
80-510	4156	22 1/2	3 x 3 3/8 x 2 3/8"	1	6	.64	.58
STANDARD "C" BATTERIES							
80-515	5360	4 1/2	3 x 2 3/8 x 1 3/8"	1/2	10	\$0.31	\$0.28
80-513	2370PI	4 1/2	3 3/8 x 4 x 1 3/8"	1	6	.30	.27
80-593	2370SC	4 1/2	3 3/8 x 4 x 1 3/8"	1	6	.30	.27
80-514	5540	7 1/2	3 3/8 x 4 x 7/8"	1	10	.48	.44
STANDARD "A" BATTERIES							
80-022	4FA	1 1/2	2 1/4 x 2 3/4 x 4 3/4"	1 1/2	20	\$0.33	\$0.30
80-532	20F2	3	1 1/8 x 3 1/2 x 6 1/8"	1 1/2	1	2.35	2.35

## SPECIAL PURPOSE AND INDUSTRIAL BATTERIES

Number 53-019 has strap terminals; 53-028 has coil spring terminals; units marked \* have spring clips; all other types have screw terminals.

"A" BATTERIES							
53-018	F2BP	3	2 3/8 x 1 3/8 x 4 3/8"	1	6	\$0.34	.....
53-036	2FBP	1 1/2	2 3/8 x 1 3/8 x 4 3/8"	1	6	.34	.....
53-017	F2H	3	2 3/8 x 2 3/8 x 3 3/8"	1 1/2	6	.40	.....
53-037	2F2BP	3	5 3/8 x 1 3/8 x 4 3/8"	1 1/2	6	.60	.....
53-016	F4BP	6	2 3/8 x 2 3/8 x 3 3/8"	1 1/2	10	.42	.....
53-023	44	1 1/2	1 1/8 dia. x 4 3/8"	11 oz.	6	.45	.....
"B" BATTERIES							
53-019	A1SST	22 1/2	3 3/8 x 2 3/8 x 2 1/2"	1	6	\$0.60	.....
80-519	W30BP	45	2 1/4 x 1 1/2 x 3 3/8"	1	6	1.66	.....
80-590	X30X	45	2 1/8 x 1 1/8 x 4 1/8"	1	6	1.80	.....
80-525	Z30BP	45	3 3/8 x 2 3/8 x 3 3/8"	1 1/2	6	1.23	.....
80-524	Z30NX	45	3 1/8 x 1 3/8 x 4 1/2"	1 1/2	6	1.50	.....
"C" BATTERIES							
80-591	B2BP	3	1 1/8 x 1 1/8 x 2 1/8"	1/2	6	\$0.30	.....
80-592	B3BPX	4 1/2	2 3/8 x 1 3/8 x 2 1/8"	1/2	6	.43	.....
80-521	W5BP	7 1/2	2 1/8 x 3/8 x 1 3/8"	1/2	6	.64	.....
LANTERN BATTERIES							
53-028	F4H	6	2 3/8 x 2 3/8 x 3 3/8"	2	20	\$0.38	.....
53-016	F4BP	6	2 1/4 x 2 1/4 x 3 1/8"	1 1/2	10	.42	.....
53-027	4F2H*	3	2 3/8 x 3 1/8 x 5 1/8"	3	15	.77	.70

IGNITION AND TELEPHONE BATTERIES							
Stock No.	Burgess Type	Volt	Size	Shpg. Wt. Lbs.	Std. Pkg.	NET EACH	
53-024	4FH	1 1/2	2 3/8 x 2 3/8 x 4 3/8"	1 1/2	20	\$0.33	\$0.30
53-027	4F2H*	3	2 3/8 x 3 1/8 x 5 1/8"	3	15	.77	.70
53-025	4F4H	6	2 3/8 x 1 1/2 x 6 1/8"	7	6	1.41	1.28
53-033	4F6H	9	4 x 8 1/2 x 6 3/8"	7	6	2.17	1.97
53-034	4F2J*	3	2 3/8 x 3 1/8 x 5 1/8"	3	15	.65	.59

FLASHLIGHT BATTERIES							
Stock No.	Burgess Type	No. Cells	Size	Shpg. Wt. Lbs.	Std. Pkg.	NET EACH	
53-009	2	1	2 3/8 x 1 3/8"	4 oz.	50	\$0.65	
53-029	1	1	1 1/8 x 1"	3 oz.	12	.065	
53-031	Z	1	1 1/8 x 3/8"	3 oz.	12	.035	
53-030	22	2	3 3/8 x 3/8"	3 oz.	6	.065	
53-038	422	2	2 1/4 x 1 3/8 x 1 1/8"	3 oz.	1	.10	
53-035	432	3	2 1/4 x 2 1/8"	4 oz.	1	.20	



## HEARING AID BATTERIES

Feather-weight. Efficient. Provide quiet operation and trouble-free service. Designed by Burgess Engineers for economy and long-life. Burgess popularity assures fresh stocks. Units listed below will fit most hearing aids now in use. All additional Burgess developments in hearing aid batteries will be stocked by Allied as soon as they are made available.

Stock No.	Burgess Type	Volt	Size	Av. Sh. Wt.	Std. P kg.	NET EACH	
						Single Lots	Std. Pkg.
"A" BATTERIES							
53-050	1ES	1 1/2	1 1/4 x 3 3/4"	2 oz.	60	\$0.075	\$0.065
53-051	2ES	1 1/2	2 1/4 x 1 1/4"	5 oz.	48	.075	.065
53-053	TE	1 1/2	3 3/8 x 1 1/8"	4 oz.	16	.19	.16
"FEATHERWEIGHT" "B" BATTERIES							
53-054	XX15E	22 1/2	1 3/8 x 2 1/8 x 3 3/8"	4 oz.	10	\$0.93	\$0.76
53-055	XX22E	33	2 1/2 x 2 3/8 x 3 1/8"	6 oz.	10	1.13	.91
53-056	XX30E	45	2 1/4 x 2 3/8 x 3 3/8"	8 oz.	10	1.35	1.10
UNIVERSAL BATTERIES FOR CARBON HEARING AIDS							
53-057	T2R	3	1 3/8 x 2 3/8 x 4 3/8"	1 lb.	24	\$0.36	\$0.26
53-058	T3R	4 1/2	1 3/8 x 3 1/4 x 4 3/8"	1 lb.	24	.45	.33
FOR WESTERN ELECTRIC ORTHO-TECHNIC MODELS							
53-059	T2WE	3	1 3/8 x 2 3/8 x 4 3/8"	1 lb.	24	\$0.45	\$0.33
53-061	T3WE	4 1/2	1 3/8 x 3 1/4 x 4 3/8"	1 lb.	24	.51	.37

## KNIGHT PLUG-IN DRY BATTERIES

Only the highest quality materials are used in the making of Knight batteries. Each Knight battery is scientifically protected against internal shorts by a unique sealing method. These batteries are designed and built for long life. For maximum battery value—buy Knight. Our quick turnover assures you of constantly fresh stocks of all Knight battery types. Our low prices assure you of bigger savings and bigger profits. \*Plug-in batteries do not include plugs. See plugs listed below.



Stock No.	Type	Volts	Size	Shpg. Wt.	NET EACH
80-800	*Standard	45	7 1/4 x 6 x 3"	10 lbs.	\$1.21
80-801	*Heavy-Duty	45	6 1/4 x 7 3/4 x 4"	12 lbs.	1.65
80-802	"B" or "C"	22 1/2	4 x 2 1/2 x 2 3/4"	2 lbs.	.69
80-803	"C"	4 1/2	4 x 3 x 1 1/4"	1 lb.	.29
80-804	No. 6 Dry cell	1 1/2	6 x 2 1/2"	2 lbs.	.29

## STANDARD BATTERY PLUGS

Fit Burgess, General, Knight, and Ray-O-Vac standard batteries. 3 oz.

- 54-050. Connector for all 45 volt batteries.
- 54-051. Connector for 22 1/2 volt batteries.
- 54-052. Connector for 7 1/2 volt batteries.
- 54-053. Connector for 4 1/2 volt batteries.
- 54-054. Connector for 3 volt "A" batteries. **NET EACH 4¢**

## STERLING BATTERY TESTERS FOR STANDARD BATTERIES

Available in 3 types listed. For rapid testing of practically all types of dry cell batteries.

- 78-028. 0-35 Amps. For Dry Cells. .... \$2c
- 78-029. 0-50 Volts. "B" Tester. .... \$1.31
- 78-030. Combination 0-35 Amp. and 0-50 Volts. NET..... \$1.96



## FOR PORTABLE BATTERIES

As above, but in ranges more convenient for portable-radio batteries. Dual-coil construction with resistance loads.

- 78-024. 0-50 Volts, 0-2 Volts. .... \$1.47
- 78-025. 0-100 Volts, 0-2 Volts. .... 1.62
- 78-026. 0-150 Volts, 0-2 Volts. .... 1.62
- 78-027. 0-150 Volts, 0-10 Volts. .... 1.76

Watch-case type testers for "B" Batteries, Dry Cells, etc. Handy pocket size. Durable and accurate. Average shpg. wt., 1 lb.

## BURGESS FLASHLIGHT CASE

Type PW1. All-metal construction. Brown and black enameled finish. Free-action switch with locking feature. Uses two No. 2 flashlight cells. Furnished with bulb, but less batteries. Shpg. wt., 1 lb.



78-233: NET..... **87¢**



# BURGESS BATTERIES FOR ALL PORTABLES

## MOST POPULAR BATTERY TYPES



A30

XX45



B30

4F



M30



17GD60

## ALLIED OFFERS THE COMPLETE REPLACEMENT LINE

Quality batteries and standard battery plugs to meet every battery, portable radio, or commercial need. Constructed to exacting standards for dependable service. Manufactured from finest materials. Graded paraffin coatings provide moisture-proofing for longer life. Designed to replace most standard batteries in use today. Due to extremely large turnover, you are always assured of fresh stocks at **ALLIED**.

### PORTABLE "A" BATTERIES

Stock No.	Burgess Type	NET EACH	Std. Pkg.	Volts	Uses Plug No.	Size	Shpg. Wt., Lbs.	Replaces	
								Eveready	General/Ray-O-Vac
53-000	2F	\$0.28	6	1 1/2	274	2 5/8 x 1 3/8 x 4 3/8"	1	742	2F1 P24A
53-003	4F	.38	10	1 1/2	274	2 5/8 x 2 5/8 x 4 1/8"	2	742	4F1 P94A
53-005	6F	.52	6	1 1/2	274	3 1/2 x 2 3/4 x 4 1/8"	3	743	6F1 P96A
53-006	8F	.67	6	1 1/2	274	3 3/4 x 2 5/8 x 4 5/8"	3	741	8F1 P98A
53-013	G3	.32	12	4 1/2	2792	4 x 1 3/8 x 4 1/8"	2	746	3H3 P83A
53-011	F4PI	.38	12	6	2793	2 3/8 x 2 3/8 x 4"	1	.....	4F4 P694A
53-002	2F4L	.70	6	6	2793	3 x 1 1/2 x 10 1/8"	4	747	8CF4 P698L
53-014	G5	.52	6	7 1/2	M77	3 3/4 x 2 1/2 x 4 3/8"	3	687	5H5 P85A

### PORTABLE "B" BATTERIES

Stock No.	Burgess Type	NET EACH	Std. Pkg.	Volts	Uses Plug No.	Size	Shpg. Wt., Lbs.	Replaces	
								Eveready	General/Ray-O-Vac
80-535	A30	\$1.05	6	45	273	3 1/2 x 2 1/4 x 4 1/4"	2	.....	V30A 430P
80-543	A60	2.10	6	90	273	4 1/2 x 3 1/4 x 4 3/4"	2	.....	BB60P
80-536	B30	1.05	12	45	273	2 3/4 x 4 1/4 x 5 1/2"	3	762	V30B P5303
80-537	Z30	1.12	6	45	273	3 1/2 x 2 1/2 x 4"	2	738	V30AA2 P7R30
80-546	M30	1.05	12	45	273	5 5/8 x 3 3/8 x 1 7/8"	2	482	P7830
80-539	W30PI	1.45	6	45	273	2 1/4 x 1 1/2 x 3 1/4"	1	733	V30AAA P3A30
80-544	XX45	2.60	6	67 1/2	snapper	2 1/4 x 1 1/2 x 3 1/4"	1	467	W4BA P4367
80-542	Z59	2.40	6	88 1/2	273	3 1/2 x 2 1/4 x 5 1/2"	3	.....	.....

### COMBINATION "A" AND "B" PACKS FOR PORTABLES

80-555	6TA60	\$2.45	10	1 1/2 A, 90B	120	9 3/4 x 2 1/4 x 4 1/4"	6	.....	.....
80-553	5DA60	2.36	6	1 1/2 A, 90B	120	5 3/4 x 2 1/4 x 6 3/8"	5	.....	60A-2L
80-554	6FA60	2.44	6	1 1/2 A, 90B	2745	11 3/8 x 6 1/2 x 1 1/8"	5	.....	60A-4L 84
80-551	4GA42	1.82	6	1 1/2 A, 90B	2745	9 x 2 3/8 x 4 1/4"	5	.....	41A-4FL
80-550	G4B50	2.14	6	6A, 75B	M644	4 1/4 x 1 23/64 x 2 1/4"	7	.....	.....
80-570	G6B60	2.40	6	9A, 90B	2908	13 1/4 x 4 1/4 x 2 1/8"	9	.....	60B-6H6
80-559	F4B60	2.48	6	6A, 90B	2776	10 5/8 x 2 3/8 x 5"	5	.....	.....
80-565	4GA41	1.80	6	1 1/2 A, 61 1/2 B	2745	9 3/4 x 3 3/8 x 2 1/8"	5	.....	.....
80-569	G5A42	1.75	6	7 1/2 A, 63B	2900	9 3/4 x 2 3/8 x 4 3/8"	5	.....	.....
80-567	F5A60	2.40	6	7 1/2 A, 90B	2900	11 1/4 x 4 1/2 x 2 1/8"	6	.....	.....
80-558	F4A41	1.65	6	6A, 61 1/2 B	M64	9 1/4 x 4 1/8 x 2 1/8"	4	.....	CR649
80-568	2FA60	2.40	3	6A, 90B	2791	11 1/4 x 4 1/2 x 2 1/8"	4	.....	60A-4FL4
80-562	4TA60	2.45	3	1 1/2 A, 90B	120	8 1/4 x 2 3/8 x 4 1/4"	5	.....	10793
80-560	4FA60	2.24	3	1 1/2 A, 90B	5705	7 x 3 1/2 x 4 1/4"	6	.....	.....

### BATTERIES FOR 1 1/2 VOLT FARM RADIOS

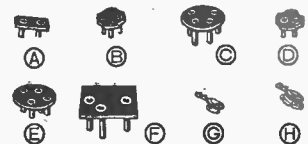
80-572	17GD60	\$4.36	1	1 1/2 A, 90B	.....	7 1/2 x 1 5/4 x 4 3/8"	23	748	60DL-11L	AB82
80-573	18GD60	4.38	1	1 1/2 A, 90B	.....	6 1/4 x 1 1/2 x 5 5/8"	23	.....	.....	.....

### "A" BATTERIES

80-530	19G	1.38	6	1 1/2	.....	7 1/4 x 5 5/8 x 4 3/8"	30	.....	12LIL	P9203
53-026	20F	1.29	6	1 1/2	.....	7 1/4 x 7 1/8 x 2 1/8"	30	.....	.....	.....

### "B" BATTERIES

80-531	D60	2.38	3	90	.....	8 1/2 x 1 3/8 x 3"	16	749	.....	P260
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## IDEAL RECHARGEABLE STORAGE BATTERIES FOR FLASHLIGHTS

Each unit replaces 2 ordinary dry cells, and gives over 200 times longer service. Fits any two-cell flashlight. Rated at 2.2 volts, open circuit. Capacity 2 ampere hours. Discharge rate, 600 ma. Weighs only 7 ounces. Easily recharged, and kept at peak capacity, with chargers below.

### RECHARGEABLE BATTERIES

Type 21-045. Rechargeable 2.2 v. flashlight battery. 1 1/8" x 4 1/8". Wt., 1 lb.  
53-400. Lots of 1-11. EACH... **\$2.20**  
12 to 47. EACH... **1.98**  
48 or more. EACH... **1.87**

### SINGLE CHARGERS FIG. A

Type 21-038. For charging one rechargeable battery at a time from any 115 V. 50-60 cycle AC source. Wt., 2 lbs.  
53-401. 1-11. EACH... **\$2.95**  
12-47. EACH... **2.66**  
48 or more. EACH... **2.51**

### 6-GANG CHARGERS FIG. C

Type 21-011. Will recharge up to six rechargeable batteries at a single loading. For 115 V., 50-60 cycles. Wt., 8 lbs.  
53-402. EACH... **\$11.75**  
Lots of 2 to 5. EACH... **11.16**  
6 or more. EACH... **10.58**  
53-403. Fig. B. Tester for rechargeable batteries. Shpg. wt., 1 lb. NET... **\$6.75**

### IDEAL FLASHLIGHT CASE FIG. D

Here's an exceptionally fine case, made of a new, tough plastic that will withstand roughest handling. Drop it—toss it into a tool case, you can't hurt it. Waterproof. Gray finish. Prefocused type. Unbreakable lens. One of the best and most attractive cases available. For use with one rechargeable or two ordinary cells. Wt., 1 lb.  
**78-234. EACH... \$1.15**  
Lots of 12. EACH... **1.03**

### FLASHLIGHT BULBS

For use with rechargeable batteries.  
52-329. Screw Base Type. (1.9 volt, .6 amp.) Lots of 1 to 9. EACH... **15c**  
10 or more. EACH... **9c**  
52-335. Flange-Base Type. (1.9 volt, .6 amp.) Lots of 1 to 9. EACH... **20c**  
10 or more. EACH... **12c**  
53-404. Spacer Plug. For use with one rechargeable battery in 3-cell case, or two rechargeable batteries in 5-cell flashlight case. EACH... **10c**

### PLUGS FOR ABOVE BATTERIES

Bakelite Battery Plugs. Fit all popular plug-in type dry batteries. Very convenient connectors for laboratory and industrial work, and for replacement purposes. Shpg. wt., 2 oz.

No.	Fig.	Type	Description
54-000	A	2793	2-prong 6V. "A."
54-005	B	200	2-prong 3V. "A."
54-001	B	273	3-prong portable "B."
54-002	C	120	4-prong 1 1/2/90 "A/B."
54-003	D	274	2-prong 1 1/2 V. "A."
54-004	E	M64	4-prong 6/90 "A/B."
54-006	F	267	3-prong 60V. "B"
54-007		2792	2-prong 4 1/2 V. "A."
54-008		M77	3-prong 7 1/2 V. "A."
54-009		5705	4-prong Zenith "A/B."
54-010		2745	4-prong Philco "A/B."
54-011		2900	4-prong 7 1/2/90 "A/B."
54-012		2776	5-prong 6/90 "A/B."
54-013		2791	4-prong 6/90 "A/B."

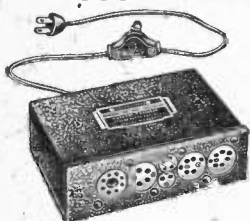
10 of one type for 35c.  
NET EACH... **5c**

### PLUGS FOR BURGESS XX45 AND EVEREADY 467

Developed for 67 1/2 V. batteries. Wt., 2 oz.  
54-065. Fig. G. Male snap-on type plug.  
54-066. Fig. H. Female snap-on type plug.  
10 for 35c.  
NET EACH... **5c**

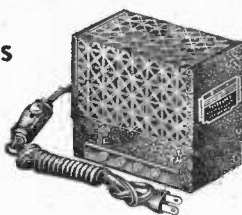
# CONVERTERS • BATTERY ELIMINATORS • INVERTERS

## GTC PORTA-POWER BATTERY ELIMINATORS



### PLAY BATTERY SETS FROM AC POWER LINES

Enjoy the economy and convenience of an electric set. No batteries to replace. No weak or noisy reception because batteries are becoming low. Porta-Power units operate at peak efficiency always. Save their cost in a very short time.

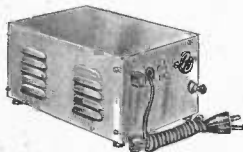


**NEW MODEL H.** Supplies "A" and "B" power for operation of 4 to 6-tube 1.4 or 1.5-volt battery-type farm and portable radios from 105-125 volt, 50-60 cycle power source. Compact. Fits in battery compartment of most any set. Universal sockets fit all standard battery plugs. Hum free. With 6-ft. rubber cord and plug and instructions. Size, 2 1/4" x 4 1/2" x 6 1/4". Wt., 8 lbs.  
**80-175. NET \$8.82**

**HEAVY-DUTY MODEL P.** Permits operation of 6-volt 4 to 10 tube sets from 105-125 volts, 50-60 cycles AC. Delivers two 6 V. outputs at 1.5 amps. each. May be connected in series for 12 V., or in parallel for 3 amps. Efficient, low-cost performance. Exceptionally quiet, hum-free operation. In crackle finished metal cabinet. Size: 3 3/4" x 5 1/2" x 6 1/4". Shpg. wt., 8 lbs.  
**80-173. NET \$9.85**

**FARM-TYPE MODEL L.** For 2-volt farm type sets having from 4 to 8 tubes. Eliminates all "A," "B," and "C" batteries. Operates from 105-125, 50-60 cycle AC. Delivers: 67.5, 90, 112.5, and 135 V. of "B," and from 1.5 to 22.5 adjustable "C." Split "C" obtained from external resistors. The "B" section can be adapted to supply 45 volts also. Size, 6 1/4" x 4 1/2" x 5 1/4". With instructions, 6 ft. cord and plug. Shipping weight, 6 lbs.  
**80-172. NET \$9.00**

## ELECTRONIC INVERTERS



Permit operation of 110-120 V., 60-cycle AC appliances, radio sets, amplifiers, test equipment, fans, etc., from DC voltage sources. Efficient. Economical. Each unit contains vibrator designed to give over 1,000 hours of trouble-free service. Shock-resistant. Filtered to eliminate radio interference. All models have 115-volt, 60-cycle output. With cord and plug.

Stock No.	Mfrs. Type	DC Input	Watts Output	Wt., Lbs.	NET
80-124	204	115	150	13	\$22.64
80-125	262	115	250	27	52.92
80-126	264	115	500	48	97.02
80-122	102	32	100	13	20.58
80-127	146	32	350	48	88.20
80-121	502	12	100	15	21.76
80-120	302	6	75	16	21.76

**ELECTRONIC MODEL 619 CONVERTER FOR 6 VOLTS DC AND 115 VOLTS AC**  
Permits operation of radio equipment from either battery or AC line voltage where quick changeover is required. Output: 300 V. at 100 MA DC, with either 115 V. DC or 110 V. 60-cycle AC input. Also supplies 6.3 V., 4.75 amps. from 110 V. input. Maximum output power, 60 watts. Size, 9 3/4" x 5 1/4" x 6". Wt., 15 lbs.  
**80-128. NET \$23.52**

## POPULAR ATR RADIO INVERTERS—DC TO AC

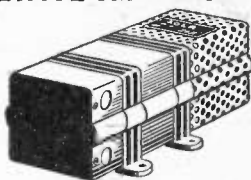


Deliver 110 volt 60 cycle AC electric power from 6 or 12 volt batteries, 32 volt, 110 volt, or 220 volt DC systems. These inverters are designed especially for interference-free operation of AC all-wave radios, PA systems, radio-phonograph combinations, test equipment, and similar units from DC voltages in cars, boats, trains, farms, and in DC districts. Plug-in vibrator has 1/2-inch diameter contacts which assure long life and reliable service. Features include: 4-point voltage regulator, fuse protection, on-off switch, metal case, etc. Supplied complete with filter which eliminates "ripple" and "hash," thus assuring quiet performance. Sizes: RSB 7 1/4" x 8 1/4" x 4 1/4"; RHB 7 1/4" x 9 1/4" x 6 1/4". Complete with cord and plug.

### RADIO TYPE WITH FILTER

Stock No.	Mfrs. Type	Input DC Volts	Output 60 Cycle	Watts		Wt. Lbs.	List	NET EACH
				Cont.	Inter.			
80-000	6-RSB	6	110V.	75	85	16	\$36.00	\$21.17
80-001	12-RSB	12	110V.	100	125	16	36.00	21.17
80-002	32-RSB	32	110V.	100	150	16	37.50	22.05
80-003	32B-RHB	32	110V.	180	200	25	54.00	31.75
80-004	110-RSB	110	110V.	150	250	16	37.50	22.05
80-005	110A-RHB	110	110V.	225	325	25	47.50	27.93
80-006	110B-RHB	110	110V.	350	500	25	54.00	31.75
80-007	110C-RSB	110	110/220V.	150	250	16	45.00	26.46
80-009	220-RSB	220	110V.	150	250	16	37.50	22.05

## SOLA CONSTANT VOLTAGE TRANSFORMERS



Keep output voltage constant within 1% regardless of line voltage fluctuations. Automatic regulation is maintained by special magnetic relation of coil and core components. No moving parts to service or adjust. Isolation of primaries and secondaries make these units ideal for use in lab. screen rooms. The 6.0 volt types are used extensively for photo electric applications and exciter lamps. All units listed are single phase types for operation from 95-125 V., 60 cycle AC input. \*Has additional input for 190-250 volt 60 cycle AC.

Stock No.	Mfrs. Type	Sec. Vts.	Cap. V.A.	Wt. Lbs.	NET
62-650	30488	6.0	15	6	\$13.50
62-651	30801	6.0	25	12	14.40
62-652	30802	6.0	50	13	19.80
62-653	30492	6.3	15	6	13.50
62-654	30881	6.3	25	12	14.40
62-655	30882	6.3	50	13	19.80
62-656	30498	115	15	6	13.50
62-657	30804	115	30	12	15.30
62-658	30805	115	60	13	21.60
62-659	30806	115	120	17	28.80
62-660	30807	115	250	28	46.80
62-661	30808	115	500	40	67.50
62-662	30809	115	1000	110	112.50
62-663	30811	115	2000	205	202.50
62-664	30M813*	115	3000	325	270.00
62-665	30M814*	115	4000	520	342.00
62-666	30M815*	115	5000	570	422.50

We can supply units for 25 or 50 cycle operation. Special units with capacity of up to 10,000 Volt-Amperes, single or three phase, built to your specifications.

**37-180 Sola Catalog, FREE on request.**

## ELECTRO BATTERY ELIMINATORS



### MODEL P

Silent A and B power supply. Permits operation of any 1.4-volt, 4, 5 or 6 tube set from 115-volt, 60-cycle source. Heavy-duty rectifier assures hum-free operation. Size, 2 1/4" x 3 1/2" x 6 1/4". With universal A and B cable harness, 6-foot rubber cord, plug and switch. Shpg. wt., 4 lbs.  
**80-200. NET \$8.88**

### MODEL F

For operating any 2-volt, 4, 5, 6 or 7-tube radio from 115-volt, 60-cycle source. Provides 67, 90, 112 and 135 volts of B power at 18 milliamperes. Size, 2 1/4" x 4 1/2" x 8 1/4". Supplied complete with universal cable harness, 6-foot rubber cord and plug, with switch. Shpg. wt., 6 lbs.  
**80-201. NET \$10.43**

### MODEL Q

Supplies A and B power from a single 6-volt storage or dry battery, enabling the operation of 1.4-volt receivers containing 4, 5, or 6 tubes. Provides 90 volts of B power at 12 milliamperes. Equipped with 4-ft. battery cable with battery clips. Size, 5 1/2" x 2 1/2". Wt., 4 lbs.  
**80-202. NET \$10.38**

### MODEL R

Will operate any 2-volt, 4, 5, 6 or 7-tube radio set from a single 6-volt storage or dry battery. Supplies 67, 90, 112 and 135 volts of B power at 18 milliamperes. Has relay on-off switch. Furnished with 4-ft. battery cable and battery clips. Size, 5 1/2" x 5" x 2 1/4". Shipping weight, 4 lbs.  
**80-203 NET \$11.27**

# CHARGERS · RECTIFIERS · BATTERIES

## DEPENDABLE MALLORY BATTERY CHARGERS



5535B

**Type 5535B.** Has front panel meter to indicate charging rate. Maximum rate, 6 amps., tapering to 4 amps. Automotive type fuse protects charger from serious overloads. Housing finished in black wrinkle. With input and output cables, and No. 652 dash receptacle. Size, 7 $\frac{1}{2}$ "x4 $\frac{1}{2}$ "x4 $\frac{1}{4}$ ". Shpg. wt., 8 lbs. **\$9.02 NET**

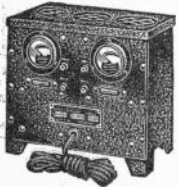
**Type 107.** Mallory charger with front panel meter to indicate charging rate. Begins at 10 amps. on discharged battery, tapering to 7 amps. as battery is charged. Automotive type fuse protects charger from improper battery connections. With input and output cables, and No. 652 dash receptacle. Size, 9 $\frac{1}{2}$ "x6 $\frac{1}{2}$ "x5 $\frac{1}{4}$ ". Shpg. wt., 11 lbs. **\$11.76 NET**

**52-635. Type 652.** Dash receptacle. For installation on car dash to eliminate necessity of handling battery for each charging operation. Shpg. wt., 2 lbs. **NET \$1.18**

### FOR 12 VOLT STORAGE BATTERIES

**Type 125.** Battery charger for 12-volt storage batteries in buses, trucks, aircraft, etc. Maximum charging rate, 5 amps., tapers to 3 amps. Panel meter indicates charging rate. Has type 652 dash receptacle (see above). Size, 9 $\frac{1}{2}$ "x6 $\frac{1}{2}$ "x5 $\frac{1}{4}$ ". Shpg. wt., 11 lbs. **\$17.64 NET**

## MALLORY AVIATION BATTERY CHARGERS

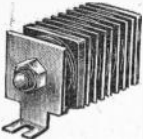


Dependable dry disc rectifier type units for charging 12 and 24 volt batteries. Operate from 115 volts, 50-60 cyc. AC.

**Type 5AC24D** Battery charger for 12 and 24 volt storage batteries. Two front panel meters indicate charging rate. Maximum charging rate for two 12 volt batteries in parallel, 7 $\frac{1}{2}$  amps.; tapers to 4 $\frac{1}{2}$  amps. Charges one 24 volt battery at 5 amps., tapering to 3 amps. Has 8 ft. AC input cable and plug. Size, 10x3 $\frac{1}{2}$ "x3". Wt., 20 lbs. **\$37.50 NET**

**Type 10AC24** Battery charger for 24-volt batteries. Meter on front panel indicates charging rate. Starts at 10 amps. on discharged battery, tapering to 6 amps. With two stud type DC connectors. 8 ft. AC input cable and plug. Size, 12x10x14". Shpg. wt., 85 lbs. **\$72.50 NET**

## MALLORY RECTIFIERS



Magnesium-copper-sulphide rectifiers for low voltage, medium and high current applications. Used in battery chargers, "A" supplies, etc.

**37-024.** Mallory technical bulletin for rectifier data and circuits. Available on request. Write to us for a free copy.

**56-175. Type 1B8R.** Input, 6.44 volts; output, 3.4 volts at 1.5 amps. dc. Replaces similar rectifier in GTC Porta-power and other battery eliminating devices. Used in 6-volt electric fence controllers. **\$1.57 Shpg. wt., 6 oz. NET**

**56-170. Type 1B12C1M.** Replaces 12C1, F12C1, 1F12C1B, 12CIF, F12C1K, 1B12CX1, X112, X12, U12, 3C Booster. **\$3.46 NET**

**56-171. Type F16C3M.** Replaces 16C3, F16CB3, 16CD3, X116, X16, ME16. **\$4.02 NET**

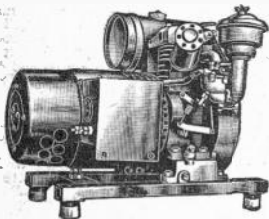
**56-173. Type F24H1P.** Replaces F24G1, W24A1. **\$3.33 NET**

**56-174. Type 1B4R.** 3.21 ACV operating load. Replaces powerpack rectifier for 2-volt farm radio. Wt., 6 oz. **\$1.14 NET**

**56-176. Type 1B12R** rectifier. 9.71 ACV operating load. For power packs or battery eliminators. Wt., 8 oz. **\$2.02 NET**

**56-177. Type 1S16CB7M.** For 5535B battery charger. Shpg. wt., 8 oz. **\$5.00 NET**

## KATOLIGHT GAS-ELECTRIC PLANTS



Electric-Power Plants for homes, trailers, boats, farms, etc. Deliver 115 volts 60 cycles AC. Briggs and Stratton single cylinder, 4 cycle, aircooled engines. Built-in governor maintains constant speed of 1800 RPM. Generator in rugged steel shell. All models have push-button and hand starters, ammeter, charge control resistor, and cables.

**Model 23HAB4** Katolight Gas-Electric Power Plant supplies 500 watts at 115 volts 60 cycles AC. Has 1 h.p. engine; requires one 6-volt battery for self-cranking. Fuel tank capacity, 1 gal.; oil, 1 pt. Runs 9 hours on 1 gal. of gasoline. Weighs 125 lbs. Size, 22"x29"x20". Less batteries. Shpg. wt., 70 lbs. **\$118.50 NET**

**Model 14HAB4.** Katolight 600 watt, 115 volt 60 cycle AC plant. Briggs and Stratton air-cooled 1.4 h.p. engine. Two 6-volt batteries required for self-cranking. Fuel tank capacity, 1 gal.; oil, 3 pts. Runs 6 hours on one gallon of gasoline. Weight, 172 lbs. Size, 19 $\frac{1}{2}$ "x27" x 17 $\frac{1}{2}$ ". Less batteries. Shpg. wt., 220 lbs. **\$157.50 NET**

**Model 26HAB4.** Katolight 1,000 watt, 115 volt 60 cycle AC plant. Briggs and Stratton air-cooled 2.4 h.p. engine. Two 6-volt batteries required for self-cranking. Fuel tank holds 5 qts.; oil, 3 pts. Runs 4 hours on one gallon of gasoline. Weighs 265 lbs. Size, 22 $\frac{1}{2}$ "x27 $\frac{1}{2}$ " x 19 $\frac{1}{2}$ ". Less batteries. Shpg. wt., 295 lbs. **\$223.50 NET**

## SELENIUM RECTIFIERS HEAVY DUTY RECTIFIER



Full wave rectifier. Input 13 volts AC. Delivers 4.5 amps at 8 volts DC. Rectifiers may be connected in parallel to provide additional current with 4.5 amp increase for every unit used. Temperature range—55° to +75° C. Shipping weight, 1 lb. **\$6-190. NET \$7.84**

## INSTRUMENT RECTIFIERS

Full-wave, bridge-type selenium rectifiers for use with meters, relays, instruments, etc. Operate from 10 volt input. Temperature range—70° to +70° C. Color-coded plastic-insulated leads. Average shpg. wt., 8 oz.

**68-060. Type DL.** 35 ma continuous output. Size, 1 $\frac{1}{2}$ "x $\frac{3}{4}$ "x $\frac{1}{2}$ ". **\$2.20 NET**

**68-061. Type DS.** 10 ma continuous output. Size, 1 $\frac{1}{2}$ "x $\frac{3}{4}$ "x $\frac{1}{2}$ ". **\$1.47 NET**



## GENUINE G. E. TUNGAR CHARGER

**Type 6RB26A1.** High-grade 5 amp. unit for dependable low cost charging of any 6-volt storage battery. Delivers full 5-ampere rate to keep battery fully charged; automatic tapering prevents overcharging. With tungar bulb, and instructions. For 115 Volts, 60 cycles AC. 13 lbs. **\$11.76 80-027. NET**



## KNIGHT STORAGE BATTERIES

Highest quality storage batteries for radio equipment, low-voltage lighting systems, etc. Only finest materials are used. Wing-nut clamps on terminal posts. 98-010 is ideal for farm lighting plants. Shipped by freight or express.




## 2 VOLT BATTERIES

Stock No.	Plates	A. H.	Wt.	NET
98-000	13	115	16	\$3.25
98-001	21	150	23	4.35

## 6 VOLT BATTERIES

98-005	13	95	40	\$5.95
98-010	21	150	58	10.90

**LEADER HYDROMETER**  Accurate, well-made hydrometer for testing storage batteries. Has beaded float. Bulb is of live, resilient rubber. Shpg. wt., 1 lb. **78-005. NET \$3.00**

## POWERSTAT VARIABLE TRANSFORMER

**Model 116.** Output, 0-135 volts continuously variable, at 7.5 amps over entire range. For 115 V., 50-60 cyc., single phase use. Size, 6 $\frac{1}{2}$ "x6 $\frac{1}{2}$ "x5 $\frac{1}{2}$ ". Wt. 10 lbs. **\$17.00 62-525. NET**

**Model 1126.** As above, but 15 amps output over entire voltage range. Size, 8x8x7 $\frac{1}{2}$ ". Shpg. wt., 22 lbs. **\$37.00 62-526. NET**

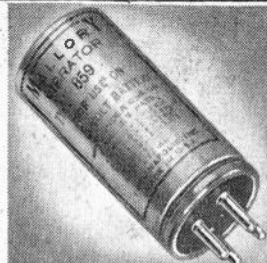
**Model 216.** Output, 0-270 volts continuously variable, at 3 amps. over entire range. Input, 230 V., 50-60 cyc., single phase. Size, 6 $\frac{1}{2}$ "x6 $\frac{1}{2}$ "x5 $\frac{1}{2}$ ". Shpg. wt., 10 lbs. **\$21.00 62-527. NET**



## FAMOUS MALLORY REPLACEMENT VIBRATORS

Mallory replacement vibrators have established an imposing record of outstanding performance based on finest workmanship and quality components. These precision units provide lowest cost-per-hour of actual use. Easy to install. Noted for trouble-free long life and positive starting. All installations are assured of freedom from lead breakage and broken reeds, or failures due to lead corrosion. The listing below shows complete line of Mallory 2, 4, 6, 12, and

32 V. vibrators. Included are vibrators to replace defective units in both automobile and household radios. Select your vibrator by manufacturer's type number. If Mallory type number is not known, refer to Encyclopedia or Vibrator Guide listed at right, or tube from ALLIED, giving make, model number, tube lineup of set, and type number of original vibrator. We keep in stock all vibrators shown in the listing below. Average shipping weight, 1 lb.



### USE YOUR MALLORY ENCYCLOPEDIA

See the new Mallory Encyclopedia for aid in selecting the proper vibrator for any set. The latest edition, listed on page 94, includes valuable replacement data. Covers thousands of models and gives original parts numbers. Get your copy of this valuable service guide now.

### FREE VIBRATOR GUIDE

Write for a FREE copy of the Mallory Vibrator Guide. Contains complete listing of vibrator replacements for thousands of auto radios by make and model No. with data on vibrators, auto-set installation, noise suppression, practical servicing, etc.



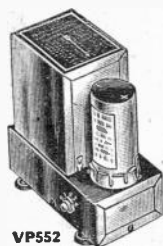
**37-012. Vibrator Guide.** Sent FREE on request.

Mallory No.	Stock No.	Volts	Size	NET EACH
4-4	56-000	6	1 1/2 x 2 3/4"	\$1.42
222	56-010	6	4 1/2 x 1 1/2 x 1 3/8"	4.50
245	56-020	6	1 1/2 x 3 1/2"	4.06
245A	56-021	6	1 1/2 x 3 1/2"	4.06
245C	56-022	6	1 1/2 x 3 1/2"	4.06
W245	56-023	4	1 1/2 x 3 1/2"	4.06
W245A	56-025	4	1 1/2 x 3 1/2"	4.06
246	56-026	6	1 1/2 x 3 1/2"	4.06
246A	56-027	6	1 1/2 x 3 1/2"	4.06
W246	56-028	4	1 1/2 x 3 1/2"	4.06
247	56-029	6	1 1/2 x 3 1/2"	4.06
F247	56-030	32	1 1/2 x 3 1/2"	4.50
248	56-031	6	1 1/2 x 3 1/2"	4.06
249	56-032	6	1 1/2 x 3 1/2"	4.06
253	56-034	6	2 x 4 1/2"	3.23
253T	56-036	6	2 x 4 1/2"	2.41
253Y	56-037	6	1 1/2 x 4 1/2"	2.41
264	56-038	6	1 1/2 x 2 1/2"	4.06
270B	56-039	6	2 x 4 1/2"	4.88
*271	56-041	6	2 x 4 1/2"	4.88
271HD	56-040	6	2 x 4 1/2"	4.88
273C	56-042	6	2 x 4 1/2"	4.50
273D	56-043	6	2 x 4 1/2"	4.50
P285Y	56-048	6	1 1/2 x 4 1/2"	4.06
286S	56-049	6	2 x 4 1/2"	4.50
G286S	56-050	12	2 x 4 1/2"	6.12
289Y	56-051	6	1 1/2 x 4 1/2"	4.06
292	56-053	6	1 1/2 x 1 1/2 x 2 3/8"	4.88
294	56-054	6	1 1/2 x 3 1/2"	4.45
F294	56-057	32	1 1/2 x 3 1/2"	4.45
296	56-058	6	1 1/2 x 3 1/2"	2.41
F297	56-060	32	1 1/2 x 3 1/2"	4.06

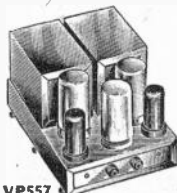
Mallory No.	Stock No.	Volts	Size	NET EACH
299	56-061	6	1 1/2 x 3 1/2"	\$3.23
F502P	56-067	32	1 1/2 x 3 1/2"	4.88
505P	56-070	6	1 1/2 x 3 1/2"	2.03
506P	56-071	6	1 1/2 x 3 1/2"	3.23
507P	56-072	6	1 1/2 x 3 1/2"	2.03
514	56-076	6	1 1/2 x 3 1/2"	4.06
716	56-078	6	1 1/2 x 3 1/2"	4.06
725C	56-079	6	1 1/2 x 3 1/2"	4.50
G725C	56-080	12	2 1/2 x 4 1/2"	5.32
728A	56-081	6	2 1/2 x 4 1/2"	4.06
742	56-082	6	1 1/2 x 3 1/2"	4.06
743	56-083	6	1 1/2 x 3 1/2"	4.06
744	56-084	6	1 1/2 x 3 1/2"	3.23
748	56-112	6	1 1/2 x 2 1/2"	4.06
G749C	56-115	12	1 1/2 x 3 1/2"	5.32
825C	56-085	6	1 1/2 x 3 1/2"	3.68
826C	56-110	6	1 1/2 x 3 1/2"	3.23
F826C	56-086	32	1 1/2 x 3 1/2"	4.06
G826C	56-111	12	1 1/2 x 3 1/2"	4.06
839	56-089	6	1 1/2 x 3 1/2"	2.82
852	56-055	6	1 1/2 x 3 1/2"	2.41
853	56-091	6	1 1/2 x 3 1/2"	2.41
854	56-092	6	1 1/2 x 3 1/2"	2.41
859	56-113	6	1 1/2 x 2 1/2"	2.41
860	56-093	6	1 1/2 x 3 1/2"	2.41
870	56-094	6	1 1/2 x 3 1/2"	2.41
901M	56-098	6	1 1/2 x 3 1/2"	2.03
952W	56-102	6	1 1/2 x 2 1/2"	4.06
953W	56-103	6	1 1/2 x 3 1/2"	4.06
954	56-104	6	1 1/2 x 3 1/2"	2.06
1100	56-114	6	1 1/2 x 2 1/2"	2.06
T4000	56-125	2	1 1/2 x 2 1/2"	3.38

\*56-150. Cup adapter for Type 271 vibrator. NET.....79c

### MALLORY TYPE VP VIBRAPACKS



Flexible, heavy-duty vibrator power supplies. Designed to provide low-cost high-voltage DC from low-voltage storage batteries. Dependable. High efficiency means less battery drain for economical power. Compact, light weight. Easy to install. Widely used for furnishing "B" power for portable radios, aircraft and marine transmitters and receivers, farm radios, police mobile two-way equipment, mobile PA systems, and

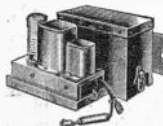


other electronic applications where commercial power is unavailable. Types VP-551, VP-552 and VP-556 are self-rectifying. All others are equipped with rectifier tubes. Av. shpg. wt., 10 lbs. \*High power type.

No.	Type	Input	Output Voltage	Max. Ma	EACH
80-100	VP-551	6.3	125-150-175-200	100	\$10.88
80-101	VP-552	6.3	225-250-275-300	100	13.23
80-102	VP-553	6.3	125-150-175-200	100	11.47
80-103	VP-554	6.3	225-250-275-300	100	13.82
80-104*	VP-555	6.3	300	200	27.05
80-106*	VP-557	6.3	400	150	27.05
80-105	VP-556	12.6	225-250-275-300	100	13.82
80-107	VP-F558	32	225-250-275-300	100	14.41

**80-108. VF-223 Filter.** For use with single-unit Vibrapacks. Suppresses hum with minimum voltage drop. Also used where voltage regulation is important, as in Class "B" audio amplifiers. \$4.70  
Wt., 5 lbs. NET.....

### MALLORY FILTERED TYPE VIBRAPACK

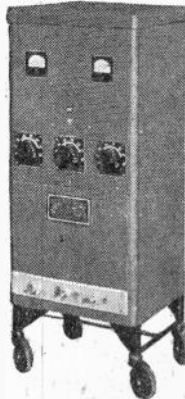


Supplies 250 volts of "B" power at 60 ma from a 6-volt storage battery source. Ideal for use as a "B" power unit for automotive, aviation, and marine service. Fully shock-proofed. Thoroughly filtered for both RF and audio so that hum and hash levels are extremely low. May be mounted in any position. Self-rectifying. Size, 7 1/2 x 3 1/2 x 5 1/2". Shpg. wt., 8 lbs. \$15.29  
**80-109. Type VP-540. NET.**

**37-025. Mallory Vibrapack Bulletin.** Contains instructions and technical data for all Mallory Vibrapacks. Also gives complete information on various applications. Sent FREE on request.

### MALLORY GENERAL-UTILITY POWER SUPPLIES

A heavy-duty mobile unit for use in laboratories or on assembly lines to furnish high-current DC power for building, testing and repairing electrical equipment of all types. Particularly suited for checking electrical systems and charging batteries of aircraft, buses and trucks—or wherever there is a demand for 10-16 or 20-32 volt DC. Has variable voltage output, good regulation (10-15%), and low ripple characteristic—3% at full load, lower at light loads. Circuits are arranged to deliver both 12 and 24 volts simultaneously. Quiet operation; no foundation required; DC contactor prevents discharge of battery in event of power failure when unit is used as a battery charger or in parallel with a battery for precision regulation. Designed to operate from 208 to 230 volt, 3-phase, 50-60 cycle AC power line.



### CONSERVATIVELY RATED

The entire power supply circuit is capable of withstanding a 25% continuous overload without excessive heat rise. The power transformer is of the three-phase, completely insulated, two-winding type. Rectifier elements are Mallory magnesium-copper sulphide type with adequate handling capacity. Manually operated AC starting switch equipped with thermal overload relays and manual reset button. A DPDT switch provides means for instant selection of the 12 or 24-volt output service. Three independent 8-position tap switches make it possible to adjust voltage output by switching power transformer taps. One dual-scale meter is provided to read DC volts across rectifier bridge. A single-scale ammeter provides readings on the DC output current being supplied. One dry electrolytic condenser and one radio frequency condenser are connected across each of the two rectifier bridges. Size, 18 1/2" x 16 1/2" x 46".

### AC INPUT, 208-230 V., 3 PHASE, 50-60 CYCLES

<b>80-110.</b> Type VA-1500. 10 to 16 volts at 100 amperes or 20 to 32 volts at 50 amperes. Shipping weight, 365 lbs.	<b>\$400.00</b>
<b>80-111.</b> Type VA-3000. 10 to 16 volts at 200 amperes or 20 to 32 volts at 100 amperes. Shipping weight, 375 lbs.	<b>\$500.00</b>
<b>80-112.</b> Type VA-4500. 10 to 16 volts at 300 amperes or 20 to 32 volts at 150 amperes. Shipping weight, 470 lbs.	<b>\$625.00</b>

**37-150. Bulletin.** Describes 460-volt units as well as stationary type power supplies. Sent FREE on request.

# PHOTO-ELECTRIC CELL EQUIPMENT

## EBY P.E. EQUIPMENT



### PHOTO CELL

Excellent for use in all types of photo-electric vacuum tube circuits. Light sensitive element is molded as an integral part, making a shock-proof and moisture resistant unit. Provided with a visor which shields element from stray light and concentrates direct rays. Fits all standard four-prong tube sockets.  $1\frac{1}{4}$ " dia.,  $\frac{1}{4}$ " high. Shpg. wt.,  $\frac{1}{2}$  lb.  
**77-030. NET. \$2.94**



### SENSITIVE RELAYS

Designed for direct, or for full or half-wave rectified current in plate circuits of most vacuum tubes. Ideal for photo cell systems, vacuum tube amplifier circuits, etc. Operate on as low as 1.25 milliwatts of power. Sterling silver contacts carry 2.5 Amps. at 115 V. AC or 1.5 Amps. at 115 V. DC. Shpg. wt., 1 lb.  
**77-050. 1000 ohm. NET. \$5.50**  
**77-051. 2500 ohm. NET. 5.64**  
**77-052. 5000 ohm. NET. 5.79**  
**77-053. 10000 ohm. NET. 6.14**  
 See page 45 for other plate circuit and heavy duty relays.

## ELECTRIC EYE IN THEORY AND PRACTICE



A good, practical handbook published by Eby. Provides data on photo-cell control theory and practice based on years of experience. Describes in detail the underlying principles of photo cells. Indispensable for the student which serves as a foundation for understanding the increasingly important field of electronic control by means of the photo cell. 28 pages.  
**37-930. NET. 48.**

## BRADLEY LUXTRON PHOTO-ELECTRIC CELL



These Photo-Electric Cells are finding wide application in the measurement and control of light and in the automatic control of many industrial processes. They convert light energy into electrical energy without auxiliary voltage sources and have extremely low variations in electrical characteristics with changes in temperature. They have a far greater sensitivity range than that of the human eye, being sensitive to ultra-violet and infra-red rays as well as all visible light rays. Fit standard 4 prong sockets. Size  $2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{4}$ ". Shpg. wt., 8 oz.  
**77-040. NET. \$7.25**

## STANDARD PHOTO CELL



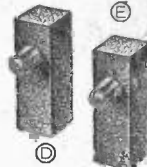
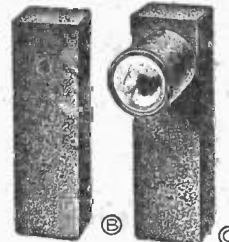
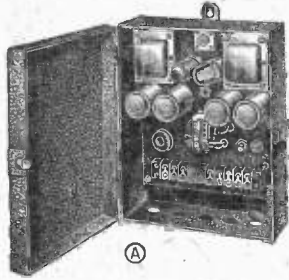
A highly sensitive gas-filled photo cell tube which can be used for almost all electric eye applications. Accurately designed and constructed to react instantly to proper value of light intensity or color. Fits any 4-prong socket. Measures  $3\frac{1}{4}$ " high over socket. Shpg. wt., 8 oz.  
**77-003. NET. \$2.20**

## PHOTO-CELL MIRROR



Worner "301." A scientifically ground mirror for reflecting light beam back and forth across a room. Adjustable for directing maximum concentration of light.  
 With mounting bracket.  $8 \times 4 \times 2\frac{1}{2}$ ". Shipping wt.,  $3\frac{1}{2}$  lbs.  
**77-001. NET. \$3.38**

## WORNER FOTOELECTRIC EQUIPMENT

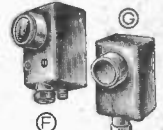


STANDARD UNITS

SMALL SPACE UNITS

## MASTER THREE-UNIT SYSTEMS

This equipment is carefully engineered to meet 95% of all photocell requirements. It consists of a universal amplifier and relay in one case, and offers a choice of three different combinations of light sources and photocell receivers to meet specific needs. The latter are available in standard size housings,  $6\frac{1}{2} \times 2 \times 1\frac{1}{4}$ " for ordinary installations; miniature housings,  $5\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{4}$ " to fit limited space as in devices for burglar protection; also in weatherproof housings,  $4\frac{1}{2} \times 2\frac{1}{4} \times 2\frac{3}{4}$ " for use under conditions of excessive moisture. Light source directs beam of light over area to be controlled. Interruption of the beam results in a current change which is amplified to actuate a relay. The relay then transmits the electrical current required to operate devices for counting and sorting; control of size, shape, viscosity, illumination, flow, etc. Amplifier unit may be remotely mounted up to 50 feet away from other two units with BX cable. Supplied with tubes and detailed instructions for easy installation.



WEATHERPROOF UNITS

## AMPLIFIER AND RELAY

**Model 63. Fig. A.** Worner Amplifier and Relay Unit. For use with any light source and receiver listed below. Construction includes, specially designed shielded transformers, oil-filled condensers, heavy-duty DPDT relay, sensitivity control, light adjustment control, and 10-contact terminal strip. Relay contacts are rated at 8 amps non-inductive, 2 amps inductive at 110 volts 60 cycle AC. Auxiliary relays may be connected to terminals on control panel for higher current applications. Housed in 14 gauge steel box with hinged front for easy access to terminals and switches. Size,  $9\frac{1}{2} \times 11\frac{1}{2} \times 4\frac{1}{2}$ ". For 115 volt 60 cycle AC operation. Complete with 5 ft. BX cable, and tubes. Shipping weight, 28 pounds.  
**77-085. WRITE FOR PRICE**

## PHOTOCELL RECEIVER UNITS

**77-089. Fig. B.** Type 21. Photocell receiver. Enclosed in sturdy 18 gauge steel case. Has  $\frac{1}{2}$ " conduit fittings for easy installation. Gray crackle finish. Size,  $6\frac{3}{4}$ " high, 2" wide,  $1\frac{1}{4}$ " deep. Shipping weight, 3 pounds.  
**77-091. Fig. D.** Type 22. Small-space photocell receiver unit for use where space is limited or concealment is required. Like Type 21 above, except smaller size. Steel case,  $5\frac{1}{4}$ " high,  $1\frac{1}{2}$ " wide,  $1\frac{1}{4}$ " deep. Shipping weight, 2 pounds.  
**77-090. Fig. F.** Type 23. Photocell receiver unit with weatherproof housing. Designed for use where excessive moisture is present. Aluminum-finished steel case,  $4\frac{1}{2}$ " high,  $2\frac{3}{4}$ " wide,  $2\frac{3}{4}$ " deep. Shipping weight, 2 pounds.

## LIGHT SOURCE UNITS

**77-086. Fig. C.** Type 31. Light source. Housed in 18 gauge steel case.  $\frac{1}{2}$ " conduit fittings. Gray crackle finish. Size,  $6\frac{3}{4}$ " high, 2" wide,  $1\frac{1}{4}$ " deep. Shipping weight, 3 lbs.  
**77-088. Fig. E.** Type 32. Small-space light source unit. Small size makes it convenient where space is limited. Enclosed in 18 gauge steel case, gray crackle finish.  $\frac{1}{2}$ " conduit fittings. Size,  $5\frac{1}{4}$ " high,  $1\frac{1}{2}$ " wide,  $1\frac{1}{4}$ " deep. Shipping weight, 2 pounds.  
**77-087. Fig. G.** Type 33. Light source unit with weatherproof housing. For use where humidity is especially high. Housed in aluminum-finished case.  $4\frac{1}{2}$ " high,  $2\frac{3}{4}$ " wide,  $2\frac{3}{4}$ " deep. Shipping weight, 2 pounds.

## ECONOMY TWO-UNIT SYSTEM

Here is a complete photocell system at extremely low cost. Consists of a light source in one case, and a photocell receiver with amplifier and relay combined in another to form two compact units. Relay contacts rated at 8 amps non-inductive, 2 amps inductive at 110 volts 60 cycles AC. Easy visible adjustment can be made through a jack connection with any 0-50 ma. meter. Provided with sensitivity control which adjusts amplifier for positive operation of relay at various light levels. Among the thousands of commercial uses for which the Economy system is practical are: counting, sorting, liquid level control, safety devices, etc. Economy system of commercial uses for which the Economy system is practical are: counting, sorting, liquid level control, safety devices, etc. For 115 volt 60 cycle AC operation. Equipped with on-off switch. Cases are 18 gauge steel; gray crackle finish. Photocell-amplifier unit measures  $7 \times 6 \times 4\frac{1}{4}$ ". Light source unit measures  $6 \times 4 \times 4\frac{1}{4}$ " with lens encasement 3" long. Complete with tubes and specially designed lamp for over two thousand hours service. Shpg. wt., 12 lbs.  
**77-092. Model 62. Two-Unit Set complete. WRITE FOR PRICES**



## WORNER "ANNOUNCER" SYSTEM

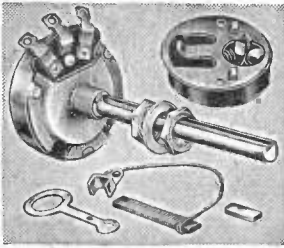
**Model 61.** Worner Announcer System incorporates light source unit and sensitive photo-cell unit housed in a single compact metal case. Supplied with a mirror for reflecting light back into photo-cell window. Mirror can be placed up to 15 feet from photocell unit. Interruption of light beam operates a relay which controls output of 6 volts AC to sound chime or any other warning device. Announces entrance of person through doors, passages, driveways, etc. Ideal for shops and stores to alert proprietor when customers approach. For 115 volt 60 cycle operation. Green, crackle-finished steel case measures  $7 \times 6 \times 2\frac{1}{2}$ ". Shipping weight, 5 pounds.  
**77 022. WRITE FOR PRICES**





MALLORY Famous VOLUME CONTROLS

STANDARD UNIVERSAL CONTROLS



Universal Volume Controls supplied with knob adapter, washer, nuts, and ground terminal. For use where special shafts and couplings are unnecessary. With detachable end cover plates, and 3/4" channelled shaft which can easily be cut to required size. Wire wound types are rated at 4 watts. All controls are listed LESS SWITCHES. Slotted Shaft for auto sets. Adjustable bias. Have external bias resistors 1 1/2" dia. x 3/8". 50z.

NOTE: Shipped less switch unless ordered. See listing of switches below. NET EACH..... 59c.

CARBON CONTROLS

Table of Carbon Controls with columns for No., Ohms, Type, Taper, No., Ohms, Type, Taper.

WIRE-WOUND CONTROLS

Table of Wire-Wound Controls with columns for No., Ohms, Type, Taper, No., Ohms, Type, Taper.

ATTACHABLE SWITCHES

Table of Attachable Switches with columns for Stock No., Kind, Type, NET.

EXPLANATION OF TAPERS

TAPER 1: Audio or ant. shunt. TAPER 2: For cathode circuits. TAPER 4: Standard linear. TAPER 4A: Modified linear. TAPER 7: Ant. and cathode bias. For volume control replacements in superhets use taper No. 1.

UNIVERSAL "TRP" TAPPED CONTROLS

Size: 1 1/2" diameter. \*No provision for switch; if switch is desired use TRP 624. †Has slotted shaft for auto sets. ‡Special taper for fader service. Others are Taper 1, Less switches. Use attachable switches above. Av. shpg. wt., 5 oz. EACH 88c.

Table of Universal "TRP" Tapped Controls with columns for No., Type, Ohms, Tap, No., Type, Ohms, Tap.

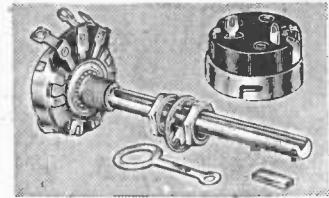
UNIVERSAL DUAL CONTROLS

Standard channelled shaft fits all type knobs. Diameter 1 1/2". \*Wire-wound; others are carbon. Switch is not included. Use attachable switches, above. Wt., 1 lb. EACH..... \$1.47

Table of Universal Dual Controls with columns for Stock Number, Mfr's. Type, Ohms Front, Ohms Rear, Stock Number, Mfr's. Type, Ohms Front, Ohms Rear.

"MR" MIDGET UNIVERSAL CONTROLS

Midget replacement volume controls for use where special shafts are unnecessary. MR has standard shaft. MK has knurled shaft. Controls include 2 hex nuts, washer, and ground terminal. Size: 1/2" deep, 1 1/4" dia., 3/8" shaft. Attachable midget switches listed below. Shpg. wt., 5 oz.



29-154. Specify Type Number and Value When Ordering. NET EACH..... 59c.

Table of MR Midget Universal Controls with columns for Type, Ohms, Taper, Type, Ohms, Taper, Type, Ohms, Taper.

SWITCHES FOR ALL MALLORY MIDGET CONTROLS

29-200. Type M26. Single Pole Single Throw. NET..... 29c. 29-201. Type M27. Double Pole Single Throw. NET..... 35c. 29-202. Type M28. Single Pole Double Throw. NET..... 35c. 29-203. Type M23/M24. 4PST, shorting. NET..... 35c.

"UM" PLUG-IN MIDGETS

Midget controls, size 1 1/4" dia. x 1/2" deep. Include SS-1 plug-in shaft. Attachable switches listed above. Two hex nuts, washer, and ground terminals included. \*Clutch-type—no provision for attachable switch. †Right-hand switch action. ‡Have external resistor. Shpg. wt., 6 oz.

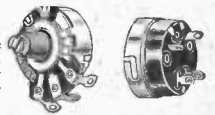


Table of UM Plug-in Midgets with columns for Type, Ohms, Taper, Type, Ohms, Taper, Type, Ohms, Taper.

29-500. Includes SS-1 shaft listed below. Specify values and type numbers when ordering. Other SS shafts listed below. Type M switches listed above. EACH..... 59c.

"TM" PLUG-IN TAPPED MIDGETS

Similar to midgets above, but tapped for tone control. Wt., 6 oz.

Table of TM Plug-in Tapped Midgets with columns for Type, Ohms, Tap, Type, Ohms, Tap, Type, Ohms, Tap.

\*Clutch type. No provision for switch.

29-550. Includes SS-1 shaft. Specify values and type numbers when ordering. EACH..... 88c.

"DTM" DOUBLE-TAPPED PLUG-IN MIDGETS

Table of DTM Double-tapped Plug-in Midgets with columns for Type, Ohms, Tap1, Tap2, Type, Ohms, Tap1, Tap2.

29-850. Includes SS-1 shaft. Specify values and type numbers when ordering. Wt., 6 oz. EACH..... 88c.

TYPE "SS" PLUG-IN SHAFTS

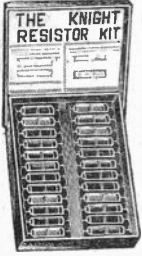
For UM, TM, or DTM controls above. Write for free catalog 37-000 which describes these shafts. Specify type wanted. 29-600. Type 1, 2, 4, 5, 6, 10, 12, 16, 18, 22, 23, 24, 25, 26, 27, 29, 30, 31, 32. EACH..... 15c. 29-625. Type 3, 11, 14, 15, 15, 21. EACH..... 21c. 29-640. Type 17, 19, 20, 28. EACH..... 29c.





# Finest Quality RESISTORS

## HANDY KNIGHT INSULATED CARBON RESISTOR KITS



### 24 Popular Values With Handy Carton

Highest quality Knight Insulated Carbon Resistors supplied with handy case and mounting strips. 24 commonly used values. Keep a kit on your workbench and another in your tool bag—you'll have the resistor you need when you want it. RMA color-coded. Color-Code Guide included. Increase your efficiency and profits by having available a substantial stock of these quality resistors.

### CONTAIN THE FOLLOWING VALUES:

220 1000 5600 22000 47000 270000  
390 2200 10000 27000 56000 470000  
470 3300 12000 33000 68000 1 Meg.  
680 3900 15000 39000 100000 2.5 Meg.

### 1 WATT KIT

Consists of one each of the above Knight Insulated Resistors in 1 watt size. Wt., 1 1/2 lbs. 2-700. NET..... **\$1.05**

### 1/2 WATT KIT

Consists of one each of the above Knight Insulated Resistors in 1/2 watt size. Wt., 1 lb. 2-701. NET..... **90c**

### 1/4 WATT KIT

Handy assortment consisting of one each of the above Knight Insulated Carbon Resistors in 1/4 watt size. Shpg. wt., 3/4 lb. 2-702. NET..... **70c**



### 12 POPULAR VALUES WITH HANDY HOLDER

An asset in shop or on service calls. Each kit is an assortment of the 12 most popular values of Knight quality insulated carbon resistors. RMA color-coded. To be mounted on sturdy strip supplied. RMA Color-Code chart with each kit. A valuable and handy pair of kits. Keep them on hand for all repairs.

### STANDARD VALUES

Ohms Ohms Ohms Ohms  
220 330 22,000 68,000  
390 3,900 27,000 100,000  
470 5,600 33,000 270,000  
680 10,000 39,000 470,000  
1,000 12,000 47,000 1 Meg.  
2,200 15,000 56,000 2.5 Meg.

### 1 WATT KITS

2-720. Consists of one each of the above from 220 to 15,000 ohms. Shpg. wt., 10 oz.

2-721. Consists of one each of the above from 22,000 ohms to 2.5 Meg., 10 oz. EITHER KIT..... **60c**

## WIRE-WOUND RESISTORS



Wire-wound on a bakelite strip with solder lugs at each end. Resistance wire is spaced-wound; cannot short between turns. Pressed on solder lugs. Power rating is 1/2 watt. Use two in series for center tapping. Use between cathode of rectifier tube and B+ to prevent condenser failure in AC-DC sets due to voltage surges. All values as listed below. Weight, 3 oz.

Ohms	Ohms	Ohms	Ohms	Ohms
1	6*	20*	50†	500
2	8	25	100*	600
3	10*	30	200*	700
4	15*	40*	400*	1000

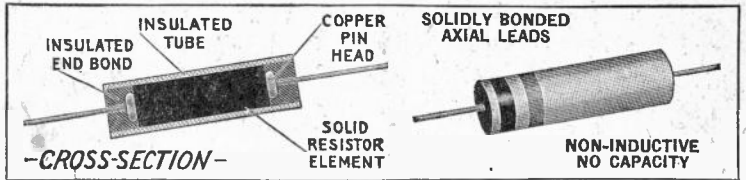
1-900. Specify Values Desired. 10 FOR 72c. EACH..... **8c**

### CENTER-TAPPED RESISTORS

Ideal for filament or hum balancing circuits. Wire-wound on flexible fiber strips. Supplied in values marked (\*) above. Shpg. wt., 3 oz.

1-920. Specify Values Desired. 10 FOR 80c. EACH..... **9c**

## KNIGHT INSULATED CARBON RESISTORS



### The Certified Resistors with the 2-Year Guarantee

Completely insulated, non-inductive resistors. Tolerance ±10%. Quiet in operation and moisture-proof. 1,000-volt insulation. Solidly bonded axial leads. Electrically and mechanically, Knight resistors are unconditionally guaranteed for 2 years. Shpg. wt., 3 oz.

### STANDARD STOCK RANGES—SPECIFY VALUES DESIRED

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
51	220	820	3,300	12,000	47,000	180,000	680,000	4 Meg.
68	270	1,000	3,900	15,000	56,000	220,000	820,000	5 Meg.
82	330	1,200	4,700	18,000	68,000	270,000	1 Meg.	6 Meg.
100	390	1,500	5,600	22,000	82,000	330,000	1.5 Meg.	7 Meg.
120	470	1,800	6,800	27,000	100,000	390,000	2 Meg.	8 Meg.
150	560	2,200	8,200	33,000	120,000	470,000	2.5 Meg.	9 Meg.
180	680	2,700	10,000	39,000	150,000	560,000	3 Meg.	10 Meg.
								20 Meg.

### 1-800. 1/2 WATT.

NET EACH..... **3c**

10 for..... **24c**  
100 for..... **\$2.16**

### 1-820. 1/2 WATT.

NET EACH..... **4c**

10 for..... **32c**  
100 for..... **\$2.88**

### 1-840. 1 WATT.

NET EACH..... **5c**

10 for..... **40c**  
100 for..... **\$3.60**

### 1-860. 2 WATT.

NET EACH..... **8c**

10 for..... **64c**  
25 for..... **\$1.44**

Above Quantity Prices Apply for Assortment of Any Values

## RMA COLOR-CODE GUIDE

A handy vest-pocket resistor guide. Has three rotary discs. Quickly indicates value of any resistor color-coded according to RMA standards. Shpg. wt., 2 oz. (Supplied at no charge with 30 resistors.) 2-770. NET..... **12c**



## IRC ULTRA HIGH-RANGE RESISTORS

Non-inductive. Tolerance, ±10% for values to 1000 megs; ±20% over 1000 megs. FH-1 unit has metallized element sealed in insulative. Size, 1 1/8" x 1 1/2". Type MG-3 is glass insulated. Size, 3 x 1 1/2".

### TYPE FH-1—500 V., 1-WATT

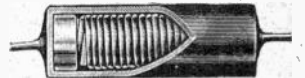
No.	Megs.	EACH	No.	Megs.	EACH
1-350	100	98c	1-353	1,000	\$1.47
1-351	250	98c	1-354	5,000	1.47
1-352	500	98c	1-355	10,000	1.96

### TYPE MG-3—1,000 V., 2-WATT

No.	Megs.	EACH	No.	Megs.	EACH
1-370	100	\$1.13	1-373	1,000	\$1.62
1-371	250	1.13	1-374	5,000	1.62
1-372	500	1.13	1-375	10,000	2.11
			1-376	20,000	2.11

## SPRAGUE KOOLOHM RESISTORS

Layer-wound with ceramic-insulated wire. Glazed ceramic shell with moisture-proof end seal. Insulated. No resistance drift. Accuracy, ±5%. Av. shpg. wt., 3 oz.



### STOCK RANGES—SPECIFY VALUES

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
.5	40**	200	600	1,250**	3,000	8,000**	14,000**	25,000	60,000**
10	50	250	700**	1,500	4,000*	9,000**	15,000	30,000**	70,000**
15**	75	300**	800**	1,750**	5,000	10,000	17,500**	40,000**	75,000
20**	100	400**	900**	2,000	6,000**	12,000*	20,000	50,000	100,000
30**	150	500	1,000	2,500	7,500	12,500**			

### TYPE 5KT—5 WATT—1 1/2 x 1 1/2"

No.	Ohms	EACH
1-640	5 to 5,000	26c
1-640	6,000 to 10,000	26c
1-640	12,500 to 15,000	29c
1-640	20,000	32c
1-640	25,000	41c
1-640	30,000	43c
1-640	40,000	50c

### TYPE 25KT—25 WATT—2 3/4 x 2 3/4"

No.	Ohms	EACH
2-100	5 to 5,000	\$0.53
2-100	7,500 to 15,000	.52
2-100	20,000 to 25,000	1.06
2-100	50,000	1.26
2-100	75,000	1.26
2-100	100,000	1.41

### TYPE 10KT—10 WATT—1 1/2 x 1 1/2"

No.	Ohms	EACH
1-660	5 to 10,000	26c
1-660	12,000, 14,000, 15,000	29c
1-660	17,500 to 20,000	35c
1-660	25,000	41c
1-660	30,000	44c
1-660	40,000	53c
1-660	50,000	59c
1-660	60,000	73c
1-660	70,000	82c

### TYPE 50KT—50 WATT—4 x 4"

No.	Ohms	EACH
2-120	5 to 5,000	\$0.76
2-120	7,500 to 25,000	.88
2-120	50,000	1.26
2-120	75,000	1.26
2-120	100,000	1.59

### "10NIT"—10 WATT—NON-INDUCTIVE

No.	Ohms	EACH
1-680	5 to 1,000	35c
1-680	1,250 to 2,000	41c
1-680	2,500 to 4,000	44c
1-680	5,000 to 6,000	47c
1-680	7,500 to 9,000	53c
1-680	10,000	68c

### TYPE 120KT—120 WATT—8 1/4 x 1 1/4"

No.	Ohms	EACH
2-140	5 to 5,000	\$2.70
2-140	7,500 to 10,000	2.84
2-140	15,000	3.04
2-140	20,000 to 25,000	3.04
2-140	50,000	3.73
2-140	75,000	3.73
2-140	100,000	4.17















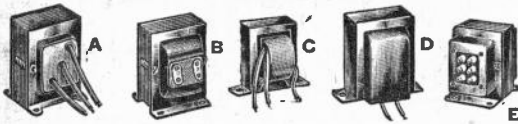






# THORDARSON • TRANSFORMERS • KNIGHT

## THORDARSON TRANSFORMERS AND CHOKES



An extremely popular line offering all necessary transformer units for dependable service in any type of radio or electronic equipment. Each transformer is supplied with mounting template. All primaries are for 115 volt, 50-60 cycles AC. Other voltages available on special order. \*Primary tapped at 105, 110, and 115 volts.

### FILAMENT TRANSFORMERS

Stock No.	Type	NET	Volts	Amps.	Insul.	Mtg.	Lbs.
63-401	T19F88	\$1.71	2.5 CT	5.25	1600	C	2
63-403	T19F90	2.53	2.5 CT	10.0	7500	A	3
63-407	T19F83	1.91	5 CT	5.0	1600	C	3
63-409	T19F85	3.38	5 CT	13.0	1600	A	4
63-414	T74F24*	7.20	5 CT	21.0	1600	B	6
63-415	T19F80	1.12	6.3 CT	1.0	1600	C	1
63-416	T19F81	1.26	6.3 CT	2.0	1600	C	2
63-417	T19F97	1.47	6.3 CT	3.0	1600	C	2
63-420	T19F96	1.47	6.3 CT	6.0	1600	A	3
63-421	T19F99	3.32	6.3 CT	10.0	1600	A	3
63-422	T19F93	3.92	7.5 CT	4.0	1600	A	3
63-423	T19F94	2.53	7.5 CT	8.0	1600	A	4
63-425	T19F96	2.97	10 CT	8.0	1600	A	4

### SWINGING CHOKES

Stock No.	Type	NET	Hys.	Ma.	Res.	Insul.	Mtg.	Lbs.
63-530	T19C39	\$ 2.76	5-20	150	215	3000	D	4
63-531	T19C35	3.38	5-20	200	130	3000	B	6
63-532	T19C36	5.94	5-20	300	80	5000	B	11
63-534	T19C38	12.70	5-20	500	75	5000	E	26

### SMOOTHING CHOKES

Stock No.	Type	NET	Hys.	Ma.	Res.	Insul.	Mtg.	Lbs.
63-550	T19C46	\$ 2.76	12	150	215	3000	D	4
63-551	T19C42	3.38	12	200	130	3000	B	6
63-552	T19C43	5.94	12	300	80	5000	B	11
63-553	T19C44	10.58	12	400	90	5000	E	20

Prices on Thordarson transformers are approximate and are subject to OPA approval of application pending at press time.

## KNIGHT QUALITY TRANSFORMERS AND CHOKES

### KNIGHT FILTER CHOKES\*



Open type construction, with leads. For use in any type receiver. Excellent for radio servicing, classroom, and experimental use. Cadmium-plated frame. Average shpg. wt., 3 lbs.

- 62-000. 25 hy. 25 ma. 850 ohms. 1 1/4 x 1 1/4 x 1 1/4". Mtg. centers, 2 1/8". NET.....\$7c
- 62-001. 25 hy. 60 ma. 200 ohms. 1 1/4 x 1 1/4 x 1 1/4". Mtg. centers, 2 1/8". NET.....\$1c
- 62-002. 20 hy. 80 ma. 250 ohms. 2x2 1/2 x 1 1/2". Mtg. ctrs., 2 1/8". NET.....\$9c
- 62-003. 15 hy. 100 ma. 160 ohms. 2 1/4 x 1 1/4 x 1 1/4". Mtg. ctrs., 3 1/8". NET.....\$1.22
- 62-005. 750 hy. 5 ma. 3500 ohms. 1 1/4 x 1 1/4 x 1 1/4". Mtg. centers, 2 1/8". Plate coupling choke for detector tube. NET.....\$1.24

### MIDGET AC-DC CHOKES

Ideal chokes for any 4 or 5 tube midget radio. Open type. Rating is 15 Henries at 40 ma. Horizontal mounting. 6" leads. Size: 1 1/4 x 1 1/4". Mtg. centers 2". Shpg. wt., 12 oz.

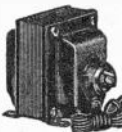
- 62-012. 300 ohms.
- 62-014. 400 ohms.
- 62-016. 500 ohms. NET EACH.....\$49c

### STEP DOWN TRANSFORMER



Step down transformer with 150 watt capacity. Has Amphenol tap-switch for switching to prevailing input-voltage. Has six primary taps: 90, 100, 120, 200, 230 and 250 volts. Secondary: 115 V. at 1.3 amperes, 50-60 cycles. Terminal outlet mounted in transformer shell. Mtg. ctrs., 3" x 3". With 6" AC cord and plug. Shpg. wt., 9 lbs. NET.....\$4.90

### SET-TESTING AUTOFORMER



Tests potential failure in sets by voltage overload method, which quickly shows defective parts. 7-tap switch supplies 90, 100, 110, 120, 130, 140 and 150 volts at 150 watts. Primary for 115 volts 50-60 cycles AC. Rectacle in transformer shell for AC plug of receiver. Mtg. ctrs., 2 1/4" x 2 1/4". Shpg. wt., 6 1/2 lbs. NET.....\$4.20

### FILAMENT TRANSFORMERS

62-030. 6.3 V., 1.5 amp. C.T. Pri., 110 V., 60 cy. For low-power transmitters and receivers. 6" color-coded leads. Size, 2 1/2 x 1 1/4 x 1 1/4". Mtg. ctrs., 2". Shpg. wt., 2 lbs. NET.....\$87c



62-031. Same as described above, except delivers 6.3 V. at 3 amperes. For use with all 6.3 V. tubes and 7 V. heaters with 6.3 V. nominal rating. Size, 2 1/2 x 2 1/4 x 2". Mtg. ctrs., 2 1/4". Shpg. wt., 2 lbs. NET.....\$1.18

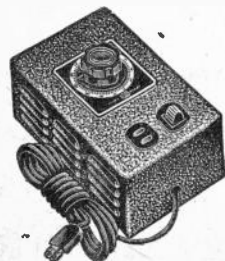
### ACME TRANSFORMERS

#### STEP-DOWN TYPE

Will reduce line voltage of 200-240 volts, 50-60 cycles, to 100-120 volts for operating radios, amplifiers, appliances, etc. Will safely handle any device consuming up to 200 watts. With 8 foot cord, plug, and output receptacle. Shpg. wt., 8 lbs. NET.....\$4.76



## U.T.C. VARITRAN VOLTAGE CONTROLS

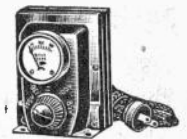


Variable voltage transformers. Deliver any required output from 0 to 130 volts (continuously variable). Roller-type contactor inrush smooth, positive, uninterrupted control over entire range. Operate from 115 V. 50-60 cyc. line. Deliver indicated current at any setting from 0-20 and 95-130 volts. Current tapers off between 20-95 volts, with lowest point about 50% of maximum at 65 volts. Output voltage is independent of load. Supplied in ventilated, enameled-finish steel case for mounting either on bench or behind panel. All have screw-type output terminals except V-1 (illustrated), and V-1-M, which have outlet receptacles. \*V-1-M also has built-in 0-150 V. AC meter.

No.	Type	Watts	Amps.	Size	Wt.	NET
62-200	V-0	230	2.0	4 1/2" x 6 1/2" x 4"	9	\$ 9.65
62-201	V-1	570	5.0	5" x 8 1/2" x 3 1/2"	12	13.62
62-202	V-1-M*	570	5.0	5" x 10 1/2" x 3 1/2"	13	22.74
62-203	V-2	570	5.0	5" x 7" x 3 1/2"	12	11.37
62-204	V-3	850	7.5	5" x 7" x 4 1/2"	15	17.05
62-205	V-4	1250	11.0	6 1/4" x 11" x 6 1/2"	34	24.99

### VARIABLE VOLTAGE ADJUSTER

Maintains proper operating voltage under varying line conditions. Allows step-up or step-down action. Primary tapped 85-100-115-130-145 volts; sec. 115 volts. With voltmeter. For 50-60 cycle, AC.



- 62-501. Capacity 150 Watts. Shpg. wt., 7 lbs. NET.....\$8.13
- 62-502. Capacity 350 Watts. Shpg. wt., 11 lbs. NET.....\$14.09
- 62-503. Capacity 500 Watts. Shpg. wt., 14 lbs. NET.....\$15.22













# RELAYS • DIALS • CRYSTALS

## NATIONAL DIALS



**TYPE R 1 1/8" DIAL**  
**71-070.** Neat etched silver dial as used on the HRO receivers. Marked 0-10 over 180° clockwise. 1 1/8" diam.; for 1/4" shaft. Shpg. wt., 8 oz. **51c**  
**NET**

**71-071.** HRP-P. Bar knob as used on "HRO" dial. 1 1/4 x 1/2". With pointer. **24c**  
**NET**



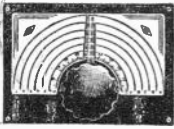
**TYPE O 3 1/2" DIAL**  
**71-082.** Attractive circular-grained Nickel Silver dial. 3 1/2" diam. Reads 0-100 over 180° C.C. Large fluted finger-grip knob for easy tuning. Fits 1/4" shafts. Wt., 10 oz. **99c**  
**NET**

**71-085.** ODD. Vernier drive unit for type "O" dial. **42c**  
**NET**



### HRK KNOB

Large, full-grip tuning knob for use with receivers, transmitters, etc. 2 1/4" in diameter with fluted edge. Easy to use; non-tiring. Fits 1/4" shafts. Wt., 4 oz. **57c**  
**71-086.** **NET**



### ACN DIAL

An excellent instrument dial for production test and laboratory requirements. Uses Velvet Vernier drive unit. With 5 blank removable scales. Holes in pointer for making calibration points. Size: 5 x 7 1/2". Shpg. wt., 1 lb. **3.00**  
**71-090.** **NET**

## GORDON HAND WHEELS



A complete line of tuning control wheels for uniform appearance on transmitting and other electronic equipment. Bakelite wheel with pointer; fits all 1/4" shafts. 1 1/2" wheel with 270° scale for gain controls. Wt., 8 oz.

- 74-500.** 3 1/4" Hand Wheel and Pointer with 180° scale. **NET \$1.23**
- 74-501.** 2 1/4" Hand Wheel and Pointer with 180° scale. **NET \$1.06**
- 74-502.** 1 3/4" Hand Wheel and Pointer with 180° scale. **NET \$1.09**
- 74-503.** 1 1/4" Hand Wheel and Pointer with 180° scale. **NET 76c**
- 74-510.** 1 1/4" Hand Wheel and Pointer with 270° scale. **NET 82c**

### HAND WHEELS ONLY

Same as above, with pointer, less etched scale.

- 74-520.** 3 1/4" Hand Wheel only. **NET .94c**
- 74-521.** 2 1/4" Hand Wheel only. **NET .82c**
- 74-522.** 1 3/4" Hand Wheel only. **NET .65c**
- 74-523.** 1 1/4" Hand Wheel only. **NET .53c**



### MILLEN DIAL

Heavy-gauge nickel silver dial. 0 to 100 Counter-clockwise. Large black bakelite hub insulates metal scale from shaft. Overall dia., 3 1/2". Finger-grip type knob. Wt., 1 lb. **72-046.** **NET \$1.00**

### MILLEN VOLUME CONTROL LOCKNUT



Locks panel-mounted control in pre-set position. Fits standard 3/8" bushing. 3/8" overall. **72-099.** **NET 36c**

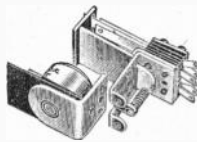
### MAGIC-EYE ASSEMBLY



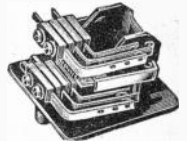
**Amphenol Type 58-MEA6.** A visual tuning indicator for any 6 prong tuning eye tube. Easily installed in any set with AVC not equipped with visual tuning device. Includes mounting brackets, instructions and 22' cable. Less tube. Wt., 2 lbs. **45-855.** **NET 81c**

## GUARDIAN UNIVERSAL AND STANDARD RELAYS

### "200" UNIVERSAL RELAYS



Two basic interchangeable parts, a coil assembly and a contact assembly, are combined in a versatile universal relay. Coil assembly consists of coil and field piece. Contact assembly consists of switch-blades, armature, return spring, and mounting bracket. The two contact assemblies, listed below, can be used with any one of 9 coils to make a required relay. Contact points rated at 8



amps., 115 V. 60 cyc. AC., non-inductive load. Size, 1 3/4 x 2 1/4 x 1 1/4". Wt., 2 lbs.  
**75-707.** Type 200-1. Relay Frame with SPDT Contact Assembly. **EACH \$1.76**  
**75-708.** Type 200-2. Relay Frame with DPDT Contact Assembly. **EACH \$1.18**

### AC COILS

**75-709.** 6 Volt  
**75-710.** 12 Volt  
**75-711.** 24 Volt  
**75-712.** 115 Volt

**NET \$1.18**  
**EACH**

### DC COILS

**75-713.** 6 Volt  
**75-714.** 12 Volt  
**75-715.** 24 Volt  
**75-716.** 32 Volt  
**75-717.** 110 Volt

**NET \$1.18**  
**EACH**

**75-730. CONTACT PARTS KIT.** Assortment of contact parts to make other switch combinations. May be used with SPDT or DPDT contact assemblies to make 3PST, 4PST, 4PDT combinations, etc. Either contact assembly takes any combination up to four pole double Complete with all necessary hardware. Shpg. wt. 1 1/2 lbs. **65c**  
**NET**

## GUARDIAN STANDARD RELAYS

**75-700.** Model B-100. DPDT type break-in relay. Sturdily constructed from finest materials. Heavy magnets and springs assure clean, fast break. Silver contacts. Low current drain. Compact. For 115 volts AC. Size, 2 1/4 x 2 1/2 x 2 1/4". Shpg. wt., 1 lb. **NET \$5.06**

**75-701.** Model K100. SPST type. Pure silver contacts break clean. Operates from 5 to 16 V. AC or 1 1/2 to 4 V. DC source. Size, 2 1/4 x 2 1/4 x 1 1/4". Shpg. wt., 1 lb. **NET \$3.70**

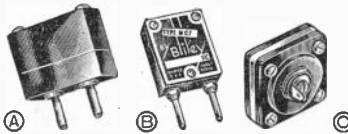
**75-702.** Model R100. For RF circuits up to 1 KW and 28 MC. Aisimag 196 insulated. SPST type. For 115 V. 60 cyc. **NET \$1.85**  
 Size, 2 1/4 x 1 x 2". 1 lb. **NET**

**75-704.** Model X-100. Adjustable type overload relay. Can be set to open primary circuit at any current load from 150 to 650 ma. Panel type push-button reset. Size, 4 1/2 x 2 1/2 x 3 1/2". Wt., 1 lb. **NET \$6.76**

**75-705.** Model A-100. Antenna relay insulated with Aisimag 196. Also for heavy duty primary keying or control. Heavy silver contacts handle up to 1 KW in RF circuits up to 28 MC. DPDT type. For 115 V. AC. Size, 2 1/4 x 2 1/4 x 2 1/4". Wt., 1 lb. **NET \$4.03**

**75-706.** Model A-100-C. Same rugged relay as A-100 above but SPDT type. Size 2 1/4 x 1 x 2 1/4". Shpg. wt., 1 lb. **NET \$2.23**

## BLILEY QUARTZ CRYSTALS



**Fig. A.** AX2. Crystal for Amateur use incorporating every important feature developed through production of countless crystals for military use. Acid-etched quartz plates housed in moisture resistant phenolic case; stainless steel electrodes, plates, springs and contact pins. Accuracy to ±.002%; temperature stability to ±.02%. Holder pin spacing, 1/2-inch. Specify frequency. ±5 KC. Wt., 12 oz.  
**99-160.** 3500-4000 KC } **NET \$2.80**  
**99-161.** 7000-8222 KC } **EACH**

**AMATEURS NOTE:** We maintain complete stocks of Bliley Amateur crystals. Upon release by Bliley of additional types of crystals for Amateur use, ALLIED will have them in stock to fill orders.

**Fig. B.** Type MC7. Gasket sealed holder with pressure air-gap crystal assembly. Any frequency, 2,000 kc to 11,000 kc. Frequency deviation with temperature, =.02% over range of 0°C. to 50°C. Ideal for multi-channel use. Accommodates quartz plate up to .7" x .9" for adequate activity in medium power circuits. Used in aircraft and marine equipment. Size, 2 1/4" x 1 1/4" x 1/2". Pin spacing, 3/4". Specify frequency. Shpg. wt., 8 oz.  
**99-165.** **NET \$8.50**

**Fig. C.** Type SMC-100. Dual frequency. A 100 and 1000 KC crystal for use in frequency standards. The 1000 KC frequency is correct within .05%. Drift is minus 10 and minus 23 cycles/m.c./°C for the 100 and 1000 KC frequencies. Size, 1 1/4 x 1 1/4 x 1/2". **99-175.** **NET \$7.75**

### BLILEY CRYSTAL HANDBOOK

A complete handbook on frequency control with quartz crystals. Thirty-five pages explaining theory, use, application and care of quartz crystals. Shpg. wt., 8 oz. **37-885.** **NET 10c**

## POTTER & BRUMFIELD RELAYS STANDARD TYPES

Ruggedly built power relays for handling any switching requirement where heavy current is present at low frequencies. Will safely break 20 amps. in non-inductive circuit. Oversize energizing coil provides powerful pull for fast, positive action. With heavy mounting bracket. For 110 V., 60 cycles. 2 1/2 x 2 1/2 x 2". Mtg. ctrs. 1 1/2". 2 lbs.



- 75-600.** Type PRA-1. SPST. Normally open. **NET \$2.50**
- 75-601.** Type PRA-2. SPST. Normally closed. **NET \$2.50**
- 75-602.** Type PRA-3. SPDT. **NET \$2.75**
- 75-603.** Type PRA-4. DPST. Normally open. **NET \$3.60**

### MIDGET TYPES

Efficient relays for use in small spaces. Contacts rated 8 A. AC and 4 A. DC. 2 1/4 x 1 1/4 x 1 1/4". Shpg. wt., 1 1/2 lbs. \*Contacts normally open.



No.	Model	Type	Coil Voltage	NET
75-610	MRA-1	SPDT	6 V. AC 2W.	\$1.55
75-611	MRA-2	SPST*	6 V. AC 2W.	1.50
75-612	MRA-4	DPDT	6 V. AC 2W.	2.20
75-613	MRA-5	DPST*	6 V. AC 2W.	2.15
75-614	MRA-1	SPDT	110 V. AC 2W.	1.55
75-615	MRA-2	SPST*	110 V. AC 2W.	1.50
75-616	MRA-4	DPDT	110 V. AC 2W.	2.20
75-617	MRA-5	DPST*	110 V. AC 2W.	2.15
75-618	MRD-1	SPDT	6 V. DC 1.5W.	1.55
75-619	MRD-2	SPST*	6 V. DC 1.5W.	1.50

### PLATE CIRCUIT RELAYS

An excellent relay for general plate circuit uses. The 3/4" silver contacts are rated at 6 amps. Size: 2 1/4 x 1 1/4 x 1 1/4". Mtg. ctrs., 2 3/8". Wt., 2 lbs.



- 75-625.** Type MRS-291. SPDT. 2500 ohm coil. **NET \$1.00**
- 75-626.** Type MRS-292. SPDT. 5000 ohm coil. **NET \$1.15**



# SWITCHES - ELECTRICAL ACCESSORIES

## ACRO SNAP SWITCHES



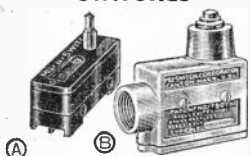
Frictionless, snap-action switch. Low actuation movement and pressure. One-piece blade, silver contacts, roller spring. Bakelite case. Size:  $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{4}$ ". Rated 2 amps. at 600 V., 3 amps. at 450 V., 5 amps. at 250 V., 10 amps. at 115 V. All are S.P.S.T. except 35-002 and 35-007. 4 oz.

**FIG. A. PIN-PLUNGER TYPE**  
**35-000.** Normally open. 93c  
**35-001.** Normally closed. 93c  
**35-002.** SPDT. .... \$1.12

**FIG. B. LEAF ACTUATOR**  
**35-005.** Normally open \$1.02  
**35-006.** Normally closed 1.02  
**35-007.** SPDT. .... 1.21

**TYPE "O" OPEN TYPE**  
 Compact, sensitive, SPDT, open-  
 blade switch. Roller spring construction. Rated 15 amps, 125 V. AC; 7 1/2 amps, 250 V. AC. Measures:  $3 \times 1\frac{1}{2} \times \frac{1}{2}$ ". Supplied without case. Shpg. wt., 4 oz. \$2.06  
**34-720. NET..... \$2.06**

## PRECISION TYPE MU SWITCHES



Assures precision control of electrical circuits. Dependable. Underwriters' Laboratories listed. Rated 15 amps., 125 V. AC; 7.5 amps., 250 V. AC. All switches are SPDT type. Size:  $1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{2}$ ". Mtg. ctrs., 1". Rated 17 amp., 125 V. DC—8.5 amp., 250 V. DC; low actuation movement.  $2\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{4}$ ". Shpg. wt., 4 oz.

**(A) STANDARD MU SWITCHES**

No.	Operation	NET
34-700	Pin Plunger	\$1.08
34-701	Leaf Spring	1.18
34-702	Leaf & Roller	1.32
34-703	Spring Plunger	1.24
34-710	SPST closed	3.43
34-711	SPST open	3.43

**(B) METAL CLAD TYPE**  
 Rated: 17 amp. 125 V. AC; 8.5 amp. 250 V. AC. Size:  $3 \times 1 \times \frac{1}{4}$ ".

34-704	Sleeve Plunger	\$3.43
34-705	Sleeve Plunger*	3.82

\* Has molded Neoprene dust cap.

## HANDY GENERAL-PURPOSE SWITCHES



**SWITCH LOCK**  
 Single-pole, single-throw switch lock. Key withdraws only in locked position when contact is broken.  $\frac{3}{4}$ " body dia., 27 thread. Has two keys. Wt., 8 oz.  
**34-185. NET..... 54c**

## G.E. MERCURY SWITCH

Low-cost mercury switch. Mounts horizontally.  $15^\circ$  movement for positive operation. Provides quick, silent contact. Has low resistance. 7" leads.  $1\frac{1}{2} \times 2$ ". Shpg. wt., 4 oz.  
**34-196. 10 FOR \$2.00. 29c EACH..... 29c**



**FLUSH-MOUNT PUSH-BUTTON**  
 Pearl button held in  $\frac{1}{2}$ -in. hole by spring clasps. Wt., 4 oz.  
**55-196. 10 FOR \$2.61 29c EACH..... 29c**

## BAKELITE KNIFE

Midgettype, for panel or base mount.

**34-800.** SPST  $\frac{1}{2} \times 1\frac{1}{4}$ ". 19c  
**34-801.** SPDT  $\frac{1}{2} \times 1\frac{1}{4}$ ". 32c  
**34-802.** DPST  $1 \times 1\frac{1}{4}$ ". 35c  
**34-803.** DPDT  $1 \times 1\frac{1}{4}$ ". 40c

## PORCELAIN KNIFE

Compact midget knife switches. Glazed porcelain base; screw terminals. 8 oz.

**34-820.** SPST  $1 \times 2\frac{1}{4}$ ". 13c  
**34-821.** SPDT  $1 \times 2\frac{1}{4}$ ". 16c  
**34-822.** DPST  $1\frac{1}{2} \times 2\frac{1}{4}$ ". 23c  
**34-823.** DPDT  $1\frac{1}{2} \times 2\frac{1}{4}$ ". 27c  
**34-824.** SPDT  $2\frac{1}{4} \times 2\frac{1}{4}$ ". 53c

## H & H ROTARY

3 amp. at 125 V. Bakelite base.  $\frac{3}{8}$ " stem. 6" wire leads. Wt. 6 oz.  
**34-147..... 15c**  
**10 FOR..... \$1.35**

## CRL SPECIAL-PURPOSE SWITCHES



**C R L LEVER-ACTION**  
 Low-capacity silver-plated contact points.  $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{8}$ ". \*Spring return from either side. †Positive action from one side and spring return from the other. Others, positive action in all positions. Use plates below. 4 oz.

Poles	Posi-tions	Shorting Types	Non-Shorting
2	3	1452	1454
2	3*	1453	1455
2	2†	1466	1467
4	2	1459	1458
4	2*	1456	1457

**34-020.** Specify Type. NET EACH..... 59c

**PLATES FOR ABOVE**  
**34-050.** P1755 1 Switch... 12c  
**34-051.** P1756 2 Switches, 18c  
**34-052.** P1757 3 Switches, 21c  
**34-053.** P1758 4 Switches, 26c

**1450 SWITCH**  
 Universal. May be used as SPST, SPDT, DPST, DPDT, 3PST, 3PDT, 4PST, 4PDT. Non-short-ing type. Aluminum shaft.  $2\frac{1}{4}$ " overall. With bar knob. Wt., 8 oz.  
**34-085. EACH..... 44c**

## TRANSMITTER TYPE

Insulantite insulated. With bar-knob. All have four positions,  $90^\circ$  apart, and adjustable stop. One pole to a section. Rated 100 watts at 1000 volts DC. Wt., 1 lb.

Stock No.	Type	Poles	NET
34-000	2542	1	\$1.00
34-001	2543	2	1.59
34-002	2544	3	2.29
34-003	2545	4	2.88
34-004	2546	5	3.59

**34-010.** K-162 Dial Plate. Marked 1 to 4, for above.... 12c

## STONE SWITCHES



For use as tone control, phono-radi, sensitivity control, selector switch, FA channel selector, etc. Rated 1 amp. at 6 volts. Aluminum shaft,  $\frac{1}{4}$ " dia.,  $2\frac{1}{2}$ " long, for push-on or set-screw knobs. 6 oz.

**34-080.** Type 1460. SPDT or SPST. Size,  $1 \times 1\frac{1}{4}$ ". NET..... 29c

**34-081.** Type 1461. SP. 3 pos. Size,  $1\frac{1}{4} \times 1\frac{1}{2}$ ". 29c

**34-082.** Type 1462. DPDT. Size,  $1 \times 1\frac{1}{2}$ ". 35c

## HOPAX CIRCUIT-BREAKER PLUG

Positive protection against equipment damage and fire hazards wherever electrical appliances, motors, etc., are used. Consists of a standard line-plug with built-in circuit-breaker which opens circuit when overload threatens. Resets at the flip of a lever. Underwriters' Lab. listed. Use plug that matches amp. rating of device to be protected. Shipping wt., 1 lb.

**34-730.** 3 amp., or  $\frac{1}{4}$  hp. motor.  
**34-731.** 4 amp., or  $\frac{1}{4}$  hp. motor.  
**34-732.** 5 amp., or  $\frac{1}{4}$  hp. motor.  
**34-733.** 6 amp., or  $\frac{1}{4}$  hp. motor.  
 EACH..... 73c

## ROTARY SWITCHES

Non-shorting type. Mounts in  $\frac{3}{8}$ " hole on panels up to  $\frac{1}{4}$ " thick. Dia.,  $1\frac{1}{2}$ ". With black bakelite pointer knob. Av. shipping wt., 8 oz.

No.	Points	EACH.....
34-170	3	34c
34-171	5	EACH..... 34c
34-172	7	
34-173	9	49c
34-174	12	EACH..... 49c

## ROTARY SWITCHES

S.P.S.T. canopy switch.  $\frac{1}{4}$ " shank, brown bakelite knob, 6" leads. 1 amp. at 250 V. 6 oz.  
**34-163. 10 FOR \$2.61. 29c EACH..... 29c**

## WIRT SLIDE SWITCHES

Cadmium-plated steelhousing. Bakelite buttons. Size,  $\frac{3}{4} \times 1\frac{1}{4}$ ". Mtg. centers.  $1\frac{1}{8}$ " .75 amp., 125 V. AC-DC. Wt., 2 oz.

No.	Type	E.A.
34-490	SW-723. SPST.	15c
34-491	SW-724. SPDT.	18c
34-492	SW-725. DPST.	21c
34-493	SW-726. DPDT.	26c

## FEDERAL ANTI-CAPACITY SWITCHES

Positive action switches. Springs and contacts are of silver-plated phosphor bronze.  $2\frac{1}{2} \times 5 \times \frac{3}{4}$ ". Cam-roller type. Wt., 8 oz.

**34-480.** 1427 DPST... \$1.65  
**34-481.** 1425 DPDT... 1.65  
**34-482.** 1424 4PDT... 1.90

## VALUES IN HANDY ELECTRICAL ACCESSORIES



**FIG. A. FRICTION TAPE.** Ideal for electrical work, radio service work, and many other home and shop applications. Black.  $\frac{1}{4}$ " wide.  
**52-610.** 2 Oz. Roll..... 9c  
**52-611.** 4 Oz. Roll..... 15c  
**52-612.** 8 Oz. Roll..... 21c

**52-620. RADIO-WIDTH FRICTION TAPE.**  $\frac{3}{8}$ " narrow width, made especially for radio work. Eliminates waste and tearing. 65 foot roll. 1 lb. .... 21c

**52-600. FIG. B. PLUG CAP.** Brown bakelite plug with finger-grip. Wires don't pull out. Parallel blade type. Wt., 4 oz.  
**10 FOR 45c. EACH..... 5c**

**52-601. FIG. C. CUBE TAP.** Three connections from one outlet. Sturdy construction of brown bakelite. 4 oz. NET... 8c

**52-602. FIG. D. RUBBER HANDLE CAP.** Unbreakable soft-rubber plug. Sturdy brass blades. Shipping wt., 4 oz.  
**10 FOR 54c. EACH..... 6c**

**52-605. FIG. E. AC TRI-EXTENSION TAP.** Bakelite 3-way extension tap. Steel-plated back. With 6 ft. rubber cord and plug cap. Underwriters' Lab. listed. Wt., 1 lb. NET... 31c

**47-820. FIG. F. BELDEN EXTENSION CORD.** 10-foot unbreakable, brown, all-rubber extension cord, with rubber cap and double outlet tap. Famous Belden quality, built for long life. Underwriters' lab. listed. Wt., 1 lb. NET... 51c

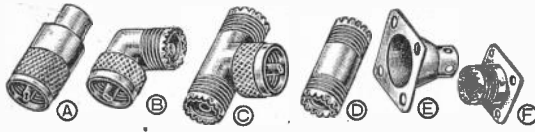
**FIG. G. EAGLE INDICATING FUSES.** Show "OK" in window when fuse is good; "OK" vanishes when fuse blows. Five of one type per box. Shpg. wt. 1 lb.  
**52-170.** 10 Amp. | 52-173. 25 Amp.  
**52-171.** 15 Amp. | 52-174. 30 Amp.  
**52-172.** 20 Amp. |  
**BOX OF 5..... 20c**

**34-550. FIG. H. FEED-THRU TOGGLE SWITCH.** Underwriters' listed. Bakelite construction. 6 amp., 125 V. 12 oz. NET... 19c



# SOCKETS • PLUGS • CONNECTORS

## AMPHENOL CABLES AND CONNECTORS



### LOW LOSS 83 SERIES CONNECTORS APPROVED FOR UHF USE

**ARMY-NAVY** Low-loss connectors and adapters for use with RG type cables. For both small and large size coax cables below. Rugged construction. Die cast zinc and machined brass shells, heavily silver plated. Low-loss, inserts are of mica-filled bakelite and polystyrene.

No.	Type	Fig.	Description	NET
40-350	1SP	A	2-Piece plug. For RG8U, and 11U.....	\$0.95
40-352	1R	F	Receptacle. Chassis or box type.....	1.05
40-353	1AP	B	Angle plug adapter.....	1.43
40-354	1T	C	"T" Connector. For 1R receptacle.....	1.43
40-355	1F	D	Junction. Use with 1SP plug.....	1.78
40-356	1H	E	Feed thru connector.....	1.57
40-357	1F	D	Hood. For RG cable, 3 to 12U, 22U, 63U.....	.41
40-351	765	E	Hood. For RG cables, 58U, 59U.....	.41
40-358	1AC	.....	Cap. For 1R connectors.....	.50
40-359	168	.....	Adapter. For RG 59U. Use with 1SP.....	.39
40-360	185	.....	Adapter. For RG 58U. Use with 1SP.....	.39

### AMPHENOL RG HIGH-FREQUENCY CABLES

Amphenol Coax RG Cables have low-loss flexible polyethylene inner jacket, covered by copper shield, with tough vinyl or polyethylene outer jacket overall. Impervious to acids, alkalis, oils and gasoline. RG-54/AU is excellent low-loss mike cable. For use with connectors above. Other cables and connectors available. Write for free copy of Catalog 37-006 which lists all Amphenol products.

No.	Mfrs. Type	Nominal Imped.	Nominal Mmfd/ft	Wire Size	Jacket Material	Cable O. D.	Per Ft.
49-480	RG-8/U	52.0	29	7-21	Black Vinyl	.405	19c
49-470	RG-11/U	75.0	20	7-26	Black Vinyl	.405	20c
49-480	RG-54A/U	58.0	27	7-0132	Polyethylene	.250	13c
49-485	RG-58/U	53.5	28	20	Black Vinyl	.195	11c
49-490	RG-59/U	73.0	22	22CW	Black Vinyl	.242	11c

### AMPHENOL PLUGS AND RECEPTACLES

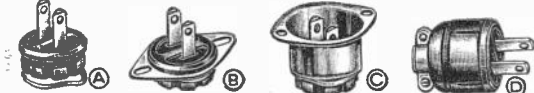


Fig. A mounts with retainer ring. Fig. B has mtg. plate. Fig. C is recessed mtg., dia. 1 3/4", mtg. centers 1 3/4". Fig. D is shielded type with clamp. All Fig. D males fit all females listed. Of molded bakelite.

No.	Mfrs. Type	Fig.	Description	EACH
40-675	61M	A	Male Standard	16c
40-676	61MP	A	Male Polarized	
40-677	61F	A	Female*	
40-680	61M1	B	Male Standard	18c
40-681	61MP1	B	Male Polarized	
40-682	61F1	B	Female*	
40-685	61M10	C	Male Standard	26c
40-686	61MP10	C	Male Polarized	
40-687	61F10	C	Female*	
40-690	61M11	D	Male Standard	
40-691	61MP11	D	Male Polarized	
40-692	61F11	D	Female*	

\*Takes polarized or standard plug.

### MINIATURE CABLE CONNECTORS



For shielded or unshielded cables up to six conductors. Bakelite elements are housed in cadmium plated brass shells. Last fig. in type No. denotes contacts. 1 3/4" long and 1/8" O.D.

FEMALE (Fig. A)			MALE (Fig. B)		
No.	Type	NET	No.	Type	NET
40-320	91-MPF3	19c	40-325	91-MPM3	19c
40-321	91-MPF4	21c	40-326	91-MPM4	21c
40-322	91-MPF5	24c	40-327	91-MPM5	24c
40-323	91-MPF6	24c	40-328	91-MPM6	24c

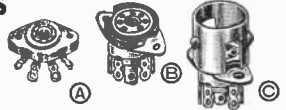
### FEMALE SHIELDED CHASSIS UNITS (FIG. C)

40-330	91-PCG3F	19c	40-332	91-PCG5F	22c
40-331	91-PCG4F	19c	40-333	91-PCG6F	22c

**Amphenol "AN" ARMY-NAVY APPROVED Connectors**  
Amphenol "AN" connectors are available in a variety of combinations and materials for innumerable electronic and industrial uses. Amphenol catalog No. 37-006 mailed on request.

## JOHNSON SOCKETS

**Miniature Series.** For use with 9000 series and miniature tubes, 1S4, 1S5, 1T4, 1R5, etc. Contacts are of phosphor bronze, heavily silver-plated. Average shipping weight, 1/2 lb.



- 40-290. (A) Type 267. Miniature socket. All steatite type. Has center shield for grounding to chassis. NET..... 29c
- 73-185. (B) 277A. Has steatite base with metal mtg. ring..... 44c
- 73-186. (C) 277B. Has steatite base with metal ring extending upward to form a shield. NET..... 47c
- 73-187. Type 278B. 1 1/4" shield cap to fit No. 277B socket..... 12c

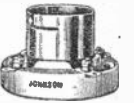
### SPECIAL JOHNSON SOCKETS



- 73-188. (A) Type 237. Ceramic wafer socket. Takes HK257, RCA 813 tubes. 2 3/8" dia., 7-prong base. Wt., 1/2 lb. NET..... 73c
- 73-189. (A) Type 247. Takes RCA 829 and 832 tubes. Aluminum tube shield. 2 3/8" dia., 7-prong base. Wt., 1/2 lb. NET..... \$1.03
- 73-997. (A) Type 244. 4-contact transmitting tube socket. Takes tubes: 800B, BR6, SC22, 5C22, GL146, GL152, GL159, GL169, KU628, KU634, KU676, KU610, WL677, KI664, KI666, KU618, KU627, KU636, WL672, KX642, WL670B, WL579B, RO585, RH507, SR50, SR53, SK50, SK63, 174 dia. Wt., 1/2 lb. NET..... 82c
- 73-998. (A) Type 275. 5 contacts. Takes 4-125A, 4-250A, RK28, RK48, 125M, 803. Wt., 1/2 lb. NET..... \$1.03
- 73-193. (B) Type 212. Takes RCA 833 or 833A tubes. Supplied with 4 3/4" plate leads. Wt., 1/2 lb. NET..... \$8.82
- 73-192. (C) Type 215. For 150-watt tubes such as 204A, 849, etc. Wt., 1/2 lb. NET..... \$2.06
- 73-194. (D) Type 234. For Western Elec. 5D21, 705A, 715A, 715B, Raytheon RKR72 and RK72. NET..... \$1.76

### JOHNSON BAYONET SOCKETS

- 73-195. Type 209. Has spacing between contacts and shell for high voltages. Takes 4-prong UX base tubes. Shpg. wt., 1 lb. NET..... 56c
- 73-190. Type 210. Similar to Type 209 with less spacing between contacts and shell. NET..... 50c
- 73-191. Type 211. Jumbo 4-prong 50-watt socket. Double filament contacts for heavy current. Wt., 2 lbs. NET..... 73c
- 73-196. 216B. Jumbo 5-prong for 803, RK28 tubes, etc. Porcelain base. Beryllium copper contacts. Wt., 2 lbs. NET..... \$1.76



### TUBE CLAMP

Holds tube in place. Grounds shell of metal and GT type tubes. Wt., 3 oz.



42-023. NET..... 6c

### UHF ACORN

Steatite. For 6F4 high-freq. triode. Phosphor bronze 5-contact type. 4 oz.



40-292..... 48c

### HOWARD B. JONES PLUGS AND SOCKETS

CCT Type. Bakelite units with metal caps and cable-clamps. 8 oz. \*Plugs and sockets are round. All others are rectangular.

Contacts	Plugs			Sockets		
	No.	Type	NET	No.	Type	NET
2*	40-802	P-302	22c	40-852	S-302	22c
3	40-803	P-303	23c	40-853	S-303	24c
4	40-804	P-304	25c	40-854	S-304	26c
6	40-806	P-306	29c	40-856	S-306	31c
8	40-808	P-308	32c	40-858	S-308	35c
10	40-810	P-310	36c	40-860	S-310	40c
12	40-812	P-312	40c	40-862	S-312	45c

### SERIES 101 PLUG AND SOCKET

Low-loss types for high-frequency uses. Prongs, 1/8" dia. Nickel-plated brass. For coax or shielded single wire conductor.



40-825. P101. 1 1/4" Male. NET..... 26c

40-835. S101. Female. NET..... 24c

### JONES TERMINAL STRIPS

"140" has 3/8" wide x 1 3/8" high bakelite base; 3/8" term. centers. "141" is 1 1/4" x 1/2". Has 7/8" ctrs. Wt., 6 oz.



#### "140" SERIES

No.	Type	Term	NET	No.	Type	Term	NET
41-800	2-140	2	11c	41-836	2-141	2	14c
41-801	3-140	3	16c	41-836	3-141	3	20c
41-803	4-140	4	20c	41-837	4-141	4	25c
41-802	6-140	6	27c	41-838	6-141	6	35c
41-804	8-140	8	35c	41-839	8-141	8	46c
41-805	10-140	10	44c	41-840	10-141	10	56c
41-806	12-140	12	52c	41-841	12-141	12	67c

#### "141" SERIES

# PLUGS · JACKS · POSTS · CLIPS

## CORD TIPS



**FIG. A.** Standard cord tip; fits regular tip jack.  
**41-200, 10 For. .... 12c**  
**100 For. .... \$1.08**

**FIG. A.** Like above but heavy duty for test leads.  
**41-210, EACH. .... 8c**  
**10 For. .... 72c**

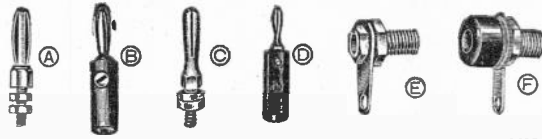
**FIG. B.** Hole in sleeve permits soldering to wire.  
**41-220, 10 For. .... 17c**  
**100 For. .... \$1.55**

**FIG. C.** "Imp" midget 1/4" solderless screw-on connector.  
**41-230, EACH. .... 6c**  
**10 For. .... 54c**

**FIG. D.** Standard size 1 1/4" solderless screw-on connector.  
**41-240, EACH. .... 6c**  
**10 For. .... 54c**

**FIG. E.** Insulated. Length, 1 1/4"  
**41-250, Red. .... 10c**  
**41-255, Black, Each. .... 90c**  
**10 For. .... 90c**

## BANANA PLUGS AND JACKS



### FIG. A. ALL-METAL PLUGS

Non-insulated heavy metal plugs. With non-collapsible nickel silver contact spring secured over full length central pin. For coils and transmitting or laboratory equipment. Length, 1 1/2". 6-32 thread, 1/2" long, with nuts, 4 oz.  
**41-400, EACH. .... 7c**  
**10 For. .... 62c**  
**100 For. .... \$5.60**

### FIG. B. INSULATED PLUGS

Non-collapsible special alloy springs, as above but with phenolic resin handles. Solderless screw connection holds wire in place. Can be used with all types of test equipment. Handy for lab. use. 1 1/4" long. Shpg. wt., 4 oz.  
**41-405, Red. .... 11c**  
**41-410, Black, EACH. .... 11c**  
**10 For. .... \$9.40**  
**100 For. .... \$9.90**

### FIG. C. NON-INSULATED SPLIT TYPE PLUGS

Match standard all-metal banana jacks, 41-470. Positive action contact prongs assure dependable connections. Hexagonal body shape facilitates tightening nuts. With two hex nuts, overall length, 1 1/4". Shpg. wt., 4 oz.  
**41-420, EACH. .... 7c**  
**10 For. .... 62c**  
**100 For. .... \$5.60**

### FIG. E. ALL-METAL JACKS

Standard metal jack for banana plugs. Match plugs at left. Accurately milled with precision reamed hole to maintain tight and smooth action of plug. Nickel plated solid brass, 3/4" long. Supplied with mounting nut and solder lug. Shpg. wt., 2 oz.  
**41-470, EACH. .... 4c**  
**10 For. .... 36c**  
**100 For. .... \$3.25**

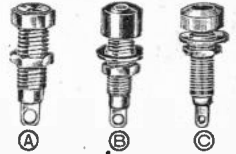
### FIG. F. INSULATED JACKS

Insulated banana jacks. Take 41-405 and 41-410 plugs. With fibre insulating washers, and hex nut. Solder lug terminals. Mount in 1/4" holes on panels up to 3/8" thick. Length 3/8". Shpg. wt., 3 oz.  
**41-475, Red. .... 8c**  
**41-480, Black, EACH. .... 8c**  
**10 For. .... 75c**  
**100 For. .... \$7.25**

### FIG. D. INSULATED SPLIT TYPE PLUGS

Split type plugs as at left, but with phenolic insulated handles. Match insulated jacks above. Solderless. Set screw secures wire to plug. Made of nickel plated brass. Length 1 1/4". Shpg. wt., 4 oz.  
**41-425, Red. .... 12c**  
**41-430, Black, EACH. .... 12c**  
**10 For. .... \$1.08**  
**100 For. .... 9.72**

## QUALITY TIP JACKS



**FIG. A. METAL TIP JACK**  
 Affords positive contact with metal tip, 1/4" mtg. hole; takes 3/8" panel. Shpg. wt. 4 oz.  
**41-100, EACH. .... 6c**  
**10 For. .... 54c**

**FIG. B. INSULATED TYPE**  
 Fully insulates circuits on metal cabinets, panels, etc. Fiber washer and mtg nut are included. Shpg. wt., 4 oz.  
**41-110, Red. .... 9c**  
**41-115, Black, EACH. .... 9c**  
**10 For. .... 80c**

**FIG. C. COMBINATION JACK**  
 Banana or cord tip combination insulated jack for standard tip or banana type plug. Fiber washer and nut are included. 1/4" mtg. hole; takes 3/8" panel. Overall length, 1 1/4". Shpg. wt., 4 oz.  
**41-130, Red. .... 11c**  
**41-135, Black, EACH. .... 11c**  
**10 For. .... 99c**

## ALLIGATOR CLIPS

Banana plug fits back of clip. Insulated handles. \*Screw connections. †For phone tips, 1 oz  
**2 1/4" INSULATED CLIP\***

**41-280, Red. .... 8c**  
**41-285, Black, EACH. .... 8c**  
**10 For. .... 74c**  
**2 1/2" INSULATED CLIP†**  
**41-300, Red. .... 26c**  
**41-305, Black, EACH. .... 26c**  
**10 For. .... \$2.34**

## HEAVY-DUTY STRIPS

Bakelite strips with securely fastened screw terminals.

No.	Term.	EACH	10 For.
41-875	2	10c	\$0.89
41-880	3	13c	1.15
41-885	4	18c	1.60
41-890	5	21c	1.85
41-895	6	29c	2.60
41-897	7	35c	3.15
41-898	8	43c	3.85

## TERMINAL STRIPS



3/16" thick bakelite strips.

No.	Term.	EACH	10 For.
41-810	2	12c	\$1.08
41-815	3	15c	1.35
41-820	4	18c	1.62
41-825	5	21c	1.90
41-830	6	21c	1.90

## MOUNTING STRIPS



No.	Lugs	EACH	10 For.
41-850	2	3c	16c
41-855	3	3c	19c
41-860	4	4c	33c
41-865	5	4c	33c
41-870	6	4c	33c

## TERMINALS—TIES—CONNECTORS



Fig.	Description	Stock No.	Per Dz.
A	Single-hole mount. For 1/4" Dia. Fuses...	41-755	14c
B	Terminal lugs. Make your own strips...	41-765	45c
C	Pressure type terminal-board contact...	41-770	45c
D	Black insulated pin-plug. Fits "C"...	41-775	42c
E	Single tie-lug strip...	41-780	11c

41-785, Fig. F. Universal storage battery binding post. EACH. . 19c

## MUELLER GENERAL PURPOSE CLIPS

Standard package: 10 clips—5 marked + and 5 plain. \*Solid copper. †Solder type. All others have set-screw.

### STEEL MESH TEETH TEST CLIPS FIG. A

No.	Type	Amp.	Size	Opens	EA.	10 For.
45-000	45	5	1 1/2"	3/4"	4c	32c
45-005	*45C	10	1 1/2"	3/4"	6c	54c
45-010	48B	10	2"	1/2"	4c	34c
45-015	182	10	2"	1/2"	10c	88c
45-015	27	20	2 1/2"	3/4"	8c	68c

†Needle between jaws pierces insulated wires.

### BATTERY CLIPS FIG. A

No.	Type	Size	Description	EA.	10 For.
45-020	24A	25	2 1/4" 1"	8c	\$0.68
45-030	21A	50	4" 1 1/4"	13c	1.17
45-040	11A	100	6" 1 1/4"	45c	4.12

### ALLIGATOR CLIPS FIG. B

No.	Type	Size	Description	EA.	10 For.
45-200	160	2"	Fit banana plugs	4c	34c
45-065	60S	2"	Fit banana plugs	5c	39c
45-080	*60CS	2"	Fit banana plugs	8c	69c

### SOLID COPPER TEST CLIPS FIG. A

No.	Type	Amp.	Size	Opens	EA.	10 For.
45-025	24	50	2 1/4" 1"	15c	\$1.37	
45-035	21	100	4 1/2" 1 1/4"	38c	3.43	
45-045	11	200	6" 1 1/4"	75c	6.86	
45-050	33	300	7 3/4" 2"	1.35	12.25	

### INSULATED ALLIGATOR CLIPS FIG. C

No.	Type	Size	Description	EA.	10 For.
45-070	60HS	2 1/4"	Ins'd red handle	9c	\$0.83
45-075	60HS	3 1/4"	Ins'd blk. handle	9c	.83
45-090	*60CHS	2 1/4"	Ins'd red handle	13c	1.17
45-095	*60CHS	2 1/4"	Ins'd blk. handle	13c	1.17

### CROCODILE CLIPS FIG. D

45-060, 85 | 2 1/2" | Fit banana plugs | 5c | 44c

### NON-FERROUS R.F. TEST CLIP FIG. E

45-055, \*88 | 1 1/4" | Ideal for coils | 10c | 88c

## RUBBER INSULATORS FOR MUELLER CLIPS FIG. F

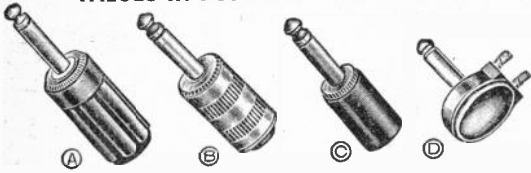
Packed 10 to a box, 5 red and 5 black to indicate polarity. \*Made of plastic.

Type	For Clip	No.	EACH	Box of 10	Type	For Clip	No.	EACH	Box of 10
47	45, 45C	45-100	8c	\$0.55	29	27	45-120	12c	\$0.82
49	48B, 82	45-105	9c	1.59	13	11, 11A	45-125	52c	3.53
26	24, 24A	45-110	1c	1.27	87	88	45-130	6c	3.36
23	21, 21A	45-115	33c	2.25	*93P	88	45-135	5c	.34



# PLUGS • JACKS • CONNECTORS

## VALUES IN POPULAR PHONE PLUGS



**FIG. A. STANDARD PLUGS**  
Takes two sets of cord tips. Has bakelite barrel 3/4"x1 1/2". 5 oz.  
41-600. Black. **32c**  
41-601. Red. EACH. **32c**  
10 for. **\$2.85**

**FIG. A. METAL SHELL TYPE**  
Bright metal shell. Barrel size: 1 1/8" dia., 2" long. 6 oz.  
41-605. NET. **53c**  
10 for. **\$4.75**

**FIG. B. STUBBY TYPE PLUG**  
Shielded type plug for use in limited space. Polished metal shell. Barrel size, 1 1/8" dia. x 1".  
41-610. NET. **42c**  
10 for. **\$3.75**

**FIG. D. CARTER FLAT PLUG**  
Bakelite, 1 1/8" dia., 1/4" thick. Stay-cord anchor. 4 oz.  
41-620. NET. **43c**

**FIG. C. MIDGET TYPE PLUGS**  
A standard shank radio plug with short barrel, for limited space. Fits standard radio jack. Compact, 2 1/4" overall. Bakelite barrel length 1". Dia. 3/8". 6 oz.  
41-625. Black. **32c**  
41-626. Red. EACH. **32c**  
10 for. **\$2.85**

**FIG. C. METAL SHELL TYPE**  
As above but has metal shell. Barrel 1 1/8"x3/8". Wt. 6 oz.  
41-630. NET. **38c**  
10 for. **\$3.40**

### EXTRA PLUG BARRELS

41-650. Black for 41-600. **13c**  
41-651. Red for 41-601. **13c**  
41-652. Metal for 41-605. **35c**  
41-656. Metal for 41-610. **26c**  
41-653. Black for 41-625. **13c**  
41-654. Red for 41-626. **13c**  
41-655. Metal for 41-630. **24c**

## MIDGET SHORT JACK



41-030. Open circuit type jack. Bakelite insulation. Requires 3/8" mtg. hole. Takes standard phone plug. Shpg. wt., 4 oz.

41-031. Single Closed Circuit type. Wt., 4 oz.  
NET EACH. **17c**

## PL-55 ARMY-NAVY PLUG



Approved by Signal Corps and Navy. Fits JK-24, JK-34, JK-38-A, JK-38, and all standard jacks. 2-cond.

41-020. NET. **39c**  
41-021. PL-68 plug. Fits Army-Navy JK33A; Mallory SCA-2B, XP2B. 3-cond. NET. **39c**

## FAHNESTOCK SPRING BINDING POSTS



Positive contact clips. ALLIED can supply all other Fahnestock clips. Specify types required. \*Made of bronze. All other types brass.

Stock No.	Mfr's Type	Fig.	Length	Width	Max. Wire	Mtg. Hole	10 For	1000 For
41-700	2	A	1"	3/8"	#10	#8	8c	\$6.40
41-702	3	A	1 1/4"	3/8"	#10	#8	8c	6.40
41-705	10	A	3/4"	3/8"	#14	#6	7c	5.60
41-703	5	B	1 1/4"	3/8"	#10	#8	14c	9.40
41-707*	15	B	3/4"	3/8"	#16	#4	6c	4.00
41-704	9	C	3/4"	3/8"	#10	#8	25c	21.00
41-710	9C	C	1 1/2"	3/8"	#10	#8	25c	21.00
41-715	18	C	1 1/2"	3/8"	#14	#6	24c	18.00
41-708*	36	E	1 1/2"	3/8"	#10	lug	38c	28.50
41-709*	45	D	1 1/2"	3/8"	#12	#6	13c	8.50

## BINDING POSTS



**FIG. A. EBY JUNIOR.** Non-removable screw top. 1/2" dia. 6-32x1/4" screw, with nut. 4 oz.  
41-350. NET. **14c**

**FIG. B. BAKELITE.** Solidly constructed of molded bakelite. 3/8" diameter head. Length overall 1 1/4". Wt., 4 oz.  
41-369. Black. **11c**  
41-370. Red. EACH. **11c**

**FIG. C. COMBINATION.** For banana plug or phone tip. 4 oz.  
41-330. Red. **14c**  
41-335. Black. EACH. **14c**  
12 for. **\$1.51**

**FIG. D. DOUBLE POST.** 1 1/4" metal spring-action binding post. 3/8" dia. Wt., 4 oz.  
41-372. NET. **10c**

## BAKELITE TWIN JACKS

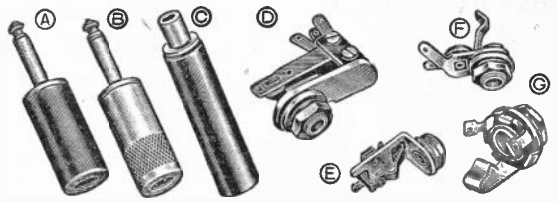


**FIG. A. TWIN TIP JACKS.** Mounted on laminated bakelite strip 2" long by 3/8" wide. Available as indicated below. Wt., 2 oz.  
41-375. Speaker. **8c**  
41-379. Plain. EACH. **8c**  
12 for. **\$0.86c**

**FIG. B. MOLDED TWIN JACKS.** For use with speakers, head phones, phono-pickups, etc. Have single mounting screw molded into bakelite. Size, 1 1/2 x 1 1/4". For cord tips. Wt., 2 oz.  
41-390. Speaker. **35c**  
41-392. Plain. EACH. **35c**

**SHORTING TYPE JACKS**  
Mallory 432. Circuit closes when tips are pulled. Like Fig. B. Single hole mount. 2 oz.  
41-396. NET. **24c**  
10 for. **\$2.16**

## MALLORY PHONE PLUGS AND JACKS



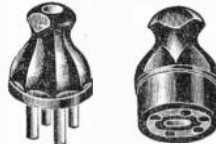
41-641. Fig. A. Mallory type 75. Two-Way Phone Plug with tie-cord anchor and insulated bakelite shell. NET. **38c**  
41-640. Fig. B. Mallory type 75N. Two-Way Phone Plug with tie-cord anchor and shielded bright-finish metal shell. NET. **58c**  
41-937. Fig. B. Mallory type 75A. Two-Way Phone Plug. Same as type 75N above, except has built-in cable clamp. NET. **96c**  
41-941. Fig. A. Mallory type 76. Three-Way Microphone Plug with insulated bakelite shell. NET. **58c**  
41-942. Fig. B. Mallory type 76A. 3-way mike plug with shielded nickel shell and built-in cable clamp. NET. **\$1.16**  
41-938. FIG. C. Mallory type 100. 2-way extension jack for No. 75, 75N, and 75A plugs. Fiber shell. NET. **77c**  
41-939. FIG. C. Mallory type 100N. 2-way extension jack for No. 75N plug. Shielded nickel shell. NET. **96c**  
41-940. FIG. C. Mallory type 100A. 2-way extension jack for No. 75A plug. Shielded nickel shell. NET. **\$1.34**  
41-050. Fig. F. Mallory type A-1 Infant Open Circuit Jack. 3/4" wide, 1 1/4" long. 3/8" bushing, 3/8" long. NET. **19c**  
41-051. Fig. E. Mallory type A-2 Midget Shorting Type Closed Circuit Jack. 3/8" wide, 1 1/8" back of panel. NET. **28c**  
41-053. Fig. E. Mallory type A2A Midget Transfer Type Closed Circuit Jack. NET. **31c**  
41-056. Fig. E. Mallory type A3A. Closed circuit. Make-break midget jack. NET. **48c**  
41-642. Fig. G. Mallory type SC-1A Open Circuit Jack. Equivalent of Signal Corps Jack No. JK-34A. NET. **31c**  
41-643. Fig. G. Mallory type SCA-2B Open Circuit Three Circuit Jack. Equivalent of Signal Corps Jack No. JK-33A. NET. **38c**  
41-054. Fig. D. Mallory type 701 Open Circuit Junior Jack. 1 1/8" long, and 1 1/8" back of panel. NET. **31c**  
41-058. Fig. D. Mallory type 702-B. 3-Circuit Junior Jack. For type 76 and 76A Microphone Plugs, above. NET. **44c**  
41-052. Fig. D. Mallory type 703 Junior Jack. Open circuit with additional "make" circuit. NET. **51c**  
41-057. (Similar to Fig. F). Mallory type G-J-1. Grounding jack. Primarily used in airplanes. NET. **25c**

## MALLORY LONG FRAME JACKS

Sturdy steel frames and heavy phosphor-bronze springs with wiping contact action insure positive, dependable performance and long life.

34-440. No. 1. Open Circuit Jack. NET. **38c**  
34-441. No. 2. Shorting Type Jack. NET. **48c**  
34-442. No. 2A. Closed Circuit Jack. NET. **48c**  
41-055. No. 5. Closed Circuit; Make-Break Jack. NET. **71c**  
41-644. No. XP2B. For Signal Corps type PL-46, PL-68 and PL-168 plugs. NET. **58c**

## 2-PIECE CONNECTORS



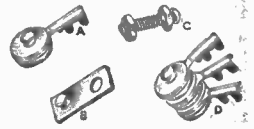
Of durable molded bakelite.

MALE		FEMALE	
No.	Prongs	No.	Prongs
40-604	4	40-624	4
40-605	5	40-625	5
40-606	6	40-626	6
40-608	8	40-628	8
NET EACH.	<b>21c</b>	NET EACH.	<b>27c</b>

## RUBBER-HANDLE PLUGS

PLUGS		SOCKETS	
No.	Prongs	No.	Prongs
40-554	4	40-564	4
40-555	5	40-565	5
EACH.	<b>19c</b>	EACH.	<b>38c</b>
40-556. 6 prong		40-566. 6 prong.	
NET.	<b>22c</b>	NET.	<b>44c</b>

## NU-WAY SNAPS, STUDS, AND LUGS



Make-break contacts for temporary connections. For experimental work in laboratories, service shops, etc. Nickel-plated brass. Snaps may be cascaded for multiple connections; figure D.

44-450. Fig. A. Snaps. For lugs or studs listed below. Provided with crimp-on solder lug.  
PER 1000. **\$40.00**  
PER 100. **\$5.75**

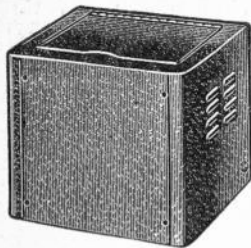
44-451. Fig. B. Lugs. For flush mounting. With hole for 6-32 screw. Take snaps above.  
PER 1000. **\$20.00**  
PER 100. **\$2.85**

44-452. Fig. C. Studs. For panel or chassis mount. 6-32 x 1/2"; 1/4" nut. Take snaps above.  
PER 1000. **\$20.00**  
PER 100. **\$2.85**





# METAL CABINETS AND CHASSIS



## ICA HINGED COVER STEEL CABINETS

A professional looking streamlined cabinet. Has rounded corners with an adequate number of ventilating louvers on sides allowing free circulation of air for dissipation of heat. Front panel is removable and fits flush with the front of the cabinet. Finished in a beautiful grey ripple enamel. The deluxe cabinet is like the standard model except for bright trim. Especially designed chassis bases to fit the ICA hinged cover and sloping panel cabinets are listed at right.

### DELUXE MODELS

Stock No.	Mfr. Type	NET	Size H. W. D.	Panel Size	Shpg. Wt.	Use Chassis
86-300	3860	\$4.26	8x10x8"	8x8"	9 lbs.	86-330
86-301	3861	4.41	8x12x8"	8x10"	10 lbs.	86-331
86-302	3862	5.29	8x14x8"	8x12"	11 lbs.	86-334
86-303	3863	8.23	12x20x12"	12x18"	17 lbs.	86-333

### STANDARD MODELS

Stock No.	Mfr. Type	NET	Size H. W. D.	Panel Size	Shpg. Wt.	Use Chassis
86-310	3925	\$2.65	8x10x8"	8x8"	9 lbs.	86-330
86-311	3926	3.09	8x12x8"	8x10"	10 lbs.	86-331
86-312	3927	3.83	8x14x8"	8x12"	11 lbs.	86-334
86-313	3928	7.06	12x20x12"	12x18"	17 lbs.	86-333

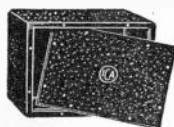
## HINGED-TOP METAL CABINETS



Sturdy metal cabinets with piano-hinged lids. Front panel, back panel or bottom can be removed without disturbing the rest of the cabinet. Supplied in knock-down form. Easy to assemble. Finished in black ripple enamel.

Stock No.	Size H.W. D.	Shpg. Wt.	NET
86-340	6x9x5"	6 lbs.	\$2.35
86-341	7x10x8"	7 lbs.	2.96
86-343	7x12x8"	9 lbs.	3.84
86-342	8x12x11"	10 1/2 lbs.	4.87
86-345	7x14x8"	11 lbs.	3.59
86-346	9x18x12"	15 lbs.	5.06

## UTILITY METAL CABINETS



Cabinets for various uses such as housing input stages, mixers, transceivers, amplifiers, monitors, etc. Front and back, removable and fastened to cabinet with self-tapping machine screws. Cabinets

are shipped knocked-down. Easily assembled. Have durable black ripple enamel finish.

Stock No.	Size	Shpg. Wt.	NET
86-350	4x2x4"	1 lb.	\$0.76
86-351	5x4x3"	2 lbs.	.82
86-352	6x6x6"	3 lbs.	1.07
86-353	6x9x8"	4 lbs.	1.85
86-354	7x10x8"	5 lbs.	1.97
86-355	8x12x11"	6 lbs.	2.26
86-356	10x18x8"	8 lbs.	2.44

## CHROME HANDLES



A handy and useful addition to any cabinet, amplifier chassis, transmitter etc. Chrome finished (with red stripes added to 5/2" size). With mtg. screws.  
**42-520. 1/4" Handle. NET EACH..... 41c**  
**42-521. 5/2" Handle. NET EACH..... 41c**

## GRILL CLOTH



Black and gold interwoven.

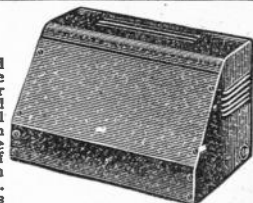
43-601.	12x12".	NET 18c
43-602.	12x24".	NET 29c
43-603.	24x24".	NET 55c
43-123.	Walsco Non-Penetrating Cloth & Fabric Cement.	Per Tub, NET..... 25c

## BULB COLORING KIT



Kit contains one bottle each: Green, Blue, Red, Amber; with bottle of solvent. Bulbs may be colored by dipping in bottle.  
**43-110. NET..... 29c**

## ICA DELUXE SLOPING PANEL CABINETS



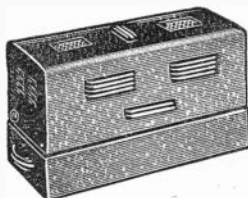
Top corners are rounded and trimmed with red striped metal. Sides have "Air-Gate" type ventilators and rear has louvered ventilators. Eye-level controls can be installed. Front panel is removable so that the chassis can be attached to it and used as one unit. Cabinets and chassis are of heavy-gauge metal. In four sizes with chassis to fit each unit as listed below. Finished in grey ripple. Chassis is black ripple finished, folded over on bottom and drilled to take bottom plates. Cabinets supplied less chassis bases but with bottom plates.

Stock No.	Mfr. Type	NET	Size H. W. D.	Shpg. Wt.	Use Chassis
86-320	3990	\$3.88	8x8x8"	9 lbs.	86-330
86-321	3991	4.26	8x10x8"	10 lbs.	86-331
86-322	3992	5.14	8x14x8"	11 lbs.	86-332
86-323	3993	7.50	12x18x8"	17 lbs.	86-333

## CHASSIS BASES FOR ICA CABINETS

No.	Type	Size	For Cabinets	Wt.	NET
86-330	4024	2x7x7"	86-300, 86-310, 86-320	2 lbs.	\$0.76
86-331	4004	2x7x9"	86-301, 86-311, 86-321	2 lbs.	.82
86-332	4007	2x7x13"	86-322	3 lbs.	.97
86-333	4008	3x10x17"	86-303, 86-313, 86-323	5 lbs.	1.21
86-334	4005	2x7x11"	86-302, 86-312	3 lbs.	.88

## AMPLIFIER FOUNDATION UNITS



Clever design and styling are incorporated in these amplifier foundation units available at amazingly low prices. Top covers have rounded corners, and fronts are embellished with polished "Air Gate" ventilators. Additional ventilation is obtained through the raised screen openings on top as well as louvers on sides and back. The unit is easy to assemble. All parts are perfectly fitted. Case height, 9 inches. Chassis height, 3 inches. Finished in attractive Marine grey ripple enamel with red striped moldings and handles.

Stock No.	ICA Type	Size W. D.	Shpg. Wt.	NET
86-370	3971	10x5 1/2"	9 lbs.	\$3.62
86-371	3972	12x8"	10 lbs.	4.70
86-372	3973	12x7"	11 lbs.	4.85
86-373	3974	14x10"	11 lbs.	5.09
86-374	3975	17x10"	14 lbs.	5.59

## STURDY SLOPING-PANEL METAL UTILITY CABINETS



Professional type sloping-panel metal cabinets, ruggedly built, small and compact in design, and very attractive in appearance. Ideal for use as speaker cabinets, oscillator cases, receivers, amplifiers, etc. Have rounded corners. Finished in marine grey ripple-enamel.

Stock No.	Overall Size	Wt.	NET
86-380	4 1/2" H. 4 1/4" W. 4 1/2" D	2 lbs.	\$1.26
86-381	4 1/2" H. 7 1/2" W. 4 1/4" D	15 lbs.	2.26

## ICA DELUXE METER CASES

Designed to harmonize with the trend of modern streamlined equipment. Finished in marine-grey ripple enamel trimmed with beautiful red striped metal band. Has neat rounded top. Available for 2" or 3" meters. Ideal midjet speaker case for intercoms, etc. Shipping weight, 2 lbs.



Stock No.	H. W. D.	Hole	NET
86-390	4 1/2" x 4 1/4" x 4 1/4"	2 1/8"	\$1.32
86-391	4 1/2" x 4 1/4" x 4 1/4"	2 1/8"	1.32

## PORTABLE STEEL CABINET

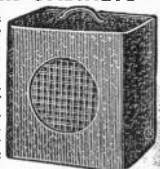
Ideal for housing oscillators, transceivers, test equipment, etc. Both front and back panels are removable and are held in place with self-tapping screws which are supplied. Entire cabinet is very sturdily built of metal; has reinforced corners and edges. Supplied with a convenient leather carrying handle. The perfect housing for home-built portable equipment. Sized just right for complete transceiver, with batteries. Finished in black ripple enamel.



Stock No.	H. W. D.	Wt.	NET
86-395	12x7 1/4 x 7"	9 lbs.	\$2.26
86-396	15x7 1/4 x 7"	11 lbs.	2.65

## METAL SPEAKER CABINETS

Designed to conform with streamlined appearance of all modern equipment. Metal grille firmly attached, will not rattle, and provides excellent protection for speaker cone. Has convenient metal carrying handle on top. Finished in black-ripple enamel. Available for 6" to 12" speakers.



Stock	ICA Type	Sprkr Size	Size H. W. D.	Shpg. Wt.	NET
86-360	3942	6"	10x10x6"	8 lbs.	\$3.00
86-361	3943	8"	12x12x7"	9 lbs.	3.59
86-362	3944	10"	14x14x8"	15 lbs.	6.30
86-363	3945	12"	16x16x8"	20 lbs.	6.31

## WRINKLE VARNISH

An attractive, modern wrinkle finish for all metal chassis, panels, etc. Air drying; easily applied with brush or spray. In six popular colors. Weights: 5/8 pt., 10 oz.; 1 pt., 1 1/2 lbs.



1/8 Pint	COLOR	1 Pint
43-000	Black	43-010
43-001	Brown	43-011
43-002	Green	43-012
43-003	Silver Grey	43-013
43-004	Red	43-014
43-005	Blue	43-015

1/8 Pint EACH..... 26c Per Pint EACH..... \$1.32

## CRYSTALLINE LACQUER

Covers metal, wood or other material. Dries in 20 minutes. Easy to apply. Will give metal products a professional look. In three colors.

Color	1/8 Pint	1/2 Pint	1 Pint
Black	43-020	43-030	43-040
Grey	43-021	43-031	43-041
Brown	43-022	43-032	43-042

1/8 Pint. Wt., 1/2 lb. NET..... 24c  
 1/2 Pint. Wt., 1 lb. NET..... 73c  
 1 Pint. Wt., 1 1/2 lbs. NET..... \$1.32



# NEUTRALIZING TOOLS • TEST LEADS

## ALIGNING AND NEUTRALIZING TOOLS



### ICA NEUTRALIZING & ALIGNING KITS

#### "994" DELUXE MODEL

Aligns almost all receivers. 14 parts cover multiple functions. These units telescope into each other forming 6 separate tools. In a handy leatherette case including: screwdriver with flexible shaft for hard-to-reach spots; "magic" alignment tool; alligator side wrench; 6" insulated screwdriver with metal nib; 3/8" and 1/2" nut wrench; 1/2" insulated square nut wrench; 1/4" metal side wrench; 2 1/2" insulated screwdriver with metal nib; 1/8" hex slotted insulated wrench screwdriver; 3/8" hex insulated nut wrench; 5" and 6" insulated screwdrivers. Supplied with leatherette case. Shpg. wt., 1 lb. **\$4.41**



#### "998" STANDARD MODEL KIT

12 tools telescope into each other to form only 4 units. Includes 1/4" hex wrenches, 3/8" and 1/2" nut wrenches, 2 1/2", 5" and 6" screwdrivers, alligator wrench and various neutralizing tools. In vestpocket case, 8 oz. **\$2.59**

42-102. NET.....



**Non-Metallic Adjustable Neutralizing Tool.** Made of tough plastic. Screwdriver at one end. 1/4" hex socket at other. 4 oz. **44c**  
42-104. Extends 6" to 10". NET.....  
42-105. Extends 12" to 16". NET..... **56c**



**42-170. Non-Metallic Screwdriver.** For aligning trimmer cond. in r.f. circuits. Made of 1/4" polished bakelite rod, 4 1/2" long. 4 oz. NET..... **47c**

**42-171. Double-Edged Screwdriver.** Made of durable 3/4" bakelite with blades at both ends. 7" long. 3 oz. NET..... **24c**



**42-145. Alignment Tool.** Has special metal clip for neutralizing air trimmer condensers on Philcos. Of narrow fibre rod. 3/8"x6". 3 oz. NET..... **38c**



**Insulated Hex Wrench.** Hex broaching runs entire length of wrench. End may be cut off when worn. Fibre rod. Fits 1/4" nut. 3 oz.  
**42-150. 6 INCH..... 15c | 8 INCH..... 18c**

## "MAKE-UR-OWN" TEST LEAD ACCESSORIES

The following popular assortment of high-quality test-prod accessories have been selected for those wishing to assemble their own prods for special applications.



### AMPHLEN CO-AXIAL CABLE TEST PROD WIRE

**Type 76-225.** Transmits RF and AF currents with minimum loss. Bends on 1" radius. Made of 3/8" polystyrene beads on No. 22 stranded copper wire. Capacity, 13.3 mmf. per foot. Shielded. Lacquered cotton braid covering. Dia. 1/4". For signal generators, etc.  
**49-300. Per Foot. NET..... 29c**

### BELDEN "LIMP" TEST PROD WIRE

Has extra heavy rubber wall. For use with analyzers, oscillators, therapeutic apparatus, and high-voltage testing equipment. Voltage breakdown, 10,000 V. at 60 cyc. 18 strand, (65x36) tinned wire. O. D., 230".  
**47-800. 8898 Black } PER FT..... 3c**  
**47-810. 8898 Red } 100 FT..... \$2.08**



### 5-IN-1 ALIGNMENT TOOL



A handy alignment tool kit that will serve innumerable uses. Consists of 1/4" and 1/8" nut wrenches, miniature blade and full-size screwdriver with pocket clips. Shpg. wt., 8 oz. **88c**  
**42-125. ICA 1022. NET.....**

### 4-IN-1 ALIGNMENT TOOL



Combines in one fountain pen size tool, 4 Serviceman's necessities—1/4" and 1/8" nut wrenches, neutralizing screwdriver and key slot grip. Insulated handle with pocket clip. 6" long. 8 oz. **59c**  
**42-126. ICA 1019. NET.....**



**42-135. Alignment Wrench.** Handy aligning tool for adjusting air trimmers and coil cores. 1/4" dia. Plastic rod, 8 1/4" long, has hexagon wrench at one end and shaped hook at other. For RCA and Philco. 5 oz. **88c**  
NET.....



**POLYSTYRENE LO-LOSS NEUTRALIZER**  
**42-143. Amphelen No. 55.** An alignment tool having a minimum effect on critical circuits. For adjusting FM television, SW, and standard receivers. Made of Amphelen "912-A". NET..... **15c**

### LITTELFUSE NEON TATTELITE

**Type 5076.** Genuine "Littelfuse" pocket neon tester. Indicates voltages from 90 volts DC and 60 volts AC to 500 volts DC or AC. Tests for live lines, grounded lines, open circuits, shorts, polarity, AC or DC or RF, blown fuses, defective spark plugs etc. Molded tenite body. Insulated test leads. With neon lamp.  
**78-055. EACH..... 29c**  
**10 FOR..... \$2.60**



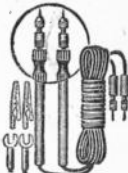
### LOW VOLTAGE TATTELITES

**78-056. 5370.** Tests 3-25 volts AC or DC. Alligator clips on test leads. Checks radio or storage battery circuits. 5 oz. **\$1.03**  
NET.....  
**78-057. Type 5420.** Tests 6 to 48 volts AC or DC. Same as 78-056 above except for voltage range. Shpg. wt., 5 oz. NET..... **\$1.03**

## ICA TEST LEADS

### HEAVY DUTY LAB MODEL PRODS

Heavy duty test prods with removable phono-needle chuck type prods for penetrating wire lead insulations; insulated phone tip terminals; 6" phenolite handles (one each red and black); and 50" rubber covered kinkless leads. Handles knurled and shaped for positive finger grip terminals. Wt. 1 lb.  
**42-200. ICA 400. PER PAIR..... 97c**  
**42-201. ICA 391. With Spade Term. 82c**  
**42-202. ICA 388. Alligator Terminals. 88c**  
**42-255. ICA 392. Non-insulated Phone Tip Terminals. PER PAIR..... 82c**



### 5,000 VOLT PRODS

Similar to heavy duty lab model prods described above, except have 4" phenolite handles and non-removable chuck. Insulated for use on circuits carrying up to 5,000 volts. Shpg. wt., 10 oz.  
**42-210. ICA 382. Phone Tips. 42-211. ICA 381. Spade Tips. PER PAIR..... 59c**  
**42-212. ICA 379. Alligator Terminals. PAIR..... 65c**



### ALL-PURPOSE TEST PROD KIT

Has pointed phone tip prods; 6" phenolite handles (one each red and black); 50" rubber-covered kinkless wire leads; and banana plug terminals. Also includes pairs of spade lug, phone tip, and alligator clip terminals which interchangeably fit onto banana plug terminals as required. 1 lb. **\$1.47**  
**42-220. ICA 312. NET.....**  
**42-221. ICA 313. With Fixed-End Phone Tips. Not interchangeable. NET..... 73c**  
**42-222. ICA 315. With Fixed-End Alligator Clips. Not interchangeable. NET..... 82c**



### UNBREAKABLE TEST PRODS

Have pointed phone tip prods; phone tip terminals; 5" nickel plated solid brass live rubber covered handles; 50" rubber covered kinkless leads. 10 oz.  
**42-230. ICA 332. With Standard Phone Tips. NET..... 59c**  
**42-231. ICA 331. With Insulated Phone Tips. NET..... 68c**



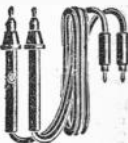
### PENCIL TYPE PRODS

ICA 373. Pencil type leads for all test equipment. 5" handles of insulating material, with flexible rubber wire. Sharp-pointed tip is threaded and screws into handle. Molded grips with phone tips have rivets which hold the leads securely. Length of leads and handles is 53". **\$1.03**  
**42-240. NET.....**



### 10,000 VOLT TEST LEADS

ICA 475. Tests to 10,000 V. AC or DC. For use on high-voltage equipment. Bakelite flanged handles. 50" red and black cable is No. 18, (67x32) tinned copper, covered with heavy rubber.  
**42-260. NET..... \$2.35**

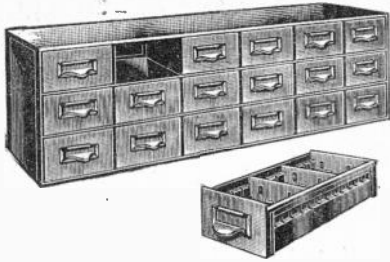


### TROUBLE LIGHT

Provides light where you want it. Fountain-pen size. For 110 volts AC or DC. With bulb, and 5 1/2-foot cord. Wt., 1 lb. **88c**  
**42-120. NET.....**



# Values in POPULAR TOOLS



## LYON 18-DRAWER STEEL CABINET

Metal storage-drawer unit functionally designed for small parts and accessories. 18 drawers contain 54 compartments for storing resistors, condensers, volume controls, etc. Each drawer has three adjustable compartments provided by two dividers, which fit grooves spaced 1" apart. Dividers can be shifted to meet specific storage needs, and each contains a label holder for identifying stored items. All drawers are equipped with combination handle and slot-receptacle for index card. Heavy steel construction. Overall size, 10 $\frac{3}{4}$ " x 34 $\frac{1}{2}$ " x 11". Drawer size, 2 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " x 10 $\frac{1}{4}$ ". Shpg. wt., 54 lbs. **\$16.32**

86-005. NET

## GREENLEE CHASSIS PUNCHES



Cuts hole in metal chassis up to  $\frac{1}{8}$ " thick by turning cap screw. No filing required. Shpg. wt., 1 lb.

No.	Size	NET	No.	Size	NET
46-170	$\frac{3}{16}$ "	\$1.72	46-173	$1\frac{1}{8}$ "	\$2.00
46-177	$\frac{1}{4}$ "	1.72	46-174	$1\frac{1}{2}$ "	2.00
46-171	$\frac{5}{16}$ "	1.72	46-175	$1\frac{3}{4}$ "	2.00
46-172	$\frac{3}{8}$ "	1.88	46-176	$1\frac{7}{8}$ "	2.28
46-178	$1\frac{1}{8}$ "	2.00			

## STEEL RULES—WIRE GAUGES

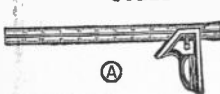


Fig. A. COMBINATION STEEL RULE. 12" etched-steel combination square. Graduated on both sides in 32nds, 16ths, and 8ths. Head has thumb-screw for positive locking. 45 degree angle for bevel cuts. Shpg. wt., 2 lbs. **83c.**



Fig. B. 6" STEEL RULE AND WIRE GAUGE. Stainless steel. Front graduated in 32nds and 64ths, also B. & S. wire gauge. Back has decimal equivalents. For Nos. 8 to 20 wire. With case. **25c.**

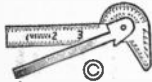
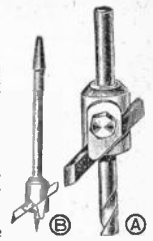


Fig. C. MULTI-PURPOSE STEEL RULE. 4" scale in 32nds and 64ths, drill point gauge, square, bevel protractor, center finder, circle divider, tap-drill table. Stainless. In leather pocket-case. Shpg. wt., 1 lb. **98c.**



Fig. D. DRILL AND STEEL-WIRE GAUGE. Tempered-steel. For sizes from 1 to 60 with decimal equivalents. Lists taps with tap-drill and body-drill sizes from  $\frac{1}{16}$ " to 2.64. Wt., 12 oz. **95c.**

## BRUNO HOLE CUTTERS AND EXPANSIVE BITS



45-620. Fig. A. No. 100. Expansion capacity,  $\frac{5}{8}$ " to  $1\frac{1}{2}$ ".  $\frac{1}{4}$ " round shank. Pilot drill size,  $\frac{1}{4}$ ". Cuts holes in metals  $\frac{1}{8}$ " thick, or plastics, woods, etc. For use in electric or hand drills. Wt., 10 oz. **\$2.95** NET.

45-621. Fig. A. No. 100B. As above, but with square shank. NET **\$2.95**

45-622. Fig. A. No. 101. Capacity, 1" to  $2\frac{1}{2}$ ".  $\frac{3}{8}$ " round shank. Cuts  $\frac{3}{4}$ " metal. Pilot drill size,  $\frac{1}{2}$ ". Used in elec. or hand drills. Wt., 12 oz. **\$4.95** NET.

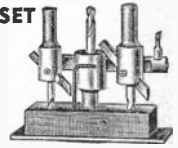
45-623. Fig. A. No. 101B. 1" to  $2\frac{1}{2}$ " holes. Square shank for hand brace. NET **\$4.95**

45-625. Combination. No. 790. Kit contains 1 No. 100 and 1 No. 101 adjustable hole cutters. Provides size range from  $\frac{3}{8}$ " to  $2\frac{1}{2}$ ". Wt., 1 $\frac{1}{2}$  lbs. NET **\$7.85**

45-627. Fig. B. No. 200B. Expansive bit,  $\frac{3}{4}$ " to  $1\frac{3}{4}$ " capacity. Large on bit graduated in  $\frac{1}{16}$ " assures accuracy. Two blades supplied for large and small dia. holes. Square shank. Length, 7". Wt., 6 oz. **\$2.95** NET.

45-628. Fig. B. No. 201B. Expansion capacity  $1\frac{1}{2}$ " to  $3\frac{1}{2}$ ". Two blades supplied.  $8\frac{1}{2}$ " length. Shpg. w., 12 oz. **\$4.95** NET.

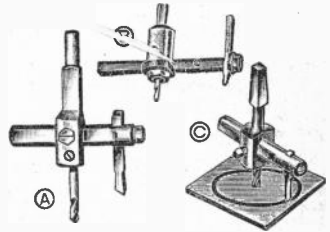
## L.A. EXPANSION HOLE-CUTTING SET



Type 211. Cuts holes ranging from  $\frac{1}{4}$ " to  $\frac{3}{4}$ " in metal, plastic, wood, etc. Set consists of case, wrench and three cutters. One cutter adjustable for holes  $\frac{3}{8}$ " to  $2\frac{1}{2}$ "; another, 1" to 3" and third, 1" to 6". Positive rake-angle is ground full length of blade. Removable pilot drills or quick replacement. Easy adjustment gives a positive pressure to blade and pilot. Can be used in drill press, portable or hand drill. Shpg. wt., 2 lbs.

45-635. LOTS OF 3 SETS, EACH **\$6.95**. PER SET. **\$8.65**

## ALL-PURPOSE CIRCLE CUTTERS



Cut holes accurately and quickly in wood, bakelite, hard rubber, tin, sheet metal, etc. May be used in slow-speed drill press, hand drill or hand brace. Type B has cutting bar 1" diameter. All are complete with removable pilot drill. Universal shank fits any chuck. All cutter blades removable and easily sharpened. Wt. 2 lbs. \*Not illustrated.

No.	Fig.	Shank	Hole Size	NET
45-601	*	Round $\frac{1}{2}$ "	$\frac{3}{8}$ " to $2\frac{1}{2}$ "	\$0.78
45-600	A	Round $\frac{1}{2}$ "	$\frac{1}{8}$ " to 4"	1.30
45-602	C	Square $\frac{3}{8}$ "	1" to $5\frac{1}{2}$ "	1.88
45-603	C	Round $\frac{3}{8}$ "	1" to $5\frac{1}{2}$ "	1.88
45-604	B	Combination	$\frac{3}{4}$ " to 8"	3.53

45-610. Cutter Blades. Extra blade for Type A and C cutters. Made of hardened tool steel. Shpg. wt., 4 oz. EACH **\$1.32**

## HANDY TOOLS FOR THE RADIO SERVICEMAN

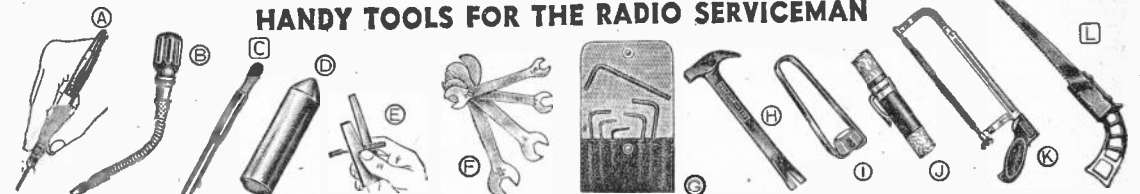


Fig. A. PRES-TO-OILER. Press on plunger to release one drop of oil. Prevents over-oiling and waste. Transparent fountain-pen reservoir holds oil supply. Shpg. wt., 8 oz. **47c.**

Fig. B. FLEXIBLE SHAFT SCREW-DRIVER. Flexible shaft and movable insulated guide,  $8\frac{3}{4}$ " long overall. 1 lb. **\$1.32**

Fig. C. HANDY STEEL TWEEZER. Finely tempered spring tweezer. For delicate work. Holds wires, nuts, screws, etc. 8 oz. **25c.**

Fig. D. HANDY SCRATCH REMOVER. Stick builds scratch to original level, stains and polishes. Shpg. wt., 6 oz. **19c.**

Fig. E. 5-IN-1 WIRE STRIPPER, scraper, cutter, bender, and screwdriver. 6 oz. **15c.**

Fig. F. DOUBLE-ENDED WRENCH SET. 4 cadmium plated wrenches from  $\frac{1}{2}$ " to 6" long. In popular sizes:  $\frac{3}{16}$ ",  $\frac{1}{4}$ ",  $\frac{1}{2}$ ",  $\frac{3}{8}$ ",  $\frac{1}{2}$ ", and  $1\frac{1}{8}$ ". Wt., 1 $\frac{1}{2}$  lbs. **28c.**

Fig. G. ALLEN VEST-PAC-KIT SCREW KEY SET. 6 L-shaped wrenches to fit seven popular-sized Allen-head screws: Nos. 4, 5, 6, 8, 10,  $\frac{1}{4}$ " and  $\frac{3}{16}$ ". Carbon steel. Leatherette case fits vest pocket. Wt., 8 oz. **49c.**

Fig. H. KRAEUTER HAMMER. All-steel hammer with claw handle. For driving or pulling nails, tacks, staples, breaking baling wire, prying open crates, boxes, etc.  $9\frac{1}{2}$ " long. Shpg. wt., 2 lbs. **65c.**

Fig. I. KNOB PULLER. Easily removes all types push-on knobs without marring panel or cabinet. Shpg. wt., 8 oz. **15c.**

Fig. J. WALSCO SCRATCH REMOVER. Instantly removes unsightly scratches on radios or furniture. Merely brush over lightly. Reverse end of pen-shaped container has a special filler for staining. Should be in every serviceman's kit. Wt., 6 oz. **29c.**

Fig. K. PISTOL-GRIP HACKSAW. Adjustable for 8" to 12" blades. Saw is four directional. With 8" blade. 2 lbs. **63c.**

46-091. QUALITY HACKSAW BLADES. 10" long,  $\frac{3}{16}$ " wide. Set contains one fine and one coarse blade. Shpg. wt., 6 oz. **10c.**

NET, Set of 2.

Fig. L. KEYHOLE HACKSAW. Cuts metal, wood, plaster, conduit, etc.  $7\frac{1}{2}$ ", 180-tooth blade. Shpg. wt., 1 lb. **29c.**

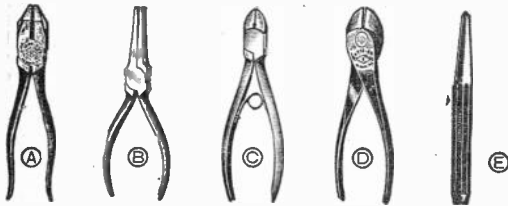
46-085. Frame and Blade. NET **29c.**

46-086. Extra Blades, EACH **12c.**

# Quality

# TOOLS FOR EVERY PURPOSE

## KRAEUTER QUALITY TOOLS



Kraeuter "Genuine" fine-quality tools are made to exacting specifications. Scientifically heat-treated and hardened in automatic furnaces to produce uniformity of temper and long life. Constructed of drop-forged high-quality tool steel. Blue-tempered finish handles. Av. wt., 1 lb.

No	Fig.	Type	Description	EACH
46-400	A	1801	8½" Side-Cutting Pliers.....	\$2.07
46-408	A	1830	6½" Side-Cutting Pliers.....	1.35
46-413	B	1741	6" Flat Nose Pliers.....	1.36
46-414	C	2612	6½" Strip-Notch Diag. Cutters	1.70
46-410	D	4610	7" Heavy-Duty Diag. Cutters...	1.62
46-412	E	23	Center Punch. ½"x4½".....	.29

## NEEDLE-NOSE CUTTERS

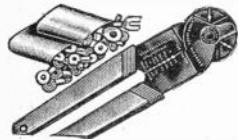


Type 1661. 6" slender, tapered-point, side-cutting pliers. For meter repairs, etc. **\$1.42**  
**46-401. NET**  
 46-404. Type 1671. As above, less cutters. **\$1.25**

## DIAGONAL CUTTERS



Made for close cutting. Drop forged from electric furnace tool steel. Polished head, blue temper finish handles. Wt., 1 lb.  
**46-402. 5" Pliers. EA. \$1.38**  
**46-403. 6" Pliers. EA. 1.58**



## A-M-P SOLDERLESS TERMINAL KIT

**46-185.** Combination tool cuts wire to size, strips off insulation and crimps lugs to wire to provide dependable electrical connection without solder. With 100 assorted lugs. Shpg. wt., 2½ lbs. **\$5.95**  
**EACH**  
 Lots of 3, **EACH \$4.95**

## LUGS AND CONNECTORS FOR ABOVE

Cat. No.	Mfg.	Wire	Type	Stud	100	1000
44-460	33020	22-16	Ring Tongue...	4 or 6	\$1.62	10.78
44-461	33021	22-16	Ring Tongue...	8 or 10	1.81	12.05
44-462	33022	22-16	Ring Tongue...	12or¼"	2.21	14.70
44-463	33023	16-14	Ring Tongue...	4 or 6	1.62	10.78
44-464	33037	16-14	Ring Tongue...	8 or 10	1.62	10.78
44-465	33025	16-14	Ring Tongue...	8 or 10	2.21	14.70
44-468	33028	12-10	Ring Tongue...	8 or 10	2.27	15.19
44-467	33029	12-10	Ring Tongue...	12or¼"	2.47	16.46
44-468	33026	16-14	Spade Tongue...	4 or 6	2.08	13.82
44-469	33027	16-14	Spade Tongue...	8 or 10	2.08	13.82
44-470	33041	12-10	Spade Tongue...	8 or 10	2.47	16.46
44-471	33043	16-14	Flag Tongue...	8 or 10	1.67	11.03
44-472	33045	22-16	Butt Connector...		3.16	21.07
44-473	33031	16-14	Butt Connector...		4.35	29.01
44-474	33046	12-10	Butt Connector...		4.35	29.01
44-475	33047	22-16	Parallel Connector...		2.47	16.46

## TAP, DRILL AND DIE SET



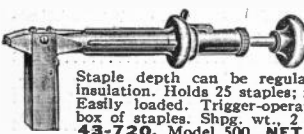
3 taps with drills for 4-36, 6-32, 8-32 threads. Three 1" dia. dies for cutting threads. Die stock and adjustable tap wrench. Case measures 11½"x3½"x1½". Shpg. wt., 3 lbs.  
**46-025. EACH... \$1.89**

## ADJUSTABLE DOUBLE-ENDED WRENCH



Black finish. Drop forged of high grade tool steel. An exceptionally sturdy, yet light weight tool. Capacity ½" & ¾" inches. 6" long. Shpg. wt., 1 lb.  
**45-770. EACH... \$1.05**

## WALSCO STAPLE DRIVER AND ACCESSORIES



Automatically staples wires in corners, behind pipes, into moldings, etc. Works also in hard surfaces, such as plaster, mortar and soft concrete. Staple depth can be regulated to avoid damaging wire insulation. Holds 25 staples; for wire up to ¼" in diameter. Easily loaded. Trigger-operated feeding mechanism. With box of staples. Shpg. wt., 2 lbs.  
**43-720. Model 500. NET... \$3.33**

- 43-722. Carbon steel staples in strips. Lacquer insulated. Fit WalSCO staple driver. 250 staples in 10 strips of 25 staples each. Box of 250. **NET... 28c**
- 43-723. Box of 1000 Staples. **NET... \$1.08**
- 43-726. Leather Carrying Case for Stapler. **NET... 1.22**

## ACRO CHASSIS CRADLE

Affords easy access to any radio or amplifier chassis for quick inspection or repair. Clamps hold chassis in vise-like grip at any desired angle. Finger-tip control for easy manipulation. Permits use of both hands. Cadmium plated steel. Shpg. wt., 5 lbs.  
**86-030. NET... \$4.85**

**86-031.** Extra set of clamps as above.  
**86-032.** Straight clamps for flat pieces.  
**EITHER SET NET... \$2.45**

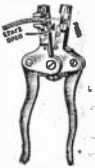


## SPEEDX WIRE STRIPPERS

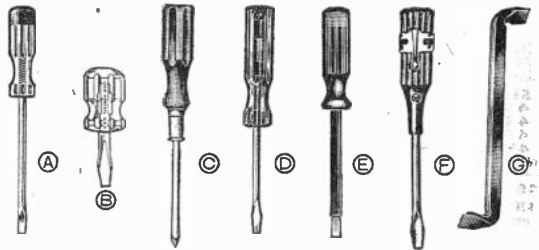
Cleanly strips insulation from wire ends or at any point along wire. In Deluxe Model, jaws stay open while wire is removed. Strips all types of solid and stranded wire. Types 733 and 744 strip 12 to 20 wire. Types 733A and 744A strip 14 to 24 wire. Shipping weight, 2 lbs.

**DELUXE MODELS**  
**46-013.** Type 744. **NET EACH... \$4.70**  
**46-014.** Type 744A. **NET EACH... \$4.70**

**STANDARD MODELS**  
**46-003.** Type 733. **NET EACH... \$3.53**  
**46-004.** Type 733A. **NET EACH... \$3.53**



## HANDY ALL-PURPOSE SCREWDRIVERS



**43-840.** Fig. A. Rustproof tool-steel blade. Accurately ground to fit screw slot. Insulated transparent amber handle and 2" blade. Av. shpg. wt., 8 oz. **NET... 24c**

**43-841.** 4" Blade. **NET... 30c**

**43-842.** 6" Blade. **NET... 38c**

**43-802.** 8" Blade. **NET... 55c**

**43-805.** Fig. B. LIFE-TIME "STUBBY." Tempered high carbon crucible tool-steel blade, ¼" x 1½". Amberlyl sure-grip handle is shock-proof. Wt., 8 oz. **NET... 40c**

**43-825.** Fig. C. "PHILLIPS" SCREWDRIVER. For Phillips recessed head screws; necessary for servicing many sets. Wood handle. 3" blade. For No. 4 size and smaller. Shpg. wt., 8 oz. **NET... 24c**

**43-826.** 4". No. 5 to No. 9 size. **NET... 27c**

**43-827.** 6". No. 10 to No. 16 sizes. **NET... 31c**

**43-880. KIT OF FIVE PHILLIPS SCREWDRIVERS.** Complete set, 5", 7½", 10", and two, 3¼" long. For Phillips screws, Nos. 4 to 16. Amberlyl shock and break-proof handles. Shpg. wt., 1½ lbs. **EACH... \$2.79**

**43-835.** Fig. D. SUNDT NEON "FIRE DEVIL." Fine quality screwdriver. Built-in neon tube in transparent handle glows at high R.F. or audio voltages. Handle, 1½". Blade, 2½". Insulated for 5000 volts. Wt., 8 oz. **NET... 24c**

**43-836.** Handle, 3¼". Blade, 3¼". 15,000 V. 7" overall. **59c**

**43-860.** Fig. E. Insulated Screwdriver. 10,000 V. Molded handle. 5" insulated steel blade. Wt., 8 oz. **NET... 19c**

**43-861.** 6½" blade. **Net... 41c**

**43-870.** Fig. F. Narrow blade screwdrivers. For dial knobs, trimmers, etc. 4¾" long, 2¼" blade. Amber handle with clip. Wt., 8 oz. **10 for \$1.35. NET... 15c**

**43-871.** 7" L., 4" blade, less clip. **10 for \$1.62. NET... 18c**

**43-843.** Fig. G. OFFSET SCREWDRIVER. Hammer forged. Accurately heat-treated and tempered. ¼" x 4½". Shpg. wt., 8 oz. **NET... 33c**

**45-835. OFFSET PHILLIPS SCREWDRIVER.** For Phillips No. 1 and No. 2 screws. 4¾" over all. Alloy steel. Wt., 8 oz. **NET... 35c**

## STURDY HAND DRILL

**46-030.** Hand drill with hardened steel chuck takes drills up to ¼" dia. Solid metal frame. Lacquer finished hardwood handle is designed for storing extra drills. Shpg. wt., 8 oz. **NET... \$1.15**



**ASSORTED DRILL SET.** 9 carbon steel drills ranging from ¼" to ¾" sizes in ¼" graduations. Shpg. wt., 10 oz. **NET... \$1.10**

## BURGESS VIBRO-TOOL

**46-130.** For making or engraving tools, dies, etc. or production parts. Includes needles for use on metal, plastic, glass or wood. For 110 V., 60 cyc. AC. **EACH... \$7.50**



# SOLDERING IRONS & ACCESSORIES



## KESTER SOLDERS

Compounded of the highest grade tin and lead. Flux filling flows easily. Use resin core for radio connections; acid core for general metal work.

Type	Tin	1 lb.	5 lbs.
Rosin Core	46-900	46-901	46-902
Acid Core	46-905	46-906	46-907
NET EACH	17c	62c	\$2.90

46-925. One pound bar solder. Standard 35% tin, 65% lead. NET.....39c



## SOLDERING PASTE

A truly efficient and economical soldering paste. Does a clean, non-corrosive job of soldering. 2 oz. cans.

46-915. 10 For \$1.05 EACH...12c

TINNING BLOCK. Cleans and tins soldering irons or coppers quickly. Replaces ordinary salammoniac. Shpg. wt., 1 lb. 44c

46-922. NET.....



## VACO SPIN-HEX WRENCHES

Hardened tool-steel socket wrenches, 6" long. With hollow shafts and shockproof unbreakable plastic handle. Shpg. wt., 12 oz. each.

Stock No.	Size	Stock No.	Size
45-800	3/8"	45-804	1/2"
45-801	7/16"	45-805	5/8"
45-802	1/2"	45-806	3/4"
45-803	1 1/2"		
NET EACH			42c

45-810. Set of 7 wrenches. NET \$2.90

45-820. Volume Control Wrench. Length, 7". For 3/8" hex. nuts. NET.....81c

## WOOD HANDLE WRENCHES



Sockets of hardened tool steel. Shanks of rust-proof steel with ribbed wooden handles. Shpg. wt., each, 8 oz. Set of six wrenches, 3 lbs.

Size	6" Shank	9" Shank
3/8"	45-700	45-720
1/2"	45-701	45-721
5/8"	45-702	45-722
3/4"	45-703	45-723
7/8"	45-704	45-724
1"	45-705	45-725
	NET	NET
	24c	27c

45-710. Set of 6—6" wrenches.....\$1.27

45-730. Set of 6—9" wrenches..... 1.49

## HOLLOW HANDLE SET



Hollow handle holds all sockets. Sizes, 1/8", 3/16", 1/4", 5/16", 3/8", 1/2", and screwdriver socket. 7 1/2" long. Shpg. wt., 1 lb. 45-826. NET.....63c



## "MIGIT" RADIO WRENCH SET

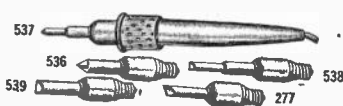
Has 14 pieces. One universal joint handle with sliding "T" bar, and one straight spin type amber insulated handle. Single hex sockets, 3/8", 1/2", 5/8", 3/4". Octagonal sockets, 3/8", 1/2". Double hex sockets, 3/8", 1/2". Steel box, 4 lbs. 46-165. NET.....\$3.82



## LENK ALCOHOL BLOW TORCH

Model 108 double-barrel Blow Torch. Self-blowing. Operates on denatured or commercial alcohol. 5 7/8"x2 1/8"x1". Wt., 1 lb. 43-701. NET.....\$1.14

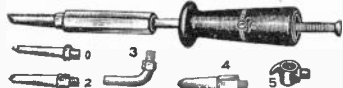
## UNGAR SOLDERING PENCIL



Light soldering pencil draws only 17 watts. Heats in 90 seconds. Choice of five interchangeable tips. 7" long. Shpg. wt., 8 oz.

- 46-580. Solder Pencil. No. 776 with copper tip No. 536. NET.....\$1.45
- 46-581. 776 Cord and Pencil only. NET.....78c
- 46-582. 536 Standard Tip. NET.....67c
- 46-583. 537 Pencil Tip. NET.....78c
- 46-584. 538 Chisel Tip. NET.....78c
- 46-585. 539 Chisel Tip—Extra hot.....78c
- 46-586. 277 Brass Tip for plastics.....34c
- 52-349. 115V candelabra base bulb. Makes trouble-light when screwed into pencil. NET.....16c

## "KWIKHEAT" THERMOSTATIC CONTROLLED SOLDERING IRON



Thermostatically controlled 225 watt industrial type soldering iron. Heats in 90 seconds, and stays at right temperature for maximum efficiency. Cannot overheat. For 115 V. 60 cyc. AC. Accommodates five interchangeable tips or melting pot. Illustrated with general-purpose No. 1 standard tip. Wt., 2 lbs. 46-560. Type 300 iron with No. 1 tip. NET.....\$8.25

- 46-561. No. 0 Tip with small tapered point. Copper. NET.....94c
- 46-562. No. 1 Tip with gradual tapered point. Copper. NET.....94c
- 46-563. No. 2 Tip with gradual-tapered, chisel point. Copper. NET.....94c
- 46-564. No. 3 Tip with flat point, right angle turn. Copper. NET.....94c
- 46-565. No. 4 Tip. Extra heavy with chisel point. Copper. NET.....94c
- 46-566. No. 5 Melting pot for tinning. Made of aluminum. NET.....94c

## AMERICAN BEAUTY IRON

Type 3138. 100 Watt. Adapted for production work on radio, ignition, telephone, etc. 16 oz.; length, 12 1/4"; tip dia., 3/8"; 6 foot cord. Highly polished, chrome-plated metal parts. Complete with stand. Wt., 2 lbs. 46-655. NET.....\$5.29

46-656. Extra tip. NET.....35c



## ICA SOLDERING IRONS

Element is of the highest quality resistance wire. Handle remains cool. Plunger tip is easily removed. For 115 volts, AC or DC.

- 46-635. 60 Watt. A medium weight iron for most encountered types of radio work. 3/8" tip. Wt., 2 lbs. NET.....\$2.94
- 46-636. 85 Watt. A good general-purpose iron. 3/8" tip. Shpg. wt., 2 1/4 lbs. NET.....\$3.82
- 46-637. 115 Watt. Heavy Duty type; has 3/8" adjustable plunger type tip. 3 lbs. NET.....\$4.41

## SOLDERING IRON TIPS

High quality replacement plunger type copper tips. Fit all standard irons. Shpg. wt., 1/2 lb.

Stock No.	Size	NET EA.
46-645	3/16"x27 1/2"	28c
46-646	3/8"x3 3/4"	

## DRAKE SOLDERING IRONS



### DELUXE MODELS

High quality Underwriters' Lab. listed irons. Finest grade nichrome wire element. Wound on genuine amber mica. Cooling fins provide rapid heat dissipation to keep handle comfortable. With 6-foot cord, plug, and 7" stand. For 110 volt AC or DC use. Removable tips.

- 46-545. Type 326. 125 Watt iron with handy stand. Tip diameter 3/8". Shpg. wt., 2 lbs. NET.....\$2.94
- 46-531. Type 425. 200 Watt. Tip diameter 3/8". For auto work, lamp wiring, home repairs, factory work, etc. 2 lbs. NET.....\$4.85
- 46-535. 3/8" Replacement Tip. 1/2 lb.....29c
- 46-536. 3/8" Replacement Tip. 1/2 lb.....49c



### STANDARD MODELS

Sturdy dependable Underwriters' Lab. listed irons. Heating elements of highest-grade nichrome wire on amber mica. Tips are treated to prevent corrosion. With 6 foot approved cord fitted with a durable plug. Comfortable grip handles. For 115 V. AC or DC.

- 46-522. Type 225. 80 Watt. Length 13 1/2"; 3/4" tip, plunger type. For light radio work. With "Magic Cup" stand. Wt., 1 1/2 lbs. NET.....\$2.06
- 46-523. Type 325. 100 Watt. Length 12 1/2"; 3/4" tip, plunger type. For medium-heavy work. With stand. Wt., 2 lbs. NET.....\$2.44



### ECONOMY MODELS

- 46-521. Type 315. 60 Watt. Length 12 1/2"; 3/4" screw-on tip. Ideal for any light solder work. Wire element extends into tip for faster heating. With stand. Gun metal finish. Wt., 1 lb. NET.....76c
- 46-546. Type 316. 100 Watt Economy Radio Iron. Has 3/4" tip. Nichrome element. 6" cord, plug and stand. Wt., 2 lbs. NET.....\$1.47

## INDUSTRIAL TYPE IRONS

- 46-550. Type 600-10. 100 Watt Iron. For continuous 24 hour service. Equipped with "Magic-Cup Stand." Has 3/4" tip. Shpg. wt., 2 lbs. NET.....\$4.88
- 46-552. Type 800. 200 Watt Iron. Equipped with standard stand. Has 3/4" tip. Shpg. wt., 3 lbs. NET.....\$6.00



## DRAKE "400" MIDGET

Type 400. Small iron. Ideal for close connections. Length, 9"; weighs only 8 oz. 60 watt element with 1/4" tip. Nichrome wire wound on amber mica. With 6 ft. cord, line plug, and "Magic Cup" soldering stand. For 115V. AC-DC. Shpg. wt., 1 lb. 46-538. NET.....\$2.65

## DRAKE SOLDER POTS



Electrically heated soldering pots. For 110V AC-DC. 300 Watt pot holds 2 lbs. solder; 150 Watt, 1/2 lb. Sturdy construction, long life.

- 46-555. No. 200. 300 Watts. 2 1/2" dia., 9" deep. With cord. Shpg. wt., 7 lbs. NET.....\$4.50
- 46-556. No. 100. 150 Watts. 1 1/2" dia., 1" deep. With cord. Shpg. wt., 4 lbs. NET.....\$3.37

# INSULATORS · JACKS AND PLUGS

## E. F. JOHNSON BUSHINGS AND FEEDER SPREADERS



### LEAD-IN BUSHINGS

Have many applications in transmitter and antenna installations. Type 55 is ultra-steatite; others are white glaze porcelain. Types 50, 51, 52 and 55 have nickle plated brass rod and nuts.

Stock No.	Mfr's Type	Fig.	Hgt.	Dia.	Panel Hole	NET
73-160	50	D	1 1/2"	3/4"	1 1/2"	21c
73-161	51	D	1 1/4"	1 1/4"	1 1/2"	22c
73-162	52	B	1 1/4"	1 1/4"	1 1/2"	29c
73-163	53	D	1 1/2"	1 1/2"	1 1/2"	18c
73-164	54	A	4"	3 1/4"	2 1/2"	41c
73-165	55	C	1/4"	3/4"	1 1/2"	15c

### FEEDER SPREADERS



For use in all types of feeder lines, either transposed or non-transposed. Made of low absorption white glazed porcelain. Type 31 (Fig. B) prevents twisting; for 2" line spacing. Others are 3/4"x1/2" bars.

Stock No.	Mfr's Type	Fig.	Length	NET
73-110	31	A	2"	10c
73-111	132	B	4"	12c
73-112	134	A	6"	12c
73-113	136	A	4"	15c

## NATIONAL STAND-OFF INSULATORS

Molded steatite insulators. Glazed to prevent moisture absorption. Fig. "A" is Stand-off Insulator, complete with mounting base and cap—1/4" dia. sizes have solder lug and screw; 3/4" dia. have heavy binding screw. Fig. "B" Cone Insulator, for mounting parts on metal chassis; threaded 8-32 at both ends. Fig. "C" Feed-Through Insulator, with flange type steatite base, 1 1/2" mounting centers. Shpg. wt., 8 oz.

Stock No.	Mfr's Type	Fig.	Hgt.	Dia.	NET
71-125	GS-1	A	1 1/2"	3/4"	\$0.24
71-126	GS-2	A	2 1/2"	1 1/2"	.30
71-127	GS-3	A	2 1/2"	1 1/2"	.60
71-128	GS-4	A	4"	3 1/4"	.75
71-129	GS-4A	A	6"	3 1/4"	1.05
71-130	GS-5	B	1 1/4"	1 1/4"	.24
71-131	GS-6	B	3"	1 1/4"	.42
71-132	GS-7	B	3"	1 1/4"	.75
71-133	GS-8	C	1 1/2"	1 1/2"	.54
71-134	GS-9*	C	1 1/2"	1 1/2"	.75

\*Has jack for standard banana plug.

### AMPHENOL CO-AXIAL CABLE



Amphenol No. 72 Flexible Co-Axial Cable is the ideal cable for high frequency service. Imp., 72 ohms, matches center of a half-wave antenna; capacitance, 16 mmf per ft. Constructed of polystyrene beads on No. 12 solid copper wire, covered with woven copper shield. Bends on 1" radius without bearing center conductor. No. 72-12 has double-cotton impregnated outer braid; No. 72-12W has vinylite outer covering over impregnated cotton braids.

71-785, No. 72-12, Per Foot. NET... **29c**  
71-786, No. 72-12W, Per Foot. NET... **53c**

## LARGE STAND-OFF INSULATORS



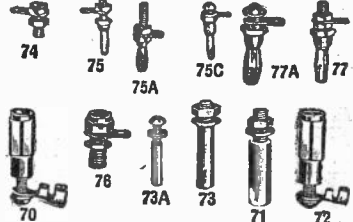
High-grade glazed porcelain construction with deep corrugations. Cadmium-plated steel hardware.

51-206, 5 1/4" high, with base 2 1/2" square. Wt., 1 1/2 lbs. NET EACH... **37c**

51-207, 3 1/2" high, with base 1 1/2" square. Wt., 1/2 lb. NET EACH... **18c**

## FAMOUS E. F. JOHNSON QUALITY PRODUCTS

### JOHNSON JACKS & PLUGS



A complete line of highest quality jacks and plugs. Banana type plugs have nickel-silver springs; spring sleeve type-jacks are nickel-brass with phosphor-bronze springs. 77A and 73A plugs have long screw for mounting on ceramic coil forms. Av. shpg. wt., 8 oz.

Stock No.	Type	Fits	Length	NET
73-200	74	75, 75A, 75C	3/4"	4c
73-201	75	74	3/4"	4 1/2 c
73-202	75A	74	3/4"	4 1/2 c
73-203	75C	74	1"	5c
73-204	76	77, 77A	1 1/4"	15c
73-205	77	76	1 1/2"	12c
73-206	77A	76	1 1/4"	15c
73-207	71	70	1 1/2"	21c
73-208	71	70	1 1/2"	8 1/2 c
73-209	72	73, 73A	1 1/8"	4 1/2 c
73-210	73	72	1"	4 1/2 c
73-211	73A	72	1"	4 1/2 c



### THRU-PANEL INSULATORS

Have high mechanical strength with long leakage paths. Made of white glaze porcelain. Flat mounting surface; cushion washers. Wt., 1 lb.

Stock No.	Mfr's Type	Fig.	Top Hgt.	Panel Hole	Hardware	NET
73-225	40	A	1 1/2"	1 1/2"	10-32	18c
73-226	40J	B	1 1/2"	1 1/2"	7-64	21c
73-227	42	A	1 1/2"	1 1/2"	10-32	14c
73-228	42J	B	1 1/2"	1 1/2"	7-64	14c
73-229	44	A	1 1/2"	1 1/2"	6-32	11c
73-230	45	C	1 1/2"	1 1/2"	10-32	24c
73-231	45J	C	1 1/2"	1 1/2"	7-64	26c
73-232	4576J	C	1 1/2"	1 1/2"	10-32	32c
73-233	46	A	2 1/2"	1 1/2"	1/4-20	38c
73-234	46J	A	2 1/2"	1 1/2"	7/64	47c
73-235	47	A	4 1/2"	1 1/2"	1/4-20	62c
73-236	47J	A	4 1/2"	1 1/2"	7/64	73c

### ANTENNA INSULATORS



A splendid selection of sturdy insulators, made of finest materials, for practically every application in antenna installation. 51-200 is Corning Glass type No. 67007, 51-201 is type No. 67017.

Stock No.	Fig.	Size	Description	Shpg. wt.	EACH	10 For	100 For
51-200	A	3 3/4"	Pyrex glass, 250W...	1 1/2 lb.	33c	\$2.97	...
51-201	A	7 1/2"	Pyrex glass, 1000W...	2 lb.	\$1.10	\$9.90	...
51-250	B	1 1/2"	Glass type...	1 1/2 lb.	30c	2.70	...
51-255	C	2 1/2"	Glazed porcelain...	1 lb.	30c	2.70	...
51-256	C	4"	Glazed porcelain...	2 lb.	30c	5.40	...
51-257	D	4"	Glazed porcelain...	2 lb.	9c	.81	7.29
51-260	D	1 1/2"x1 1/2"	Lo-loss white porc...	1 lb.	3c	.24	1.92
51-261	E	2 1/4"x1 1/4"D.	Brown glazed porc...	1 lb.	7c	.63	5.67
51-265	F	1 1/2"x1 1/2"D.	Porcelain nail knob...	12 oz.	3c	.24	1.92
51-270	G	3 1/4"x1 1/4"D.	Porcelain tube...	8 oz.	2c	.18	1.62
51-271	H	6 1/2"x1 1/4"D.	Porcelain tube...	8 oz.	3c	.24	2.16
51-275	G	3"	Eye wall insulator...	4 oz.	3c	.24	2.16
51-276	H	7"	Eye wall insulator...	4 oz.	4c	.36	3.24

### BEE-HIVE INSULATOR



For supporting coils, condensers, high voltage leads, etc. Made of white glazed porcelain, 2" diam.; 2 1/2" high. Extra-strong; fully weather-proofed for outdoor use. Shpg. wt., 8 oz.

51-205, 10 for 99c. EACH... **11c**

### ANTENNA INSULATORS

Made of strong white porcelain. Low capacity and long leakage path. All 1" diameter.

88-200, 7" long. Wt., 1/2 lb. EACH. **22c**  
88-201, 12" long. 1 lb. EACH. **29c**  
88-202, 20" long. 1 1/2 lbs. EACH. **39c**





# HOOKUP & MAGNET WIRE - CABLES

## SOLID TINNED-COPPER WIRE



Heavy duty aerial wire made of finest quality copper. Tinned to permit easy soldering and provide dependable connection. Approx. shpg. wt., 2 lbs.

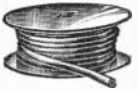
Stock No.	Gauge	Feet	NET
47-520	14	100	\$0.53
47-530	12	100	.59
47-540	10	100	1.45

## VARNISHED SPAGHETTI TUBING

Standard grade varnished tubing, 4,000 volt av. dielectric strength; meets V.T.S. and A.S.T.M. specifications. 36' lengths.

Int. dia., .034 for 20-22 wire.	Internal dia., .066 for 14 wire.
49-250, Black } EACH 6c	49-265, Black } EACH 7c
49-251, Yellow } 10 FOR 54c	49-266, Yellow } EACH 7c
49-252, Red } 10 FOR 54c	49-267, Red } 10 FOR 63c
49-253, Green } 54c	49-268, Green } 63c
Internal dia., .042 for 18 wire.	Internal dia., .085 for 12 wire.
49-255, Black } EACH 6c	49-270, Black } EA. 7 1/2c
49-256, Yellow } 10 FOR 54c	49-271, Yellow } 10 FOR 67c
49-257, Red } 10 FOR 54c	49-272, Red } 10 FOR 67c
49-258, Green } 54c	49-273, Green } 67c
Internal dia., .053 for 16 wire.	Internal dia., .106 for 10 wire
49-260, Black } EACH 7c	49-275, Black } EACH 8c
49-261, Yellow } 10 FOR 63c	49-276, Yellow } 10 FOR 8c
49-262, Red } 10 FOR 63c	49-277, Red } 10 FOR 72c
49-263, Green } 63c	49-278, Green } 72c

## LACQUERED TUBING ON SPOOLS



4,000 V. av. dielectric strength. Shpg. wt., 1 lb. For No. 18 wire. Internal diameter, .042".

For No. 12 Wire. Internal dia., .085"	For No. 14 Wire. Internal dia., .066"	24 Ft. Spool EACH
49-285, Black } 59c	49-290, Black } 59c	59c
49-286, Yellow } 59c	49-291, Yellow } 59c	
49-287, Red } 59c	49-292, Red } 59c	
49-288, Green } 59c	49-293, Green } 59c	

## SPAGHETTI ASSORTMENT

Assorted selection of 26 pieces of spaghetti tubing in a range of diameters for every requirement. Each piece is 7 1/2" long. Shpg. wt., 1 lb.

49-220, NET.....38c

## GIANT SPAGHETTI

Black cambric tubing impregnated with oil varnish. 1/4" inside diameter. 36" long. Shpg. wt., 2 oz.

49-210, NET.....15c  
10 LENGTHS FOR.....\$1.35

## SINGLE CONDUCTOR LEAD-IN

High-grade, rubber covered weatherproof wire.

18 STRANDED	16 SOLID
48-920, PER FOOT.....1/2c	48-930, PER FOOT.....1c
100 FEET FOR.....45c	100 FEET FOR.....85c
250 FEET FOR.....\$1.02	250 FEET FOR.....\$1.95
1000 FEET FOR.....3.70	1000 FEET FOR.....7.70

## SINGLE CONDUCTOR SHIELDED

No. 16 and No. 20 stranded tinned wire. Heavy rubber insulation. Braided tinned copper shield overall. Shield can be grounded, resulting in improved reception. For antennae lead-in, FM-converter output leads, etc.

20 STRANDED	16 STRANDED
48-940, PER FOOT.....2c	48-950, PER FOOT.....2c
500 FEET FOR.....\$7.44	250 FEET FOR.....\$3.80

## TWISTED PAIR LEAD-IN

### SHIELDED TYPE

Consists of two No. 20 solid copper conductors protected by tough, durable weatherproof insulation with closely woven flexible copper shielding. Low capacitance. Particularly suitable for all-wave and doublet aeriels. Meets requirements of multiple antenna installations for broadcast receivers.

48-830, PER FOOT.....3c  
100 FEET FOR.....\$2.65



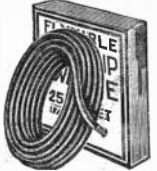
### WEATHERPROOF

No. 22 stranded tinned copper conductors. Twisted pair, paper wrap, rubber covered, and paraffined black cotton overall. A good low capacitance lead-in for low impedance transmission lines, doublet antenna system on "All Wave" receivers, etc.

48-840, PER FOOT.....1 1/2c  
100 FEET FOR.....\$1.20

## PUSH-BACK HOOK-UP WIRE

Of highest quality. Only evenly-drawn copper wire is used. Available in both solid and stranded wire. The stranded wire is made up of carefully twisted individual strands of great tensile strength. Both types double-cotton covered with paraffin-treated damp-proof braid which pushes back easily. Available in five colors: Black, Red, Blue, Green and Yellow. Shpg. wts.: 25 ft., 4 oz.; 100 ft., 1 lb.; 1000 ft., 5 lbs. 10 oz.



### SPECIFY COLORS DESIRED

NO. 20 SOLID	NO. 20 STRANDED
48-329, 25 ft. coil, NET...18c	48-359, 25 ft. coil, NET...20c
48-339, 100 ft. coil, NET...58c	48-369, 100 ft. coil, NET...65c
48-349, 1000 ft. coil...\$5.15	48-379, 1000 ft. coil...\$5.95

## COLORS RUBBER HOOKUP WIRE

Soft-drawn No. 18 tinned stranded copper wire with cotton wrap and colored rubber overall. Shpg. wt., 25 ft., 4 oz.; 1000 ft., 6 lb.

48-199, 25 foot coil. Choice of five colors: Black, Red, Blue, Green, and White. Specify color. NET.....19c

48-209, 1000 foot coil. Choice of four colors: Black, Red, Blue, and White. Specify color. NET.....\$5.85

48-219, No. 16 stranded hookup wire with current capacity of 7 amps. Available in Black or Red. Specify color. 25 FOOT COIL, NET.....32c

## GENERAL PURPOSE MULTI-CONDUCTOR CABLE



Twisted pair No. 19 solid tinned-copper wire, with 1/4" insulation, and glazed-cotton braid overall. For low-voltage installations.

2 CONDUCTOR	3 CONDUCTOR
48-810, Per Ft. NET...2 1/2c	48-820, Per Ft. NET...3 1/2c
100 FEET FOR.....\$2.25	100 FEET FOR.....\$2.90



## R.C. TWISTED PAIR

For all noise-reducing doublet antenna systems. No. 18 twisted rubber-covered stranded wire.

48-850, PER FOOT.....1 1/2c  
50 FEET FOR.....71c  
100 FEET FOR.....\$1.34  
250 FEET FOR.....3.18



MIKE AND UTILITY CABLE  
Consists of No. 20 stranded, tinned copper wire with cotton serve and rubber coat, over each conductor, with tinned shield and rubber cover overall. \*Size, 18 stranded.

Cond.	No.	Per Foot	100 Feet
2	48-550	5c	\$4.35
3	48-560	6c	5.25
4	48-570	8c	6.20
5	48-580	9c	8.15



## LAMP CORD

No. 18 stranded twisted pair. Cotton wrap and rubber cover on each conductor. Black cotton braid overall. U. L. listed.

48-860, PER FOOT.....2 1/2c  
100 FEET FOR.....\$2.05  
1,000 FEET FOR.....\$19.60

## WEATHERPROOF RUBBER SERVICE CORD

Round, flexible, weatherproof cable. No. 18-16 x 30 stranded conductors, each rubber covered and color coded; with cotton wrapping and rubber overall.

47-400, 2 Cond. 100 Feet For \$3.20 PER FOOT.....4c  
47-550, 3 Cond. 100 Feet For \$3.95 PER FOOT.....5c



## HIGH-GRADE MAGNET WIRE ON SPOOLS

Insulated copper wire of highest quality for all radio and electrical purposes. Wound on spools in continuous lengths. Excellent for winding armatures and field coils, receiver and transmitter coils, rewinding power transformers and chokes. For shops, schools, laboratories, radio builders, experimenters, etc. Standard B. & S. Gauge. Plain Enamelled, Double Cotton, or Single Cotton Enamel types. We can supply magnet wire in all sizes and types in larger quantities than listed below. Write for quantity prices. Shpg. wts.: 1/4 lb. spool, 9 oz.; 1/2 lb. spool, 14 oz.; 1 lb. spool, 1 1/2 lbs.

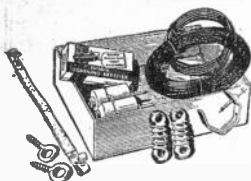


PLAIN ENAMELED 1/2 LB. SPOOLS				DOUBLE COTTON 1/2 LB. SPOOLS				S. C. E. 1 LB. SPOOLS			
No.	Size	Ft.	NET	No.	Size	Ft.	NET	No.	Size	Ft.	NET
48-100	14	38	\$0.28	48-120	14	36	\$0.30	48-020	14	78	\$0.51
48-102	16	63	.29	48-122	16	61	.33	48-022	16	124	.58
48-104	18	101	.29	48-124	18	96	.36	48-023	17	156	.58
48-106	20	159	.31	48-126	20	150	.37	48-024	18	198	.60
48-108	22	253	.31	48-128	22	234	.41	48-025	19	248	.62
48-109	24	402	.32	48-129	24	362	.47	48-026	20	312	.64
48-111	26	640	.36	48-131	26	558	.57	48-028	22	490	.68
48-112	28	1013	.38	48-132	28	842	.65	48-029	24	772	.78
48-113	30	1602	.43	48-133	30	1321	.76	48-030	25	936	.87
48-114	32	2543	.47	48-134	32	1889	.90	48-031	26	1209	.95
48-115	34	4042	.55	48-135	34	2746	1.06	48-032	28	1876	1.05
48-116	36	6410	.71	48-136	36	3801	1.48	48-033	30	2780	1.07

# ANTENNAS • INTERFERENCE FILTERS

## BELDEN BROADCAST AERIAL KITS

### MODEL 8309 KIT



Proper aerial will improve reception of any radio. This exceptionally fine kit contains wire and accessories for complete installation; 1—50-foot coil of 7x26 bare copper aerial wire; 1—25-foot coil of 18 stranded lead-in; 1—lightning arrester, type 8896; 1 "C" type ground clamp; 2 porcelain nail-on knobs; 2 porcelain insulators. All components are of highest quality. With complete instructions. Shipping wt., 4 lbs. **56c.**

### MODEL 8304 KIT

All accessories for complete installation. Contains: 75 feet 7x22 Belden wire, preferred for systems exposed to smoke or fumes; 35 feet 16-stranded lead-in; 1 arrester, type 8896; 1 "C" type ground clamp; 1—12" lead-in strip; 2—3" glass insulators; 2 porcelain nail-on knobs; 2 galvanized screw-eyes. Complete with instructions. Shipping weight, 5 lbs. **\$1.13**

## NOISE REDUCING ACCESSORIES

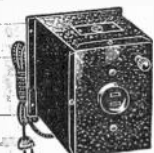
### MALLORY TYPE LC-10



Inductance-capacity filter for eliminating severe interference. Install close to noise source. Has terminal for grounding to frame of motor or appliance. Plugs into 110-220 volt power source. Has convenient outlet on top of case to accommodate plug of motor or other electrical appliance. Easily installed on a wall or directly on the appliance. Overall size: 2 1/4" x 3 x 3 1/2". For any electrical apparatus drawing up to 10 amps. Shpg. wt., 5 lbs. **\$5.64**

70-320. NET.

### ICA ALL-WAVE FILTERVOLTS HEAVY-DUTY TYPE



Especially designed for reducing interference in all-wave receivers. Particularly effective where interference is caused by appliances. Rated at 250 watts. Universal type for use from 32, 110 or 220 volts AC or DC. 5x4x 4 3/4". Shpg. wt., 5 lbs. **\$4.41**

70-370. NET.

### STANDARD TYPE



An efficient filter to reduce noise-interference in radios caused by any type of electrical appliances. For 110 or 220 volts AC or DC. Measures 4 1/2" x 3 3/4" x 1 1/4" overall. Shipping wt., 1 1/2 lbs. **\$2.65**

70-371. NET.

### REPLACEMENT ANTENNA LOOP



Replaces antenna coil in battery and midget sets or portables. Inductance is 240 microhenries. Turns may be removed for accurately matching loop to radio. Easily installed. Size 5 1/4" x 8". Wt., 12 oz. **48c.**

51-040. EACH. 10 for. **\$3.95**

### ICA TENNA-SCOPE LOOP



Easily installed inside radio cabinet. Eliminates ground and antenna wires. Increases selectivity. Tuning range is 1715 KC to 800 KC. Small size permits use with portable radios and midget sets. Size: 8" x 6" x 1 1/4". Shpg. wt., 1 lb. **\$1.47**

51-022. NET.

### SPRING ADJUSTER



Prevents sag in outdoor antenna. Porcelain end rings. Wt., 1 lb. **\$3.30**

51-301. NET.

### MALLORY TYPE X5 FILTER

For use with vacuum cleaners, food mixers, etc. Use between the electrical appliance and the 110-220 volt power line. Has binding post for grounding to frame of appliance or motor. Triple capacity filter. Blocks interference at source. Handles up to 5 amps. 1 1/4" x 2 1/4". Shpg. wt., 1 lb. **88c.**

70-321. NET.

**TYPE 22.** A capacitor-inductance plug-in type filter for medium interference such as electric razors, small motors, etc. Most effective on grounded line systems. Size, 1 3/4" x 2 1/4". Rated at 3 amps. For 110-220 V, Wt., 1 lb. **82c.**

70-322. NET.

**TYPE 24.** A dual inductance-capacity plug-in filter for severe interference. For use at radio or noisy appliance. Size, 1 3/4" x 3". For 110-220 V. AC or DC at 3 amps. 1 lb. **97c.**

70-323. NET.

**TYPE 2A1.** Antenna substitute. A capacity and inductance combination using house wiring as an antenna. Plugs in power line socket. Size, 1 1/4" x 1 3/4". Wt., 1 lb. **71c.**

70-324. NET.

**TYPE W7SP.** A filter for drink mixers, electric drills, etc. 7/8" x 1 1/4". Wt., 1 lb. **53c.**

70-325. NET.

**DUPLX FILTERVOLT**

Power line type aerial adapter—radio noise filter. Eliminates noise caused by electric shavers, fans, motors, etc. With dual outlet. For use from 110-220 volts AC or DC. 7 1/2" x 12". **88c.**

70-372. NET.

**WE CAN supply all Mallory Filters. Write for FREE Mallory Circular 37-007.**

### LIGHTNING ARRESTERS

**Porcelain.** Underwriters' Laboratory listed. Designed for single wire lead-in. Complete with mounting hardware. Shpg. wt. 10 oz. **9c.**

51-280. NET EACH. 10 for. **81c.**

**Neon Type.** Uses neon element in place of usual air-gap or resistance. Fully approved by the Underwriters' Lab. Offers real protection. Shpg. wt., 1 lb. **82c.**

51-240. NET.

### BELDEN ARRESTERS

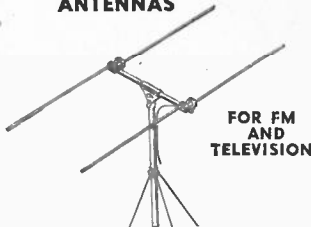
**Type 8896.** Bakelite resistor type arrester. Positive protection. Listed as standard by Underwriters' Laboratories. Furnished with \$100.00 Belden guarantee. Shpg. wt., 8 oz. **15c.**

51-230. NET.

**Type 8950.** Air gap type porcelain arrester designed for doublet antenna. Very sturdily made. Shpg. wt. 8 oz. **26c.**

51-231. NET.

## AMPHENOL DIPOLE ANTENNAS



FOR FM AND TELEVISION

Improve the performance of your FM or Television receiver with Amphenol Dipole and Reflector Antenna, specifically designed for high frequency signal reception. Supplied in Kit form—consists of all necessary parts to assemble complete unit, less guy wires. Includes 75 ft. of high efficiency Amphenol 300 ohm twin-lead, which brings signal to receiver with minimum attenuation. Has unidirectional characteristics which reduce interfering signals from reflector side. Adjustable swivel plates at mast head and mounting bracket permit adjustment for best angle of reception.

**97-430.** Type 103. Dipole and Reflector Kit with 75 ft. 300 ohm twin-lead. **\$8.23**

Shpg. wt., 7 lbs. NET.

**97-435.** Type 104. Same as 97-430, but less reflector. Shpg. wt., 5 lbs. NET. **\$5.29**

**97-431.** Type 109. Conversion Kit. Consists of reflector, cross arm, and all parts to add reflector to Dipole. Wt., 2 1/2 lbs. NET **\$3.23**

### KNIGHT VERTICAL ANTENNA

Mounts vertically to match standard broadcast type antenna construction. Picks up less noise than old style horizontal antennas. Provides efficient reception with All-Wave, Broadcast or SW receivers. Simple to install. Guaranteed rust-proof. Insulator furnished provides positive weather-proof insulation. Universal bracket allows easy fastening to gable, flat roof, chimney, soil pipe, etc. Complete antenna includes 4 section 12 foot mast made of Admiralty brass with nickel-plated finish, mounting bracket, 40 feet of lead-in wire, 10 feet of ground wire, lightning arrester, insulators, etc. Shpg. wt., 4 lbs. **\$3.75**

97-470. NET.

### ICA WINDOW POLE ANTENNA

A deluxe window antenna, made of nickel plated Admiralty brass. Ideal for homes, apartments, hotels, offices and other buildings where a roof antenna is impractical. This antenna is easily adjusted for the reception of Frequency Modulated signals. An adjustable bracket at base permits maximum pickup of either vertically or horizontally polarized FM signals. Three telescoping sections open to a maximum length of 96". With lead-in strip, and adjustable mtg. bracket. Wt., 2 lbs. **\$3.53**

97-460. NET.

### MUELLER CLAMP

Positive contact ground clamp. Channel construction. Maximum bite 1 1/4". Case hardened screw. Provides sure connection. Rust proofed. Shpg. wt., 4 oz. **8c.**

51-310. EACH. 10 for. **72c.**

100 for. **\$6.48**

### BELDEN WINDOW LEAD-IN

**Type 8890.** Fully weather resistant, 12" window lead-in strip. Rubber insulated, with clips at both ends. **7c.**

51-050. NET.

# AUTO AERIALS AND ACCESSORIES

## AUTO RADIO SUPPRESSORS



### KNIGHT SUPPRESSORS

Compact carbon type motor noise suppressors. For use on any automobile engine. Will cut out practically all ignition interference. Wt., 6 oz.

Stock No.	Description	Price
56-650.	A. Spark Plug Type.	EACH 12c
56-651.	B. Distributor Type.	
56-652.	C. Cable Type.	
56-653.	E. Short Type.	
56-654.	F. Elbow Type.	
56-655.	Spark Plug Type for Late Ford Cars & Truck for 1936-35 models.	
56-656.	D. 50,000 ohm. Ford V8 Dist. Brush Type. '33-'35 models.	12c
56-657.	D. Special small type, 50,000 ohm. For 1936 to 1940 Fords.	12c



### ICA WIRE-WOUND TYPES

Sealed in a moisture proof, heat resisting, insulated casing with brackets for all makes of spark plugs and cars. Low DC resistance (30 ohms) does not affect intensity of ignition spark. Effectively suppresses ignition noise.

56-669. 2351B Fig. A. Spark plug type.  
56-670. 2353B Fig. B. Distributor type.  
56-671. 2354B Fig. C. Elbow type. 35c.  
10 for \$3.15 EACH.

### ICA MASTER DISTRIBUTOR SUPPRESSOR

Type 330. Wire-wound, 10,000 ohms resistance. For use on cars where only one suppressor is needed. Impervious to heat. Eliminates motor noises.

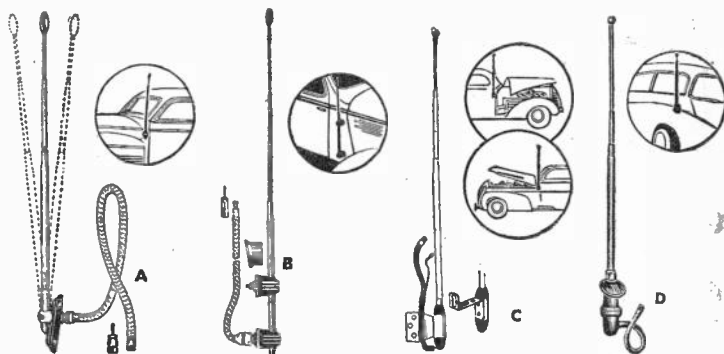
56-672. 5 FOR \$1.85  
NET EACH..... 41c

### FRONT WHEEL NOISE SUPPRESSORS

Eliminates static noise generated in front wheels of automobile. Fits inside front wheel hub cap. Easy to install.

56-680. PAIR..... 16c

## ICA RUSTPROOF-RATTLEPROOF AUTO AERIALS



### ROCKER AERIALS (Fig. A.)

New swivel type aerial adjustable to any angle. For installation on modern streamlined car. Weatherproof, concealed mounting. Has 36° shielded cable and universal plug-in attachment. Requires two holes for mounting.

97-000. Type 4540. 2-section telescopic antenna. Extends from 23" to 49". \$2.94 Shpg. wt., 2 lbs. EACH.....

97-001. Type 4541. 3-section telescopic antenna. Extends from 23 1/4" to 72". \$3.38 Shpg. wt., 2 lbs. EACH.....

### SIDE COWL AERIALS (Fig. B.)

Made of Admiralty Brass with heavy, triple-chrome plating. Tapered ends. Patented Shim Contacts eliminate rattling and vibration. With 33° spring tensioned, shielded cable. Requires two holes for mounting. Shpg. wt. 2 lbs.

97-010. Type 4566. "CHANCELLOR." 3-section telescopic. Extends from \$2.91 20" to 65". EACH.....

97-011. Type 4555. "COMMODORE." 3-section telescopic. Extends from \$3.23 23 1/4" to 72". EACH.....

97-012. Type 4553. "PRESIDENT." 3-section telescopic. Extends from \$3.50 31 1/2" to 95". EACH.....

97-013. Type 4558A. "COUNSELOR." 4-section telescopic. Extends from \$4.38 32" to 108". EACH.....

97-015. Top bakelite insulator and fittings. \$44c

97-016. Bottom bakelite insulator and fittings for cowl types, EACH.....

97-003. Type 4520. 36° replacement cable for rocker and cowl type antennas. \$3c

### UNDERHOOD AERIALS (Fig. C.)

Constructed of the finest Admiralty Brass with triple chrome plating. Telescopic joints scientifically tapered to prevent moisture and dust from entering tubes. Equipped with "static discharge" ball tip. Noiseless, rattleproof construction. Dual brackets permit either underhood or alligator-type mounting. Eliminate drilling of holes in body of car. Easily installed with self tapping screws. Fit all car models.

97-008. Type 4801. "TRAVELLER." 3-section telescopic. Extends from 23 1/2" to 72". Dual mounting brackets and 33° shielded low-loss cable, with plug-in attachments. Shpg. wt., 2 lbs. EACH..... \$2.91

97-006. Type 4802. "CLIPPER." 3-section telescopic. Extends from 23 1/2" to 72". Dual mounting brackets and 33° shielded low-loss cable, with plug-in attachments. Shpg. wt., 2 lbs. EACH..... \$3.23

97-007. Type 4803. "NEW YORKER." 3-section telescopic. Extends from 31 1/4" to 96". Dual mounting brackets and 33° shielded low-loss cable, with plug-in attachments. Shpg. wt., 2 lbs. EACH..... \$3.50

### TOPPER AERIAL (Fig. D.)

97-030. Type 4575. "TOPPER." 3-section telescopic antenna designed for latest model streamlined cars. Extends from 20" to 50". Mounts on top of fender or cowl. Specially designed insulator arrangement permits swiveling of antenna to any position for matching contours. Complete with low-loss cable and plug-in attachments, ready for installation. Shipping weight, 2 lbs. \$3.79  
NET.....

## MALLORY AUTO TYPE CONDENSERS



For car radio applications. Types AG are for noise suppression at the generator, oil and gas gauges, etc. Type AM is for suppression at the ammeter and other instruments. Types FM especially designed for Ford generators. Type DL is a dome light interference suppressor and includes an RF choke. Types RF are for general vibrator hash and noise suppression, and have low RF impedance. Average shpg. wt., 6 oz.

No.	Mfrs. Type	Fig.	Mfd.	Wkg. V.	Size	EACH
17-670	AG443	A	0.05	100	7/16x1 3/8"	40c
17-671	AG444	A	0.25	200	3/8x1 1/2"	40c
17-672	AG450	A	0.5-5	100	3/8x2"	61c
17-673	AG451	A	0.5	200	3/8x2"	61c
17-674	AG452	A	1.0	200	1/2x2 1/2"	57c
17-675	AG453	A	0.5	200	3/4x1 1/4"	61c
17-676	AM454	B	0.5	200	3/8x2"	37c
17-678	FM442	C	0.5	160	1 1/2x2"	40c
17-677	FM441	D	0.5	100	1 1/2x1 1/2"	40c
17-679	DL445	E	0.5	200	1 1/2x2 1/2"	70c
17-680	RF480	F	0.5	100	1 1/2x2 1/2"	75c
17-681	RF481	F	0.5	50	3/4x1 1/2"	51c
17-682	RF482	F	1.0	50	1 1/2x1 1/2"	61c

## MALLORY TYPE OW BUFFER CONDENSERS

Oil-impregnated and wax sealed condensers, providing extra safety factor for voltage applications higher than recommended for the wax impregnated type. Accepted standard construction for maximum protection from atmospheric conditions. Ideal for use in vibrator type power supply. Types listed below are rated at 1600 volts DC. Av. shpg. wt., 6 oz.

No.	Type	Mfd.	Size	NET
17-643	OW340	.0005	1 1/2x3/8"	EACH 30c
17-644	OW341	.001	1 1/2x3/8"	
17-645	OW331	.002	1 1/2x3/8"	
17-646	OW342	.003	1 1/2x3/8"	
17-647	OW343	.004	1 1/2x3/8"	
17-648	OW332	.005	1 1/2x3/8"	
17-649	OW344	.006	1 1/2x3/8"	
17-650	OW345	.007	1 1/2x3/8"	
17-651	OW346	.0075	1 1/2x3/8"	
17-652	OW333	.008	1 1/2x1/2"	
17-653	OW334	.01	1 1/2x3/8"	
17-654	OW335	.015	1 1/2x3/8"	
17-655	OW336	.02	1 1/2x3/8"	
17-656	OW337	.03	1 1/2x3/8"	
17-657	OW338	.04	1 1/2x3/8"	
17-658	OW339	.05	2 1/2x3/8"	
17-099	VD491*	.0008-.0008	1 1/2x3/8x3/8"	37c

\*For Motorola models using a dual .0008 mfd., 1600 volt hash suppression condenser.

## MALLORY REPLACEMENT VIBRATORS

See page 24 in this catalog for complete listing of Mallory Replacement Vibrators. Write for FREE copy of 37-012 Mallory Replacement Vibrator Guide. Contains complete listing of replacement vibrators by make and model number of set, and original part number.

## OTHER MALLORY AUTO RADIO CONDENSERS

See Page 36 for listing of Type OT tubular condensers. Impregnated in oil and hermetically sealed in leak-proof case, externally insulated with cardboard tube. Ideal for vibrator buffers and high voltage coupling applications. Supplied with mounting strap.

# AUTO RADIO ACCESSORIES

## 1946 WARD AUTO AERIALS

### SIDE COWL TYPE

Chrome plated, admiralty brass side cowl antennas in 3 and 4 section models. Low-loss two stanchion mount. Hiny signal to noise ratio. Lead-in, 36" long, with polyethylene insulation and vinylite covering overall. Kit includes bayonet adapter and conversion kit for irregular bodies. Plug fits all Motorola and bayonet connectors. Av. shpg. wt., 2 lbs.

**97-215. Model SC-3. 3-Section.** Extends to 66". **\$2.91 NET.**

**97-204. Model 5XXL. 3-section.** Extends to 66". As above but includes shield can. **\$2.62 NET.**

**97-216. Model SC-4. Deluxe. 4-section.** Extends to 100". **\$3.50 NET.**

### FLEX-ANGLE ANTENNA FOR FENDER OR COWL

Model CF-3. Flexible angle aerials designed to fit cowl and fender contours. Three sections extend to 68". Mounted with a single ceramic insulated stanchion. Antenna can be adjusted at the base through a range of 16° so that a vertical antenna can be used with any cowl or fender. Made of admiralty brass with chrome plated finish. Detachable high Q lead is 36" long, complete with bayonet adapter for connection to all radios. Polyethylene insulation with vinylite covering insures low loss, and is excellent water-proof protection. Requires a minimum of time, tools and labor to install. Shpg. wt., 2 lbs.

**97-217. NET.....\$3.20**

### COWL-FLEX ANTENNA

Model TC-3. Universal top cowl mount especially designed for any of the new model streamlined cars. 3-sections extend to 56". Single stanchion mounting. Fits all top cowls regardless of contour. Ruggedly constructed of admiralty brass tubing with finest chrome plated finish. Antenna and lead fittings are permanently weather-proof and secure. Polyethylene insulation with vinylite covering protects 36" lead-in. Very easy to install with a minimum of tools and labor. Shpg. wt., 2 lbs.

**97-218. NET.....\$3.50**

### FENDER-FLEX MODEL

Model F-3. Universal fender mount antenna designed to fit all car fenders regardless of contour. Anti-rattle construction prevents sections from slipping when antenna is fully extended. Made in three sections. Extends 56". Single stanchion mount provides easily adjusted angle between antenna and fender shape. Chrome plated admiralty brass for high tensile strength and long wear. Comes complete with insulated lead-in, 48" long. Silver to silver contacts. Shpg. wt., 3 lbs.

**97-219. NET.....\$4.67**

### BELDEN SHIELDED LEAD-IN

No. 20 stranded. Cotton wrap, rubber covered, rayon braid, with tinned copper shield overall.

**49-400. Type 8663. 230" dia.** 100 Ft. For \$3.54. Per Ft. **4 1/2c**

**49-410. Type 8664.** As above but .290" diameter and rubber covered overall. 100 Ft. For \$4.70. Per Ft. **6c**

### BELDEN SHIELDED LOOM

Closely woven tinned-copper shielded loom.

**49-420. Type 8657. 3/8" Inside dia.** 50 Ft. For \$1.91. Per Ft. **5c**

**49-430. Type 8658. 1/2" Inside diameter.** 50 Ft. For \$2.52. Per Ft. **6 1/2c**



## STAR CUSTOM-MATCHED PLATES

Match auto dash panels as listed. Consist of custom matched escutcheon, pre-assembly plate, knobs and hardware. Used with Star universal control, listed below at right, for remote control of any auto radio. When ordering for car which is not listed, give make and year of car; name and model number of set, and tubes used. Average shipping weight, 10 oz.

No.	Model	No.	Model	No.	Model
57-000	Buick 1938	57-065	Ford Deluxe Early '36	57-120	Oldsmobile 1942
57-001	Buick 1939	57-066	Ford Deluxe Late '36	57-140	Plym. Deluxe '36
57-002	Buick 1940	57-067	Ford Std. '37	57-141	Plym. Deluxe '37
57-003	Buick 1941	57-068	Ford Deluxe '37	57-142	Plymouth 1938
57-004	Buick 40, 60, 90	57-069	Ford 1938	57-143	Plymouth Std. '39
57-005	Buick 50, 70	57-070	Ford Std. '39	57-144	Plym. Deluxe '39
57-010	Chevrolet 1936	57-072	Ford Deluxe '39	57-145	Plym. Std. '40
57-011	Chevrolet 1937	57-071	Ford Std. 1940	57-146	Plym. Deluxe '40
57-012	Chevrolet 1938	57-073	Ford Deluxe 1940	57-147	Plym. Std. '41
57-013	Chevrolet 1939	57-074	Ford 1941	57-148	Plymouth Spec. '41
57-014	Chevrolet Std. 1940	57-075	Ford 1942	57-149	Plym. Deluxe '42
57-015	Chevrolet/Deluxe 1940	57-085	Hudson 112, 118 '39	57-150	Plym. Special '42
57-016	Chevrolet 1941	57-086	Hudson 1940	57-160	Pontiac 1937
57-017	Chevrolet 1942	57-087	Hudson 1941	57-161	Pontiac 1938
57-031	Chrysler 1940	57-085	Mercury 1939	57-162	Pontiac 1939
57-032	Chrysler 1941	57-085	Mercury 1940	57-163	Pontiac 1940
57-033	Chrysler 1942	57-074	Mercury 1941	57-164	Pontiac 1941
57-041	DeSoto 1940	57-105	Nash Laf. 400 '37	57-165	Pontiac 1942
57-042	DeSoto 1941	57-106	Nash Laf. 1938	57-175	Stude. Pres. '39
57-043	DeSoto 1942	57-107	Nash 1939	57-176	Stude. Comm. '39
57-050	Dodge 1936	57-108	Nash 1940	57-177	Stude. Pres '40
57-051	Dodge 1937	57-109	Nash 1941	57-178	Stude. Champ. '40
57-052	Dodge 1938	57-110	Nash 1942	57-179	Studebaker 1941
57-053	Dodge 1939	57-115	Oldsmobile '36	57-180	Studebaker 1942
57-054	Dodge 1940	57-116	Oldsmobile '37	57-185	Terraplane 1937
57-055	Dodge 1941	57-117	Oldsmobile '39	57-186	Terraplane 1938
57-056	Dodge 1942	57-118	Oldsmobile 1940	57-193	Willys 1940
		57-119	Oldsmobile 1941	57-198	Underdash or Post

NET EACH

\$1.62



### CABLE AND HOUSING

Exact duplicate cable and housing for auto radio remote controls. Housing is parkerized.

#### CABLE ONLY (A)

.130"	.160"	Lgth.	NET
56-700	56-710	18"	\$0.31
56-701	56-711	24"	.39
56-702	56-712	30"	.48
56-703	56-713	36"	.55

#### HOUSING ONLY (B)

56-720	56-730	18"	\$0.31
56-721	56-731	24"	.39
56-722	56-732	30"	.48
56-723	56-733	36"	.55



### AUTO REMOTE CONTROL CABLE AND HOUSING FITTINGS

Exact duplicates for most auto radios. Match old fitting with illustrations and refer to list below for correct item. For .130" cables.

Stock No.	Type	NET	Stock No.	Type	NET
56-600	1	7c	56-609	11	7c
56-601	2	7c	56-610	12	12c
56-602	3	8c	56-611	A	8c
56-603	4	7c	56-612	B	7c
56-604	5	8c	56-613	C	7c
56-605	6	12c	56-614	D	7c
56-606	7	7c	56-615	E	7c
56-607	8	7c	56-616	F	7c
56-608	9	12c			

**56-617. Type H. For Motorola. .130".**  
**56-618. Type H. For Motorola. .150".**  
**NET EACH.....32c**

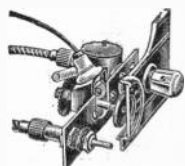
### BELDEN COPPER SHIELDING

Flexible tinned-copper shielding for interference circuits, auto wiring, etc. Av. wt. per ft., 4 oz.

Inside Dia.	Stock No.	Mfcs. Type	PER FT.	60 FT. FOR
1 1/4"	49-350	8660	2c	\$0.79
3/4"	49-360	8661	3 1/2c	1.35
3/8"	49-380	8662	9c	3.52

## STAR UNIVERSAL CONTROL

Universal drive consisting of gears for 6:1, 8:1, 10:1, 12:1 and 16:1 ratios, pilot light bulb and hardware. Used with custom matched panel and assembly plate, above. Fits any auto radio to any car. Cables and fittings listed at left.



### FOR ALL CARS—ALL RADIOS

Either dash or under-dash mounting. Panel matching plate, cables, extra. Wt., 1 lb

**57-215. Mechanism only.....\$2.35 NET**

### STAR CONTROL ACCESSORIES

**57-216. Type 5-1. On-Off Switch.....73c**  
**57-217. Type 5T-2. Variable Tone Control and on-off switch. Wt., 8 oz. NET.....\$2.06**  
**57-218. Type 5-2. 2 point Local-Distance switch. Wt., 8 oz. NET.....44c**

### PLUGS, JACKS, ADAPTERS



Convenient fittings for terminating auto radio antenna lead-in cables. Av. shpg. wt., 1 oz.

**FOR MOTOROLA—Fig. A**  
**46-210. Pin Plug. NET.....6c**  
**46-211. Shielded Jack. NET.....10c**

**LEAD-IN ADAPTERS—Fig. B**  
**46-215. For Philco, Motorola, etc. 18c**  
**46-217. Fig. C. Converts Motorola pin-plug to Delco bayonet fitting. NET.....15c**

### FUSE HOLDERS

**41-735. Metal container. Fits 1" or 1 1/4" 3AG Fuses. Size, 2 1/2"x3/4". Wt., 4 oz.**  
**10 for 54c EACH.....6c**

**41-790. Large size replacement type fuse holder. Measures 2 1/2"x1/2". Takes 3AG, 4AG and SFE30. Wt., 4 oz.**  
**10 For 81c EACH.....9c**

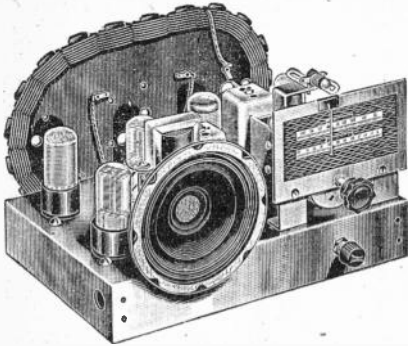
### ANTENNA CONNECTOR

Terminates Ant. leads. Measures 1 1/2"x3/4".

**41-740. EACH.....4c**

**10 For 36c**

# KNIGHT "Build Your Own" KITS



## COMPONENTS ARE OF HIGHEST QUALITY

Each kit is complete as listed, with punched and formed chassis, instructions, wire, solder, and every part to the last screw. Well known, standard brand parts are used exclusively. Resistors and condensers are of standard values. Tubes are first quality of a nationally known brand. Tube sockets are of molded bakelite. Chassis and metal parts are cadmium plated.

## LATEST "EASY-TO-BUILD" AC-DC SUPERHET KIT

**Tubes Used:** 1—12SA7GT converter, high frequency oscillator; 1—12SK7GT intermediate frequency 455 kc amplifier; 1—12SQ7GT diode detector, AVC, audio amplifier; 1—50L6GT power audio output stage; and 1—35Z5GT power rectifier. A modern loop-operated superheterodyne receiver with quality loudspeaker performance. Ideal for the beginner or advanced student; for home building projects or radio classroom. Engineered for ease of construction, efficient operation, and attractive appearance. Assembly and wiring are simple. No special tools are needed. Anyone who can handle a soldering iron, and has a slight knowledge of radio can build this receiver. Complete, easy to follow instructions are included for assembling, wiring and adjusting.

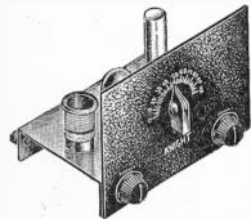
### ENGINEERED FOR FINEST PERFORMANCE

Includes every modern engineering feature. Designed around a highly sensitive superheterodyne circuit with dual-purpose tubes to provide exceptional performance. Circuit includes automatic volume control (AVC), contact potential biasing of 1st audio stage, and inverse feedback on output stage. High sensitivity permits self-contained loop to pick up distant stations. Loop antenna has extra winding for connection to outside antenna if greater pickup range is desired. Frequency range is 550 to 1700 kc, read directly on a handsome illuminated slide rule dial, which is also calibrated from 0 to 100. Has tone control, and volume control with on-off switch. Line cord is fused for full protection.

### EASY TO ASSEMBLE AND WIRE

The kit is extremely easy to assemble and wire. The chassis is punched, drilled and formed. It has ample room for easy mounting and wiring of parts, and includes demountable corner posts which can be used to cradle chassis in correct position for easiest accessibility. All parts are supplied, and a four-page instruction pamphlet is included. The pamphlet shows both a schematic and a pictorial diagram, tells how to mount each part, then carefully explains each wiring detail in step-by-step sequence. Complete kit includes 5" permanent magnet dynamic speaker, escutcheon plate, and all parts, tubes, hook-up wire, solder, and hardware. Only a screwdriver, pliers, and soldering iron needed to assemble. Cadmium-plated chassis is 7"x11"x2". Completed set measures 7" high x 7 1/4"x11". Operates on 105 to 125 volts, AC or DC. Shpg. wt. 7 1/2 lbs.

**83-224.** Complete kit with tubes, less cabinet. NET..... **\$18.65**



## THE NEW 1946 MODEL "OCEAN HOPPER" KIT

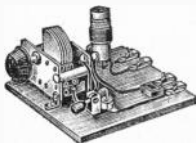
A new, completely redesigned "Ocean Hopper." Efficient engineering has produced this easy-to-build kit, worthy of its name. Modern design permits multi-tube performance with the use of only 1—12J5GT tube as regenerative detector, and 1—11L7GT tetrode power amplifier and half wave rectifier. Operates on 105 to 125 volts, AC or DC, without the use of power winding line cord resistor or ballast tube. Use of plug-in coils permits all-wave coverage at low cost. Frequency range is 9.5 to 550 meters (550 KC to 31.5 MC). Has main tuning control, electrical band spread control, and combination sensitivity control and on-off switch. Output transformer matches any PM speaker or headphones. Cadmium plated chassis measures 5 1/2"x9"x2". Clearly marked, black crackle panel is 7"x9". Kit is complete with all parts; punched and formed chassis, tubes, 2 coils for broadcast band, hardware, wire, solder, and full instructions. Less speaker and short wave coils, listed below. Shpg. wt. 8 lbs.

**83-225.** Complete with tubes. **\$12.95**

**NET.....**

**60-680.** Four SW coils covering 9.5 to 217 meters. Wt. 2 lbs. NET..... **\$1.47**

**81-601.** 5" PM speaker. NET..... **2.43**



## POPULAR CRYSTAL SET KIT

Provides clear reception of local broadcast stations. In simple kit form that anyone can assemble. Uses new high gain bank-wound litz wire coil. Kit is complete with 6 1/2"x6"x3/4" baseboard, coil, variable tuning condenser, crystal detector, wire, hardware, etc. Requires antenna and headset. Wt., 3 lbs.

**83-260.** Complete kit. NET.... **\$2.70**

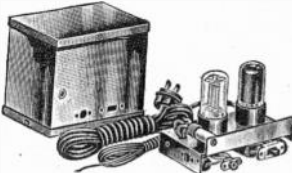
**59-110.** 2000 ohm headset. NET. **\$1.11**

**83-115.** Antenna kit. NET..... **56c**

## Allied AND THE RADIO BUILDER

Allied has served the radio builder and experimenter since the beginning of radio. The Knight kits presented here are the result of over twenty years' experience, including all the "know-how" gained during the war years in designing and supplying a large variety of training aids for Army and Navy radio schools. Every kit has been thoroughly tested in our fully equipped laboratory. Every kit has been carefully engineered to operate at high efficiency even though it may be assembled by a novice. Every kit has passed the test of sound engineering in circuit design, good mechanical layout, high quality components, and ease of construction.

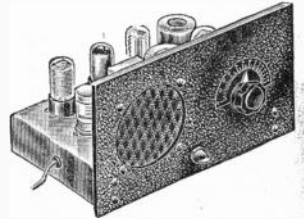
**Knigh kits are easy to assemble.** Instructions are complete; panels are drilled, screen-printed, and calibrated; chassis is punched and formed; every last part is included as listed. There are no holes to drill, no dials to mark, no odd screws or nuts to buy. Here is a line of popular moderately-priced kits for the radio teacher and student, the beginner or experimenter. Here are kits you can buy with confidence. When you buy a Knight kit, you get good design, good quality, good value.



## WIRELESS PHONO-OSCILLATOR

The newest in wireless phono-oscillator circuits. This easy-to-build kit will make a remote phono-player of high quality. Tubes used: 1—3L6GT oscillator, and 1—35Z5GT rectifier. The circuit used employs a combination of control grid and screen-grid modulation that results in 100% modulation with a minimum of distortion. Any high impedance pickup, crystal or magnetic, with volume control may be used. Permeability tuned oscillator transmits broadcast band signals to your regular radio set. Small size, 5 1/2"x3 1/4"x1/2" permits mounting of unit in record player. For 105 to 125 volts, AC or DC. Complete with all parts, tubes, and bronze finished metal case, and instructions. Build this kit and use in conjunction with any phono-motor and pickup or existing record playing attachment. Permits playing records through more than one receiver. Shpg. wt. 7 lbs.

**83-226.** Complete kit. NET.... **\$7.35**

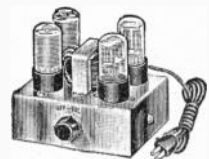


## BROADCAST AC-DC TRF KIT

**Tubes used:** 1—12SK7GT RF amplifier, 1—12SJ7GT biased detector, 1—50L6GT power amplifier, and 1—45Z5GT rectifier. An easily built receiver of exceptional performance. Tuned Radio Frequency circuit permits high quality broadcast reception, yet is extremely simple to assemble and adjust. Requires only a 50 foot antenna. Kit supplied with all parts; including properly matched coils and tuning condenser, tubes, dynamic speaker, hardware, wire, solder, punched and formed cadmium plated chassis, 11"x7"x2"; masonite panel 7"x12"; and four page pamphlet giving complete instructions. Front panel is in black crackle finish, with clearly marked dial calibrated in kilocycles. Set when finished is 7" high x 7 1/4"x12". Operates on 105 to 125 volts, AC or DC. Shpg. wt. 7 1/2 lbs.

**83-228.** Complete with tubes. **\$13.95**

less cabinet. NET.....



## 4-WATT PHONO-AMPLIFIER

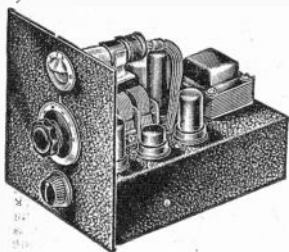
An easily assembled, compact phono-amplifier of new design. Inverse feedback permits unusually wide frequency response. Produces full 4 watts into output transformer (over 2.5 watts at less than 5% distortion to speaker voice coil). Tubes: 1—12SK7GT triode, amplifier-phase inverter; 2—25L6GT beam tetrodes—push-pull power amplifier; and 1—25Z6GT rectifier. Has punched and formed chassis which measures only 5 1/4"x4"x2", finished in metastable gray with contrasting markings for controls. Kit includes tubes, output transformer, tone and volume controls, connectors, and all parts. With easy-to-follow instructions. Operates on 105 to 125 volts, AC or DC. With the addition of any phono-motor and pickup and speaker below, a highly efficient record player may be built at low cost. Complete with tubes. See phono listings on pages 84-85. Shpg. wt., 7 lbs.

**83-227.** NET..... **\$10.95**

**81-604.** 8" PM speaker. NET.... **\$3.64**

# KNIGHT "Build Your Own" KITS

**BUILD THESE KITS FOR HIGH FIDELITY RADIO RECEPTION OR RECORD PLAYING**



These companion high fidelity units, when used together, deliver exceptional quality performance. ALLIED's engineering staff has designed features into these kits that make them the finest radio tuner and amplifier ever offered to the home builder. Easy to assemble and wire.

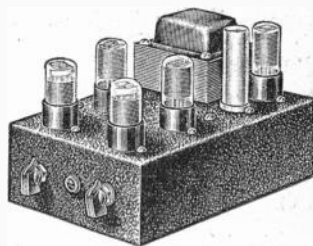
## TRF BROADCAST TUNER

**Tubes Used:** 2—6SG7 RF amplifiers, 1—6H6 detector-AVC, 1—6J5 cathode follower, 1—6G5 tuning eye, 1—5Y3 rectifier. Build an exceptional high-fidelity broadcast band tuner. Ideal for use with the high-fidelity amplifier at right. The Tuned Radio Frequency circuit has inherently wide selectivity—broad band reception means higher fidelity. Lightly loaded diode detector and inverse feedback circuit reduces demodulation distortion practically to the vanishing point. Separate diode automatic volume control maintains constant signals, reducing fading or blasting. A cathode follower output circuit is used, to which the built-in volume control is connected. Output is to screw terminal connectors and is almost independent of input impedance of any amplifier connected to it. "Magic eye" tuning indicator operates from AVC circuit and aids in precision tuning of stations. A smooth planetary drive vernier dial is calibrated 0-100 and has 5 to 1 tuning ratio. Requires an external antenna. Operates on 115 volts. AC. Kit is complete with all parts, punched and formed black crackle chassis, 10"x6 1/2"x3", clearly marked black crackle panel, 8 1/2" high x 7 1/2", properly matched coils, tubes, hardware, wire, solder, etc. Four-page pamphlet gives full instructions for easy assembly. Shpg. wt., 10 lbs.

**83-221. Complete with tubes. NET.....\$18.85**

## 10-WATT HI-FI AMPLIFIER

**Tubes Used:** 1—6SN7GT triode amplifier, direct coupled to triode phase inverter; 1—6SN7GT push-pull amplifier; 2—6V6GT push-pull power output stage; and 1—5Y3GT rectifier. Build one of the finest high-fidelity audio amplifiers ever designed for home construction. The ideal companion unit to the TRF Tuner at left. A high percentage of inverse feedback results in unusually wide frequency response,  $\pm 1.5$  db from 20 to 10,000 cps. Practically distortionless. High impedance input. Has volume and tone controls. Extra large output transformer matches any 8-ohm PM speaker. Kit supplied complete, with all parts; tubes, and punched and formed black crackle chassis, 10"x6 1/2"x3", to match tuner chassis size. Full easy-to-follow instructions contained in four page pamphlet. Pamphlet has both schematic and pictorial diagrams. Amplifier can be wired from pictorial diagram alone, which also shows placement of parts. Shpg. wt., 13 lbs.

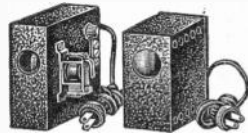


**83-222. Complete with tubes. NET.....\$18.50**

**82-073. Jensen PM12CT extended range speaker. Especially recommended for high-fidelity reproduction. NET.....\$12.47**

**95-000. Jensen BR Bass reflex speaker enclosure. To match above, or similar high quality 12" speaker. NET.....\$18.61**

## AC-DC PHOTO-CELL AND RELAY KIT



A highly practical beginners' photo-cell kit. Provides the builder with a medium for easily learning the amazing possibilities of electronic control. A change in light intensity varies the current flowing through the photocell and activates a relay circuit. May be used as burglar alarm, to control lights, to ring bells, for announcing purposes, and for numerous other applications. Relay contacts are rated at 2 amperes at 115 volts. Kit includes all parts: black crackle case 5 1/4"x5 1/4"x2", photocell, amplifying tube, relay, wire, and solder. Includes four page pamphlet with complete, easy-to-follow instructions. Operates on 115 volts, AC or DC. Will operate from any beam of light. For best results use the light source kit below. Shpg. wt., 2 1/2 lbs.

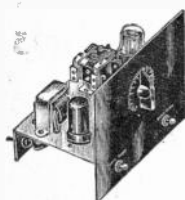
**83-710. Complete kit. NET.....\$7.85**

## ECONOMY LIGHT SOURCE KIT

A complete kit for building a dependable light source for Photo-Cell and Relay Kit above. Throws a concentrated beam of light for 50 feet. Includes metal case, 4 1/4"x4 1/4"x2 1/2", focusing lens, and special 50-watt bulb. With full instructions. For 115 volts, AC or DC. Shpg. wt., 2 1/2 lbs.

**83-715. Complete kit. NET.....\$4.60**

## PRECISION ELECTRONIC TIMER KIT

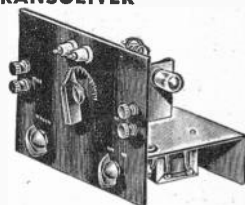


Photography fans can easily build an accurate photo-enlarger timer with this kit. Uses 1—6J5 timer tube, and 1—2050 thyratron. Range of 0-45 seconds can be changed by substitution of one part value. Operates on condenser discharge principle. Uses DPDT relay to give variety of operations. Once calibrated, accuracy is maintained indefinitely. 30% change in line voltage will not affect timing. Front panel, 6 1/2" high x 7 1/2", has time control, time start, and power switches. Terminal strip on back for relay connections and external time-start switch. Complete with punched and formed chassis, all parts, tubes, and

instructions. Shipping weight, 5 lbs. **83-223. NET.....\$10.45**

## NEW 2-METER TRANSCIVER

**Tubes Used:** 1—6N4, newly developed high-frequency miniature triode, as modulated oscillator in transmit position, and as super-regenerative detector in receive position; 1—7C5 as modulator in transmit position, and as power audio amplifier in receive position. Designed for the new 2-meter band. Properly engineered selection and placement of component parts results in unusually high output efficiency. Requires 250 volts at 75 ma., and 6.3 volts at .65 amp. for power. (Power supply listed below.) Transceiver supplies current to operate single button carbon mike. Has output transformer for coupling to speaker or headphones. Kit complete with all parts: punched and formed cadmium plated chassis, 5"x9"x2", clearly marked 6"x9" steel front panel with black crackle finish, tubes, wire, solder, etc. Includes easy-to-follow instructions. Size when completed, 6" high x 5" wide x 9". Wt., 5 1/2 lbs.



**83-220. Kit complete, less mike, speaker, and power supply. NET.....\$14.50**

**Power Supply Kit. Contains all parts to build power supply for transceiver, above. Wt., 9 lbs. NET.....\$8.50**

**83-371. NET.....\$8.50**

## "BUILD YOUR OWN" DIAGRAMS

Clear, easy-to-follow instructions for building kits on this and the preceding page. Four 8 1/2" x 11" pages. Includes schematic and pictorial diagrams, construction hints, and parts lists.

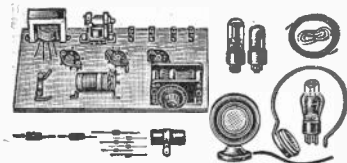
- 83-034. 5 tube AC-DC Superhet
- 83-035. 2 tube "Ocean Hopper"
- 83-036. Crystal Set
- 83-037. Remote Phono-oscillator
- 83-038. 4-watt AC-DC Phono-Amp.
- 83-039. 4 tube AC-DC TRF set
- 83-040. 2 Meter Transceiver
- 83-041. TRF Broadcast Tuner



- 83-042. 10 watt Hi-Fi Amplifier
- 83-043. Electronic Timer
- 83-044. Radio Lab.

**YOUR PRICE, EACH DIAGRAM, POSTPAID.....5c**  
**Choice of any 8 diagrams.....25c**

## POPULAR KNIGHT RADIO LAB KIT—"10 KITS IN ONE"



**ONLY \$10.95** The most remarkable combination ever offered to radio beginners! Practical—educational—fascinating. Designed by ALLIED's expert engineering staff. Complete materials—down to the smallest part—with exceptionally clear instructions. Will build a regenerative receiver—tunes in stations hundreds of miles away; a home "announcer"—permits you to "broadcast" through your radio set; a signal tracer—to teach the use of signal tracing in radio experimenting and repairing; a code practice oscillator; a capacity operated relay—so you can construct a burglar alarm; a photo-cell relay (with the addition of photocell and socket)—to operate numerous appliances by using light intensity for control; a precision timer, electronic switch, wireless phono-osc., phono amplifier, and small PA amplifier.

The easiest way to learn radio is by building equipment that really works. The 8-page manual included contains clear schematic and pictorial diagrams for each project. You can also build many other interesting units.

### IDEAL FOR HOME AND SCHOOL

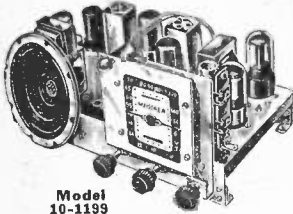
The complete kit includes 3 tubes, 1—12SF5GT, 1—35LG6T and 1—35Z5GT; microphone, condensers, resistors, 110V, 60 cycle transformer, solder, headphone, relay, telegraph key, mounting board, hardware, wire, and complete, easy-to-understand instructions for building each of the articles described to the left. These same parts may be used also for building many other useful items. Shipping weight, 10 lbs.

**BUILD: Receiver; Broadcaster; Phono-oscillator; Code Oscillator; Capacity Relay; Electronic Timer; Electronic Switch; Signal Tracer; Amplifiers, etc.**

**83-270. Complete Lab Kit. NET.....\$10.95**

# KITS TRAINING AIDS ACCESSORIES

## MEISSNER AC-DC TWO-BAND SUPERHET KIT



Model 10-1199

**Tubes Used:** 1—12SK7 RF amplifier, 1—12SA7 oscillator-converter, 1—12SK7 IF amplifier, 1—12SQ7 detector—AVC—first audio, 1—35L6GT beam power output, and 1—35Z5GT rectifier. A low cost two-band receiver with high sensitivity and selectivity. Frequency range covers standard broadcast band, 530 to 1650 KC, and short wave band, 5.7 to 18 MC. Circuit includes untuned stage of RF amplification on both bands, peaking circuit for added short wave sensitivity. IF wave trap, and high gain coils on both bands. High-impedance primary on antenna coil permits use of almost any length of antenna. Automatic volume control minimizes fading of distant stations and blasting from those nearby, assuring uniform performance.

### DIAL CALIBRATED IN KC AND MC

Set has illuminated vernier drive dial calibrated in kilocycles for broadcast band, and megacycles for short wave; combination on-off switch and volume control; 5" Alnico PM speaker; molded sockets throughout. Complete information makes assembly and adjustment simple. Step-by-step instructions are easy to follow. Pictorial and schematic diagrams show exactly where each part belongs and where connections are to be made. Only tools required are screwdriver, pliers, and soldering iron. Kit is furnished complete with punched chassis, tubes, hardware, and all parts. Operates on 115 volts, AC or DC. Shipping weight 8 lbs. **\$21.95**

## MEISSNER "STUDENT" MIDGET AC-DC KITS

### TYPE 10-1192

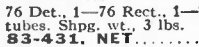
For headphone reception. With broadcast band coil. Uses 1—76 Detector, and 1—76 Rectifier tube. Shpg. wt. 3 lbs.

**83-430.** Less tubes. **NET \$4.73**

### NO. 10-1193

With broadcast band coil. Uses 1—76 Audio tube. Less tubes. Shpg. wt., 3 lbs.

**83-431.** **NET \$5.41**



76 Det., 1—76 Rect., 1—76 Audio tube. Less tubes. Shpg. wt., 3 lbs. **83-431. NET \$5.41**

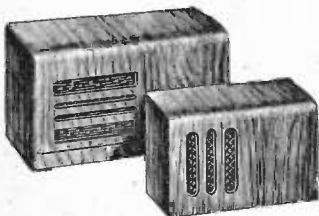
## ACCESSORIES FOR AC-DC KITS

- 83-425.** 70-200 Meter Plug-in Coil } **EACH**
- 83-426.** 35-70 Meter Plug-in Coil. } **49c**
- 83-427.** 17-35 Meter Plug-in Coil. } **\$1.22**
- 83-428.** 545-1500 Meter Coil. } **48c**
- 2 Type 76 tubes. **EACH**..... **\$1.11**
- 59-110.** American Bell 2,000 ohms dual headsets for above sets. **NET**..... **\$1.11**

## MEISSNER INSTRUCTION MANUAL

Contains complete data on Meissner kits, adapter units, etc. Gives operating instructions and servicing data on 13 assemblies. Includes schematic and pictorial diagrams. 168 pages. Shpg. wt., 1 lb. **37-721. NET \$48c**

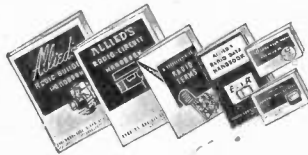
## TABLE RADIO CABINETS



Walnut-finished wood cabinets for radio chassis. Furnished with blank panels for making dial and control cutouts to suit chassis requirements. Attractive speaker grilles are neatly fitted with black and gold grill cloth.

- 98-932.** Accommodates four-tube chassis. Inner dimensions, 8 1/2" x 5 1/2" x 4 1/4". **\$2.29** Shpg. wt., 2 lbs. **NET**.....
- 98-930.** Accommodates five to six-tube chassis. Inner dimensions, 6 1/2" x 10 1/2" x 5 1/4". Shpg. wt., 3 lbs. **NET**..... **\$2.95**
- 98-931.** Accommodates seven to ten-tube chassis. Inner dimensions, 7 1/2" x 13 3/4" x 6 1/4". Shpg. wt., 3 lbs. **NET**..... **\$3.95**

## ALLIED'S OWN RADIO PUBLICATIONS



- 37-750.** Allied's Radio Builder's Handbook. 32 pages, 8 1/2 x 11".
  - 37-753.** Allied's Radio Circuit Handbook. 32 pages, 8 1/2 x 11".
  - 37-751.** Allied's Dictionary of Radio Terms. 36 pages, 6 x 9".
  - 37-752.** Allied's Radio-Formula and Data Book. 40 pages, 3 1/2 x 5".
  - 37-755.** Manual of Simplified Radio Servicing. 40 pages, 3 1/2 x 5". **EACH POSTPAID IN U.S.A. \$10c**
  - 37-754.** Allied's Radio Data Handbook. 48 pages. Size, 6" x 9". **NET \$25c**
  - 37-799.** All 6 Books for..... **75c**
- See page 92 for descriptions of above books. See page 96 for Allied's calculators.

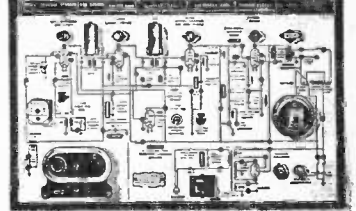
## POPULAR MECHANICS EASY-TO-UNDERSTAND BLUEPRINTS

The leading Popular Mechanics sets are clearly described on 17"x22" blueprints. Included are schematic and pictorial diagrams, essential construction data, and matched lists of parts. Easy to follow and understand.



- 38-213.** R286. All-Wave 2 Tube AC-DC Set.
- 38-214.** R287. TRF Hi-Fi Tuner.
- 38-216.** R289. Min. Tube Flashlite Set.
- 38-217.** R290. High Fi. Record Player.
- 38-219.** R292. 4 Purpose 1 Tube Ampl.
- 38-223.** R296. One tube AC-DC Receiver.
- 38-224.** R298. 1 Tube Set, Phono-osc.
- 38-225.** R300. Photo-cell Burglar Alarm.
- 38-226.** R302. 2 1/2 M "Walkie-Talkie".
- 38-227.** R303. 1 Tube AC-DC Pocket Set.
- 38-228.** R304. 2 Tube AC-DC TRF Set.
- 38-229.** R305. Flashlite Battery Set.
- 38-230.** R306. Two-Way AC-DC Intercom.
- 38-231.** R307. 5-Band, 2 Tube Bat. Set.
- 38-232.** R308. 1 Tube Battery Super.
- 38-233.** R310. 4 Watt AC-DC Pho. Ampl.
- 38-234.** R313. AC-DC Code Osc.-Receiver.
- 38-235.** R314. Universal Testing Bridge.
- 38-236.** R316. "Pop Corn Can" Signal Gen.
- 38-237.** R317. "B" Power Unit.
- 38-238.** R323. Phono Oscillator Player.
- 38-239.** R327. Dual Record Player Ampl.
- 38-240.** R328. Desk Lamp 2 Tube Set.
- 38-241.** R331. 10 Watt Amplifier.
- 38-242.** R332. 1945 "Little Giant" Set.
- 38-243.** R335. Two Low-Cost Crystal Sets.
- 38-244.** R337. 2 Tube "Pockette" Set.
- 38-245.** R338. 1 Watt "Cake Pan" Ampl.
- 38-246.** R339. Electronic Photo Timer. **EACH. Postpaid in U.S.A. \$25c**

## RCA DYNAMIC DEMONSTRATOR III



## RCA DYNAMIC DEMONSTRATOR III

The RCA Dynamic Demonstrator III, when used with modern test instruments, permits both qualitative and quantitative analysis of radio circuit conditions. It is the perfect demonstrator for teaching radio in Technical High Schools, Vocational Schools and Colleges. It permits a visual and audible demonstration of the operation of a radio receiver. An audio oscillator can be used to show frequency response of audio stages, effect of tone control functions, distortion of signal due to overload, etc. A signal can be checked from the antenna to the loudspeaker.

### PERMITS VISUAL DEMONSTRATION OF SIGNAL TRACING

Graphically and very clearly shows modern signal tracing methods for locating stage source of hum, noise and distortion. All of this can be accomplished with practically no effect on the signal itself. Dynamic gain measurements are readily made. Permits checking of parts and leads for presence or absence of signal. Enables the instructor to clearly demonstrate the proper method of circuit alignment, oscillator tracking, etc. The Demonstrator is a 6-tube modern superheterodyne receiver in operating condition. Vital parts of the set are arranged in functional sequence in conjunction with the large schematic diagram on the face of the board. Values of resistance and capacitance are clearly marked. Pin jacks for voltage readings, etc., are brought out at various operating points. Circuit-breaking pin plugs and service problem switches are strategically located throughout the circuit. The circuit uses 1—6SA7, 1—6SQ7, 1—6SO7, 1—6K6C, and 1—6X4. Size: 17 1/2" x 29" x 12". For 115 volt, 60 cycles. Shpg. wt., 30 lbs. **99-560. Model 182-A. NET. Complete with tubes \$99.50**

## BUILDER'S CHASSIS WITH PUNCHED SOCKET HOLES

Sturdy 20-gauge steel construction with socket and line-core grommet holes already punched.

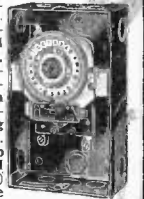


Cadmium plating prevents rust and aids the builder in producing a clean, professional looking set. Average shipping weight, 3 lbs.

No.	Size	Sockets	EACH
<b>86-040</b>	4x8 x 1 1/2"	4	<b>55c</b>
<b>86-041</b>	5x 9x 1 1/2"	4	
<b>86-042</b>	4x 9x 1 1/2"	5	
<b>86-043</b>	5x 10x 1 1/2"	5	

## TORK TIME-SWITCH CONTROL

Model 191-A Little Giant Tork Time Clock Switch. Automatically turns electrical equipment "on" and "off" at any pre-set time, once every 24 hours. On-off dial calibrated in 15-minute intervals. Switch may also be hand operated without disturbing pre-set adjustments. Handles 20 amps at up to 2200 watts lighting load (2500 watts heating load) or one h.p. single-phase motor. Self-storing, oil-sealed, synchronous clock motor operates from 115 volt 60 cycles AC. Switch terminals are solderless lug type. Housed in standard 16-gauge pressed-steel case with bottom-hinged cover. Has 12 combination knockouts for wiring outlets. Size, 8 1/2" x 5 1/4" x 3 1/4". Shipping weight, 8 lbs. **78-302. NET \$9.10**





# HEADPHONES CRYSTAL SETS *Accessories*

## AMERICAN BELL SILENT HEADPHONE KIT



A complete, convenient kit that permits excellent headphone reception on any radio. For tuning distant weak stations; for the hard-of-hearing; and for listening in on radio receiver when speaker reception would disturb others.

Three position switch permits operation of speaker alone; speaker and headphones together; or headphones alone. Radiomen should sell one of these attachments on every service call.

### EASY TO INSTALL

A soldering iron is the only tool required to quickly install the attachment. Leads connect to voice coil terminals. Volume is controlled at the radio receiver. Supplied complete; low impedance headphones (11 ohms), lightweight headband, 6 ft. cord, and adapter unit with switch. Wt., 5 lbs. **\$2.19**  
**59-169.** With headphones. NET **\$2.19**  
**59-170.** Adapter Attachment Only. For use with any good headphones, but offers best results with low impedance (11 ohm) phones as described above. NET..... **99c**



### ENCLOSED TYPE PHONE ADAPTER

Compact, enclosed adapter with three way switch, for switching from speaker to headphones or for simultaneous use of both. With hook for easy mounting. Can easily be connected to radio, cabinet or may be placed near set where convenient. Shpg. wt., 1 lb.

**59-171.** NET..... **\$1.19**

### ICA CODE PRACTICE SET

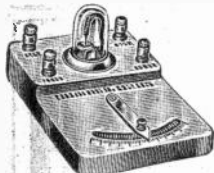
It's easy to learn radio signals, telegraph code and blinker or navy signaling with this set. Permits sending and receiving between two stations. Includes high-frequency buzzer, blinker light, key, and telegraph sounder. Instructions on signal box. Double unit consists of two complete instruments and 50 feet of wire. Two standard flashlight batteries used with each set. Less batteries. Shpg. wt., 2 1/2 lbs.



**76-150.** Double Unit. NET..... **\$3.32**  
**76-151.** Single Unit. Less wire and batteries. Wt., 1 1/2 lbs. EACH..... **\$1.62**

### PHILMORE SETS

#### "SUPERTONE" CRYSTAL SET



**83-003.** NET.....

Compact crystal set offers entertainment from stations within 25 mile radius with suitable aerial. Crystal in dust-proof case. Bakelite base. Use phones top, right. Easy to operate. Wt., 1 1/2 lbs.

**\$1.27**

#### LITTLE WONDER CRYSTAL SET



One of the smallest crystal sets made. Will tune local stations within a 25 mile area when used with a suitable antenna. Slider-contact tuning, binding posts for aerial and ground. Use phones top, right. No tubes or batteries needed. Shpg. wt., 1 1/2 lbs.

**83-018.** NET..... **63c**

## AMERICAN-BELL HEADPHONES



**\$1.11**

### STANDARD DUAL HEADSETS

All terminals inside to eliminate shock. Diaphragm measures 2 1/4". Cords are mercerized cotton-covered copper tinsel.

**59-110.** 2000 ohms. NET..... **\$1.11**  
**59-111.** 3000 ohms. NET..... **\$1.40**

**59-106.** Quality molded exact-replacement caps for above headphones. NET EACH..... **12c**  
**59-105.** Duplicate replacement diaphragms for above headphones. NET EACH..... **5c**

Sensitive headphones with all terminals inside to avoid shocks or damaging shorts. Produced by one of America's leading manufacturers. Noted for their remarkable tonal fidelity and sensitivity. Lightweight. Have adjustable flexible headbands to provide utmost wearing comfort and long life. Magnets are of high permeability alloy, providing exceptional power and stability. Solenoid coils are well insulated and firmly mounted in headpiece shell. Caps are of molded bakelite. Supplied with 4 1/2 foot extra flexible cord of mercerized cotton covered tinsel. With standard phone tip terminals. Ideal for use with crystal or battery sets as well as all general purpose requirements. Shpg. wt., 1 lb.

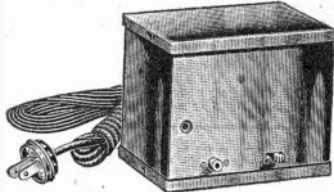


**78c**

### SINGLE HEADPHONES

Improved inside terminal type. Suitable for hard-of-hearing installations. Spring-metal headband. With cord.

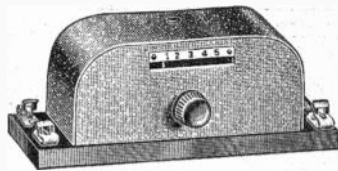
**59-112.** 1000 ohms. NET..... **78c**  
**59-113.** 1500 ohms. NET..... **92c**



### KNIGHT WIRELESS PHONO-OSCILLATOR

A modern, newly designed phono-oscillator circuit is employed to its best advantage in this high quality unit. Uses 1-35L6GT oscillator, and 1-35Z5GT rectifier. A combination of control grid and screen-grid modulation results in 100% modulation with a minimum of distortion. Permeability tuned oscillator transmits resulting modulated r.f. signals directly to your radio receiver just like a regular broadcast station—requires absolutely no connections. Just connect phono pickup to wireless oscillator and plug into any handy outlet, and you are ready to operate at distances up to 50 feet away from radio. Small size permits mounting unit directly in record player. Will match any high impedance pickup, magnetic or crystal. With the addition of a phono-motor and a pickup, a highly efficient wireless remote record player may be had at low cost. Operates on 105-125 V. AC-DC. Supplied complete, with tubes and input plug, in bronze metalcase finished steel case, 5 1/4" x 4 1/2" x 3 3/8". Shipping wt., 3 lbs.

**83-070.** NET..... **\$8.95**



### KNIGHT DELUXE CRYSTAL SET

A modern deluxe version of the fundamental radio receiver. In attractive metal case, with glistening blue metalcase finish. Will provide unusually fine reception of local broadcast stations. Permeability tuning, controlled by single tuning knob, with setting indicated on slide rule dial. Fixed crystal eliminates necessity of bothersome adjustment of "cat's whisker." Convenient Fahnestock clips for connecting antenna and headphones. Comes ready to operate; no batteries or other power needed. Requires only headphones and antenna, listed below. Set measures 6" x 2 1/2" x 2 1/2". Shpg. wt., 3 lbs.

**83-065.** NET..... **\$3.35**

### CRYSTAL SET ACCESSORIES

**HEADSET.** 2000 ohm. American Bell Standard Dual Headset. See listing above.

**59-110.** NET..... **\$1.11**

**ANTENNA KIT.** Everything needed to install an efficient antenna. 50' stranded copper aerial wire, 75' lead-in wire, lightning arrester, insulators, ground clamp, etc. Shpg. wt., 4 lbs.

**83-115.** NET..... **56c**

## CRYSTALS & CRYSTAL DETECTORS

### OPEN DETECTOR



Universal-joint on swivel arm provides quick, accurate adjustment on any point of crystal. Comes complete, with crystal holder, cat whisker, and spring clip terminals. Less crystal. Make selection of galena crystal from listings

at right. Shpg. wt., 8 oz. **52-003.** EACH..... **12c**

### FIXED DETECTOR



Extremely sensitive. Selected crystals are meter-tested and permanently adjusted. Housed in compact molded case. Eliminates bother of continual adjustment for sensitive spot. With mtg. hdw., 8 oz.

**52-001.** NET..... **50c**

### MOUNTED CRYSTAL

Highly sensitive galena crystal, mounted in lead. Will fit all standard crystal cups. Wt., 6 oz.

**52-005.** EACH..... **7c**  
**10 FOR..... 63c**

### METER-TESTED CRYSTAL

Laboratory tested. Offers greater sensitivity than 52-005 above. Standard size. Shpg. wt., 6 oz.

**52-006.** EACH..... **13c**  
**10 FOR..... \$1.17**

### CAT WHISKERS

Set of three. Correctly designed spring-metal. Proper tension for all detectors. Wt., 5 oz.

**52-011.** PER SET..... **9c**  
**10 SETS FOR..... 81c**



# ATTACHMENTS HEADPHONES Accessories

## BRANDES SUPERIOR PHONES



A high quality, ruggedly-built headset which has been a favorite for years. Outside terminal type, with metal cases and bakelite caps. Diaphragm diameter is 2 1/4". Has double coils, two in each receiver; adjustable flexible metal split headband; 4 1/2 foot cotton-covered cord. Magnets of high-re-

tentivity are 1/4" square. Resistance, 2000 ohms per pair. Wt., 1 1/2 lbs. **59-130. NET.....\$2.03**

## BRANDES "ADMIRAL" PHONES

Similar to the phones above, but with terminals inside case. Have metal cases, bakelite caps, double-coil magnets, etc. Sturdy and lightweight. Shpg. wt., 2 lbs.

**59-135. 2000 Ohms. NET....\$2.13**  
**59-136. 3000 Ohms. NET.....\$2.20**  
**59-137. 5000 Ohms. NET.....2.77**

## CAPS AND DIAPHRAGMS

**59-138. Caps. EACH.....18c**  
**59-139. Diaphragms. EACH.....5c**

## CANNONBALL MASTER PHONES



An improved high-resistance headset that faithfully reproduces every type of radio broadcast. Splendid for use where multiple installations are required. Cases are metal with bakelite caps and inside terminals to prevent shock. Has sturdy magnet of 1/4" steel in each phone. Headband is easily adjusted by

spring pressure clips. These headphones, although low in price, are ideal for crystal sets, battery operated radios, and for multiple headphone systems such as are used in hospitals, schools, prisons, sanitariums, etc. Also widely used for hard-of-hearing amplifiers. Recommended for all uses requiring a well-designed headset. Shpg. wt., 2 lbs.

**59-125. 3000 ohms. NET.....\$2.08**  
**59-126. 5000 ohms. NET.....\$2.59**  
**59-127. Replacement bakelite cap for above headsets. NET EACH.....18c**  
**59-128. Replacement diaphragm for above headsets. NET EACH.....5c**

## BRUSH "HUSHATONE"

### TYPE BA-301



New, efficient pillow-type speaker. May be placed under pillow on bed, couch, or chair. Enables user to enjoy radio programs in comfort without disturbing others in the room. An invaluable aid and comfort in hospitals, sanitariums, etc. Housed in a smartly styled black and chrome, disc-shaped plastic case; may be safely dipped into liquid for sterilization. Exclusive Brush crystal assures excellent reproduction. High impedance type. Easy to follow instructions included. The "Hushatone" works with any receiver. Measures only 4 1/4" dia., 1 1/4" thick. With 6-ft. rubber-covered cord. Shipping weight, 2 lbs.

**59-165. NET.....\$9.55**

## RUBBER 'PHONE CUSHIONS



Finest quality ear cushions. Used by leading airlines. Provide maximum comfort. Fit all type phones. Shpg. wt., 12 oz.

**59-122. PER PAIR.....65c**  
**10 PAIRS.....\$5.85**

## AMERICAN BELL INSTITUTIONAL HEADPHONES



Especially designed for schools, prisons, hospitals and other institutions where fool-proof, lightweight headphones are essential. Also ideal for use with crystal sets, battery radios and low-cost hearing aids. Every feature required for institutional use has been incorporated: metal cases and durable bakelite caps which are easily cleaned; inside terminal connections, to prevent shocks and tampering; 4 1/2' braided cord. These phones have large magnets and two coils per phone, making them ultra sensitive. Here's extra value in durability, performance and low price. The exceptionally rugged construction and excellent performance characteristics of these headphones make them particularly suited to general purpose use in code training classes, laboratories, production test work, etc., where careful handling is not always possible. Shipping weight, 1 lb.

**59-100. 2000 ohms. \$1.30 NET.....**  
**59-101. 3000 ohms. NET.....\$1.50**  
**59-105. Replacement diaphragms for above phones. NET EACH.....5c**  
**59-106. Bakelite caps. NET EACH...12c**

**NOTE:** For special requirements we can supply phones with bakelite caps, with inside or outside terminals, with flexible steel, braided or leather headbands, and with rubber or cotton-covered cords. Please give your exact requirements for a prompt quotation.

## ACME DELUXE PHONES



Sensitive and practical phones for every headset use. Light as a feather. Each unit weighs less than 1 1/2 ounces, total weight is only 6 ounces. Recommended especially for code training classes, hard-of-hearing and multiple phone installations. Cap and shell are molded of bakelite with light-tension flexible headband. Cord is 4 1/2 ft.; braided-covered. Phone terminals. Shpg. wt. 12 oz.

**59-070. 2000 ohms. NET.....\$1.45**

## ACME SINGLE HEADSETS

A lightweight single unit headphone, with headband as described above. 8 oz.

**59-072. 1000 ohms. NET.....88c**

## CAPS AND DIAPHRAGMS

**59-012. Replacement diaphragms for Acme Deluxe phones. NET EACH.....12c**  
**59-075. Replacement caps for Acme Deluxe phones. NET EACH.....26c**

## BRUSH CRYSTAL HEADPHONES TYPE A



High-impedance headphones of the piezo-electric crystal type. Extremely light in weight, and very sensitive to weak signals. For radio training schools, laboratory use, etc. Unusually high impedance. Response is from 100 to 10,000 cycles. Cone-type diaphragm. For use in direct current circuits, a small blocking condenser is necessary. Molded plastic case shaped for maximum comfort. Low power consumption; high quality reproduction. With 5 ft. cord. Weight, only 6 oz.

Shpg. wt. 12 oz. **59-151. NET.....\$6.47**  
**SINGLE PHONE TYPE A**  
 Like 59-151 phones above, but with single phone, cord, and headband. 8 oz. **59-156. NET.....\$3.47**

## TRIMM FEATHERWEIGHTS



Compact headphones, weighing only 4 oz. Have forged magnets of high retentivity, bakelite shells and caps, and adjustable spring-metal headband. Diameter 2 3/4". 24,000 ohm type for weak signals. 5 ft. moisture-proof cord. Shipping weight, 1 lb.

**59-000. 4000 ohm Standard. NET EACH.....\$5.88**  
**59-001. 24,000 ohm Special. NET EACH.....\$5.88**  
**59-012. Extra Diaphragms. EACH...12c**  
**59-013. Replacement Caps. EACH...38c**

## TRIMM "DEPENDABLE" PHONES



A high-grade, low-priced headset. A good dependable phone for general purpose use. Will give exceptionally efficient performance in any application. Bakelite shells and caps. Chrome steel magnets. 2000 ohms resistance. 5-ft. cord. Fabric covered headband. 1 1/4 lbs.

**59-025. NET.....\$2.23**  
**59-026. As above, but single phone. 1000 ohms. 1 lb. NET.....\$1.18**  
**59-030. Caps for 59-020, 59-021, 59-025 and 59-026. EACH.....35c**  
**59-031. Diaphragms for 59-020, 59-021, 59-025 and 59-026. EACH.....9c**

## TRIMM "PROFESSIONALS"



A high quality, medium priced pair of standard magnetic-type headphones for general purpose duty. Bakelite case and cap. 5-ft. cord. Terminals inside case. Shipping weight, 1 lb.

**59-020. 3000 Ohms. NET EACH.....\$2.73**  
**59-021. 4000 Ohms. NET EACH.....\$2.73**

## TRIMM ARMY-NAVY TYPE HEADPHONES



Very sensitive. Meet both Army and Navy specifications. Impedance, 24,500 ohms. Brass shell with heavy-duty bakelite cap. 5 moisture-proof cord, phone tip terminals. With leather headband. Bipolar magnets. 2 lbs.

**59-040. NET.....\$9.60**  
**59-041. Replacement Cap for above and for Western Electric headphones. EACH...53c**  
**59-042. Extra Diaphragms for above...12c**

## HEADPHONE CORDS

Copper tinsel inner conductor covered with closely-woven cotton braid. Shpg. wt., 3 oz.

### SINGLE CORDS

**59-200. 4 foot cord. Tips on one end; spade-lugs on other. For speakers or single phone. NET EACH.....\$14.00**  
**59-201. 4 foot cord. Tips on both ends. NET EACH.....\$12.10**

### DOUBLE CORDS

**59-205. Spade-lugs on one end; tips on other. 5 foot cord. For use with phones. NET EACH.....\$27.00**  
**59-206. Tips on both ends. 5 ft. cord. NET EACH.....\$23.25**  
**59-220. Small spade lugs on one end; tips on other. 5 feet. NET.....\$45c**

## CANNON RUBBER CORDS

Durable rubber double head-set cord, 6 feet long. Has tips on one end; spade-lugs on other. Shpg. wt. 1 lb. **59-210. NET.....\$95c**



Courtesy of Frankie Masters

## Knight "READY-TO-USE" SOUND SYSTEMS

Design and selection of KNIGHT Sound Systems in this catalog are the result of data collected from thousands of users on innumerable installations—schools, churches, stores, industrial plants, auditoriums, ballrooms, carnivals, night clubs—installations that are typical of the great majority required throughout the country. The systems are available in a variety of models to fill every need, from small types for window demonstrations to

large ones that increase sound to the tremendous volume necessary to cover great stadiums. Each is engineered for utmost flexibility. Quality components assure finest performance and long-lived dependability.

### ABOUT PRICES

*Prices shown on public address equipment are approximate and are subject to OPA approval of application pending at catalog press time.*

### COMPLETE TO THE LAST DETAIL

Every KNIGHT sound system comes to you complete and ready to use. Plugs and cables are already attached to speakers and microphones—there's nothing else to buy! And connecting the system is easy; just three steps to follow: 1—plug the microphone into the amplifier, 2—plug the speakers into the amplifier, 3—plug the amplifier line cord into any 110-120 volt 60-cycle AC outlet, and your KNIGHT sound system is ready to go to work for you. No special knowledge is required to operate it. Each system is superbly engineered to provide finest professional results under control of a few dials on the amplifier panel. The instructions tell you, in a few simple sentences, just how to set the dials to get the exact performance you want—that is all there is to it, and your KNIGHT system will turn in a sound distribution job you'll be proud of.

### EASY TO SELECT

KNIGHT Sound Systems are easy to select. On the following pages, right beside the illustration of each system, we tell you its approximate area and audience coverage. This will enable you to determine at a glance the model best suited to your specific needs. To aid you further, in case your requirements are rather complex, ALLIED engineers have prepared an easy-to-follow chart that tells you how to determine the exact equipment you need. This chart is available to you FREE ON REQUEST. If you prefer personal assistance, or if your requirements are highly specialized, write to our Sound Engineering Division giving complete details and enclosing a rough sketch of the area to be covered. (Be sure to provide some idea concerning the noise level). Recommendations based on a study of your needs will reach you promptly.

### TIME PAYMENT TERMS ON SOUND EQUIPMENT

Minimum time payment order, \$50.00.

Down payment, 20%.

Carrying charge on unpaid balance, 6%.

Unpaid balance	Monthly Payment
\$40.00 to \$60.00	\$ 8.00
\$61.00 to \$100.00	10.00
\$101.00 to \$150.00	15.00
\$151.00 to \$200.00	20.00
\$201.00 to \$300.00	25.00
Over \$300.00	1/12 of unpaid balance

### MONEY BACK GUARANTEE

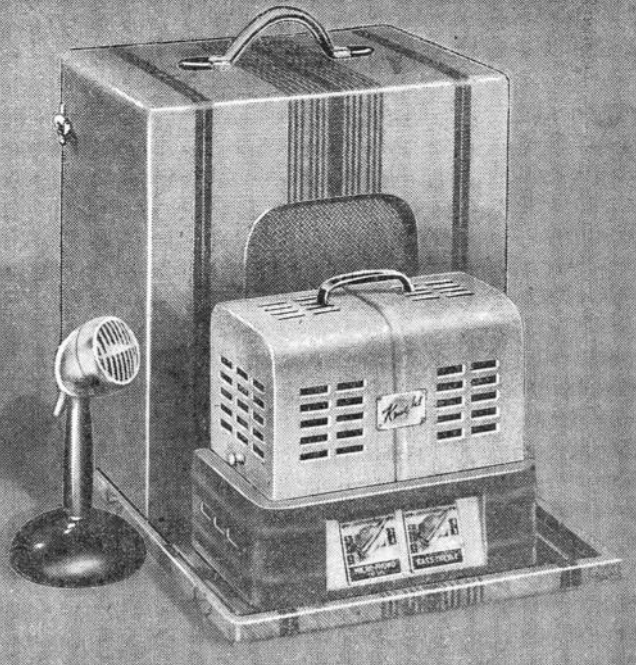
We guarantee absolute satisfaction or your money back. Order any KNIGHT Sound System and try it under your own operating conditions. If you don't agree that your KNIGHT equipment meets every claim we make for it, send it back—any time within 15 days—and we'll refund every penny you paid, less only transportation charges. In addition to our guarantee every Knight system also carries the regular warranty of the Radio Manufacturers' Association. (Western Electric Licensed.)

ALLIED RADIO CORP.

# 7 WATTS

**Audience Coverage:  
UP TO 700 PERSONS**

**Area Coverage:  
UP TO  
4000 SQUARE FEET**



## KNIGHT 7-WATT "LITTLE GIANT" PORTABLE SOUND SYSTEM

Here's YOUR "Little Giant"—a valuable little lightweight portable PA system that's complete and ready to perform at a moment's notice! You won't need to buy any extras, for it's ready for use when you get it and packs up for portability in a jiffy. Top of portable case serves as speaker baffle when sound system is in use; **Knight 7-watt amplifier** fits in bottom of case. Shure crystal mike has 25-foot cord and plug attached, and the banquet type desk stand comes apart easily for use as a hand mike if desired. It's a natural for sales demonstrations, auctioneers, lodge and club meetings, classrooms, paging or announcing purposes—in fact its versatility adapts it to many uses where a moderately sized group of people or a limited area is to be served. The "Little Giant" is so easy to set-up and operate that even a child can do it! Just plug mike and speaker cables into amplifier—polarized plugs make it impossible to make an error—then plug amplifier cord into any handy 110-120 volt 60-cycle AC outlet and it's ready to use. It's complete! Here's what you get in this low-cost 7-watt portable PA system: **Knight 7-watt amplifier** finished in handsome two-toned grey with complete set of tubes, expertly engineered to highest standards of performance and built of the finest available materials; Shure 707A crystal mike with 25-foot shielded cord and plug attached, mounted on banquet type desk stand; **Knight 8-incl. electro dynamic speaker** with matching transformer and 30 foot cable with plug attached. All these are contained in a convenient airplane luggage type portable case measuring only 13 3/4" x 13 3/4" x 10 1/2". Total carrying weight is only 19 lbs. **Extra value features** give you more for your money in the **Knight "Little Giant"** portable sound system: **Two inputs**, one for mike and one for an external phono player; **Tone control**, to emphasize treble or bass range to suit your preference or the acoustics where system is used; **Extra speaker outlet**, for adding one additional PM speaker if extra sound distribution is needed; **Illuminated panel** for easy operation in darkened areas. For 110-120 volt, 60 cycles AC. Shpg. wt., 36 lbs.

**93-013. NET.** (Subject to OPA approval)..... **\$38.95**

### AMPLIFIER SPECIFICATIONS

**Output:** 7 watts (12 watts peak); hum is inaudible (67 db. below rated output); **Output Impedance:** 4,000-4,500 ohms direct from plate of tube. Supplies field excitation to one 1,000-1,500 ohm speaker; **Input Channels:** Two on fader (one for mike, one for phono); **Tone Control:** for bass and treble; **Gain:** On microphone, 100 db. On phono, 70 db.; **Frequency Response:** 70-7,000 CPS; **Tubes:** 1-6SC7, 1-6L6G, 1-5Y3G; **Line Drain:** 70 watts. For operation from 110-120 volts, 60 cycles AC. **Size:** 10" x 8 3/4" x 6 1/4". **Western Electric Licensed.**

### 7 WATT AMPLIFIER ONLY

The **Knight 7 Watt "Little Giant"** amplifier is also available separately with all features as described above. Makes an ideal nucleus for assembling your own sound system, or a fine replacement for obsolete amplifiers. Complete with removable protective steel cover and handle. Has wiring diagram on base. Two-tone grey-crackle finish. Size: 10" x 8 3/4" x 6 1/4". Complete with tubes, plugs for mike and speaker, and instructions. Works with any crystal or high impedance dynamic mike. Requires electro-dynamic type speaker and output matching transformer. Wt., 12 lbs.

**93-010. NET.** (Subject to OPA approval)..... **\$19.10**

**93-452. 8" Electro-dynamic speaker** with transformer, 30-foot cord and plug. Shpg. wt., 10 lbs. **NET.**..... **\$6.35**

### CLUBS

The "Little Giant" is admirably suited for small clubs, taverns, lodges, and similar places of entertainment for audiences of moderate size.



### SALES

As easy to carry as your brief case! Helps put your sales message across clearly and distinctly to sales and contact groups or for store demonstration work.



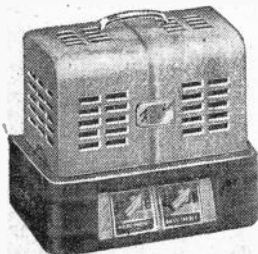
### BANDS

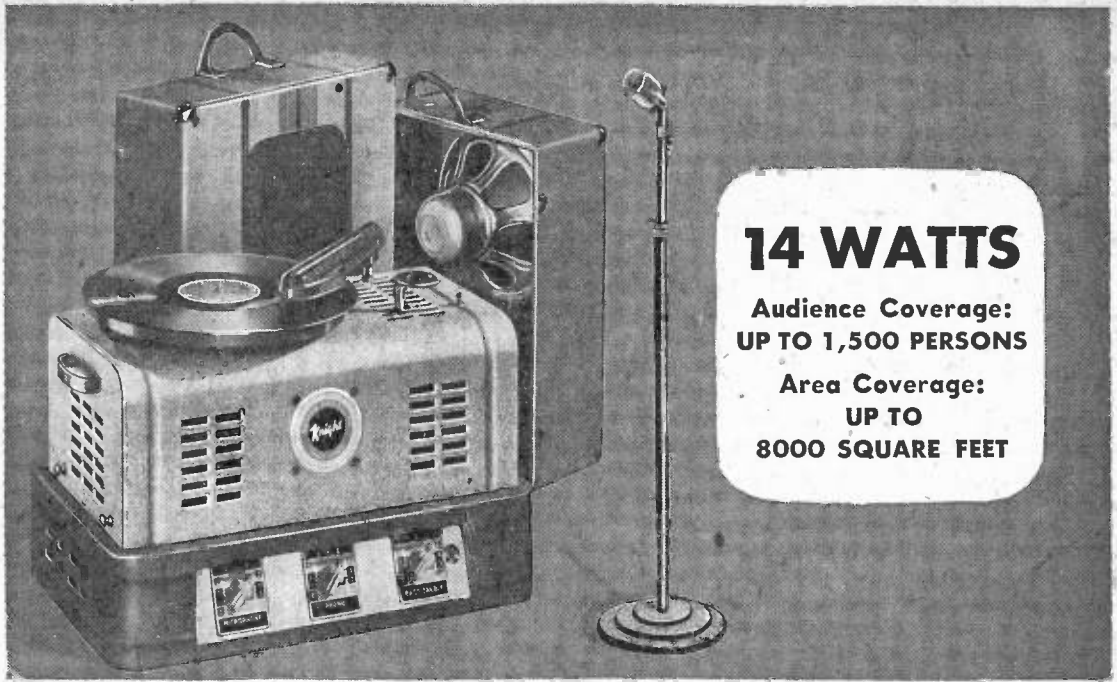
It's a "natural" for traveling dance bands! Sets up quickly—packs easily in a minimum of space—gives your vocal or instrument solos a real "break."



### SCHOOLS

Compact size and ready portability make the "Little Giant" ideal for classroom or lecture work, drama and music clubs, or for small auditoriums.





# 14 WATTS

**Audience Coverage:  
UP TO 1,500 PERSONS**

**Area Coverage:  
UP TO  
8000 SQUARE FEET**

## KNIGHT 14-WATT SOUND SYSTEMS

### POPULAR PORTABLE SYSTEM

Here's the kind of top-notch Portable PA system you'll be proud to own and use—with all the features and built-in performance you need to handle a multitude of PA requirements. Inverse feedback circuit holds distortion and hum to a minimum and gives you better tone quality at higher output levels so you get 14 usable watts! The complete 14-watt system can be quickly and easily set up, ready for instant operation, and it's complete, with no extras to buy. Operation is as simple as tuning any ordinary radio. Two high-impedance input channels with separate gain controls permit use of one crystal or other high-impedance mike and one phono pickup, either individually or blended together to suit the requirements of the installation. Bass-treble control provides tone emphasis for any occasion and helps reduce annoying feedback under unfavorable acoustic conditions. Split airplane luggage-type carrying case serves as baffle for the 12-inch speaker while in use; universal output with selector allows additional PM dynamic speakers of any type to be matched instantly for best reproduction. Speaker supplied is specially fused to prevent overload damage. Amplifier control panel is indirectly illuminated for easy operation in darkened areas. AC input to amplifier is tapped for line voltage adjustment to safeguard output level, and fused for protection against overloads. New Shure "Stratoliner" model 708A crystal mike assures lifelike voice reproduction; is equipped with 25-foot shielded cable and plug and adjustable height floor stand. For greater versatility the Knight 14-watt portable sound system can be used with phono top listed at right. The phono top has dependable rim drive 78 rpm turntable, new Shure Model 93A "Glider" crystal pickup, on-off switch, arm rest, and needle cup. Recommended for dealers and servicemen who want a system to take out on rentals. Also excellent for small traveling orchestras. Fine for use with electric guitars.

### COMPLETE, READY TO USE

Complete system includes: 1-Knight 14-watt amplifier complete with set of tubes but less phono top; 1-Shure 708A crystal mike with 25-foot shielded cord and plug attached; 1—floor stand; 1—12-inch Safused dynamic speaker with 30-foot cable and plug; complete operating instructions. Compact carrying case measures 22½" x 19¼" x 15". Light and easily portable. For 110 volts, 60 cycles, AC. Shpg. wt. 70 lbs.

**93-039.** Complete System, as above, but less phono top. Shpg. **\$68.50** wt., 63 lbs. NET. (Subject to OPA approval).

### STANDARD INDOOR SYSTEM

Here is one of the finest PA system values available anywhere. A high-quality sound system for permanent types of installations incorporating the Knight 14-watt amplifier described at right above. It comes to you complete, ready to use. Provides ample sound for area coverage up to 8,000 square feet. Ideal for office and factory paging use, for schools or small auditoriums lodges, country clubs, and similar uses. Unexcelled for clean, crisp reproduction of voice or music, providing dependable results under even toughest conditions. Conservatively rated. Adaptable to many types of installations. Easy to install and operate. Includes Knight 14-watt amplifier with tubes (less phono top); Shure "Stratoliner" 708A crystal mike with 25-foot shielded cable and plug; adjustable height floor-type mike stand; two 12" dynamic speakers in wood wall baffles with 30-foot cables and plugs attached. For 110-120 volts, 60 cycles AC. Shpg. wt., 55 lbs.

**93-029.** Complete System, less phono top. **\$79.75** NET. (Subject to OPA approval).

### AMPLIFIER SPECIFICATIONS

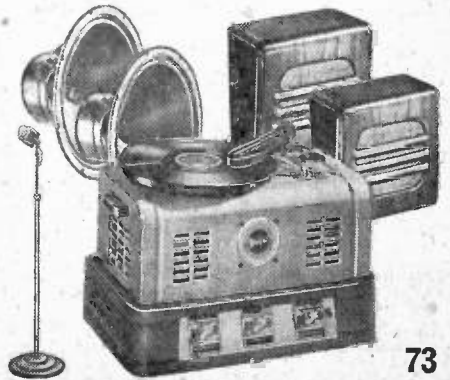
**Output:** full 14 watts usable power without "cracking up" (18 watts peak output); hum is inaudible (55 db. below rated output); **Output Impedance:** 4, 6, 8, 500 ohms on indicating type selector; designed for use with any type of PM speaker; **Input Channels:** two, one for high-impedance mike, one for phono, on individual controls; **Tone Control:** for bass and treble emphasis; **Gain:** on microphone, 125 db.; on phono, 75 db. **Frequency Response:** 60-8,000 CPS; **Tubes:** 1-6SJ7, 1-6SC7, 2-6V6G (Beam Power), 1-5Y3G; **Line Drain:** 75 watts; **Fused:** fully fused for protection. For operation from 110-120 volts, 60 cycles, AC. **Amplifier Size:** 16¼" x 10¼" x 9¼". Western Electric Licensed.

### 14-WATT AMPLIFIER ONLY

High-quality amplifier to improve results from your present or obsolete medium-powered PA equipment. A nucleus around which you can build a sound system to meet your own specific requirements. Here's the amplifier you'll want for dependability, full natural toned reproduction and plus-value features. In a smart-looking, streamlined two-tone grey steel case, with sturdy carrying handles. Top-cover and bottom-plate are quickly removable for access to components. Has diagram on bottom plate. Supplied with tubes, and mike and speaker plugs. Shpg. wt., 27 lbs.

**93-030.** Less phono top. **\$31.95** NET. (Subject to OPA approval).

**93-045.** Phono top for 14-watt amplifier. Complete with plugs; ready to install. Shipping wt., 10 lbs. **\$13.25** NET. (Subject to OPA approval).



**MOBILE  
SYSTEMS**  
Operate From  
**6 Volts DC**  
Or  
**110-120 Volts AC**



**KNIGHT 30-WATT 6 V.—110 V. MOBILE SOUND SYSTEMS**

**SYSTEM WITH REFLEX TRUMPETS**

This fine system is built for mobile service or stationary use. Efficiently covers up to 100,000 sq. ft. Works anywhere from 6-volt storage battery or 110-120 volts, 60 cycles, AC. Four inputs, two for high-impedance mikes with separate controls, and two phonos on fader. Dual tone controls, one treble, one bass, give tonal emphasis for any occasion. Stabilized inverse feedback circuit gives greater usable output up to full 30 watts with better quality and reduces hum and distortion to a minimum. Speaker selector permits matching additional speakers. Extra features: illuminated control panel; standby switch for battery economy; silencer-type mike jacks for hum reduction; two speaker outlets; fused 6-volt and 110-volt circuits; compact size, 19 5/8" x 14 1/4" x 13 1/2". **Complete System** includes: **Knight 30-watt 6V.—110V. amplifier** with tubes, AC and 6V. cables; built-in phono motor and crystal pickup; built-in 6V. and 110V. power supplies; 2 University reflex trumpets with 25-watt driver units; 1 microphone (specify choice of Electro-Voice 600-D hand mike with 6 ft. cord, or 605 mike with table stand with 20 ft. cord) and plug; instructions. For 6 volts DC and 110-120 volts, 60 cycles, AC. Shpg. wt., 140 lbs. **\$196.75**  
**93-154.** Complete, less V. I. meter.  
**NET.** (Subject to OPA approval).....  
**85-000.** Volume Indicator meter.....**\$8.60**

**SYSTEM WITH CONE-TYPE SPEAKERS**

Complete 30-watt 6V.—110 V. Mobile System as described at left but with 2—12" PM speakers, 2 projectors and waterproof covers, instead of trumpets. Coverage, 20,000 sq. ft. Shpg. wt., 130 lbs. **93-153.** Specify mike. (Less V. I. meter.) **\$166.95**  
**NET.** (Subject to OPA approval).....

**AMPLIFIER SPECIFICATIONS**

**Output:** 30 watts usable (37 peak); hum is inaudible (60 db. below rated output); **Output Imp.:** 2, 4, 6, 8, 250, or 500 ohms on selector switch; for PM Speakers; **Input Channels:** Four; two for high-impedance mikes, each with individual controls, two for phono on fader control; **Tone Controls:** Two; one for treble, one for bass; **Gain:** On microphone, 135 db., on phono, 80 db.; **Response:** 40—10,000 CPS; **Tubes:** 2—6SJ7, 2—6SA7, 1—6SC7, 2—6L6G, 2—6X5G. **Drain:** 140 watts AC, 24 amps, DC; **Size:** 19 5/8" x 14 1/4" x 13 1/2". **Western Electric Licensed.**

**AMPLIFIER ONLY**

Complete with phono top. Less V. I. meter. For 6 volts DC or 110-120 volts, 60 cycles, AC. With tubes. Wt., 60 lbs. **93-150. NET.** (Subject to OPA approval).... **\$109.25**

**15-18 WATT MOBILE SYSTEM**

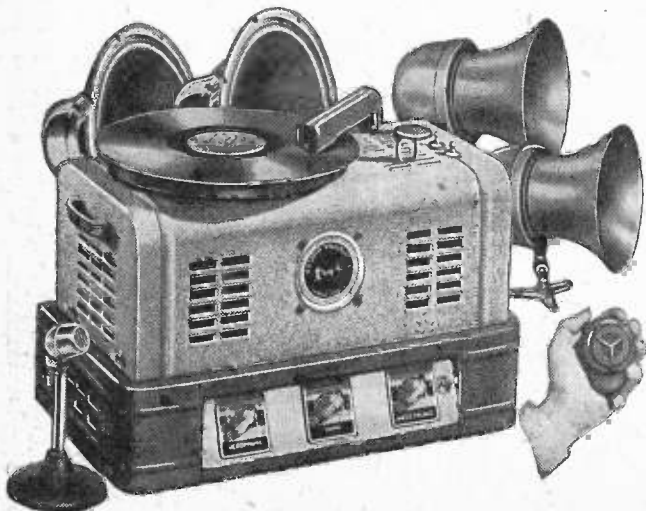
A compact, complete, moderate power mobile PA system that offers unusually high value at low cost. Coverage, 10,000 sq. ft. Works from 6-volt storage battery or 110-120 volts, 60 cycles AC. Separate mike and phono gain controls may be adjusted individually or in combination. Tone control for tone adjustment as needed. Selector type speaker switch to match speakers. Has battery standby switch. Includes **Knight 15-18 watt amplifier** with tubes and phono unit; 2—12" Safused PM speakers with 30-foot cords and plugs; 2—12" steel projectors with mounts and waterproof covers; 1 mike (specify choice of Electro-Voice 600-D hand mike with 6 ft. cord, or 605 mike, table stand and 20 ft. cord) and plug. For 6 V. DC and 110-120 V., 60 cycle, AC. Wt., 80 lbs. **93-052.** **\$134.95**  
**NET.** (Subject to OPA approval).....

**AMPLIFIER SPECIFICATIONS**

**Output:** 15 W. (6 V.) 18 W. (on AC); **Output Impedance:** 4, 6, 8, 500 ohms on selector; **Inputs:** High impedance, one for mike, one for built-in phono; **Tone Control;** **Gain:** Mike, 125 db., phono, 75 db.; **Response:** 60-8000 CPS; **Tubes:** 1—6SJ7, 1—6SC7, 2—6L6G, 2—6X5G; **Line Drain:** AC—120 W., DC—19 Amps; **Fused:** Both inputs fully protected; **Size:** 16 3/4" x 11 1/2" x 10 1/4"; For 6 V. DC and 110-120 V., 60 cycle AC. **Western Electric Licensed.**

**AMPLIFIER ONLY**

Universal type 6 V. DC and 110 V., 60-cycle AC amplifier as used in system above. With built-in phono top, tubes, DC and AC cables, mike and speaker plugs, instructions. Shpg. wt., 32 lbs. **93-050. NET.** (Subject to OPA approval)..**\$79.85**





**30 WATT**  
**Audience Coverage:**  
**UP TO 4,000 PERSONS**  
**Area Coverage:**  
**UP TO**  
**20,000 SQUARE FEET**

**KNIGHT 30-WATT SOUND SYSTEMS**

**DELUXE PORTABLE SYSTEM**

Here's the answer to 90% of your PA requirements—the **Knight 30-watt Deluxe portable sound system**. Has high usable power output with low hum and distortion through stabilized inverse feedback circuit. Flexibility of operation is provided by two high-impedance mike and one phono channel with separate controls. Tonal adjustment for any occasion is available by a bass-treble control; all controls easily accessible on indirectly illuminated slanting front panel. You don't have to be an expert to set it up, for it's so easy to use, so fool-proof in operation anyone can get top-notch results. For safety, the amplifier is fused in addition to having an adjustable tapped AC power input; even the speakers are fused, an exclusive **Knight** feature. Includes new Electro-Voice "Cardax" unidirectional crystal mike; means problems of acoustic howl in stage and orchestra work practically vanish. The complete system includes: 1—**Knight 30-watt deluxe amplifier** with tubes, less phono top; 1 new "Cardax" with 20-foot cord and plug; 1 floor stand; 2—12" Safused dynamic speakers, each with 30-foot cable and plug. Ready portability with split portable carrying case, 22½"x19¼"x15"; carrying weight, 60 lbs. For 110 volts, 60 cycles AC. Shpg. wt., 75 lbs.

**93-144. Complete System** as above, less phono top and volume indicator meter. Shpg. wt. 70 lbs. **\$95.75**  
**NET.** (Subject to OPA approval)...

**30 WATT AMPLIFIER ONLY**

For a better amplifier in your present installation, for a new amplifier around which to design a system using components of your own choice, or for recording, here is an unexcelled value. Complete with tubes, set of mike, phono and speaker plugs, and instructions (less V.I. meter). Shpg. wt., 31 lbs. **93-130.** Less phono top. **\$45.75**  
**NET.** (Subject to OPA approval)....

**AMPLIFIER SPECIFICATIONS**

**Output:** 30 watts usable power (35 watts peak); hum is inaudible (55 db. below rated output); **Output Impedance:** 4, 6, 8 or 500 ohms on selector; **Input Channels:** two high-impedance mikes, one phono (individual controls); **Tone Control:** for bass and treble; **Gain:** microphone, 128 db; phono, 80 db; **Frequency Response.** 50-10,000 CPS. **Tubes:** 2—6SJ7, 2—6SC7, 2—6L6G, 1—5U4G; **Line Drain:** 185 watts; **Fused:** For 110-120 volts, 60 cycles AC; **Size:** 16¼" x 10¼" x 9¾" **Western Electric Licensed.**

**93-045. Phono Top** for Knight 30-watt amplifier. Has 78 RPM turntable and Shure 93A "Glider" crystal pickup. With plugs. Wt., 10 lbs. **NET.** (Subject to OPA approval)..... **\$13.25**  
**85-000. Volume Indicator.** **NET.**..... **8.60**

**STANDARD INDOOR SYSTEM**

This Standard **Knight 30-watt Sound System** was designed to fill many requirements for medium-powered permanent sound installations. Ideal for moderately sized auditoriums, schools, clubs, entertainment spots, country clubs, and churches, for paging and announcing in factories and office buildings, and a host of similar applications. Phono top and volume indicator available from listings above. Optional phono-top extends performance of system to supply recorded music for all requirements without trailing wires and extra units. Complete system includes: 1 **Knight 30-watt deluxe amplifier**, as described above, with matched set of tubes (less phono top); 1 new "Cardax" microphone with 20-foot shielded cord and plug attached; 1 adjustable floor-type mike stand; 2—12-inch Safused dynamic speakers mounted in inclined front wood wall baffles, each with 30-foot cable and plug attached—everything needed to give you satisfactory sound distribution at a moderate cost (less V.I. meter). With complete instructions. For 110 volts, 60 cycles, AC. Shpg. wt., 68 lbs. **93-145.** **\$96.50**  
**NET.** (Subject to OPA approval)...



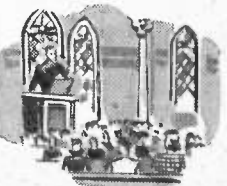
**FOR THEATRES**



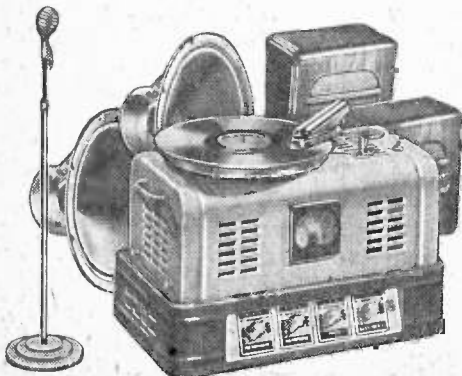
**FOR AUDITORIUMS**



**FOR ORCHESTRAS**



**FOR CHURCHES**





# 60 WATTS

**Audience Coverage:  
UP TO 30,000 PERSONS**

**Area Coverage:  
UP TO  
200,000 SQUARE FEET**



## KNIGHT 60-WATT INDUSTRIAL SOUND SYSTEMS

### SYSTEM WITH TRUMPETS

The **Knigh**t 60-watt Industrial Sound Systems have been especially designed to meet the present-day needs of industry and other services for powerful, high-quality public address equipment. System with reflex trumpets provides adequate coverage for indoor areas up to 200,000 square feet where noise levels are average. Easily handles outdoor areas covering up to 100,000 square feet. Here's high power at low cost.

**4 Microphone Input Circuits.** Each automatically silenced when plug is withdrawn. Separate controls for individual mike adjusting, and mixing.

**2 Phono Input Circuits.** A single fader controls volume level of either phono circuit.

**Separate Bass and Treble Controls** permit desired tonal response for best results.

**3 Separate Rectifier Circuits,** one for plate voltages, one for screen voltages, one for bias voltage on output stage mean better power supply regulation for smooth high-power output. No trace of cracking up at full output—assures extra punch when needed.

**Inverse Feedback** permits high-output level without noticeable distortion. Jack provided for headphone or loudspeaker monitoring. Speaker selector switch allows instant impedance matching for any desired combination of speakers. Sturdy metal projectors provide efficient concentrated sound projection with maximum clarity of tone. System available with either reflex trumpets or cone projectors.

**Particularly suited to industrial applications,** plant-wide health and pep talks, safety campaigns, high-power paging, outdoor recreation, etc. The ideal system for reproduction of music to increase accuracy and production. Relieves monotony and fatigue resulting from repetitive operations. Reduces absenteeism. This method adopted, with great success, by many plants. Savings in increased production will pay for the equipment many times over.

The complete 60-Watt Industrial System includes **1 Knight** 60-watt Deluxe amplifier with tubes, (less phono top and V.I. meter, listed separately as optional accessories); **1 Shure "Stratoliner" 708A** crystal microphone with 25-foot shielded cord and plug; **1 Shure Model A84A "press-to-talk"** switch; **1 table-type mike stand**; **4 University reflex trumpets** complete with 25-watt driver units and mounting brackets; **4 universal line-matching transformers**; complete instructions. Less cable (see listing below). For operation from 110-120 volts, 60 cycles, AC. Shpg. wt., 230 lbs.

**93-189. NET (Subject to OPA approval) . . . . . \$295.00**

**93-196.** Same 60-watt system as described above, but with heavy-duty 12" PM speakers with line transformers and 4 metal projectors with mounts and covers. Coverage up to 40,000 sq. ft. For 110-120 volts, 60 cycles, AC. Wt., 200 lbs. **NET (Subject to OPA approval) . . . . . \$235.00**

**93-187.** Phono top for 60-watt amplifier. Has rim-drive 78 RPM motor, new Shure 93A crystal pickup, arm rest, and needle cup and plugs. For 110-120 volts, 60 cycles AC. Shpg. wt., 15 lbs. **NET (Subject to OPA approval) . . . . . \$16.95**

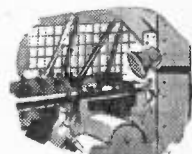
**93-260.** Extra 708A mike with 25-foot cord and plug, and an adjustable floor stand. Shpg. wt., 18 lbs. **NET . . . . . \$19.50**

**93-199.** Heavy-duty 12" PM Safused speaker. Shpg. wt., 8½ lbs. **NET . . . . . \$11.25**

**47-410.** Rubber-covered 2-cond. speaker cable. **PER FOOT . . . . . 3c**  
**100 FEET FOR . . . . . \$2.66**



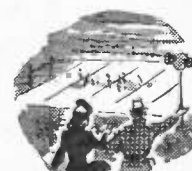
**Powerful  
Paging**



**Music for  
Morale**



**For Large  
Auditoriums**



**All Outdoor  
Applications**

### AMPLIFIER SPECIFICATIONS

**Output:** 60 Watts (90 watts peak); hum, 60 db. below rated output; **Output Impedance:** 2, 4, 6, 8, 250, 500 ohms on selector; **Input Channels:** Four for high-impedance mikes, two phonos on fader; **Tone Controls:** one treble, one bass; **Gain:** mike, 130 db., phono, 80 db.; **Frequency Response:** 40-10,000 CPS; **Tubes:** 4-6SJ7, 2-6SN7GT, 1-6J5, 1-6F6, 2-6L6G, 1-83, 2-SU4G; **Line Drain:** 295 watts; **Fused:** For 110-120 volts, 60 cycles, AC; **Size:** 19¼" x 14¼" x 11¼"; Western Electric Licensed.

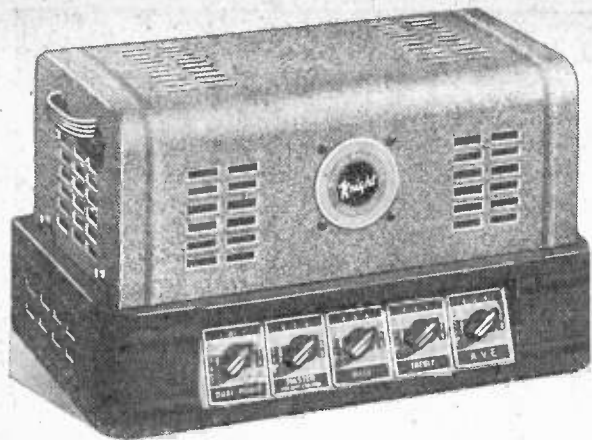
### AMPLIFIER ONLY

KNIGHT 60-watt amplifier only, complete with tubes. In attractive steel case. With plugs for mike and speaker and instructions. For 110-120 volts, 60 cycles, AC. Less V. I. meter. Shpg. wt., 65 lbs. **\$123.75**

**93-180. NET (Subject to OPA approval) . . . . . \$123.75**  
**85-000. Volume indicator meter. NET . . . . . \$8.60**







### Knight HIGH FIDELITY 20-WATT PHONOGRAPH AMPLIFIER

One of America's finest deluxe high-fidelity phono amplifiers—especially designed for faithful reproduction and intended primarily for use with high-quality accessory components. It is outstanding for its ability to impart to all recordings perfect fidelity and truly natural, rich tone quality. Developed for home use or for schools, recording studios, broadcast stations, theaters, clubs, dining salons, etc. It has every advanced feature for high-fidelity performance. A remarkable value in an efficient, finely constructed unit.

#### CHECK THESE SPECIFICATIONS:

**Power Output.** 20-watt output is more than sufficient for most phono requirements. Hum is inaudible (55 db. below rated output).

**Inverse Feedback.** Imparts triode qualities to the 6L6G beam power output stage and yet preserves the well-known efficiency of the 6L6G tubes; improves tone quality and reduces hum and noise.

**Automatic Volume Expansion.** Has continuously variable volume expansion which automatically builds up the louder passages to their true volume value, maintaining the correct balance between the loud and soft passages of the original recording.

**Bass and Treble Equalizers.** Permit individual attenuation or emphasis of high treble or low bass. Provide equalization for any frequency response over the entire audible range.

**Dual Phono Input.** Two turntables may be operated efficiently by means of dual phono input on fader control. High gain is 30 db., sufficient for use with any type of high-impedance pick-up.

**Output Impedance.** Tap switching is provided for impedances 2, 4, 6, 8, 250 or 500 ohms to match practically any speaker or standard line.

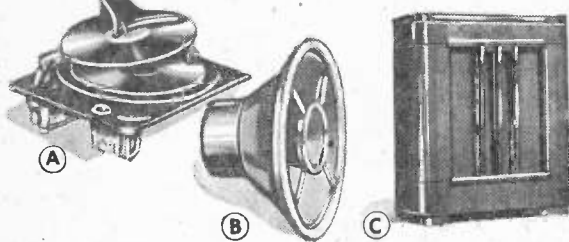
**Frequency response.** High-fidelity frequency response—flat within  $\pm 2$  db., from 30 to 12,000 CPS. Extremely wide coverage.

**Tubes.** Uses: 1—6L7, 1—6H6, 1—6C8G, 2—6L6G, and 1—5Z3 tubes. For 110-120 volt, 60 cycles AC. Power drain is 165 watts.

**Cabinet.** Housed in attractive gray-finished steel cabinet. Compact construction. Measures only 17 1/4" x 11 1/4" x 9 3/4" overall.

**93-100.** 20-Watt High-Fidelity Phonograph Amplifier with Tubes. Shpg. wt., 30 lbs. **\$52.50**

NET. (Subject to OPA approval)



### HIGH-FIDELITY PHONOGRAPH EQUIPMENT

**GARRARD DELUXE RC-60 RECORD CHANGER.** Fig. A. Plays eight 10" and 12" records intermixed in any combination, without adjustments. Governor-controlled constant-speed motor can be regulated from 60 to 90 RPM. 1-oz. crystal pickup with permanent stylus. Output, .85 volt. Response, 30 to 10,000 CPS. See page 85 for additional description. Wt., 20 lbs.

**96-055.** **\$63.00**

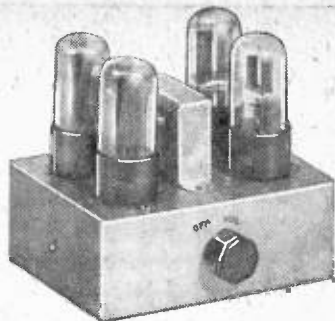
**JENSEN HIGH-FIDELITY MODEL JHP-52 CO-AXIAL SPEAKER.** Fig. B. Consists of two co-axially-mounted PM speakers with built-in frequency dividing network. 15" low-frequency PM speaker operates from 50-5,000 CPS. 5 1/2" high-frequency PM speaker operates from 4,000-12,000 CPS. An outstanding value in a high-fidelity speaker. See page 88 for additional description. Shpg. wt., 23 lbs.

**82-050.** NET. **\$34.81**

**JENSEN MODEL CA BASS REFLEX ENCLOSURE.** Fig. C. Constructed of genuine striped walnut. Accommodates 15" speaker. Provides full bass-reflex performance; especially improves the low frequency response of speaker. Excellent for use with high-fidelity coaxial speaker listed above for phono, radio, or PA installations. Size, 27 3/4" x 31 1/4" x 14". Shipping weight, 44 lbs.

**95-006.** **\$38.14**

NET.



### KNIGHT 4-WATT PHONO-AMPLIFIER

An excellent phono-amplifier around which to build your own record-reproducing unit at economical cost. Has inverse feedback for unusually wide frequency response. Built-in output transformer and jack provided for operation with PM speaker. Also has input jack for high-impedance crystal pickup, and power jack for phono motor operation. Compactly made. Measures only 4" wide, 5 1/4" long. Overall height with tubes inserted, only 4 3/4". Uses 1—6SL7GT dual triode, 2-stage amplifier; 2—25L6GT push-pull power amplifier; and 1—25Z6GT rectifier. For 110-120 V. 60 cycles AC. Complete with tubes. Shpg. wt., 8 lbs. **\$13.30**

**83-071.** NET.

### PHONO-AMPLIFIER ACCESSORIES

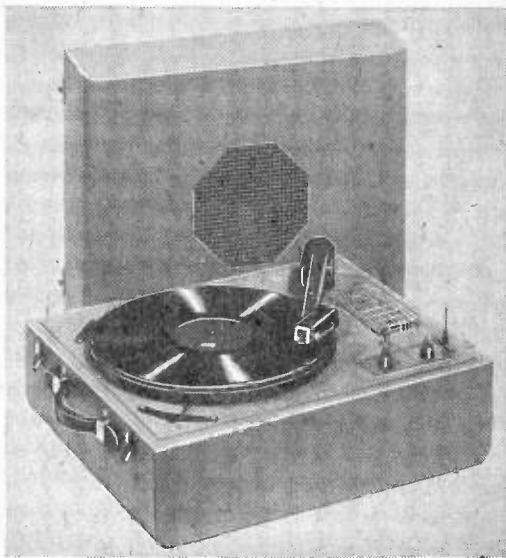
See pages 84-88 for complete descriptions of the following items.

**85-265.** Model LX Rim-Drive Motor. NET..... **\$3.62**

**65-304.** Shure 93A Crystal Pickup. NET..... **3.23**

**82-070.** Jensen 8" PM Speaker. NET..... **8.94**

**95-001.** 8" Bass Reflex Enclosure. NET..... **13.29**



### DUAL SPEED TRANSCRIPTION PLAYER

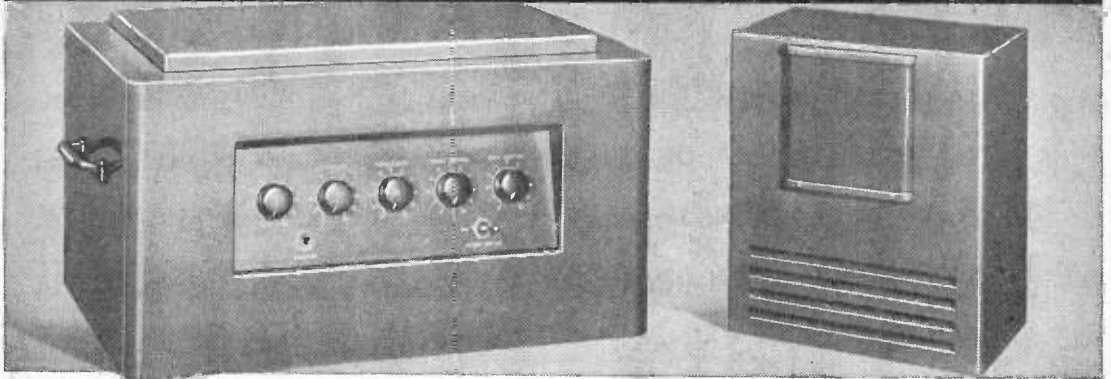
This new 1946 instrument is a beauty! It is a dual-speed truly high-fidelity transcription player—engineered and built, not down to a price, but up to a standard that will meet the most exacting requirements for high-fidelity phono graph record reproduction. Ideal for schools, broadcast and recording studios, clubs, etc.

**HIGH FIDELITY SPECIFICATIONS.** One of the most versatile portable transcription players available today with a full 12" balanced rim-driven turntable. Accommodates all records and transcriptions up to 16" discs. New Astatic transcription pickup with high frequency response provides faithful reproduction on all types of recordings. Built-in amplifier is conservatively rated at full 5 watts undistorted output. Amplifier uses 1—6SC7, 2—50L6, and 1—35Z5 tubes, and is made with excellent craftsmanship. A new Utah 8" permo-dynamic speaker is mounted in the lid with more than 3 1/2 sq. ft. of baffle area. Speaker and lid may be detached from case, and set up wherever desired. Supplied with 18-foot insulated cable. Also equipped with a jack so that the pickup may be fed into a separate amplifier or PA system. Has volume and tone controls conveniently located on motor board.

**CONSTANT SPEED—LOW SURFACE NOISE.** A new heavy-duty General Industries induction motor of dual speed type operates at standard playing speeds of 33 1/3 or 78 RPM. Equipped with speed regulator and on-off switch. Speed is constant within 1%. Complete unit is enclosed in a heavy gauge steel case, attractively finished in dark gray wrinkle. Size, 10 1/4" x 15" x 18". With tubes. For 110-120 V. 60 cycles AC. Shpg. wt., 45 lbs.

**96-230.** Dual Speed Transcription Player in Portable Case. NET..... **\$110.00**

# HIGH FIDELITY P. A. EQUIPMENT



## CLARK 30 WATT HIGH FIDELITY AMPLIFIER

Here is one of the finest PA amplifiers available! The Clark PA-30 achieves reproduction of voice and music unsurpassed for high fidelity and true tone quality. Engineered and built according to professional specifications, this unit offers a newly developed circuit of electronic equalization, insuring a uniformly flat frequency response over the entire audible range. Every note from deep bass to high treble is reproduced with utmost clarity.

**Power Output.** 30-watt output at less than 4% harmonic content. Two isolated feed-back circuits reduce distortion to a minimum at any gain or equalizer setting.

**Electronic Equalizer.** Provides selective boost or attenuation of both treble and bass notes without affecting middle frequencies, thus providing flat response over the entire frequency range. Treble boost is variable up to 21 db., and can be attenuated to 12 db. at 10,000 CPS. Bass boost is variable to 18 db. up to 70 CPS, and can be attenuated 12 db. at 50 cycles. Permits any desired compensation.

**Three Input Channels.** Has one high impedance, 5 meg. phonograph input plus two high impedance, .5 meg. microphone channels. Gain: 85 db. for phonograph, and 125 db. for microphone—with source impedance of .1 meg. Separate volume controls for each input.

**Output Circuit.** 2 speaker sockets with impedance switch for 4, 8, 16, or 500 ohms.

**Flat Frequency Response.** Better than  $\pm 2$  db. from 50 to 10,000 CPS. Hum level, 55 db. below rated output with bass control on full.

**Attractive Cabinet.** Heavy gauge steel, finished in metalized bronze-gray. Has illuminated panel. Hinged cover. Size, 10" x 20" x 11 1/4".

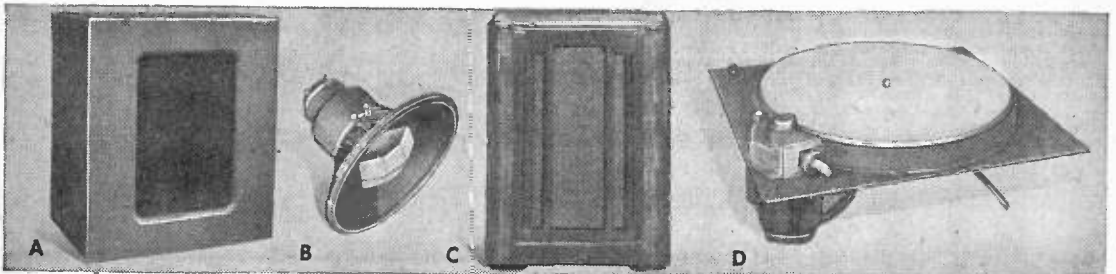
**Supplied with Tubes.** Uses: 3-7C7's, 1-7F7, 1-6SN7, 2-6L6's and 1-5U4. Also includes microphone and speaker plugs, and complete set of response curves. For 115 volts 60 cycles AC. Shipping weight, 45 lbs.

**93-900. NET PRICE..... \$108.00**

## CLARK REPRODUCER

Every new development and refinement that could possibly contribute to the tone quality and efficiency of an amplifier is incorporated in the Clark Model S6C Cabinet Speaker. Specifically designed for use with the PA-30 amplifier at left, it is also suitable for use with other units where high performance is essential. Labyrinth type construction provides exceptional fidelity; equivalent in reproduction to a four foot exponential horn. Speaker is five-watt permanent magnet type, with uniform frequency response between 100 and 5,000 CPS; slightly rising characteristic to 6,000 cycles. Voice coil impedance, 6 ohms. The attractive cabinet is expertly fashioned from carefully selected plywood, hand-rubbed and polished to a lustrous gray finish. Speaker grille is attractive stand-out design covered with maroon cloth. An impressive cabinet, suitable for installation in broadcast studio, school, church, hospital, industrial plant, office, etc. Overall size, 20" high, 18" wide, and 11" deep. Shpg. wt., 30 lbs.

**93-905. NET..... \$42.00**



## ALTEC LANSING HIGH-FIDELITY REPRODUCERS

### MODEL 604—FIG. B

Here is the speaker that won an award from the Academy of Motion Picture Arts and Sciences for superb reproduction! The 604 Duplex is of the same two-way multi-cellular construction acclaimed throughout the motion picture industry. It combines high and low frequency units to provide exceptionally high fidelity frequency coverage from 40 to above 15,000 cycles. Response is essentially flat over entire range. Delivers 60° horizontal distribution and 40° vertical distribution. The complete Duplex is a six-cell high frequency horn mounted in the face of a low frequency cone speaker; provided with a dividing network which furnishes a 2,000 cycle crossover for separate excitation of the two units. Signal capacity, 25 watts; input impedance, 20 ohms. Speaker dia., 15 1/8"; depth, 11 1/8". Shipping weight, 35 lbs.

**95-050. NET..... \$245.00**

### MODEL 605—FIG. C

A truly fine floor cabinet with Duplex speaker and dividing network described at left. Suitable for homes, recreation halls, auditoriums, nite-clubs, theatres, etc. Produces every tone with vital realism. Attractively styled speaker grille permits a full 60° horizontal distribution. Choice wain it veneers beautifully matched and fashioned. Hand-rubbed and polished to a high lustre. Size, 38" x 30" x 16". Shpg. wt., 150 lbs.

**95-051. NET..... \$323.40**

### MODEL 612—FIG. A

Sturdy utility cabinet with Model 604 Duplex speaker and dividing network. Ideal for installation in theaters, auditoriums, gymnasiums, field-houses, etc. Select plywood construction. Overall size, 29 1/2" x 25 1/2" x 17 1/4". Wt., 150 lbs.

**95-052. NET..... \$284.20**

## PRESTO MODEL 10-A 16"

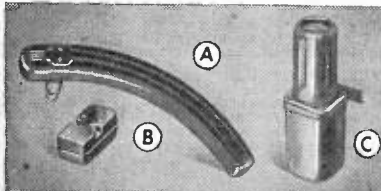
### PROFESSIONAL TURNTABLE—FIG. D

Consists of a dynamically balanced 16" turntable rim-driven at 33 1/3 or 78 RPM by a powerful synchronous type dual speed motor. Used and recommended by leading radio stations and transcription makers for playing both vertical and lateral recordings. Maximum noise level originating within the turntable is 50 db. below maximum program level. Operation is simple. Speed can be changed instantly by moving either section of drive pulley, and is maintained to an accuracy of .4%. Ideal for all installations requiring continuous playing of records over long periods of time. Can be used as replacement for obsolete turntables. Will mount in most cabinets without disturbing pickups or controls. Cast metal base measures 18 1/2" x 20". Motor is 5" deep, and turntable, 2 1/2" high. Shpg. wt., 55 lbs.

**96-005. NET..... \$171.00**

Write for complete Presto price list.

## CALTRON PICKUPS AND PRE-AMPLIFIER



**Fig. A. Model 300 Magnetic Pickup.** For records up to 12". Uniform response to 6,000 cycles; less than 1% distortion. Needle pressure, one ounce. Permanent precious-metal stylus. Impedance, 100 ohms. Output, 2.5 millivolts. See pre-amplifier below for use with low gain amplifiers and radio sets. Wt., 1 lb.

**65-210. Magnetic Pickup. NET..... \$10.29**

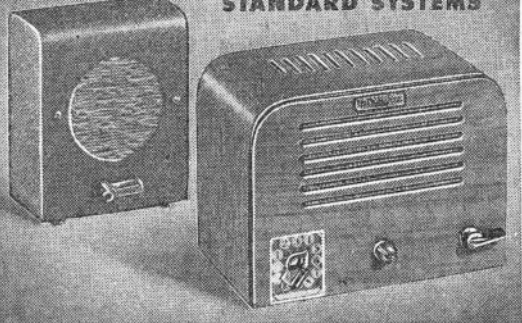
**65-212. Model 301.** As above, but for 16" records. NET..... \$11.76

**65-211. Fig. B. Model 100.** Replacement cartridge for Caltron pickups. NET..... \$5.88

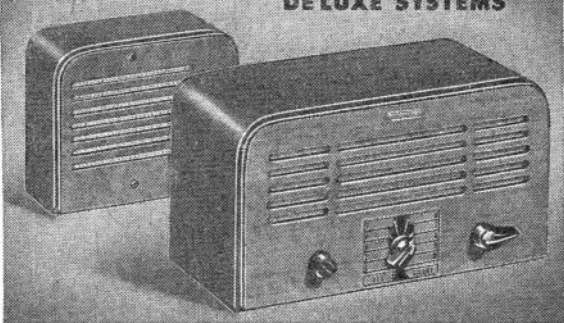
**65-213. Fig. C. Model 400 Pre-amplifier.** Increases output of Caltron pickups to 1 volt. Bass compensated for playing commercial records. Has bracket and 18" leads for mounting in set or amplifier. With instructions. Less 7F7 tube. Shpg. wt., 2 lbs. NET..... \$5.88

# Talk-A-Phone INTERCOMMUNICATION SYSTEMS

## STANDARD SYSTEMS

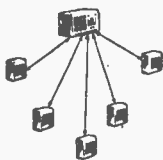


## DELUXE SYSTEMS



**INSTANT SPEAKING COMMUNICATION—SAVES TIME, STEPS, MONEY—EASILY INSTALLED—COMPLETE INSTRUCTIONS INCLUDED**

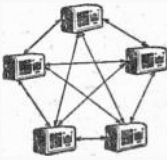
### MASTER-SELECTIVE SYSTEMS



Master Selective Systems consist of one Master Station and up to ten Sub-Stations. You can build up your system progressively—beginning with the Master Station and one Sub-Station, and adding other Sub-Stations as the need develops. Master Station may

call any Sub-Station individually, or may call all Sub-Stations simultaneously. Sub-Stations may call Master but not each other. Will operate with as much as 2,000 feet of cable between stations. Master Selective Systems feature: **Silent Operation**—shuts out all sounds from Sub-Station locations when not in use. **Far-Reaching Power**—voice will carry clearly 25 ft. (Standard models) and up to 50 ft. (Deluxe models) from Sub-Station unit. Person called at Sub-Station may therefore answer from any distance up to 50 ft. without leaving his work, as it is not necessary to operate switch when answering calls. Volume easily adjusted from a whisper to powerful room volume. **Remarkable Economy**—system costs only 15 to 20 cents per month for electric current. **Operate Anywhere** from 110-120 volts AC or DC. **Tubes**—1—12S7J, 1—50L6GT, 1—35Z5GT, 1—L40CT.

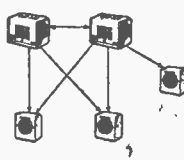
### SUPER-SELECTIVE SYSTEMS



Here is an unusually versatile, low-cost intercommunication system offering complete privacy of conversation and flexibility to meet all kinds of requirements in industry, offices, institutions, etc. Consists entirely of Master Station units so that several separate

two-way conversations may be carried on simultaneously without cross-talk. Any one Master Station may talk to any other Master Station at will with absolute privacy. There can be no eavesdropping, no interference with conversation. Masters may call one another regardless of whether station being called has power "on" or not. Silencing feature eliminates all sound pickup when stations are not actually in use. Up to 3,000 feet of cable may be used between stations. Variable volume controls permit regulation from a whisper to full room volume. Housed in handsome walnut-finished cabinets, designed to fit into the finest surroundings. Finished appearance front and rear. Compact construction. Standard Models are 9 1/2" x 6 1/2" x 5 1/4"; Deluxe Models, 12" x 6" x 5 1/4". For operation from 110-120 volts AC or DC. **Tubes** used (in both models): 1—12S7J, 1—50L6GT, 1—35Z5GT, 1—L40CT.

### COMBINATION TYPE SYSTEMS



Here's the ultimate in flexibility. The convenience and time-saving advantages of these systems are without equal. Used extensively in industry, offices, schools, institutions, etc. Consist of Master Stations and Sub-Stations in any

combination desired. Master Stations may call any other Master or Sub-Station; Sub-Stations may answer but cannot originate calls. No switches to operate at the Sub-Stations. All Masters may have Sub-Stations in common, or any Master may have individual Sub-Stations. Diagram illustrates typical installation: two Masters have two Sub-Stations in common, and one Master has its own Sub-Station; first Master cannot listen-in to the single Sub-Station at right. Standard Master station units have walnut cabinets, 9 1/2" x 6 1/2" x 5 1/4"; Sub-Stations have metal cabinets, 7" x 5 1/4" x 3 3/4". Deluxe units are all in walnut cabinets; Master units, size: 12" x 6" x 5 1/4"; Sub-Station units measure: 7 1/2" x 6" x 4". Suitable for the finest offices. For use from 110-120 volts AC or DC. **Tubes** used on both models: 1—12S7J, 1—50L6GT, 1—35Z5GT, 1—L40CT. With complete instructions.

### STANDARD MODELS

Standard models have 1-watt output; person at Sub-Stations may answer from distance up to 25 feet. Master Station in handsome walnut-finish cabinet, 9 1/2" x 6 1/2" x 5 1/4"; Sub-Stations in attractive metal cabinets, 7" x 5 1/4" x 3 3/4".

**95-800. Model LP-5. Standard Master Station.** Handles one to five stations. With tubes and instructions; less cable. **\$19.95** Wt., 11 lbs. EACH.....

**95-801. Model RS-3. Standard Sub-Station.** Shpg. wt., 4 lbs. EACH..... **\$7.25**

**49-600. 3-Cond. cable. PER FT..... 2 1/2¢**

**95-810. Model LP-10. STANDARD MASTER STATION.** Handles up to 10 sub-stations. Use Sub-Stations and cable listed above. With tubes. Wt., 11 lbs. **\$24.95** NET EACH.....

### DELUXE MODELS

2 1/4 watts output. Handle up to 10 Sub-Stations. Pick up voice 50' from Sub-Stations. In walnut finished wood cabinets. Master size, 12x6x5 1/4". Sub-Station size, 7 1/2"x6x4".

**95-815. Model KR-40. Deluxe Master Station.** Complete with tubes, junction box and instructions. Shpg. wt. 13 lbs. **\$34.95** NET EACH.....

**95-816. Model KR-40-C. As above but with privacy earphone.** Lifting earphone automatically disconnects loudspeaker. Shpg. wt., 14 lbs. EACH..... **\$43.50**

**95-817. Model RU-43. Deluxe Sub-Station Unit.** Wt., 4 lbs. EACH..... **\$11.25**

**49-600. 3-Cond. Cable. PER FT..... 2 1/2¢**

### STANDARD MODELS

The standard models of the Super-Selective Systems have 1 watt power output. Wt., 11 lbs.

**95-825. Model LP-100. Standard Super-Selective Unit.** Two to five units may be used. Two separate two-way conversations may be held simultaneously. With tubes and instructions. **NET EACH..... \$23.50**

**49-602. 6-Cond. Cable for 95-825 units. PER FOOT..... 8 1/4¢**

**95-830. Model LP-110. 10-STATION SUPER-SELECTIVE UNIT.** As above, but for any number of stations from two to ten. Shpg. wt., 11 lbs. EACH... **\$26.50**

**49-603. 11-Cond. Cable for 95-830 units. PER FOOT..... 13¢**

### DELUXE MODELS

The deluxe models of the Super-Selective Systems have 2 1/4 watts power output. Up to ten stations may be used to permit five simultaneous two-way conversations with privacy.

**95-835. Model KS-60. Deluxe Super-Selective Unit.** With tubes, junction box, 6-foot cable, and complete instructions, 13 lbs. **NET EACH..... \$34.95**

**95-836. Model KS-60-C. As above but with privacy earphone.** Lifting earphone disconnects loud-speaker so that "talk-listen" switch does not require manual operation. Works like an ordinary telephone. **\$43.50** Shpg. wt., 14 lbs. **NET EACH.....**

**49-603. 11-Cond. Cable for 95-835 and 95-836 units. PER FOOT..... 13¢**

### STANDARD MODELS

Standard Systems have 1 watt output.

**95-850. Model LP-65. Standard Combination Master.** Two to five units may be used. With tubes and instructions. **\$24.95** Shpg. wt., 11 lbs. EACH.....

**95-851. Model RS-2. Sub-Station Unit.** Shpg. wt., 4 lbs. **NET EACH..... \$6.75**

**49-620. 5-pair cable for 95-850 Masters. PER FOOT..... 18¢**

**48-850. 2-Cond. cable for Sub-Stations to Masters. PER FOOT..... 1 1/4¢**

**95-860. Model LP-70. 10-Station Combination Unit.** Identical to 95-850 but any combination of 10 units may be used. **\$29.75** Shpg. wt., 13 lbs. **NET EACH.....**

**49-630. 10-pair cable for 95-860 Masters. PER FOOT..... 29¢**

### DELUXE MODELS

2 1/4 watts output. Up to ten units may be used in any combination of Masters and Subs.

**95-865. Model KC-80. Deluxe 10-Station Master Unit.** 13 lbs. EA. **\$38.25**

**95-866. Model KC-80-C. As above but with privacy earphone.** Lifting earphone disconnects loud-speaker. Shpg. wt., 14 lbs. **NET EACH..... \$46.95**

**95-867. Model UC-82. Deluxe Sub-Station Unit.** Wt., 6 lbs. EACH..... **\$11.25**

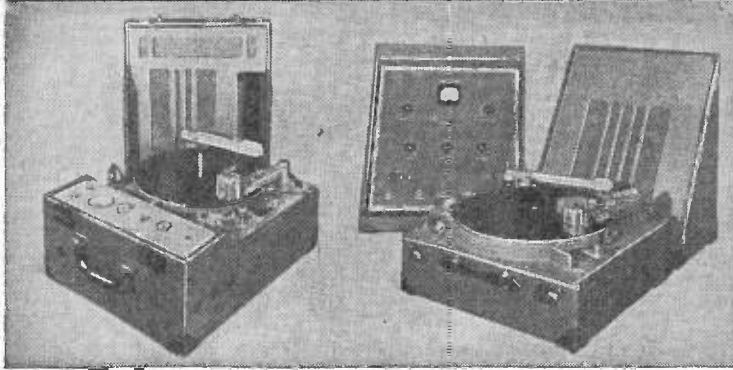
**49-630. 10-pair cable for deluxe Masters. PER FOOT..... 29¢**

**48-850. 2-Cond. cable for Sub-Stations to Master. PER FOOT..... 1 1/4¢**

Deluxe Models are available in systems up to 80 stations. Write for details, and for data on "Super-Chief" models.

**HOW TO DETERMINE CABLE REQUIREMENTS.** (A) For Master-Selective Systems: Measure from Master to each Sub-Station to determine total cable needed. (B) For Super-Selective Systems: Measure from first Master to second, second to third, etc. (C) For Combination Master Systems: Master cable, measure from Master to Master; Sub-Station cable, measure from each Sub-Station to nearest Master only.

# PORTABLE RECORDING SYSTEMS



## PRESTO PROFESSIONAL RECORDING EQUIPMENT

### MODEL "K"

Finest quality recorder, record player, and public address system made with precision craftsmanship to satisfy professional requirements. Entirely contained in a single, compact carrying case. Ideally suited to the requirements of schools for instruction in speech, music, dramatics, law, etc. Records for 15 minutes continuously on a 13 1/4" disc. Recording speeds, 33 1/3 and 78 RPM. Cuts outside-in or inside-out at 112 lines per inch. Will play back all types of records. Provides excellent PA system for small audiences. Dynamic speaker in detachable cover. Amplifier frequency response is flat within 2 db from 50 to 8,000 cycles. Response of magnetic cutting head and magnetic playback unit, 80 to 5,000 CPS. 12" heavy cast metal, rubber-tired turntable is rim-driven, and maintains constant speed to within .4%. Portable case covered with attractive dark gray leatherette. Measures 19 1/2" x 15 1/2" x 14". For 115 volt, 60 cyc. AC. Tubes: 3-6SQ7, 1-6N7, 2-45's, and 1-80 rectifier. Shpg. wt., 59 lbs.

**96-000.** With tubes and speaker, less mike and stand. **\$297.00**

**NET.....**

Write for complete descriptive literature and prices on all Presto equipment.

**93-270.** Shure "Uniplex" crystal microphone and floor stand with 25 ft. cable and plug, for Model K above. See page 82 for description. Wt., 16 lbs. **\$27.60**

**NET.....**

### MODEL "Y"

A professional, portable-model transcription recorder and playback unit with "broadcast quality" performance. Ideal for broadcast station remotely-recorded pickup use, and auditioning purposes. Inclined studio-style control board permits complete equalization and control. Takes all size records from 6" standard to 17 1/4" master recordings. Records continuously for 15 minutes. Recording speeds, 33 1/3 and 78 RPM, constantly maintained within .4% accuracy. Flat frequency response, 30 to 10,000 cps. Treble control has range of +17 db to -20 db from normal level at higher frequencies. Bass control produces maximum peak of 20 db at 80 cyc. Amplifier output, 10 watts at 8 ohms impedance. Equipped with 10" quality PM dynamic speaker and enclosed baffle. Amplifier and speaker form compact portable case, 23 1/2" x 11" x 19". Portable turntable case measures 20 1/2" x 11" x 19". Both cases are covered with gray luggage cloth. Have chromium plated locks and leather handles. For 115 V., 60 cyc. AC. Complete with tubes: 2-6SJ7, 1-6N7, 2-6C8G, 2-2A3, 1-5Z3 rectifier. With mike plug. Shpg. wt., 146 lbs.

**96-010.** With tubes and speaker, less mike and stand. **\$638.00**

**NET.....**

Use 93-270, microphone and stand at left or make selection from pages 82 and 83.

Write for complete descriptive literature and prices on all Presto equipment.

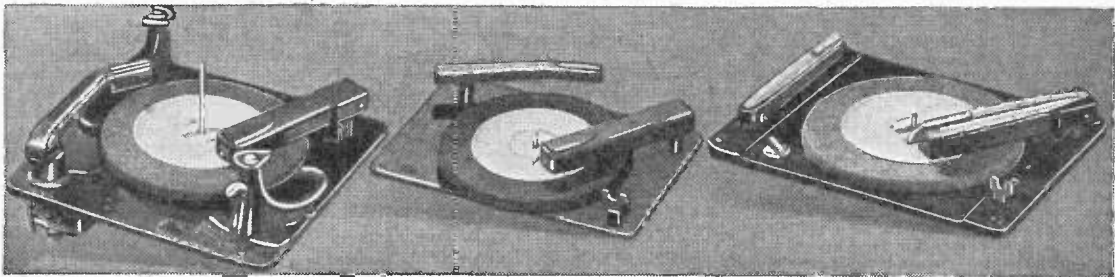
## UTAH "60" MAGIC-WIRE RECORDER AND PLAYBACK

The most sensational development in recording science! Records continuously for 66 minutes at slow speed and 33 minutes at fast speed—on a single spool of steel wire. Recordings are permanent, but all or part may be removed when desired. The same wire can be used to record thousands of times without affecting the original high quality. Ideal for every type of home recording; for direct recording of complete radio programs without using a microphone, or for teaching diction and language in school. Wire speeds can be adjusted at 200 RPM or 400 RPM. Frequency response at slow speed, 100 to 6,000 c.p.s.; at fast speed, up to 8,000 c.p.s. Completely self-contained in strong, light aluminum case except for microphone. Has 3.5 watt amplifier and built-in 5" speaker for playback operation. Provision for use of external speaker by plugging into jack on panel with choice of 10, 50, 250 or 500 ohms output. Recording mechanism consists of wireguide assembly, wire spools, erase coil, and automatic stop. Rugged induction motor maintains constant speed. Complete with tubes: 2-6V6GT, 2-6SJ7, and 1-5Y3GT rectifier. One spool of wire supplied with unit. Aluminum case with detachable cover, 13" x 13" x 9 1/4". For 110-120 v., 60 cyc. AC. Shpg. wt., 40 lbs.

**96-175.** Complete less microphone. **\$350.00**

**96-177.** Extra Spools of Wire, EA. **\$6.50**

Use 93-270, mike and stand at left.



## GENERAL INDUSTRIES RECORDING AND PLAYBACK ASSEMBLIES

### COMBINATION RECORD-CHANGER AND RECORDER

Combination recorder and record-changer in a single basic unit. Operates at 78 RPM. Records on acetate and composition discs up to 10" in diameter. Plays all "home recorded" and commercial records up to 12" dia. manually. Automatic changer handles all commercial 10" or 12" records. Only one lever to move when shifting from 10" to 12" records. Crystal-type recording head cuts at 110 lines per inch, working from outside-in. Has convenient depth-of-cut adjustment. For radio or amplifier with 3 watts or more output. Pickup is 1/4 oz. low pressure crystal type with response of 30-7000 CPS. Rim-driven 10" weighted turntable has retractable record driving pin. Smooth running induction motor is dynamically balanced. Base plate is 14" x 14". Mechanism extends 5/8" above, and 2 1/4" below top of panel. Comes with on-off switch and all mounting hardware. For 110 V., 60 cycle AC operation. Brown iridescent finish. Shipping weight, 26 lbs.

**96-101.** Model GI-RC130L. **\$32.67**

**NET.....**

### SINGLE-SPEED BASIC RECORDING UNIT

A 78 RPM basic mechanism with which to assemble your own Recorder-Phonograph unit. Cuts records up to 10" dia. outside-in at 110 lines per inch. Plays records up to 12" dia. The cutter feed mechanism simply requires lowering the cutter arm over the record disc to start the recording operation. Cutting arm has adjustment for depth of cut. Induction motor employs an internal rim-drive to the turntable. Assembly includes: motor; 10" dynamically balanced, weighted turntable; cutting mechanism; crystal cutting head which will operate from any radio receiver or 3-watt audio amplifier; high impedance 1/4 oz. crystal pickup; cutter rest; base plate with smooth, round edges. Dimensions 15" wide and 10" front to back; extends 2 1/2" above base, 2 3/4" below. For 110 volt, 60 cycle AC operation. Shpg. wt., 17 lbs.

**96-103.** Model GI-R70L. **\$19.95**

**NET.....**

**96-102.** As above but has 2 oz. medium-pressure playback pickup. **NET... \$19.95**

### DUAL-SPEED BASIC RECORDING UNIT

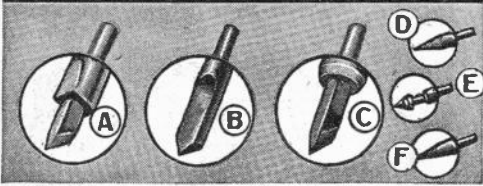
A deluxe, dual speed, basic recording and playback unit, especially suited for smartly styled custom-built installations. Operates at 33 1/3 and 78 RPM. Records on all composition and acetate discs up to 10" in diameter. Plays back composition, acetate and commercial records up to 12" diameter. Crystal recording head cuts at 110 lines per inch from outside-in. Has depth of cut adjustment in arm. Pickup is 1/4 ounce low-pressure type. Rim-drive dual speed motor. Shock mounted. In attractively walnut grain finish on steel base plate with plastic trim on crystal pickup and cutter arms. Base plate is 15" W., by 11 1/2" front to back. Mechanism extends 2 3/4" above, and 3/4" below top of panel. Complete with speed-change dial and all mounting hardware. For 110 V., 60 cycle AC operation. Shpg. wt., 17 lbs.

**96-105.** Model GI-R90L. **\$23.58**

**NET.....**

**96-104.** As above but has 2 oz. medium-pressure playback pickup. **NET... \$23.58**

## Needles and Accessories



### RECORDING NEEDLES

#### SAPPHIRE CUTTING NEEDLES FIG. A.

**65-800. KNIGHT.** Precision-ground and polished sapphire cutting needles. Average cutting life, 5 hrs. **EACH...\$3.50**

**65-850. PRESTO.** Finest quality short-shank sapphire needles available. Average cutting life, 5 hrs. **EACH...\$6.00**

**65-854.** Presto long-shank sapphire needle. Average cutting life, 5 hrs. **EACH...\$6.00**

We resharpen sapphire needles at \$2.00 EACH.

#### STELLITE & ALLOY CUTTING NEEDLES FIG. C.

**65-801.** Stellite. Cuts all coated blanks with 1/2 minimum noise. Cutting life, 2 hrs. **EACH...\$1.00**

#### STEEL CUTTING NEEDLES FIG. B.

Uniform flat shank steel needles. Average cutting life, 20 min. For cutting all coated discs.

**65-803. KNIGHT.** Package of 5. **NET...\$9c**

**65-900. KNIGHT.** Single needle as above. **EACH...15c**

**65-804. RECOTON.** Diamond-dust polished. Average cutting life, 20 min. Pkg. of 5. **NET...95c**

#### PLAYBACK NEEDLES FOR COATED DISCS

**65-815.** Recoton Sapphire. Fig. D. Up to 10,000 plays. **EACH...\$3.60**

**65-820.** "Walco" Sapphire. Fig. E. 2500 plays. **EACH...73c**

**65-825.** Red Shank Steel Needle. Fig. F. Pkg. of 100. **38c**

**65-853.** Permo Transcription Needs. Semi-permanent type. Gives approx. 50 hours service. **EACH...69c**

#### RECORD MAILING ENVELOPES

Heavy envelope with cardboard inserts, for safe mailing.

**65-500.** For 6 1/2" discs. Pkg. of 12. Wt., 2 lbs. **NET...72c**

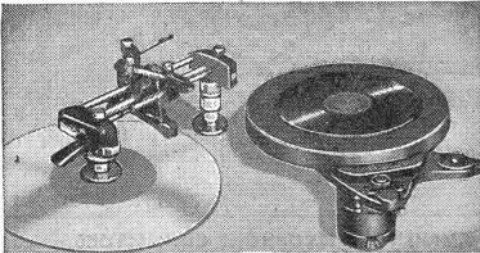
**65-501.** For 8" discs. Pkg. of 12. Wt., 3 lbs. **NET...84c**

**65-502.** For 10" discs. Pkg. of 12. Wt., 5 lbs. **NET...\$1.05**

#### RECORD LABELS

Gummed record labels; have blank spaces for title, artist, date, etc. Shipping weight, per 50 labels, 2 oz.

**65-520.** .....250 for 90c 50 for 25c



## REK-O-KUT RECORDING EQUIPMENT

### RECORDING UNITS

Newest design cutting unit. Includes cutter, carriage, drive mechanism and feed-screw. Has chip collector. Unique raising, lowering, and swiveling end support permits use of any thickness record blank. Cuts 120 lines per inch. For use with assembly at right. Wt., 20 lbs.

**96-158.** Model B-5. Has Brush crystal cutter (RC20).

**96-159.** Model M-5. Has magnetic cutter. 8 ohms.

**NET \$150.00**

**EACH...\$150.00**

**Recording Meter.** VM-2. Rectifier type meter for monitoring purposes. Calibrated in decibels. Operates from 8, 15, 200 or 500 ohm amplifier output.

**96-160.** Net. **\$29.50**

**Matching Transformer.** T-45. Specially designed to operate with crystal cutter. Tapped to permit use on 8 ohm voice coil or 500 ohm amplifier output.

**96-161.** Net. **\$9.50**

### 16" DUAL SPEED

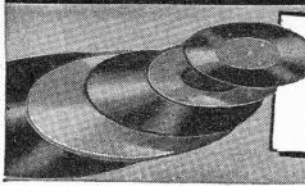
#### RECORDING ASSEMBLY

Precision type professional instrument. Dynamically balanced turntable with rubber pad and disappearing drive pin. Polished steel shaft, one inch dia., with special oil grooves for force feed lubrication. 1/20 HP constant speed motor. Adjustable stops regulate idler pressure against turntable. 10 lb. cast iron base. 25 lb. turntable. Shipping weight, 40 lbs.

**96-157.** **\$148.38**

**NET...\$148.38**

## Complete Selection of Recording Blanks



Here is the largest selection of nationally famous recording discs available today. We specialize in this field, and our large stock of high quality discs is complete and fast-moving—assuring you of fresh discs and prompt service always. Buy in quantities and save more.

### HIGH-QUALITY PROFESSIONAL BLANKS

#### PRESTO "GREEN SEAL"

Aluminum base. "Q" coated on both sides. Smooth surface permits clean cut with minimum noise. Wt., 2 lbs.

No.	Dia.	Thick.	NET
69-005	12"	.052"	\$1.25
69-006	15"	.056"	2.50
69-007	13 1/2"	.052"	1.80
69-011	13 1/2"	.066"	2.25
69-012	17 1/2"	.066"	4.00

#### PRESTO "ORANGE SEAL"

Medium aluminum base. .036" thick with smooth "Q" coating on both sides to provide cleanest cut. Will not buckle. Have excellent frequency response.

No.	Dia.	Wt.	NET
69-020	6 1/2"	10 oz.	\$0.40
69-021	8"	10 oz.	.55
69-022	10"	12 oz.	.80
69-023	12"	12 oz.	1.00

### ALUMINUM BASE AUDIODISCS

#### "RED LABEL"

Aluminum base. Smooth coating on both sides. Superior frequency response. Professional type. .054" thick.

No.	Dia.	Wt.	NET
69-070	10"	1 1/2 lbs.	\$1.00
69-071	12"	2 lbs.	1.25
69-072	16"	3 lbs.	2.50

#### "YELLOW LABEL"

Smooth coating on both sides over aluminum base. Quality discs, for studio and school use. .054" thick.

No.	Dia.	Wt.	NET
69-090	10"	1 1/2 lbs.	\$0.80
69-091	12"	2 lbs.	1.00
69-092	16"	3 lbs.	2.00

#### WRITE FOR STANDARD PACKAGE DISCOUNTS

### SEMI-PROFESSIONAL AND HOME TYPE BLANKS

#### FLEXIBLE BASE

#### KNIGHT HIGH-QUALITY

High-quality, double-faced recording discs. Made of durable paper-bond base. Uniformly coated to mirror-smoothness. Non-inflammable; Underwriters' Listed. Low surface noise. Average wt., 1 1/2 lbs. per package.

No.	Dia.	Quan.	NET
69-150	6 1/2"	Pkg. of 6	\$0.35
69-151	8"	Pkg. of 6	.59
69-152	10"	Pkg. of 6	.88

#### METAL BASE

#### KNIGHT STANDARD

Aluminum base, with even nitrate coating on both sides. Good response.

No.	Dia.	Wt.	NET
69-180	6 1/2"	8 oz.	\$0.13
69-181	8"	10 oz.	.19
69-182	10"	12 oz.	.24

#### KNIGHT STEEL BASE

Steel base discs for semi-professional use. Nitrate coated on both sides.

No.	Dia.	Wt.	NET
69-130	6 1/2"	10 oz.	\$0.11
69-131	8"	12 oz.	.16
69-132	10"	14 oz.	.22

#### RECORDISC "RED LABEL"

Aluminum base, professional grade, cellulose nitrate coating. Wt., 12 oz.

No.	Dia.	1-4	5-UP
69-140	6 1/2"	17c	15c
69-141	8"	23c	21c
69-142	10"	29c	26c

#### PRESTO "MONOGRAM"

Bond base, double-faced high-quality discs. Evenly coated with Presto "Q" material. Thickness, .05". Especially recommended for home recordings. Write for Presto quantity prices.

No.	Dia.	Wt.	NET
69-030	6"	4 oz.	\$0.20
69-031	8"	6 oz.	.35
69-032	10"	6 oz.	.50
69-033	12"	8 oz.	.70
69-034	16"	10 oz.	1.50

#### RECORDISC "ORANGE LABEL"

Low-cost discs with cellulose nitrate coating on processed paper bond base. Double-faced. Av. wt., 10 oz.

No.	Dia.	1-5	6-UP
69-110	6 1/2"	7c	6c
69-111	8"	13c	12c
69-112	10"	20c	18c

#### RECORDISC "BLUE LABEL"

Steel base, nitrate coated on both sides. Semi-professional type. 14 oz.

No.	Dia.	1-4	5-UP
69-135	6"	10c	8c
69-120	6 1/2"	13c	12c
69-121	8"	20c	18c
69-122	10"	27c	24c

### ASTATIC RECORDING HEADS

Cutting head replacements to fit practically all popular home recorders. 24" leads. Wt., 1 lb.

**65-125.** Fig. A. X-26 Crystal Head. With 75 V. applied, records to 5,000 CPS. 1 1/4" x 3/4" x 3/4".

**65-126.** Fig. A. X-29A Crystal Head. With 120 V. applied, records to 6,500 CPS. 1 1/4" x 3/4" x 3/4".

**65-127.** Fig. A. X-26 With flange bracket; for replacement in Knight, Wilcox-Gay, G.I., etc.

**65-128.** Fig. B. M-41-8 Magnetic. 8ohms. With 3V. applied, records to 7,000 CPS. 1 1/4" x 1 1/8" x 3/4".

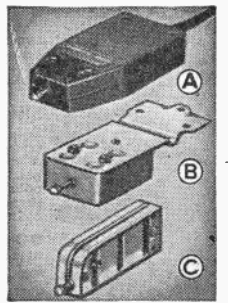
**65-129.** Fig. B. Model M-41-500 Magnetic. 500ohms. Requires 22V. RMS to record 7,000 cps.

**65-130.** Fig. C. C-42 Crystal Head. Records to 5,000 CPS with 75 V. applied. 3/4" x 1 1/8" x 3/4".

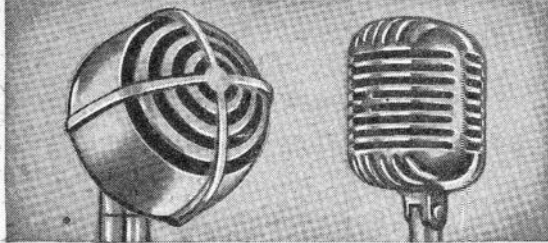
**NET \$6.76**

**EACH...\$6.76**

**65-131.** Matching Transformer. Crystal head to line; ratio, 60,000 to 500 ohms. For "constant-velocity" response. **EACH...\$4.12**



# SHURE MICROPHONES



## SHURE UNI-DIRECTIONAL MICROPHONES

Overcome feedback problems. Uni-directionals are dead at the rear; reduce reflected sound and background noises by 66%. Permit closer placement of mike to loudspeakers.

### "UNIPLEX" CRYSTAL

Model 730B. The lowest-priced true cardioid uni-directional microphone available. Gives excellent reproduction, from 30 to 10,000 CPS. Output level is -63 db. at front; 7 to 1 reduction of pickup from rear. Tilting head. Shure "Uniphase" principle permits more volume without howling. Wide-angle response from the front, but dead at the rear; makes microphone placement easy because feedback is reduced. Satin chrome finish. Head  $3\frac{1}{4}$ " dia.,  $3\frac{3}{4}$ " deep, 25-ft. shielded cable.  $\frac{3}{4}$ "-27 thread. Wt., 2 lbs.

99-355. NET..... \$21.87

### "UNIDYNE" DYNAMIC

Model 55C. Covers 40 to 10,000 CPS. Output, -55 db. Chrome finish. Head tilts 90°.  $\frac{3}{4}$ "-27 thread. Built-in cable connector. Constructed on Shure "Uniphase" principle. High impedance model for input circuits of 35,000 ohms or more. With 25-ft. cable and internal Transformer. Wt.,  $\frac{4}{16}$  lbs.

99-356. NET..... \$31.87

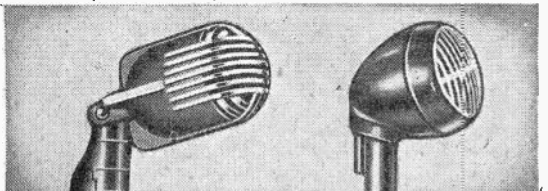
Model 55A. 35-50 ohms. 99-357. NET..... \$30.25

Model 55B. 200-250 ohms. 99-370. NET..... \$31.87

## SHURE 556 SUPER-CARDIOID DYNAMIC

Same appearance as 55C above. Highly unidirectional. Rejects sound from rear yet has wide-angle front pickup. Decreases pickup of echo and random noise by 73%. Head can be tilted 90°. Moving coil unit immune to vibration and wind. Response, 40 to 10,000 CPS. Equipped with 18' shielded cable. Standard  $\frac{3}{4}$ "-27 thread. Shpg. wt., 3 lbs.

99-387. 556C. Output, -35.5 db. into 100,000 ohms.  
99-366. 556A. Output, -62.8 db. into 35-50 ohms.  
99-371. 556B. Output, -63.8 db. into 200-250 ohms. NET EACH..... \$48.22



## "STRATOLINER" CRYSTAL

Model 708A. Semi-directional type with smooth response from 30-6000 CPS. Output, -49 db. Diecast case finished in iridescent gray with chrome type trim.  $\frac{3}{4}$ "-27 thread. 18-foot shielded cable. Wt.,  $2\frac{1}{2}$  lbs. \$13.05

## "STRATOLINER" DYNAMIC MODEL 508

Low cost dynamic microphone with smooth response. Case styling same as 708A above. Has built-in cable connector and swivel-head. Unaffected by heat or humidity. Includes built-in transformer. Output, -60 db. Fits standard  $\frac{3}{4}$ "-27 thread. Wt. 3 lbs. 99-373. 508C. High Impedance. 99-374. 508B. 200-250 ohms. NET EACH..... \$18.52

## ECONOMY MODEL 707A CRYSTAL MIKE

Iridescent gray diecast case with highly polished plating on front grille. Smooth frequency response for both voice and mus.c. Output, -49.7 db. Standard  $\frac{3}{4}$ "-27 thread. Diam.,  $2\frac{3}{8}$ ", 5" overall. Moisture-sealed Bimorph crystal, mechanically isolated. With 7-foot shielded cable. Wt., 2 lbs. 99-361. NET..... \$7.94

## CABLE-TYPE TRANSFORMER

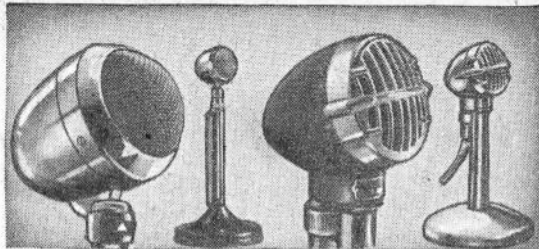
Model A86A. Matches 35 to 50 and 200 to 250 ohm mikes to high-impedance amplifier input. Size,  $1\frac{1}{2}$ " dia.,  $2\frac{1}{4}$ " long. 7-foot cable.  $\frac{1}{2}$  lbs. 41-917. NET..... \$7.70



## SHURE "100" CARBON HANDMIKES

Single-button carbon type. Widely used in Police transmitters and other equipment where a rugged mike is required. Light, sturdy case fits in palm of hand. Blue-gray crackle finish and polished nickel grill. Push-to-talk switch. With suspension hook and bracket for wall mounting.  $3\frac{3}{4}$ "x $1\frac{1}{2}$ "x $2\frac{3}{4}$ ". 4-ft. cable. Shpg. wt., 1 lb.

99-368. 101B. RCA type. SPST relay switch, normally open, has separate leads.  
99-369. Model 102B. Motorola type. DPST switch for mike and relay. NET EACH..... \$16.08



## ASTATIC T-3

An excellent wide-range crystal mike. Response 30 to 10,000 CPS. Output level, -52 db. Tilting-head provides effective means of controlling acoustic feedback. Chrome finish.  $\frac{3}{4}$ "-27 thread. 25-foot shielded cable. Less stand. Wt., 2 lbs. 99-300. NET... \$16.08

## ASTATIC JT-30T

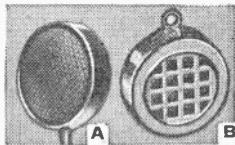
Semi-directional crystal type with fixed-angle head for optimum usefulness. Splendid for PA work, Home Recording and Amateur Radio. Response from 30 to 6000 CPS; output, -52 db. In a compact, two-tone enamel and chrome finished case, threaded  $\frac{3}{4}$ "-27. With 25-foot cable and concentric connector. Wood handle and inter-locking metal base included; permit use as desk or hand microphone. Wt., 3 lbs. 99-302. NET..... \$9.97



## ASTATIC MODEL DN DYNAMIC MIKE

A semi-directional, all-purpose dynamic microphone. Has "university" moving coil together with quality Alnico magnets. Response substantially flat from 50-7,000 CPS. Output, -55 db. Tilting head, permits semi- or non-directional positioning for best pickup. Two-tone beautiful enamel and chrome finish. With stand-type plug and connector, spring cable protector, and 25-foot shielded cable  $\frac{3}{4}$ "-27 thread.  $2\frac{1}{2}$  lbs.

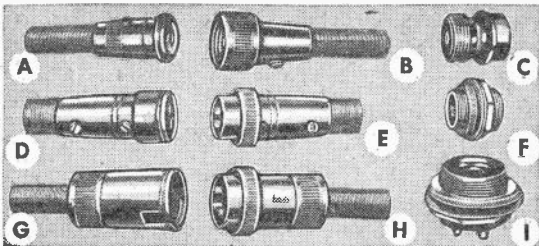
99-304. High \$14.46 Impedance. NET  
99-311. 200 Ohms. \$14.46



## COMPACT LAPEL TYPE MICROPHONES

Fig. A. Shure 76B. Crystal mike,  $1\frac{1}{2}$ " dia. Light weight, only  $1\frac{1}{2}$  oz. Has high output, gives high quality reproduction. Gray finish. Very inconspicuous. Complete with handy lapel-clip and 25 feet of shielded single conductor cable. Shpg. wt., 1 lb. 99-372. NET... \$15.88

Fig. B. Universal "W". Single button carbon. 200 ohms imp. Black bakelite case. Output, -33 db. Screw terminals at rear. Only  $1\frac{1}{2}$ " dia.  $\frac{1}{2}$ " thick. Net wt.,  $1\frac{1}{2}$  oz. Shpg. wt.,  $\frac{1}{4}$  lb. 99-470. NET..... \$2.40



## AMPHENOL MICROPHONE CONNECTORS

Laminated bakelite insulation.  $\frac{3}{4}$ "-27 threads. Av. shpg. wt. 3 oz.

41-955. 75-MC1M. Fig. A. Male connector. Fits 41-958. NET... 26c

41-958. 75-MC1F. Fig. B. Female with coupling ring. NET..... 32c

41-965. 75-PC1M. Fig. C. Male chassis mount mike connector. Non-shorting type. Fits 41-958. Mounts in  $\frac{3}{8}$ " hole. NET..... 19c

41-966. 75-SP-PC1M. Fig. C. Like 41-965, but has heavy coil spring contact. For  $\frac{3}{8}$ " mounting hole. Fits 41-958 connector. NET..... 26c

41-967. 75-CL-PC1M. Fig. C. Like 41-966, but shorting type. Requires  $\frac{3}{8}$ " mounting hole. Prevents open circuit hum. NET..... 26c

42-080. 80F. Fig. D. Female connector, 1-contact type with coupling ring. NET..... 42c

42-081. 80M. Fig. E. Male connector. Fits 42-080 female connector above. NET..... 42c

42-084. 80C. Fig. F. Chassis type connector with coupling threads. 1-contact type. Fits 42-081 male. NET..... 26c

42-082. 80-MC2F. Fig. D. Female, 2-contact type. Fits 42-083 male. NET..... 52c

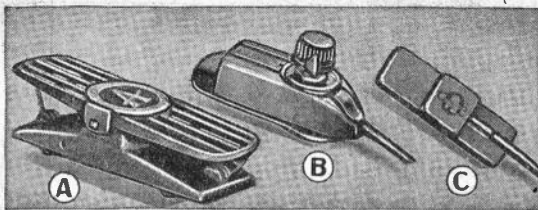
42-083. 80-MC2M. Fig. E. Male connector. Fits 42-082 female connector. NET..... 52c

42-085. 80-PC2F. Fig. F. 2-contact chassis connector. Fits 42-083. NET..... 29c

41-970. 91-MC3F. Fig. G. Three-circuit connector. Female type.

41-971. 91-MC3M. Fig. H. Male connector for 41-970. EACH. 65c

41-972. 91-PC3F. Fig. I. Three-circuit chassis connector. Female. Fits male plug 41-971, above. Requires  $\frac{1}{4}$ " mtg hole. NET..... 32c



## AMPERITE KONTAK MICROPHONES

For all string instruments such as guitar, violin, piano, or for wind instruments. Easily installed. Any number up to five can be wired in parallel for complete manual control of orchestration.

### STANDARD MODELS

Fig. C. 60 to 6,000 CPS. High impedance. SKH for use with high-gain amplifiers. KR output sufficient for direct use with most radio sets (after 1935) or with low-gain amplifiers. 15-ft. cable. Less volume control. Wt., 2 lbs. **99-406. SKH.**  
**99-407. KR.**  
**NET EACH.....\$7.06**

Type KKH. Fig. B. Like 99-406 but with volume control. 25-ft. cable.  
**99-408. NET.....\$10.58**

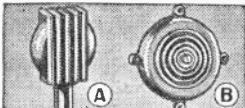
41-900. Fig. A. Foot volume control for all models. 2 lbs. **\$7.06**  
41-901. Kontak Clamp. Clamps Mike to String Inst. 4 oz. **\$7.06**  
41-902. Kontak Strap. For flat-top guitars. Wt. 4 oz. **\$9.00**

### DELUXE MODELS

Fig. C. Type KTH. Faithfully reproduces music over the entire usable range from 40 to 9,000 CPS. Used by many famous bands. Increases timbre, makes new effects possible. High-impedance. Low output, for high-gain amplifiers. 25-ft. cable. Shpg. wt., 2 lbs. **99-409.**  
**NET.....\$12.94**

Type KKH. As above, but with hand volume control. High impedance.  
**99-410. NET.....\$16.46**

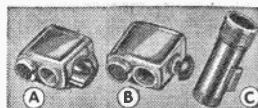
41-903. Fig. A. Foot volume control for all models. 2 lbs. **\$7.06**  
41-904. Kontak Clamp. Clamps Mike to String Inst. 4 oz. **\$7.06**  
41-905. Kontak Strap. For flat-top guitars. Wt. 4 oz. **\$9.00**



## ELECTRO-VOICE CARBON MICROPHONES

99-343. Fig. A. Double-button mike. Impedance 200 ohms per button. Flat response 40-8,000 CPS. Output, -42 db.  $\frac{3}{8}$ "-27 thread. 6 ft. cable. **99-343. NET.....\$4.70**

99-344. Fig. B. Ring and spring suspension type, double-button carbon mike. Impedance, 200 ohms per button. Response 45-7,000 CPS. With screw terminals. Wt., 2 lbs. **99-344. NET.....\$3.23**



## MIKE SWITCHES

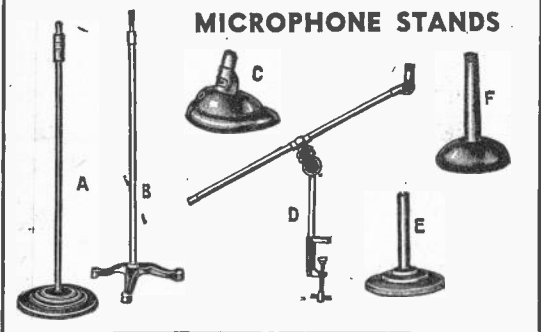
41-930. Fig. A. Shure A83A. Plug-in rotary switch for Shure connector-type mikes. Fits all mike stands with  $\frac{3}{8}$ "-27 thread. Shpg. wt., 2 lbs. **NET.....\$2.56**

41-931. Fig. B. Shure A84A. As above, but has press-to-talk on-off switch. **NET.....\$2.88**

41-950. Fig. C. Amphenol 75-MC15. Fits single-contact mike connectors.  $\frac{3}{8}$ "-27 thread. Push-to-talk switch slides forward to "lock" position. **NET.....65c**

41-990. No. 100 size carbon granules. Will fill two buttons. **NET 47c**  
41-991. Set of 8 springs for mounting mike in ring holder. **NET 17c**

### CARBON MIKE ACCESSORIES



## MICROPHONE STANDS

Fig. A. Deluxe Adjustable Stand. Easy-grip clutch adjusts height from 35" to 60". Cast iron base 10" dia. Attractively finished. Chrome plated stem.  $\frac{3}{8}$ "-27 thread. Shpg. wt., 12 lbs. **94-004. NET.....\$5.75**

Fig. B. Shure S55A. 3-Leg Base Stand. Adjusts from 48" to 70". Cast iron base. 15 $\frac{1}{2}$ " leg spread. Iridescent gray.  $\frac{3}{8}$ "-27 thread. Shpg. wt., 14 lbs. **94-037. NET.....\$11.26**

Fig. C. Shure S36A. Streamline Desk Mount. Fits Shure connector-type mikes. Adapter plate and tubing provided for other makes Base, 2 $\frac{1}{2}$  x 5 x 7". Iridescent gray. Shpg. wt., 1 $\frac{1}{2}$  lbs. **94-035. NET.....\$2.56**

Fig. D. Clamp-type adjustable Stand. Universal joint, adjusting knob, and tilting bracket make adjustment easy. 21" tubular extension. Felt-faced mounting clamp. Bronze metal finish.  $\frac{3}{8}$ "-27 thread. Wt., 3 lbs. **94-015. NET.....\$8.20**

Fig. E. 9" Desk Stand, Cast Iron base is 6" dia. Has black crackle finish. Chrome plated stem.  $\frac{3}{8}$ "-27 thread. Wt., 6 lbs. **94-005. NET.....\$1.42**

Fig. F. Take-Apart Desk Stand. Stem separates from base for use in hand. Metal base, 4 $\frac{1}{2}$ " dia. Wood handle, 5 $\frac{1}{2}$ " long. Height overall 6 $\frac{1}{4}$ "- $\frac{3}{8}$ "-27 thread. Shpg. wt., 2 lbs. **94-036. NET.....\$1.18**



## ELECTRO-VOICE MIKES

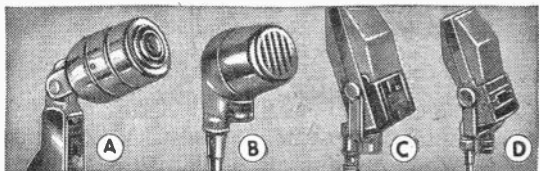
"Cardyne" and "Cardax" are uni-directional mikes using a new callan-cathode diaphragm principle. A cardioid (heart-shaped) pick-up pattern cuts out about  $\frac{2}{3}$  of reflected sound and random noise. Provides 8 to 1 pick-up difference between front and rear. Both have 30 to 10,000 CPS frequency response. Tilting heads. On-off switches included. Has exceptionally attractive satin chrome finish.

### CARDYNE

New dynamic mike. Output, -55 db. Voltage at speech pressure. .0179 V. With 20 ft. cable. 4 lbs. **99-341. High Impedance.**  
**99-342. 50 Ohms.**  
**99-345. 250 Ohms.**  
**NET EACH.....\$32.34**

### CARDAX

New crystal mike. Output, -57 db. Speech pressure voltage .01. Has moisture sealed cartridge, and switch for changing frequency response to suit varying conditions. With 20 ft. cable. Wt., 4 lbs. **99-348.**  
**NET.....\$21.76**



## POPULAR PRICED DYNAMICS

Fig. A. Model 630. High quality dynamic. Response, 40-8000 CPS. Output, -54 db. Voltage at speech pressure, .0224 V. Movable head. On-off switch. Duralumin diaphragm. Alnico 5 permanent magnet. Chrome finish.  $\frac{3}{8}$ "-27 thread. With 20 ft. cable. Shpg. wt., 4 lbs. **99-336. High Impedance.**  
**99-346. 50 Ohms.**  
**99-347. 250 Ohms. NET EACH.....\$17.64**

Fig. B. Model 605. Response, 45-7500 CPS. Output, -56 db.  $\frac{3}{8}$ "-27 thread. High Imp. With 20 ft. cable. Shpg. wt., 2 lbs. **99-349. NET.....\$12.64**

### ELECTRO-VOICE VELOCITY MICROPHONES

Fig. C. Electro-Voice V-2. Ideal for use where wide response with low feedback is required. Response is essentially flat from 40-10,000 CPS; output, -64 db. Case design eliminates cavity resonance. Cradle mounting;  $\frac{3}{8}$ "-27 thread. With 20-foot cable and on-off switch. Shpg. wt., 4 lbs. **99-330. High Impedance.**  
**99-331. 50 Ohms. NET EACH.....\$22.05**

Fig. D. Electro-Voice V-1. Combines high-quality performance and extremely compact size. Cradle type. On-off switch. Response from 40 to 9,000 CPS. Output level, -65 db.  $\frac{3}{8}$ "-27 thread. 20-foot cable and connector. Gunmetal finish. Has built-in shock absorber. Wt. 4 lbs. **99-332. High Impedance.**  
**99-333. 50 Ohms. NET EACH.....\$16.17**



## ELECTRO-VOICE HAND-HELD MICROPHONES

### MODEL 600D DYNAMIC

Fig. A. Moving coil type. Ideal for quality speech transmission. High impedance. Frequency response, 100 to 6,000 CPS. Output, -56 db. In phenolic case. Press-to-talk switch. 6 ft. cable. **99-323. 600D. Shpg. wt., 2 lbs. NET.....\$16.17**  
**99-324. 600DL. With switch lock. NET.....\$17.05**

### MODEL 205S DIFFERENTIAL

Fig. B. New noise cancelling carbon differential microphone. Maximum intelligibility under extreme noise. Ideal for police cars, airplanes, sports events, etc. Frequency response, 100 to 4,000 CPS. Output, -27 db. In phenolic case. Press-to-talk switch. 5 ft. cable. **99-321. 205S. Shpg. wt., 2 lbs. NET.....\$14.70**  
**99-322. 205SL. With switch lock. NET.....\$15.58**

### MODEL 210S CARBON

Fig. A. Single-button carbon mike. Response, 100 to 4,000 CPS. Output, -27 db. Press-to-talk switch. 5 ft. cable. 2 lbs. **99-325. 210S. NET.....\$10.29**  
**99-326. 210SL. With switch lock. NET.....\$11.17**

# ASTATIC QUALITY PICKUPS



## STANDARD MODELS

Carefully balanced crystal pickups for use in all types of record reproducing equipment. Audio response, 60-5000 CPS. Ball-bearing swivel base permits free arm movement. Needle pressure 2 3/4 oz.; output, 2.5 V. Cushioned arm. Uses standard type B-2 cartridge. With shielded cable and arm rest. 2 1/2 lbs. **65-106, S-8. For 10" and 12" records. NET.....\$5.88**

**65-107, S-12. For 10" to 16" records. NET.....\$7.35**

## MODEL 07

Sturdy die-cast arm with offset crystal head assures minimum tracking error and surface noise. Easy to load needle chuck; vibration-proofed for best reproduction. For 10" to 12" records. Response, 70 to 4500 CPS. Needle pressure, 2 3/4 oz.; output, 2.9 V. Shielded cable. Locking arm rest. Uses type M22 cartridge. 1 1/2 lbs.

**65-110, 07. Black. 65-111, 07S. \$3.82**  
Brown. EACH

## 16" LOW PRESSURE

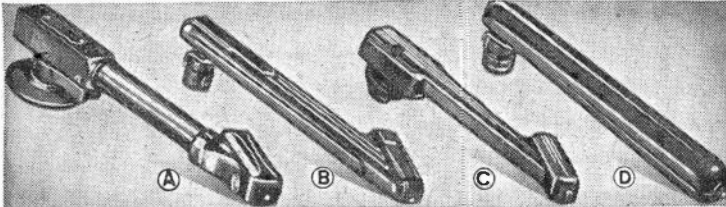
Low pressure, crystal pickup with permanent sapphire stylus. HP-16 output, .85 V.; range, 30-7000 CPS. HP-36 output, .65 V.; range, 30-10,000 CPS. Needle pressure of only 1 oz. assures maximum record life, reduces needle hiss. For records up to 16". Length 15". Arm radius, 12". With shielded cable and arm rest. Shipping weight, 2 lbs.

**65-108, HP-16. 65-109. \$14.70**  
HP-36. EA....

## LOW PRESSURE PICKUP

These crystal pickups feature basically different design which results in best possible performance. Needle pressure is only one ounce for better reproduction, less surface noise. Permanent sapphire stylus does away with annoying needle changes. Protective U-shaped guard and internal hold-down spring absorb shock and prevent damage to stylus. Functionally-curved offset arm assures low tracking error with balanced sidewall pressure. Model FP-8 frequency range is 30-5000 CPS with .85 V. output; supplied with LP-6 cartridge. Model FP-18 has range of 30-7000 CPS with .85 V. output with LP-21 diecast metal cartridge. For 10" and 12" records. Finish is rich maroon. Length overall, 9 3/4". Mounting center distance, 8". With 2 foot shielded cable. Shpg. wt. 2 lbs.

**65-101, FP-8. 65-102, FP-18. NET EACH....\$9.70**



## ASTATIC TRU-TAN

**Fig. A.** Deluxe crystal phono pickup. Response, 50 to 7000 CPS. Needle pressure, 2 3/4 oz.; output voltage, 2.5 V. across 1/2 megohm load. With B-2 cartridge. Length, 12 3/4"; height, 2 3/4". Black finish. Shpg. wt., 3 lbs. **65-112, B-10. For 10" and 12" records. NET.....\$10.29**

**65-113, B-16. For 16" records. NET.\$13.23**

## MODEL AB-8

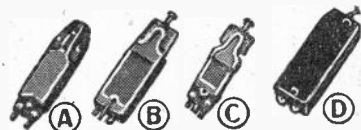
**Fig. C.** Crystal pickup. Spring axial cushion prevents effects of motor vibration. Response, 50 to 5000 CPS. Head is offset for proper tracking. Needle pressure, 2 3/4 oz.; output, 2.5 V. with B-2 cartridge. For 10" or 12" records. Mtg. centers 8". Brown finish. With cable and arm rest. Wt., 2 1/2 lbs. **65-105. NET.....\$5.88**

## MODEL SL-8

**Fig. D.** This straight-arm crystal pickup is particularly suited for playing lightly cut home recordings. Spring-axial cushioned arm finished in statuary brown. Needle pressure, 2 3/4 oz., output, 1.4 V. across 1/2 megohm load. Response, 70-4500 CPS. For 10" and 12" records. With L-26 cartridge. Length, 9 1/2"; height, 1 1/4". Wt., 1 1/2 lbs. **65-114. NET.....\$2.91**

## MODEL D9

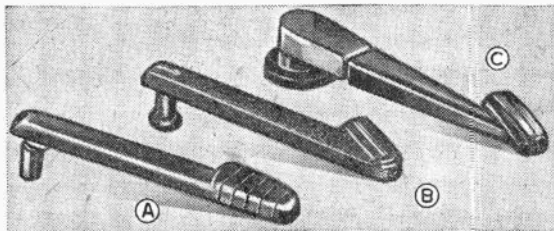
**Fig. B.** An exceptionally fine, low-cost crystal pickup. Die-cast Tru-Tan arm; plays all 10-12" records. Response, 70-4500 CPS. Needle pressure, 2 3/4 oz., output, 1.4 V. across 1/2 megohm load. Statuary brown finish. Supplied with L-26 cartridge. Has type L-26 cartridge. Length, 9 1/4". Shipping wt., 1 1/2 lbs. **65-115. NET.....\$2.91**



## ASTATIC REPLACEMENT CARTRIDGES

Precision built. B type cartridges in bakelite housing. LP, L, and M cartridges in die-cast metal cases. Average shipping weight, 8 oz.

Stock No.	Model	Fig.	Used In	NET
65-150	LP-6	A	FP-8	\$4.70
65-151	LP-21	A	FP-18, HP-16	4.70
65-152	LP-23	A	FP-38, HP-36	4.70
65-154	L-22	B	AL-8	2.94
65-160	L-24	B	Record changers	2.94
65-155	L-25	B	FL-58	2.94
65-156	L-26	B	D9, SL-8	2.35
65-153	L-40	B	FL-48, CL-407, KL-407	2.35
65-161	L-50	B	Record changers	2.94
65-157	M-22	C	O-7	2.94
65-158	B-2	D	S-8, S-12, B-10, B-16, AB-8, AB8M	2.94
65-159	B-4	D	Record changers	2.94



## WEBSTER-RACINE

**Model AJ1. Fig. A.** Crystal pickup with 1 1/2 oz. needle pressure. Response, 40 to 8500 CPS. Output, .5 V. Has permo-point needle. Wt., 1 lb. **65-401. NET.....\$3.82**

**Model AJ2.** Replacement cartridge and arm only, for AJ1. **65-404. NET.....\$2.35**

**Model AE-10-1. Fig. B.** Tangent type crystal pickup. Needle pressure, 2 oz. Response, 40 to 8500 CPS. Output 1.8 V. Less needle. Wt., 2 lbs. **65-400. NET.....\$3.23**

**65-415, E-4.** Cartridge for AE-10-1. Wt., 1/2 lb. **NET.....\$2.35**

**Model AC-10-1. Fig. C.** Crystal pickup, 2.5 oz. pressure. Response, 30 to 7000 CPS. Output, 2.0-2.5 V. For 10" and 12" records. Less needle. Wt., 2 lbs. **65-402. NET.....\$2.91**

**65-416, C-2.** Cartridge for AC 10-1. Wt., 1/2 lb. **NET.....\$2.12**

## BRUSH HIGH-FIDELITY

### PL-20 CRYSTAL PICKUP

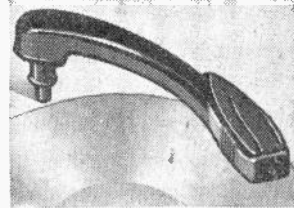
**Fig. C.** PL-20 precision built phono pickup establishes new standards of performance in high quality reproduction. Equipped with response equalizer usable with constant velocity records. Low mechanical impedance vibratory system. Accommodates records up to 16" diameter. Permanent, polished sapphire stylus eliminates necessity of changing needles. Minimum surface noise with only 1 oz. stylus pressure. Output sufficient for conventional two-stage amplifier. Sensitivity, 1.7 V. per .001" stylus displacement; for constant amplitude recordings, and .3 V. per .001" stylus displacement at 400 cyc., for constant velocity recordings. Wide response, flat within ±2.5 db. from 50-6000 CPS. Slight rise to 10,000 CPS. Tanpe colored bakelite arm. Metal parts finished in bronze. Shpg. wt., 8 lbs. **65-001. NET....\$26.46**

## SHURE 93A "GLIDER" PICKUPS

Shure crystal pickups with entirely new "lever-action" cartridge having high needle compliance. Reproduce loud recorded passages without distortion. Lightweight die-cast aluminum arm. No springs, counter balances or weights are used. Surface scratch is reduced to a minimum. High output of 1.6 volts at 1000 CPS. Needle pressure only 1 1/2 oz. Frequency range 60-7000 CPS.

Brown lacquer finish. Adjustable screw permits raising or lowering tone arm head to clear turntable. Mount in single 1/2" hole. For use with records up to 12" dia. Shpg. wt., 1 lb. **65-304. Model 93A. Less needle. NET.....\$3.23**

**Model 93AN.** As above, except has replaceable bent shank sapphire-tip needle. **65-305. NET.....\$4.70**



## SHURE CRYSTAL CARTRIDGES

**65-355, W57A.** Lever type crystal cartridge replaces models, P87, P93, and P87B. Needle pressure, 3/4 oz. Output, 1.6 V. at 1000 CPS. Aluminum case. Pin terminals. Wt. 8 oz. **NET.....\$2.35**

**65-356, W57AN.** Lever type crystal cartridge with permanent point needle. Replaces P87, P93 and P87B. Needle pressure, 3/4 oz. Output, 1.6 V. at 1000 CPS. Aluminum case. Pin terminals. Wt., 8 oz. **NET.....\$3.82**

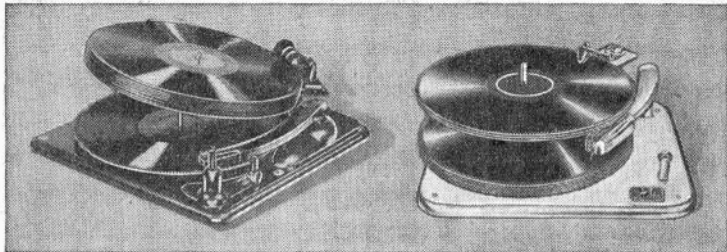
**65-357, W58A.** Lever type crystal cartridge replaces 99-182, 9905, P92B, W42A. Needle pressure, 3/4 oz. Output, 1.6 V. at 1000 CPS. Steel case. Pin terminals. Wt., 8 oz. **NET.....\$2.35**

**65-358, W59A.** Lever type cartridge, replaces 99-181, 99-180, P88S, W40A, W41A. Needle pressure, 1 oz. Output, 2.5 V. at 1000 CPS. Steel case. Pin terminals. Wt., 8 oz. **NET.....\$2.35**

**84 DEPENDABLE QUALITY, LOW PRICE, PERSONAL SERVICE**



# AUTOMATIC RECORD CHANGERS



## LATEST MODEL RECORD CHANGERS

### WEBSTER MODEL 56

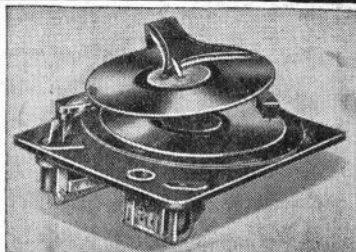
Webster-Chicago's newest record changer for brilliant performance. A single-post floating spindle type. Simple in design, fool-proof in operation. The Model 56 provides manual or automatic playing of standard 10 or 12-inch records. 4-second changeover assures a minimum of waiting time between records. Capacity is ten 12" or twelve 10" records. Will also change warped or rough-edged records. Home recordings or "inside out" records may be played manually. Equipped with automatic shut-off switch which operates after last record on the stack has been played. Records last longer because of the feather-weight crystal pickup used—only 1 oz. needle pressure. The dependable heavy-duty 78 RPM Webster motor, cushion-mounted for silent operation, eliminates audible rumble and "wow." Records drop quietly on velvet-soft heavy-pile turntable covering. Requires 14-inch square mounting base. Overall depth, 9 inches—6½" above and 2½" below the main plate. For use on 115 volts, 60 cyc. AC. Less needle. Shpg. wt. 20 lbs. **96-065. NET.....\$26.66**

**98-908.** Handsome portable carrying case for above changer. NET.....\$9.65

### UTAH MODEL 550-C

A new and improved single-post automatic record changer with the kind of features you'd hardly expect to find in the low-priced field! Plays ten 12" or twelve 10" records automatically. Rejects any record when desired, or permits optional playing of records manually. Has gearless changer mechanism which provides quiet, positive action. Sturdy induction type 78 R.P.M. motor maintains constant speed. Nine-inch rim driven turntable operates on stress-proof steel ball-bearings, precision built to eliminate turntable drag. Balanced tone arm contains quality crystal cartridge, equipped with thumb-screw needle holder. Needle pressure, 1¼ oz.; frequency response, 50 to 5,000 c.p.s.; rated output, 1 volt. Requires minimum attention because entire mechanism is permanently lubricated at the factory. Clearance inside cabinet, 12¼" x 13¾". Motor board, 10¼" x 12¼". Extends 5¼" above and 2" below motor board. For use on 115 volt 60 cycle AC. Motor and switch are both Underwriters' Laboratories listed. Less needle. Shpg. wt. 20 lbs. **96-070. NET.....\$18.27**

**98-907.** Sturdy portable carrying case for above. Wt., 15 lbs. NET.....\$9.65



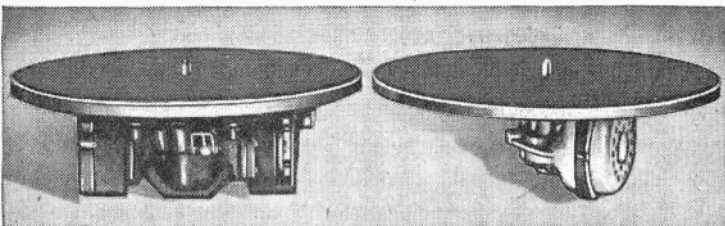
## GARRARD DELUXE RC-60 WITH CRYSTAL PICKUP

Provides all the quality and performance demanded by those who prefer the finest. The RC-60 will play eight 10" and 12" records, intermixed in any combination, and you need make no adjustments whatsoever. You simply load the records—snap a switch—and the RC-60 does the rest, smoothly and silently. Governor-controlled, constant speed motor permits speed regulation from 60 to 90 RPM. Low-pressure pickup (only 1 ounce) has permanent jeweled-mount tone arm. Output, .85 V. Response, 30 to 10,000 CPS. Overall size: 15" long x 11¾" deep. 5¼" clearance above and 4¼" below mounting plate. For 110-130 volts, 50/60 cycles AC. Shpg. wt., 20 lbs. **96-055. NET.....\$63.00**

## WITH MAGNETIC PICKUP

Same as above but with magnetic pickup and replaceable needle. 2-oz. needle pressure. **96-056. NET.....\$63.00**

**98-909.** Portable carrying case. Accommodates either of above Garrard changers. With handle and snap fasteners. Shpg. wt., 12 lbs. NET.....\$9.65



## GENERAL INDUSTRIES PHONO MOTORS

### DUAL-SPEED GREEN FLYER

**Model D.** Powerful, governor-controlled. Fully enclosed with silent gears running in a bath of oil. Has speed regulator and shift for 78 or 33½ RPM operation. With 12" turntable and mounting hardware. Size, 8¾" long, 5½" wide, 3¼" deep below mounting plate. For 110 V. 60 cycles AC. Wt., 13 lbs. **85-210. NET.....\$14.60**

**85-211.** Same motor as above, but with 10" turntable. NET.....\$14.11

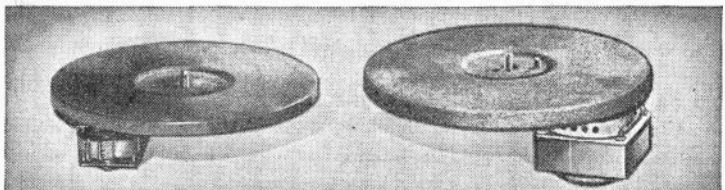
### MODEL CX GEAR-DRIVE

Induction type, direct-drive, self-starting 78 RPM motor. Fully enclosed helical cut gears and bearings immersed in oil for smooth operation. 9" turntable. With hardware and rubber drive washer for turntable. 4¼" L. x 4¼" W. x 3¾" D. below plate. For 110 volts, 60 cycles AC. Wt., 6 lbs. **85-250. NET.....\$6.63**

**85-251.** Same as above, but with 12" turntable. Wt., 7 lbs. NET.....\$6.93

## ALLIANCE MODEL 80 "EVEN SPEED" MOTOR

A dependable, self-starting, 78 RPM, friction-drive motor suitable for most record playing needs. Sturdy motor with oversize bearings has forced ventilation and excellent regulation for uniform speed. Motor and idler-wheel plate are rubber-cushioned to assure quiet operation. With 9" turntable. Size: 4¼" L. x 3¼" W. x 3¼" D. below plate. Mounting plate maintains correct turntable height regardless of mounting board thickness. An exceptional value. For 110 volts, 60 cycles AC. Wt., 3½ lbs. **85-410. NET.....\$3.46**



### MODEL LX RIM-DRIVE

A splendid value in a compact, dependable 78 RPM rim-driven, self-starting, induction motor. 9" turntable. Motor insulated for quiet operation. Will not overheat. 2" deep below mounting plate. For 110 volts, 60 cycles AC. Shipping weight, 5 lbs. **85-265. NET.....\$3.62**

**MODEL MX RIM-DRIVE.** A new improved 78 RPM self-starting, induction motor. Lifetime lubricated at factory. Will not overheat when enclosed. 2¼" deep below plate. 9" turntable. Shipping weight, 5 lbs. **85-267. NET.....\$3.97**

### RM4 RECORDING MOTOR

Rim-drive 78 RPM heavy-duty motor with 10" weighted turntable. Excellent for use in recording or "constant-speed" playback work. Turntable has retractable pin for holding recording disc while being cut or played back. Self-starting, dynamically balanced motor is rubber-insulated from turntable. Maintains constant speed even under heavy "drag" imposed while recording. Oil-less bronze bearings throughout. Depth below plate, 2½". With mounting plate and hardware. For 110 volts, 60 cycles AC. Shpg. wt., 15 lbs. **85-270. NET.....\$7.38**

## TURNTABLES ONLY

Sturdy, accurately balanced turntables for use with General Industries phonograph motors at left. Fit Green Flyer dual speed, CX gear drive, and LX and MX rim drive models. Average shpg. wt., 4 lbs.

**85-230.** 10" turntable. NET.....69c

**85-231.** 12" turntable. NET.....81c

**69-500.** Automatic Stop. For use with all General Industries turntables. NET. \$1.08

**69-501.** Automatic Stop. For 8", 9" or 10" turntables. NET.....72c

## STROBOSCOPE

Checks 78 and 33½ RPM speed. Essential for best recording and playback results. 6" in dia. Under neon or incandescent light on 60 cycle AC supply. Wt., 6 oz. **69-510. NET.....7c**



# SPEAKER BAFFLES AND CASES

## DELUXE WOOD BAFFLES

Attractive wall baffles, finished in handsome hardwood walnut-veneer. Excellent for all indoor installations, for paging systems, school rooms, stores, offices, etc. Harmonizing gold grill cloth. Grill protected by reinforcing bars. Size: 16 1/2" high, 14 1/2" wide, 6 1/2" deep at base, 8 1/2" deep at top. Shpg. wt., 10 lbs.

**93-500. For 12" Speakers. NET..... \$4.65**  
**93-501. For 8" speakers. 12" x 10 1/4" x 5". 6 lbs. NET..... \$2.75**

**45-845. Baffle mounting kit.** Consists of two screw eyes and two special wall hooks. Wt., 1/2 lb. NET..... 15c

## DELUXE FABRIKOID

Well designed baffles finished in attractive tan fabrikkoid covering. Easy to mount. Acoustically correct. Suitable for all indoor installations. Inclined front panel projects sound for correct coverage. Grill opening protected by trim reinforcing bars. Sturdily built of selected plywood to prevent rattle. Black and gold grill cloth provides pleasing contrast with tan fabrikkoid covering. Wt., 8 lbs.

**93-510. For 12" spkrs. 17" high x 14" wide x 9" deep. NET..... \$3.57**

**93-511. For 10" spkrs. 14" high x 12" wide x 7" deep. NET..... \$2.97**

**93-512. For 8" spkrs. 11" high x 9 1/4" wide x 6" deep. NET..... \$2.31**

## STANDARD FABRIKOID

Excellent for all indoor installations; paging systems, school rooms, stores, offices, auditoriums, etc. Wall mounting type. Provides coverage over greatest area. Built of strong plywood covered with durable dark brown leather-ette. Rigid construction throughout. Average shipping wt., 6 lbs.

**93-520. For 12" spkrs. 17" high x 13 1/2" wide x 8" deep. NET..... \$2.36**

**93-521. For 10" spkrs. 14" x 12" x 7". NET..... \$2.14**

**93-522. For 8" spkrs. 11" x 9 1/4" x 6". NET..... \$1.87**

**93-523. For 6" spkrs. 9" x 8" x 5". NET..... \$1.63**

## SINGLE-SPEAKER CASES

Speaker opening has grill cloth backed with metal screen. Removable back has snap clasps. Airplane luggage cloth over heavy plywood. With spkr. mtg. bolts and cable bracket. Wt., 9 lbs.

**93-601. For 12" speaker. 12 1/2" x 12 1/4" x 9 1/2". \$4.95**

**93-602. For 8" speaker. 12 1/2" x 12 1/4" x 9 1/2". Will also carry Knight 7-watt \$4.95 amplifier. NET..... \$4.95**

**Dual-speaker case.** As above, but for two 12" speakers. Divides into separate units which serve as baffles. Size inside: 20 x 12 1/2 x 9 1/2". Wt., 12 lbs. **\$7.53**  
**93-600. NET..... \$7.53**

## SPEAKER-AMP. CASE

For housing complete PA system. Will accommodate **Knight 14 to 30 watt deluxe amplifiers** and one or two 12-inch speakers. May also be used with other amplifiers having similar dimensions. Heavy plywood construction; two halves serve as speaker baffles. Speaker openings have cloth grill. Attractive airplane-luggage finish. With spkr. mtg. bolts and cable brackets. Inside size: 21 1/2" x 18 1/4" x 14". Wt., 21 lbs. **\$8.96**  
**93-603. NET..... \$8.96**

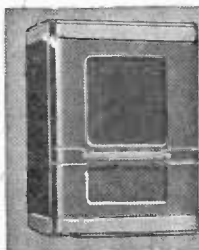
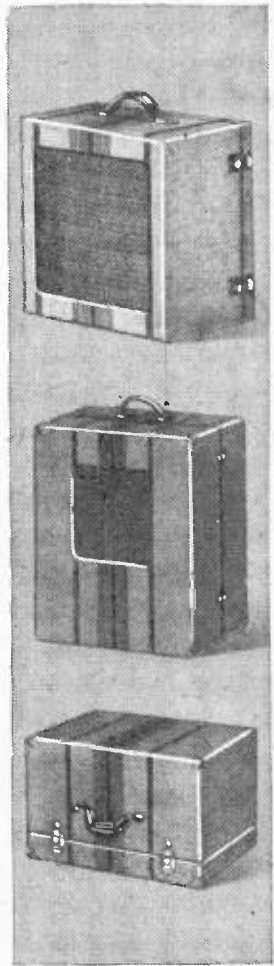
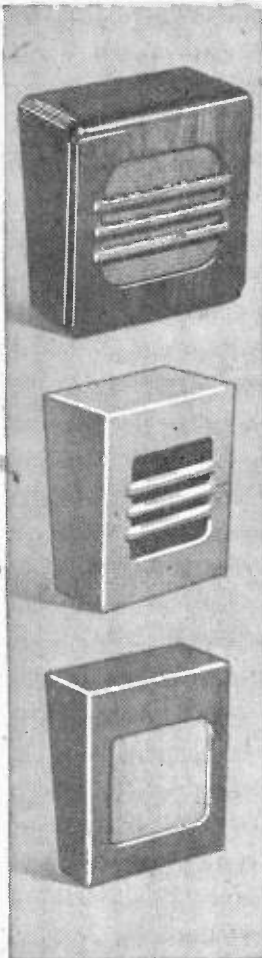
## AMPLIFIER CASE ONLY

For any '42 to '46 **Knight amplifier**, or units of similar dimensions. Has compartment for microphone, cable, etc. Heavy plywood covered with airplane luggage cloth. Inside size: 21 1/4" x 16 1/2" x 16 1/4". Wt., 15 lbs. **\$7.86**  
**93-604. NET..... \$7.86**

## PHONOGRAPH CASES

Of sturdy plywood to withstand long, hard usage. 93-605 has storage compartment for about 15 records. Blank motor board. Handsome airplane-luggage finish with tan tweed effect. Inside size: 16 1/2" x 13" x 9 1/4". (Not illustrated.) Wt., 14 lbs. **\$6.32**  
**93-605. NET..... \$6.32**

**93-606.** As above, but accommodates two phono motors. Size: 36 1/2" x 12 1/4" x 9". Less record compartment. Shpg. wt., 15 lbs. **\$8.08**  
**93-606. NET..... \$8.08**

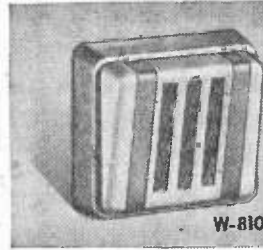


JENSEN  
BASS  
REFLEX  
ENCLOSURES



MODEL BR

MODEL CA



W-810



W-800

## UTAH BI-DIRECTIONAL SPEAKERS

Expertly fashioned Jensen cabinet for the home, studio, or for general PA applications. Specifically designed for Jensen extended range speakers, but can be used with other speakers. Greatly improves frequency response; adds octaves in the low frequency range. Constructed of durable plywood. Beautifully finished in rich brown lacquer with attractive, contrasting trim. Shipped in knocked-down form and can be easily assembled. All necessary hardware included.

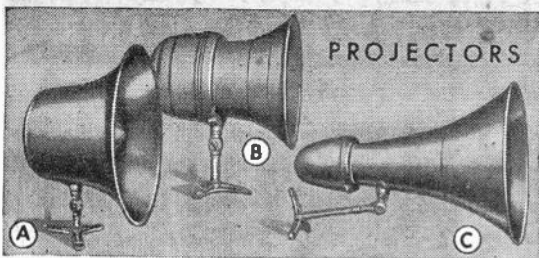
Handsomely styled, beautifully finished deluxe speaker enclosures. Ideal for home or studio. Constructed of genuine striped walnut. Provide full bass-reflex performance; improve low frequency response of speaker. Excellent for use with the Jensen Coaxial Hi-Fi and extended range speakers for high fidelity phono, radio or PA installations. Can also be used with any other speaker to improve tone performance. Completely assembled, ready for use.

**Model W-800** dustproofed, bi-directional PM speakers are the latest in speaker design, for call and paging systems in schools, factories, institutions, etc. Cone resonance and response have been matched to the brown, molded, non-metallic case to give the ultimate in voice clarity. Low frequency response has been reduced to prevent voice distortion. The sturdy swivel base makes installation easy and permits speaker to be turned in any direction after mounting. Model W-800 has line transformer for connecting 1 to 8 speakers across a 250 or 500 ohm line. Model W-801 has transformer for 9 to 20 speakers. Will easily handle up to 8 watts normal, 12 watts peak. Shpg. wt., 6 1/2 lbs. **81-050. Model W-800. \$10.90**  
**81-051. Model W801. NET EACH..... \$10.90**

**81-052. Model W-810.** Wall reproducer similar to Model W-800 above, except that the frequency response has been extended to reproduce the musical scale as well as voice. Case is of brown, molded, non-metallic material. Ideal as an additional speaker in the home, for computered phonographs, etc. Handles 8 watts. Voice coil 6-8 ohms. Less output transformer. Shpg. wt., 4 lbs. **NET..... \$9.67**

**64-909.** Universal line transformer for above. NET..... \$1.02  
**62-367** Universal output transformer for above. NET..... 1.36

Stock No.	Type	Speaker Size	Enclosure Size	Lbs.	NET
95-001	BR-81	8"	17 1/4" x 23 3/4" x 11"	35	\$13.29
95-002	BR-121	12"	23 1/4" x 30 1/4" x 12 1/2"	47	18.62
95-003	BR-151	15"	25" x 33 1/4" x 13 5/8"	60	21.79
95-005	CA-12	12"	27 1/4" x 31 1/2" x 12"	40	32.38
95-006	CA-15	15"	27 1/4" x 31 1/2" x 14"	44	38.16



**PROJECTORS**

**KAINER WH-8 WEATHERPROOF HORN (Fig. A)**

Sturdy spun-steel trumpet for indoor and outdoor installations. Weatherproof construction permits outdoor operation in driving rain. Accommodates heavy duty 8" speaker. Aluminum casting firmly holds the speaker and the mounting bracket. Mounting fixture is threaded for 1/2" pipe. Overall length, 17 1/4"; height from base, 27"; bell opening, 22 3/4" diameter. Attractive baked-on grey enamel finish. Less mounting bracket. Shpg. weight, 20 lbs.

**95-230. NET.....\$18.90**  
**95-207. Adjustable crowfoot bracket. NET.....\$1.68**

**KAINER J-12 ALL STEEL (Fig. B)**

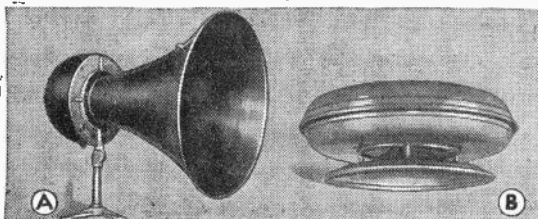
Extremely rugged heavy spun-steel-alloy projector baffle. Accommodates all types of 12" speakers with or without matching transformers, including those with extra heavy permanent magnets. Withstands heavy vibration under load as well as rough handling. Has screened breather opening for proper back-pressure release. Splendid for industrial public-address systems. Overall length, 20"; bell diameter, 17"; flare extension, 11". Mtg. fixture threaded for 1/2" pipe. Lustrous baked grey enamel finish. Less bracket. Shpg. wt., 16 lbs.

**95-205. NET.....\$10.00**  
**95-206. With suspension rings instead of mtg. fixture.....\$9.67**  
**95-207. Adjustable crow-foot bracket. NET.....1.68**

**KAINER AC-8 HEAVY DUTY (Fig. C)**

Air-column horn for extra-heavy-duty 8-inch speakers. Ideal for use at athletic fields, picnic grounds, etc., where sound must be projected clearly to great distances with a minimum of feedback. Allows gradual expansion of sound-wave front, preventing disturbance from eddy currents. Overall length, 39"; bell dia., 24". Made of heavy spun steel alloy. Mtg. fixture threaded for 1/2" pipe. Baked-on grey enamel finish. Less bracket. Shpg. wt., 25 lbs.

**95-220. NET.....\$23.02**  
**95-222. Adjustable crowfoot bracket. NET.....\$2.00**  
**82-100. Jensen PAH-8. 15-watt 8" PM driver unit. 8 ohm voice coil. For use with AC-8 and WH-8 above. Wt., 11 lbs. NET.....\$14.05**



**JENSEN TYPE "S" PROJECTOR WITH DRIVER (A)**

Type "S" Peri-dynamic reinforced sheet-steel projector. Wide range response, 110 to 5500 cycles. Completely weatherproofed for outdoor use. Elimination of back-radiation reduces feed-back trouble to a minimum. Comes with Jensen PAH-8 speaker unit. Power handling capacity 15 to 20 watts peak. Length, 30". Bell opening diameter, 24 1/4". Blue-grey finish. Less stand. Shpg. wt., 30 lbs.

**95-030. NET.....\$43.95**  
**95-032. EA5 Adjustable stand for above. NET.....\$3.50**

**UNIVERSITY RBP-12 CONE SPEAKER PROJECTOR (B)**

Radial cone-speaker projector. 360° dispersion. Completely non-resonant. For ceiling or single-point "chandelier" type mounting. 11" high, 27" dia. With mounting hdw., but less speaker. Use any 12-inch cone speaker. Shpg. wt., 20 lbs.

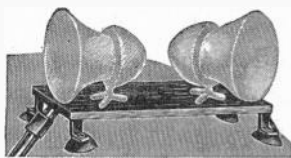
**81-585. NET.....\$17.29**



**BAFFLE COVERS**

Weatherproof Koroseal covers for protecting projectors or trumpets against rain, snow, dust, etc. Perfect reproduction without removal. Shpg. wt., 8 oz.

No.	For	NET
81-800.	10 to 16" bell.	\$0.95
81-801.	16 to 18" bell.	1.05
81-802.	18 to 24 1/4" bell.	1.50



**CAR TOP PLATFORM**

For mounting baffles or horns on auto top. No holes needed. Will not mar finish. Varnished, weatherproofed maple platform. 7 1/2" x 46". Wt., 8 lbs.

**93-220. NET.....\$4.56**  
**41-995. MIKE COVER. Moisture-proof celanese bag, 6" x 12". Wt., 4 oz. NET.....59c**



**REFLEX TRUMPETS**

**REFLEX TRUMPETS**

Offer all the advantages of "straight" trumpets, but reflex design reduces length to a minimum. Produce more sound for same wattage input and project sound in a narrow beam for most efficient coverage. Rubber rims eliminate resonance. Non-corrosive finish prevents rust.

**UNIVERSITY HIGH EFFICIENCY REFLEX TRUMPETS (Fig. B)**

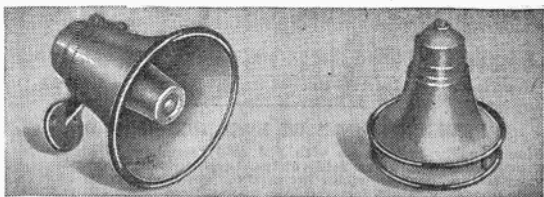
Scientifically designed exponential projectors, precision constructed to retain the correct logarithmic taper for uniform reproduction of the full frequency range. Non-resonant feature eliminates rattles. Permits full use of amplifier output. With mounting bracket, but less driver units.

Stock No.	Type	Bell	Length	Dispersion	Wt. lbs.	NET
95-155	LH	25"	18"	90°	15	\$26.17
95-156	PH	20"	15"	80°	10	18.17
95-157	SMH	15"	12"	70°	6	12.05

**SHOCKPROOF-WATERPROOF DRIVER UNITS (A)**

Exclusive rim-centering feature assures permanent alignment of voice coils; adds 20% to efficiency. Plastic diaphragm flexing surfaces. Heatproof coil suspension. Hermetically sealed. Factory guaranteed against break-down for one year. 15 ohm voice-coil impedance.

Stock No.	Type	Response	Watts	Wt. lbs.	NET
81-571	SAH	100-6,000 CPS	25	7	\$31.78
81-572	PAH	100-6,000 CPS	25	7	31.78



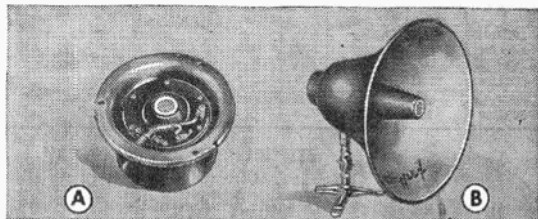
**UNIVERSITY ANNOUNCING SPEAKERS**

**Model 18S.** Efficient, compact reflex indoor or outdoor speaker for use in locations where noise levels are especially high. Conservatively rated to handle full 12 watts. Input impedance, 8 ohms. Dispersion, 60°. Frequency, 300-5,000 cycles. Range, 1/4 mile. Delivers higher acoustic output than ordinary cone speakers. Shockproof and waterproof. Built-in hermetically sealed driver unit. Bell diameter, 9". Height, 9". With mounting bracket. Shpg. wt., 6 lbs.

**81-575; NET...\$17.64**

**Model 18R.** Radial distribution type reflex speaker with 360° dispersion. Designed for clarity in voice reproduction, with sufficient projecting power to overcome high background noise. Power, 10 watts. Input impedance, 8 ohms. Frequency, 300-5,000 cycles. Suitable for indoor or outdoor use in announcing or paging systems. Shockproof and waterproof. Height, 10". Diameter, 9". With hermetically sealed driver and mounting bracket. Shipping wt., 6 lbs.

**81-576. NET...\$19.99**



**JENSEN TYPE "H" HYPEX HORNS (B)**

"Hypex" projectors offer all advantages of "straight" trumpets, but reflex design reduces length to a minimum. Dependable operation indoors and out, under all weather conditions. Steel construction. Baked gray lacquer finish. Less driver units and mounts.

Stock No.	Type	Length	Bell	Cut off	Wt.	NET
95-020	H-20	16 1/2"	20 1/4"	165 CPS	18 1/4"	\$20.02
95-021	H-24	20 1/2"	24 1/4"	140 CPS	21 1/4"	24.61

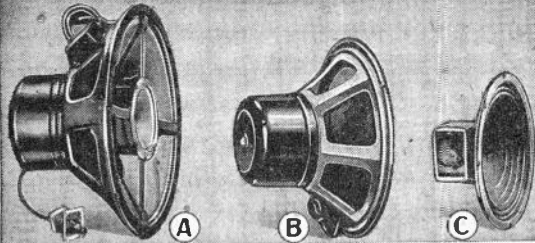
**95-022. EA-6. Adjustable stand for above. Wt., 5 lbs. ....\$3.50**

**JENSEN "ANNULAR" DRIVER UNIT (A)**

Type U20, "Annular" driver unit for use with "Hypex" horns. Permanent magnet design. Rated at 15 watts av., 25 watts max., with normal input. 16-ohm voice coil. Internal screw terminals. Dia., 6 1/4". Depth, 3 1/4". Shpg. wt., 11 lbs.

**82-110. NET.....\$25.31**

## FAMOUS JENSEN SPEAKERS



### TYPE "J" COAXIAL HI-FI SPEAKERS—FIG. A

An achievement in speaker design offering true high-fidelity reproduction. Each reproducer consists actually of two PM speakers with built-in frequency-dividing network. Especially recommended for FM receivers, high-quality phono equipment, and full-range PA systems. For full frequency response, use with bass reflex cabinets. (See page 86.)

**82-050. JHP-52. 15" PM "Woofer"** handles frequencies from 50-5,000 CPS. 5 1/2" PM "Tweeter" handles 4,000-12,000 CPS. Range control switch lowers high-frequency response in four steps. Handles 12-14 watts. Impedance, 500 ohms. Wt., 23 lbs. NET. **\$34.81**

**82-052. JCP-40. 12-inch speaker:** Frequency response, 50 to 10,000 CPS. With cross-over network. Handles 8 to 10 watts. Impedance, 6 ohms. Ideal replacement unit where higher fidelity is desired at a moderate price. Shpg. wt., 16 lbs. NET. **\$20.73**

### EXTENDED RANGE SPEAKERS—Figs. B, C

High fidelity speakers with a range to 10,000 CPS. Especially recommended for PA, home and studio use, in FM receivers, wide-range phonographs, monitoring units, etc. For best results, use with type BR bass reflex cabinets listed on page 86.

Stock No.	Model	Size	Voice Coil		Field		Wt. Lbs.	NET
			Ohms	Watts	Res.	Watts		
82-070	PM8-CT	8"	6	5	PM	.....	4	\$8.94
*82-071	G8-RT	8"	6	5	1250	8	5	7.73
*82-072	G10-RT	10"	6	6	1250	8	6	12.47
*82-073	PM12-CT	12"	6	7	PM	.....	7	8.80
*82-074	G12-RT	12"	6	7	1250	8	7	8.80

\*Uses No. 82-120 Model FS-10 Field Supply. Wt., 2 1/2 lbs. NET \$2.97

### PERMANENT MAGNET DYNAMICS—Figs. B, C

Finest quality reproducers with PM field assemblies of highly magnetized alloy; require no field voltage. Correctly balanced and aligned voice coil and cone assemblies are carefully designed to cover extremely wide frequency. Matching transformers are listed below.

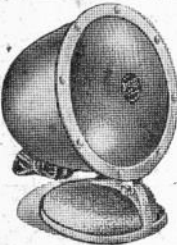
Stock No.	Model	Size	V.C.	Watts	Wt. Lbs.	NET
82-020	PM5FS	5"	4	2.5	1	\$2.44
82-021	PM6ES	6"	4	3.5	3	3.09
82-022	PM8DS	8"	6	8	4	4.41
82-023	PM8C	8"	6	8	4	7.73
82-024	PM10GS	10"	6	8	5	6.77
82-025	PM12C	12"	6	10	7	10.88
82-026	PM12GS	12"	6	9	6	7.73
82-027	PM12B	12"	8	14	13	25.67

### ADJUSTABLE MATCHING TRANSFORMERS

Permit matching of speakers to output circuit or line. Have terminals for selection of impedance. Tube types tapped at 4500, 7000, 10,000, and 14,000 ohms. All CT. Line types are tapped at 500, 1000, 1500 and 2000 ohms. For Jensen or similar speakers of other makes. Av. wt., 3 lbs.

No.	Type	For Speakers	NET	No.	Type	For Speakers	NET
64-816	Tube	PM5FS, PM6ES, PM8C, PM8ES, H5S	\$0.97	64-807	Tube	PM8CT, PM12CT, G8RT	\$2.82
64-801	Tube	*E6RS, PM8DS	1.35	64-808	Line	G10RT, G12RT, JCP40	2.82
64-802	Line		1.53	64-809	Tube	PM10GS, G13RS	1.35
64-803	Tube	PM8C, PM10C, PM12C, PM12GS	2.09	64-810	Line		1.53
64-804	Tube		2.09	64-811	Tube	PM12B, B12X, JHP50	2.82
64-805	Tube	C8RS, C10RS, PAH8, FAB8	2.09	64-812	Line	A12, B15X, PM12H	2.82
64-806	Line		2.09	64-813	Tube		4.41
				64-814	Line	A15PM, A15	4.41

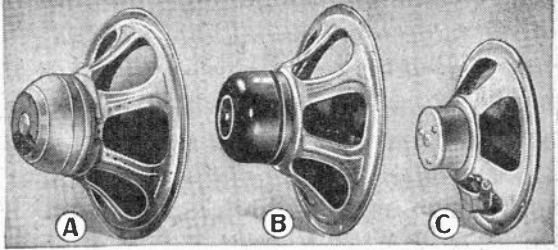
### JENSEN "SPEECH MASTERS"



Efficient PM reproducer designed for most effective speech reproduction. Uses famous Peri-Dynamic principle and special radiating system. Ideal for intercommunicating and Public Address monitoring uses; for Short Wave listening and for Amateur, Commercial Police, and Aviation use. Speech output, 5 watts. Normal room level requires less than 0.5 watt input. Comes in desk and panel mounting types. Beautiful streamlined design. Double dustproofed. Tilt base on desk types. 36" cord. Extra sturdy construction with overall mechanical protection. Attractive hammered grey finish with satin trim. 6 3/4" H., 5 1/4" D., 5" Dia. Less transformer. 6 lbs.

- 82-040. AP-10 Desk Type** with 4-ohm voice coil.  
**82-041. AP-10 Desk Type** with 45-ohm voice coil. **\$7.68**  
**NET EACH.....**  
**82-042. AP-11.** Same as 82-040 above, except less base and swivel but with eyelets for panel mounting. Requires 1 1/4" cutout. Attractive 4 1/2" from front of panel to back of speaker. With screws and drilling template. Shpg. wt., 4 lbs. **\$6.23**  
**NET.....**

## KNIGHT DYNAMIC SPEAKERS



### PERMANENT MAGNET SPEAKERS

Knight dynamic speakers are backed by our One Year Guarantee. These splendid units are built to provide faithful reproduction of both voice and music at high volume levels. Have remarkable power handling capacity and excellent frequency response. Peak efficiency and sensitivity are achieved through the use of carefully engineered voice coil assemblies. Voice coil, 6-8 ohms. Less output transformers.

Stock No.	Size	Fig.	V.C. Watts		Magnet	Shpg. Wt.	NET
			Normal	Peak			
81-500	8"	C	5	8	12 oz.	4	\$3.71
81-521	12"	B	13	20	20 oz.	6 1/2	10.13
81-522	12"	B	16	24	31 oz.	8 1/2	10.92
81-525	12"	A	20	30	4 lbs.	13	21.99

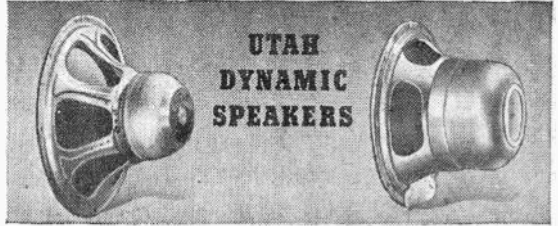
### FIELD COIL DYNAMIC SPEAKER

Stock No.	Size	Fig.	V.C. Watts		Field		Wt.	NET
			Normal	Peak	Watts	Res.		
81-520	12"	B	13	20	7.5	2000	6 1/2	\$5.10

### ADJUSTABLE TRANSFORMERS

Stock No.	Type	For Speaker	Wt.	NET
64-909	Univ. Line	81-500	1 lb.	\$0.88
62-376	Univ. Plate	81-500	1 lb.	1.15
64-912	Univ. Line	81-520, 81-521	1 lb.	1.11
62-377	Univ. Plate	81-520, 81-521	1 lb.	1.20
64-019	Univ. Line	81-522, 81-525	2 lbs.	2.45
64-028	Univ. Plate	81-522, 81-525	2 lbs.	2.39

## UTAH DYNAMIC SPEAKERS



### PERMO-DYNAMIC SPEAKERS

The last word in PM design. Highly sensitive and efficient. VC, 8 ohms; 6-8 ohms for model marked \*. Less transformers. (See below.)

Stock No.	Model	Size	Watts	Magnet	Wt.	NET
81-010	*E12P	12"	13	20 oz.	6 1/2 lbs.	\$11.25
81-011	F12P	12"	16	31 oz.	8 1/2 lbs.	12.13
81-012	G12P	12"	17	46 oz.	9 1/2 lbs.	17.05
81-013	GS12P	12"	20	64 oz.	12 1/2 lbs.	24.44

### ADJUSTABLE TRANSFORMERS

Universal plate and line transformers for Utah speakers. Line types tapped at 500-1000-1500 ohms; output types 3000 to 10000 ohms.

Stock No.	Type	For Speakers	Shpg. Wt.	NET
64-900	Line	E12P, FP Series	1 lb.	\$1.35
62-367	Output	E12P, FP Series	1 lb.	1.35
64-019	Line	F12P, G12P, GS12P	2 lbs.	2.12
64-028	Output	F12P, G12P, GS12P	2 lbs.	2.06

### SPEAKER VOLUME CONTROLS

High-Quality "L" Pads for audio input and output circuits from 8 ohms to 1,000 ohms impedance. Supplied in 5 and 15 watt sizes.

#### JENSEN "L" PADS. FIG. A

Have an "off" and "on" position with gradual, smooth control of volume. Shafts 1" long. With knob and indicator plate. Conservatively rated to handle up to 5 watts. Will match speaker with 6 ohm voice coil. Wt., 1 lb.  
**33-940. Type ST276. NET... \$1.21**  
**Type ST411.** As above but handles 15 watts. For 8 ohm VC. Wt., 1 lb.  
**33-941. NET..... \$2.80**

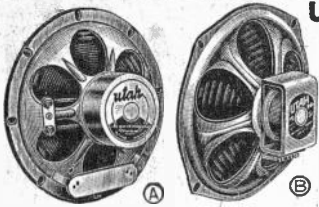
#### UTAH "L" PADS. FIG. B

Heavy-duty pads to control volume in all high-level circuits. Wirewound. 15 watts. Fit 1/8" hole. Body 2 1/4" dia. x 3/8" deep. Shaft 1/2" dia. x 7/8". Wt. 2 lbs.

Type	Stock No.	Ohms
LA-8	33-900	8
LA-16	33-901	16
LA-500	33-902	500
LA-1000	33-903	1000

**NET EACH..... \$1.91**

# QUALITY DYNAMIC SPEAKERS



## UTAH SPEAKERS

Only the finest of materials and skilled workmanship go into the manufacture of our Utah PM and Field Coil speakers. Each component part is carefully inspected and tested in the Utah laboratories before assembly to insure you of the very finest reproduction obtainable from every speaker, regardless of type or cost.

### PERMO-DYNAMIC SPEAKERS

**STYLE A.** The Utah Permo-Dynamic (PM) speakers listed below are especially designed for intercommunications, portable and battery sets and PA or multiple speaker applications. Accurately engineered and sturdily built for long, dependable service. Completely dustproofed construction. \*Magnet weight. See listing of output transformers below.

Stock No.	Model No.	Size	V. C. Imp.	Normal Watts	Shpg. Wt.	NET EACH
81-080	3P	3 1/2"	3.5	2.5 (5 oz.)*	1 lb.	\$2.64
81-081	5P	5"	3.5	3.0 (5 oz.)*	2 lbs.	2.70
81-082	6P	6"	6-8	4.00 (7 oz.)*	3 lbs.	3.87
81-083	8P	8"	6-8	7.0 (7 oz.)*	3 lbs.	4.05
81-084	8BP	8"	6-8	7.0 (7 oz.)*	3 lbs.	4.57
81-085	10P	10"	6-8	9.0 (12 oz.)*	5 lbs.	6.51
81-086	12P	12"	6-8	10.0 (12 oz.)*	6 lbs.	7.92

### MODEL Q FIELD-COIL SPEAKERS

**STYLE B.** The famous Utah "Q" line of speakers represents the highest quality speaker in the low price field. Ideal for replacement purposes or for original installations. A speaker can be chosen from the listing below to match 90% of the sets now in use. Universal output transformers supplied with all speakers except 3 1/2" and 5" speaker transformers listed below. All "Q" speakers have 2 1/2 ohm VC.

Stock No.	Model No.	Size in Inches	Field Ohms	Shpg. Wt. Lbs.	NET EACH
81-101	Q345*	3 1/2"	450	2	\$2.15
81-102	Q506*	5"	6	2	2.15
81-103	Q530*	5"	2750	2	2.15
81-104	Q518*	5"	11800	2	2.15
81-105	Q545*	5"	450	2	2.15
81-106	Q610	6"	1000	3	3.30
81-107	Q618	6"	11800	3	3.30
81-108	Q625	6"	2500	3	3.30
81-109	Q810	8"	1000	4	4.25
81-110	Q818	8"	11800	4	4.25
81-111	Q825	8"	2500	4	4.25
81-112	Q1010	10"	1000	6	5.81
81-113	Q1018	10"	2500	6	5.81
81-115	Q1210	12"	1000	7	6.78
81-118	Q1225	12"	2500	7	6.78

\*Output transformer listed below. †Tapped at 300 ohms.

### WIDE RANGE PERMANENT MAGNET SPEAKERS



Wide range speakers especially suited for frequency modulation reception, monitoring, and laboratory work. Exceptionally brilliant response in the middle range, plus extension of the higher frequencies far beyond normal speaker response. Constructed with 20 oz. magnets. Force factor, 60. Voice coil diameters, 1". Peak wattage, 15 watts for 8"; 20 watts for 12" speakers. Completely dustproofed construction. For use with output transformers listed below.

Stock No.	Model No.	Size	V. Coil Imp.	Normal Watts	Shpg. Wt.	NET EACH
81-040	FP820	8"	8	10	5	\$ 8.26
81-042	FP1220	12"	8	13	7	11.25

### UNIVERSAL OUTPUT TRANSFORMERS

Utah universal output transformers for any tube combination or voice coil. Impregnated with cellulose acetate. Average shpg. wt. 2 lbs.

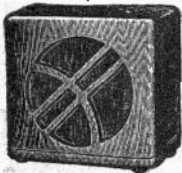
62-365. Type 8775. 4 watts. Mtg. Ctrs., 2". NET ..... \$1.02  
 62-366. Type 7364. 8 watts. Mtg. Ctrs., 2 1/2". NET ..... 1.29  
 62-367. Type 5999. 12 watts. Mtg. Ctrs., 2 3/4". NET ..... 1.35

### SINGLE TUBE OUTPUT TRANSFORMERS

For 3 1/2" and 5" speakers, above. Also ideal as replacements on all speakers. Built for lasting service and splendid tone. Wt., 8 oz.

62-320. Type 8770. 2000 Ohms. For 25L6, 25B6, etc. .... NET EACH  
 62-321. Type 8771. 4000 Ohms. For 6V6, 25A7, 43, etc. .... }  
 62-322. Type 8772. 10,000 Ohms. For 6F6, 6K6, 42, etc. .... } 71¢  
 62-323. Type 8773. 25,000 Ohms. For 1A5G, 1F5G, etc. .... }

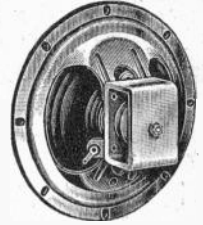
### WALNUT CABINET



Solidly constructed, handsome walnut-finished wood speaker cabinet. Built for use with either 8-inch or 8 1/2-inch type speakers. Expressly designed for extension use and for all multiple speaker installations. Has beautifully carved front grille panel and attractive matching grille cloth. Supplied with felt bumper-feet which will not mar or scratch any surface. A splendid value. Size: 9 1/4" x 9 1/4" x 5 1/2". Shpg. wt., 2 lbs.  
**93-700. NET ..... \$1.65**

## KNIGHT DYNAMICS

Knight PM and Field Coil dynamic speakers are accepted by servicemen everywhere for use as replacements or original equipment. Rugged construction, coupled with finest materials and skilled workmanship produce speakers of exceptional quality. Response characteristics make all Knight speakers ideal for use in all types of AC, AC-DC, and auto-radio sets, as well as for PA installations and paging systems. PM dynamics supplied less output transformers, listed separately below.



### PM DYNAMIC SPEAKERS

Stock No.	Size	Voice Coil	Watts	Shpg. Wt.	EACH
81-600	3 1/2"	3-5 Ohms	2.5	1 1/2 lbs.	\$2.37
81-601	5"	3-5 Ohms	3	2 lbs.	2.43
81-602	6"	3-5 Ohms	3 1/2	2 1/2 lbs.	3.07
81-603	6"	6-8 Ohms	4	3 lbs.	3.00
81-604	8"	6-8 Ohms	7	4 lbs.	3.64
81-605	10"	6-8 Ohms	9	5 lbs.	5.24
81-606	12"	6-8 Ohms	10	6 lbs.	6.40

### UNIVERSAL OUTPUT TRANSFORMERS FOR ABOVE

62-375. For 3 1/2" and 5" speakers. NET ..... \$0.90  
 62-376. For 6" and 8" speakers. NET ..... 1.15  
 62-377. For 10" and 12" speakers. NET ..... 1.20

### KNIGHT FIELD COIL SPEAKERS

All Knight field coil dynamic speakers are equipped with universal output transformers to match single or push-pull output stage.

5-inch. 1/2" voice coil. 2 1/2" deep. Shpg. wt., 2 lbs.  
 6-inch. 5/8" voice coil. 2 3/4" deep. Shpg. wt., 3 lbs.  
 8-inch. 3/4" voice coil. 4 1/2" deep. Shpg. wt., 4 lbs.  
 12-inch. 1" voice coil. 6 1/2" deep. Shpg. wt., 7 lbs.

FIELD	5-INCH	6-INCH	8-INCH	12-INCH
6 Volt	81-650			
1000 Ohms	81-651	81-654	81-658	81-661
1500 Ohms				81-662
1800 Ohms*	81-664	81-655	81-659	
2500 Ohms		81-656	81-660	81-663
2750 Ohms	81-652			
NET EACH.....	\$2.23	\$2.95	\$3.82	\$6.10

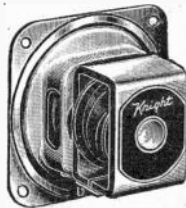
\*Tapped at 300 ohms.

### CINAUDAGRAPH SPEAKER 2-INCH PERMAG



Model 2ZMP, 2" PM 1 watt dynamic speaker. The last word in efficient, small speaker design. Can be used as speaker and microphone in small inter-communication apparatus. Voice coil impedance is 3 to 4 ohms. A special voice-coil-to-grid matching transformer is listed below. Model 2ZMP is ideal for portable sets; for use as combination speaker-microphone in U.H.F. equipment, etc. Shpg. wt., 1 lb.  
 81-220. Less Transformer. NET ..... \$1.54  
 62-310. Universal Output Transformer. 1 lb. NET ..... 85¢  
 62-317. Voice-Coil-To-Grid Transformer. 1 lb. NET ..... 91¢

### KNIGHT AC-DC DYNAMICS



#### 3 1/2-INCH DYNAMIC

Particularly adaptable for replacement of old speakers to improve midget AC-DC sets. Ruggedly built to precision standards assuring excellent frequency response. Balanced cone and voice-coil assembly will handle up to 2 1/2 watts. Voice coil impedance is 4 to 5 ohms. Face plate has four mounting holes. Supplied less output transformer; use 62-310 listed at right. Shpg. wt., 2 lbs.  
 81-680. 450 Ohm Field.  
 81-681. 2750 Ohm Field. NET EACH... \$1.49

#### 5-INCH DYNAMIC

A very popular replacement type 5-inch dynamic speaker. Will fill the requirements of the majority of midget AC or AC-DC sets. Sturdy construction for long trouble-free service; will handle approximately 3 watts. Voice coil impedance 4-5 ohms. Less output transformer; use 62-310 below. Shipping weight, 3 lbs.  
 81-682. 450 Ohm Field.  
 81-683. 2750 Ohm Field. NET EACH... \$1.58  
 62-310. Universal Output Transformer. 1 lb. NET ..... 85¢

We can supply additional speakers of many types. For complete listings, see pages 86-88. For speaker repair parts such as Field Coils, Cones, Shims and Cement refer to page 90.

# REPLACEMENT PARTS FOR SPEAKERS

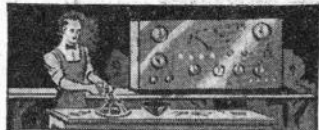


## CARRON EXACT DUPLICATE QUALITY SPEAKER CONES

Duplicate replacement cones accurately designed and carefully constructed to match the originals. One piece seamless material is used; noted for enduring and pleasing quality. An accurately wound voice coil is attached to each cone. Cones are precisely formed by patented process to secure excellent tonal quality and long life. Voice coils are also exact duplicates of the originals. For improved tone quality, replace your old speaker cone.

Approximate cost for cones not listed below: 4" to 6" cones—\$1.02; 7" to 9" cones—\$1.70; 10" to 12" cones—\$2.20; cones 13" and over—not to exceed \$3.11. Send in old cone with remittance. Name, size of speaker, numbers or letters stamped on speaker and cone will help us give you faster service. If entire speaker is sent in for cone installation, add 85c to above prices for all but 4" to 6" cones. Add 57c for 4" to 6" cones. This service includes, at no extra charge, remagnetizing of PM's, if needed. Average shpg. wt. of cones, 2 1/4 lbs.

## P.M. AND DYNAMIC SPEAKER REPAIR AND CLEANING SERVICE



Repair your old speaker and bring back its original performance. Our speaker engineers will replace entire cone with a new one-piece genuine CARRON seamless cone, eliminate dust particles and other causes of hazy reception, align voice coil so it rides smoothly without rubbing and put speaker in A-1 working condition for small charges—outlined at left.

Stock No.	Set of Speaker No.
<b>4" SPEAKER CONES</b>	
82-502.	Belmont 510.
82-505.	Motorola 5A, 51A, 53A, 54A. (Speaker Nos. 50B, 14623D).
82-503.	Utah 4A106.
82-500.	Zenith 49AG385, 49AG403.
82-501.	Zenith 49AG324.
ANY 4" CONE, NET..... <b>65c</b>	

Stock No.	Set of Speaker No.
<b>4"x6" OVAL CONES</b>	
82-555.	Emerson 9HS 549A.
82-556.	Philco 36-1548-4.
ANY 4"x6" OVAL CONE, NET..... <b>97c</b>	

Stock No.	Set of Speaker No.
<b>5" SPEAKER CONES</b>	
82-510.	Airline 62-274, -350, -351, -352, -436.
82-511.	Airline 62-518.
82-512.	Airline 62-236, 62-263.
82-510.	Belmont 425, PT # 114-108
82-514.	Belmont 580, Jensen F5R.
82-512.	Belmont 666, 690.
82-516.	Chev. 985426 (Utah).
82-512.	Chevrolet 985200.
82-517.	Chevrolet 985425.
82-519.	Chevrolet 985588 (41045).
82-510.	Crosley 648, 718C.
82-511.	Crosley A157, 517, 547, 5517.
82-521.	Crosley A366, 515 (Magnavox.)
82-528.	Crosley 719A.
82-511.	Delco R663.
82-521.	Delco 640, 631A, 4099 (Magnavox ID-76.)
82-512.	Delco 640, 631A (Operadio.)
82-514.	Emerson 30, 33, 250, 321, 350LW.
82-521.	Emerson 107, 111.
82-526.	Emerson DL330.
82-527.	Motorola 9-29.
82-529.	Motorola 59T3.
82-510.	Zenith 49-242, 49-237, 49-238.
82-528.	Zenith 49U440.
ANY 5" CONE, NET..... <b>81c</b>	

Stock No.	Set of Speaker No.
<b>6" SPEAKER CONES</b>	
82-545.	Jensen E6RS.
82-661.	Delco R666.
82-662.	Jensen H6S.
82-539.	Jensen PM6C, G6R.
82-546.	Motorola 29B6.
82-547.	Motorola 25642-0.
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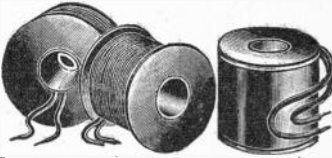
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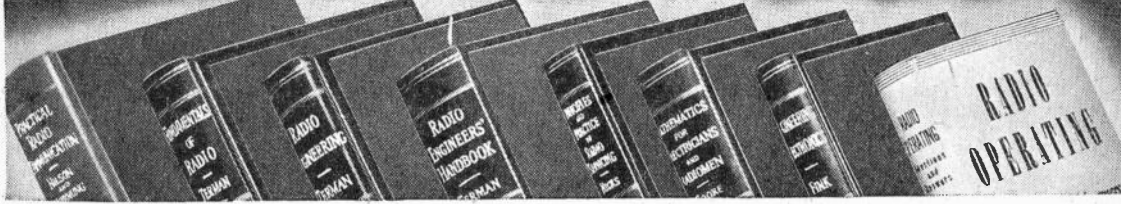
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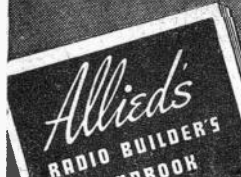
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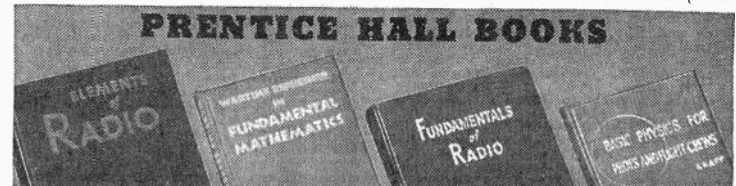


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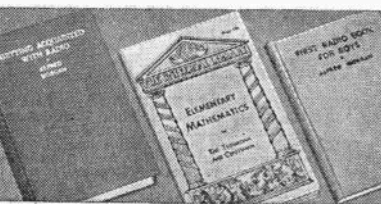
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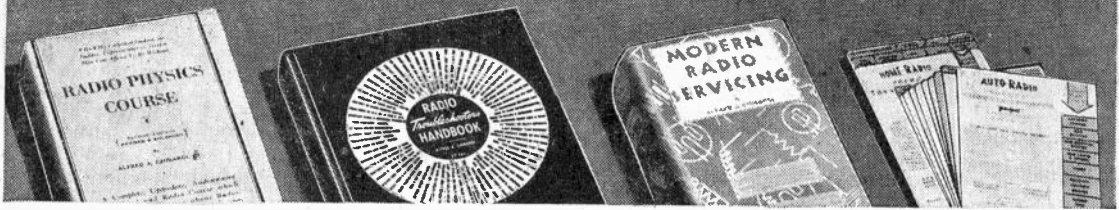
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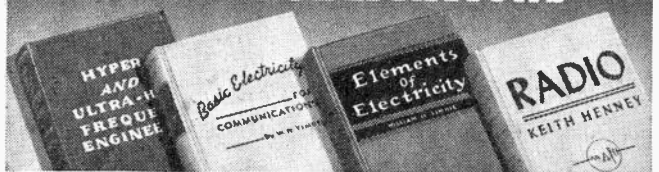
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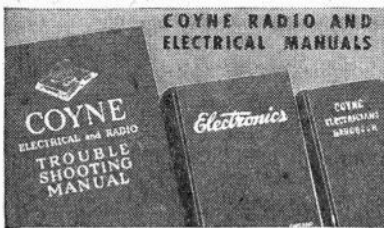
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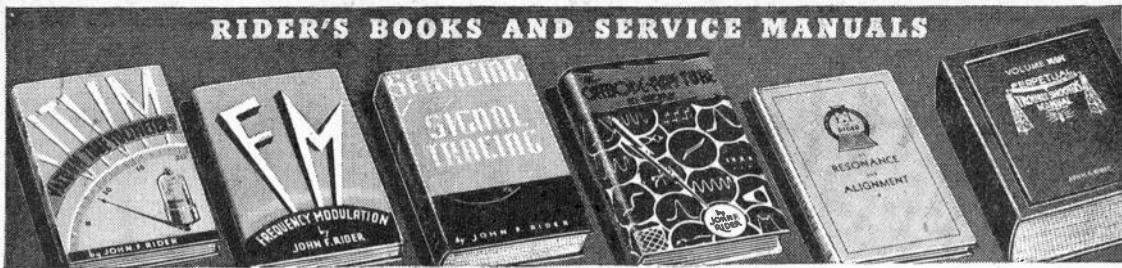
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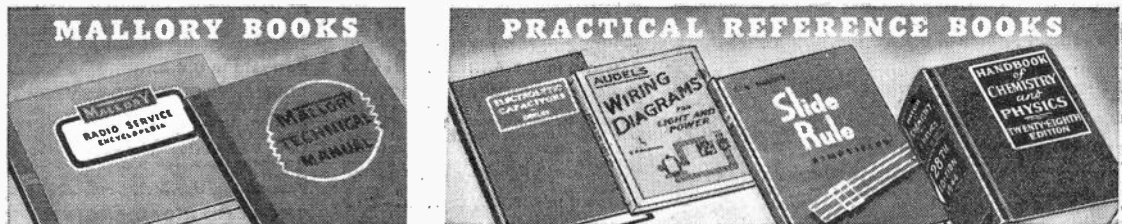
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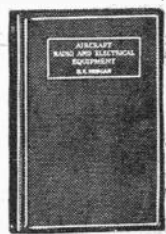


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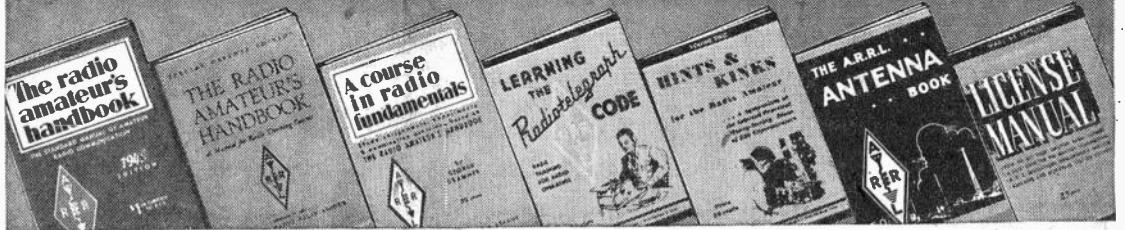
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 Deluxe Edition. Described above. Buckram bound.  
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**TRAINING EDITION OF THE A. R. R. L. HANDBOOK.** Meets the demand for a text to be used in radio training courses. All reference to Amateur radio procedure has been omitted. Covers in clear, step-by-step fashion all fundamentals required in radio communications. Has chapters on learning the code and building code-practice tables, essential formulas, graphs, etc. 292 pages. Size, 6 1/2" x 9 1/2".  
**Postpaid in U. S. A. .... \$1.00**  
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**37-564. Postpaid in USA..... 50c**

**RADIO AMATEUR'S LICENSE MANUAL.** Tells how to secure amateur license. Contains Federal Communications Commission's rules and regulations governing Amateur stations. Questions and answers section covers probable questions for Class A, B and C license examinations. Post-war edition.  
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**A. R. R. L. MINILOG.** 60-page Amateur Radio Station logbook.  
**37-560. Postpaid in USA..... 25c**

**RADIO MAP.** 30" x 40" Rand-McNally 6-color map of the world. Shows distances, prefixes, time zones, radio districts, etc.  
**Postpaid in USA..... \$1.25**  
**98-499.....**

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**37-559. Postpaid in USA..... 20c**

**LEARNING THE RADIO-TELEGRAPH CODE.** Designed to train students to handle code skillfully and with precision, both in sending and receiving. Employs novel system of code instruction to meet special class training needs. Excellent for home study. Particularly valuable to the student who does not have access to a code machine. Contains data on high-speed operation and typewriter copy; includes an entire chapter on tone sources; also describes classroom code instruction table with practice oscillator.  
**37-562. Postpaid in USA..... 25c**

**HOW TO BECOME A RADIO AMATEUR.** Universally accepted as standard elementary amateur guide. Covers fundamentals and construction. Explains how radio works; the amateur bands and how to select frequencies. Instructions on learning the code; building receivers and transmitters; winding coils; obtaining an amateur license; radio operation and use; power supplies; testing, etc. A valuable book for anyone interested in Amateur Radio. Also contains a chart of all symbols used in circuit diagrams. 48 pages, size, 6 1/2" x 9 1/2".  
**37-551. Postpaid in USA..... 25c**

**37-553. LIGHTNING CALCULATOR.** Type A. Solves problems of frequency, inductance, etc. Accurate. Eliminates tedious work.  
**37-554. LIGHTNING CALCULATOR.** Type B. Solves problems of voltage, current, resistance, and power.  
**EACH. Postpaid in USA..... \$1.00**

## ZIFF-DAVIS MANUALS



**TWO-WAY RADIO.** By Comdr. S. Freedman. Contains pertinent information concerning two-way radio receiving and transmitting. Includes 300 illustrations. Discusses induction radio communication, showing actual steps by photographs. Covers microwaves and frequency modulation. Valuable to police, fire, forest conservation, utilities, public works, radio stations, transportation systems, and other agencies dependent upon radio as the most practical means of communication. 544 pages. Size, 6" x 9 1/2".  
**37-747. Postpaid in USA..... \$5.00**

**RADIO OPERATOR'S LICENSE GUIDE.** By Wayne Miller. Latest edition. Study-guide for students and others training for Commercial Radio-Telegraph or Radio-Telephone operator license. Contains over 1250 Questions and Answers to the six-element FCC examinations. Represents scope of material from which examinations are prepared. Gives addresses of all U.S.A. Radio Inspection District Offices, FCC Rules and Regulations governing Commercial Radio Operators, International "Q" list of abbreviations used in Radio Communication. Cloth bound. 6" x 9". 175 pages. Ideal reference text for all operators, or for home-study use.  
**37-745. Postpaid in USA..... \$3.00**

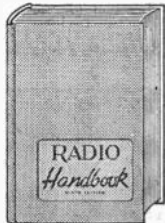
**RADIO OPERATORS' CODE MANUAL.** By Wayne Miller. An easy method for learning code and touch-typing, simultaneously. Adopted by many radio schools. Introduces elementary principles and gives progressive practice material. Organized in logical sequence. Shows how to construct an operator's hand key, how to construct a battery-operated low-power vacuum-tube oscillator. Contains touch-typing and pen lettering charts. 162 pages, size 6" x 9".  
**37-746. Postpaid in USA..... \$2.00**

## HANDY SLIDE RULE CALCULATORS

- 37-960. ALLIED RADIO PARALLEL-RESISTANCE SERIES-CAPACITANCE CALCULATOR.** Provides a rapid means of obtaining answers to everyday problems in parallel-resistance and series capacitance. A single setting to any resistance or capacitance value automatically aligns all parallel pairs of resistance and series pairs of capacitance values. Size, 3 1/2" x 12 1/2". **Postpaid in U. S. A. .... 25c**
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- 37-771. STANCOR MULTI-SLIDE RULE.** **Postpaid in U. S. A. .... 98c**
- 37-950. SHURE REACTANCE SLIDE RULE.** **Postpaid in U. S. A. .... 10c**
- 2-780. OHMITE OHM'S LAW CALCULATOR.** **Postpaid in U. S. A. .... 10c**

## THE "RADIO" HANDBOOK

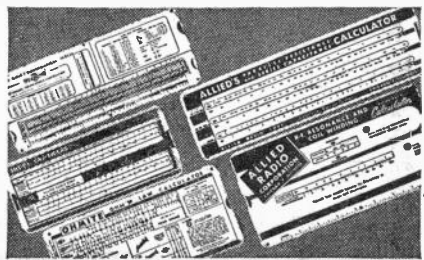
Latest Edition. Contains Introduction to Radio; Fundamental Radio and Electrical Theory; Cathode Ray, Transmitting and Receiving Tube Theory and Characteristics; Theory and Construction of Transmitters and Receivers; Frequency Modulation and Ultra-High Frequency Transmitters and Receivers; Speech and Modulating Equipment; Power Supplies; Antenna Theory, Operation, and Construction; Test and Measurement Equipment; Radio Mathematics and Calculations; Q Code, etc. Profusely illustrated. 640 pages. 6 1/2" x 9 1/2".  
**37-675. Postpaid in USA..... \$2.00**



## TECHNIFAX GEOPHYSICAL PROSPECTING PRINTS

With any of these diagrams, instruments can be built to locate metal, subterranean water, oil deposits, buried pipes or metals, etc.

- 38-100. Folder No. 1.** 2-Tube Transmitter and 3-Tube Receiver. Reflected wave principle.
  - 38-101. Folder No. 2.** Harmonic Frequency Locator. Radiates low-frequency waves.
  - 38-102. Folder No. 3.** Dual Oscillator Beat-Note Indicator. Visible and aural signals.
  - 38-103. Folder No. 4.** Radio Balance Surveyor. Loop Principle. Modulated transmitter.
  - 38-104. Folder No. 5.** Variable Inductance Monitor. Inductance and loop principle.
  - 38-105. Folder No. 6.** Hughes Inductance Balance Explorer. Wheatstone bridge type.
  - 38-106. Folder No. 7.** Radiodyne Prospector. Balanced loop principle.
- EACH, Postpaid in USA..... 50c**  
**SET OF 7 FOR..... \$3.00**



# SERVICEMEN'S

# FEATURE VALUES



## TUBULAR PAPER CONDENSERS

Exceptional buys in high-quality, standard size, tubular-by-pass condensers. Brand-new, top-quality units in most popular values. Designed for long-lived service. 2 1/2" tinned leads. Av. shgp. wt. 3 oz.

Mfd.	600 Volts		400 Volts		
	No.	Each	No.	Each	
.001	10-480	9c	10-450	9c	
.002	10-481		10-451		
.003	10-482		10-452		
.004			10-453		
.005	10-484		10-454		
.006	10-485		10-455		
.01	10-486		10-456		
.02	10-487		10-457		
.03	10-488		12c		10-458
.05	10-490		12c		10-460
.1	10-492	14c	10-462	12c	
.25	10-493	20c	10-463	14c	
.5	10-494	28c	10-464	20c	
1.0	10-495	46c	10-465	28c	

Deduct 10% on orders for 10 or more.

## SPECIAL VALUES IN TRANSFORMERS



### 2.5 VOLT FILAMENT TRANSFORMER

General purpose 2.5 V. filament transformer. Pri: 115 V. tapped at 110 V. 50-60 cyc. AC. Sec: 2.5 V. at 10 amps. not center tapped. Conservatively rated. Open frame type with slotted mounting brackets. 10,000 V. ins. For 866 rectifiers. Varnish impregnated. Mtg. centers, 3/16". Size, 3 1/2" x 4 1/2" x 2 3/4".

62-130. NET. \$1.25

### 6.3 Volt Filament Transformer

Center tapped. Rated at 6.3 volts, 6 amperes secondary. Primary, 115 volts, 60 cycles AC. Solder lug terminals. Shielded. Mtg. centers, 2 1/4" width, 2" depth. Size, 2 1/4" x 3" x 3 3/4". Shgp. wt., 4 lbs.

62-150. NET. \$1.50

### DRIVER TRANSFORMER

Impedance: Primary 10,000; 1/2 secondary 2,500-4,400-10,000 ohms. Turns ratio, pri. to 1/2 sec. 1:1, 1.5:1, 2:1. Primary current .35 ma. d.c. Horizontal mounting. 5" color-coded leads. Mtg. centers, 2 1/4". Size, 2 1/4" x 2 1/4" overall. Shgp. wt., 2 lbs.

64-717. NET. \$1.25

### Single Tube Output Transformer

Primary impedance 7,000 ohms. Pri. current, 30 ma. Sec. impedance, 4 ohms. Audio watts, 5. 8" color coded primary leads, 3/4" enameled secondary leads. Open frame type. Mtg. centers, 2". Overall size, 1 1/2" x 2 1/4" x 1 1/4". Shgp. wt., 1 lb.

62-066. NET. \$1.51

## PHILLIPS SCREWDRIVERS



Blades forged from high carbon tool steel, heat treated and oil tempered. Tough, fluted amberyl handles last a lifetime—will not chip, crack or break.

For No. 4 and Smaller Screws. 3/4" blade. No. 1 point. Overall length, 7 1/2". Shgp. wt., 1/2 lb.

43-865. NET. \$38c

For No. 5 to 9 screws. 4/4" blade. No. 2 point. Overall length, 7 1/2". Shipping wt., 1/2 lb.

43-866. NET. \$52c

## TS-1 SIGNAL TRACER



Dependable low-cost signal tracing analyzer will permit you to test any set or amplifier without bothersome adjustments! Just touch probe to any portion of set, R.F. or I.F., diode plates, audio or power stage, speaker voice coil, etc. Signal is heard in phones. Self-contained unit. Uses one 22 1/2 V. battery and one No. 2 flashlight cell, any pair of magnetic earphones, 1,000 ohms DC resistance or higher. Brown-finished metal case has snap-lock cover and compartment for batteries, 3 ft. cable and probe. Cover closes only when switch is off. Size, 6 1/4" x 4 1/4" x 3 1/4". Comes complete with vacuum tube, less batteries and phones.

84-975. NET. \$9.85  
80-512. 22 1/2 volt battery. 72c  
80-726. Flashlight battery. 6c  
59-110. Magnetic headset, 2,000 ohms. With 4 1/2 foot cord. NET. \$1.11

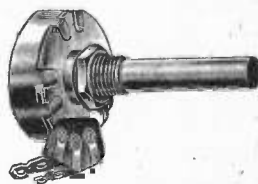
## QUALITY TEST PRODS



Highest grade professional type test leads. Connections are securely soldered to provide low resistance for precision tests. Durable 5" bone fiber handles, with 48" non-kinking flexible rubber covered wire. Molded finger grip prods at right angle to leads. Red and black color coded. For heavy duty use. Wt., 8 oz.

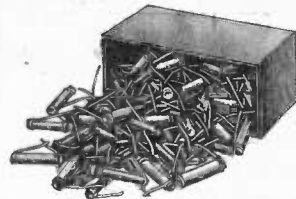
58-140. NET. \$75c

## UNIVERSAL MIDGET VOLUME CONTROLS



Low-priced universal replacement midgets. High quality composition elements, with multi-wiping contact. Size: 1 1/4" dia., 1/4" deep. Standard shaft, 1/8" dia., 2" long. Easily cut to any desired length. Tapers: A—linear, use for uniform change. B—Antenna & C bias. T—Tone control or audio shunt. Switches are not available for these controls. Shgp. wt., 4 oz.

No.	Ohms	Taper	Each	5 For.
30-400	1000	A	29c	\$1.30
30-401	5000	A		
30-402	10000	B		
30-406	50000	A		
30-407	100000	T		
30-408	250000	T		
30-410	1 Meg.	T		



## RESISTOR ASSORTMENT

A useful assortment of high quality carbon type resistors for service-man, builder, and experimenter, at a money-saving low price. Tinned wire leads are secured to the carbon element, and to prevent loosening with age or use. All are coded with standard RMA color code. Most popular resistance values. Includes: 30, 1 watt; 10, 1/2 watt; and 60, 1/4 watt. Shgp. wt., 1 1/2 lbs. A real bargain.

58-086. NET. \$95c

## VALUES IN CARBON RESISTORS



Brand new Standard RMA Color-Coded Carbon Resistors. Values held to close tolerance. Improved construction insures accuracy. 1 1/2" tinned copper leads. Permanent lead connection is provided by welding. Shgp. wt., 3 oz.

### SPECIFY VALUES DESIRED

Ohms	Ohms	Ohms	Ohms
100	800	12500	150000
150	1000	15000	200000
200	1500	20000	250000
250	2000	25000	400000
300	2500	30000	500000
350	3000	40000	750000
400	4000	50000	1 Meg.
500	5000	60000	2 Meg.
600	6000	75000	3 Meg.
700	10000	100000	5 Meg.

2-000. 1/2 watt size.  
2-020. 1 watt size.  
EITHER TYPE, NET EACH... 2 1/2c  
Quantity Price—100 FOR... \$2.25

## 175 KC COILS

### I-F TRANSFORMERS

Compact, high-gain, double-tuned, air-core I-F transformers. Lattice-wound primary and secondary tuned by mica-insulated compression type condensers from top of can. Impregnated low-loss Litz wire windings. RMA color-coded, insulated lead wires. Metal cans measure 1 1/8" square and 3" high. Easy to mount. Shgp. wt., 1 lb.

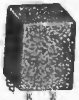
60-690. Input.  
60-691. Output.  
NET EACH... \$59c



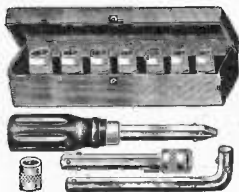
### SHIELDED OSCILLATOR COIL

Shielded type oscillator coil for use with 365 mmf. tuning condenser and 175 kc. i.f. input. Uses 900 mmf. padder condenser. Shield, 1 1/2" dia., 1 1/4" high. Easy to mount. Shgp. wt., 1/2 lb.

60-695. NET EACH... \$49c



# SERVICEMEN'S FEATURE VALUES



## HANDY WRENCH AND SCREWDRIVER SET

Handy socket wrench set for working hex, double hex, or square nuts. Consists of screwdriver wrench handle, 3" straight extension, 6" "L" extension, hex socket which holds extensions to screwdriver, and sockets. Hex sockets are in 1/8", 1/4", 3/8", 1/2" sizes. Knurled socket fits any double hex nut from 3/8" to 1/2". Cadmium plated. In metal case. Wt., 3 lbs. **45-840. NET. \$1.25**

## PHONE PLUG VALUES

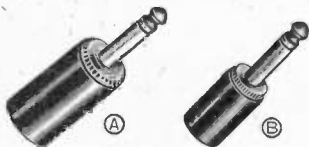


Fig. A. Standard plug for 2 sets of cord tips. 2 3/4" overall. Bakelite barrel, 1/4" dia. x 1 1/2" long. Shpg. wt., 6 oz. **58-145. EACH. \$2.25**  
**10 FOR. \$19.50**  
**100 FOR. \$125.00**

Fig. B. Midget phone plug with extra short barrel and standard shank. Fits standard radio jack. Size, 2 1/4" overall. Bakelite barrel, 1" long, dia. 3/8". Wt., 6 oz. **58-146. EACH. \$2.25**  
**10 FOR. \$19.50**  
**100 FOR. \$125.00**

## SIGNAL CORPS JACKS



**41-040.** Single-circuit phone jacks. Will take plugs above. Equivalent to Signal Corps JK-34A. Shpg. wt., 6 oz.

**41-041.** Microphone jack. Equivalent to Signal Corps JK-33A. Requires PL68 plug (see page 52). Shpg. wt., 6 oz. **NET EACH. \$1.40**  
**10 FOR. \$13.35** **100 FOR \$111.75**

## BERYLLIUM BANANA PLUGS



Made of beryllium copper for extra spring tension and durability. Used by U.S. Signal Corps. Rivet type shank 3/8" x 3/8" dia. Threaded type shank 3/8" long threaded for 6-32 nuts. Shpg. wt., 4 oz.

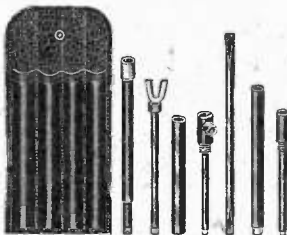
**41-070.** Rivet type. **EACH. \$1.40**  
**10 FOR. \$13.35** **100 FOR. \$111.75**  
**41-071.** Threaded Type. **Ea. \$1.70**  
**10 FOR. \$16.65** **100 FOR. \$166.50**

## WESTINGHOUSE 0-800



**MILLIAMMETER**  
 DC milliammeter, reads 0 to 800 mills in 20 ma. graduations. Bakelite housing. Flange mounting, 3 1/2" dia. Case, 2 3/4" dia. Calibrated for 1/8" steel panel. Mounting hardware included. 2 lbs. **\$4.95**

## NEUTRALIZING AND ALIGNING TOOL KIT



Every service man will find this vest pocket tool kit invaluable. Consists of a combination of 12 tools necessary to align and neutralize practically all modern radio receivers. Kit includes fork-type neutralizing wrench and screwdriver with bakelite handle; double ended 1/4" bakelite rod screwdriver; balancing tool with perpendicular metal key-slot and wrench for 1/4" hex nuts; neutralizing and compensating tool with 1/4" insulated shaft metal-tip screwdriver; tool with metal wrenches for 3/8" and 1/4" hex nuts; feneline insulated screwdriver with 3/8" tip; and bakelite wrench for 3/8" hex nuts. Units telescope into each other to form four separate tools for carrying in attractive leatherette pocket-size case. Shpg. wt., 1 lb. **42-102. NET. \$2.59**

## POCKET SIZE ALIGNING TOOLS



### 5-IN-1 KIT

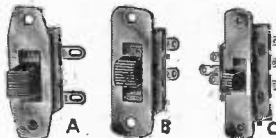
Handy neutralizing and compensating tool with pocket clip. Made of feneline, fully insulated. 1/4" and 3/8" hex wrenches. 3/8" key slot. 1/2" flat tip, 1/4" dia. heavy duty screwdriver. 1/2" flat tip neutralizing screwdriver. Parts screw together to form single unit. Wt., 1/2 lb. **58-142. NET. \$9.00**



### BONE FIBER SCREWDRIVER

1/4" bone-fiber rod. 1/2" flat metal tip. 1/4" wide-5" long overall. For adjusting trimmers and neutralizing condensers. Shpg wt., 5 oz. **58-143. NET. \$2.50**

## SLIDE SWITCHES



Handy miniature slide switches. Conservatively rated at .75 amp., 110 V. AC or DC. For repair of radios, phonograph apparatus, small household appliances, etc. Silver plated contacts. Bakelite insulation. Average shpg. wt., 5 oz.

**SPST.** Fig. A. Flange mount. 1 1/8" mounting centers **58-166. NET. \$12.00**

**3 POSITION.** Fig. B. Center position off. Closes single circuit each side of center. 1 1/8" mounting ctrs. Requires rivets or shallow screws for mounting. **58-168. NET. \$15.00**

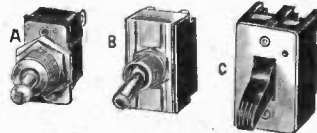
**3PDT.** Fig. C. Mounting centers, 1 1/8", tapped for 4-36 screws. Size, 1 1/2" x 1 1/2". Back panel mount type, for any panels up to 1/4" thick. **58-169. NET. \$12.00**



## RESISTOR AND SMALL PARTS CABINET

Compact, sturdily built bass wood cabinet. 6 drawers, 4 compartments each. Compartments measure, 1 1/4" x 1 1/4" x 5 1/4", except bottom drawer, 1 1/4" high. Overall size, 9" x 7" x 5 1/4". Dadoed and glued corners. Knob handles. Heavy varnish finish. Ideal for storing small units, resistors, condensers, screws etc. Shpg. wt., 5 lbs. **56-020. NET. \$2.95**

## SWITCH VALUES



### SPST TOGGLE

Fig. A. Highest quality, Underwriters' Lab. listed. Rated 3 amps. at 125 volts, AC or DC. Cadmium plated, threaded shank, 7/8" dia., 1/2" long. With two locknuts. Bakelite case. Shpg. wt., 6 oz. **34-105. EACH. \$1.80**  
**10 FOR. \$18.00**  
**100 FOR. \$150.00**

### SPDT BAT HANDLE

Fig. B. Underwriters' Lab. listed. Rated 3 amps. at 125 volts. 7/8" shank, 3/4" long. With mtg. hdwe. 6 oz. **58-165. EACH. \$2.10**  
**10 FOR. \$19.00**  
**100 FOR. \$170.00**

### DPST POWER SWITCH

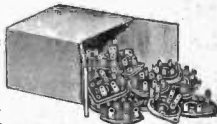
Fig. C. Heavy duty aircraft type power switch. Underwriters' Lab. listed. Rated at 25 amps. at 125 volts or 20 amps. at 250 volts, AC. Bakelite case. 2 1/2" x 1 1/2" x 1 1/2" overall. Handle extends 1/4". Screw terminals. Wt., 1 lb. **58-167. NET. \$89.00**

## BAKELITE OCTAL SOCKET



Molded octal socket. High dielectric black bakelite insulation. Plated contact. Flange plate mounting with four tie-lugs. Mtg. ctrs., 1 1/2". Wt., 6 oz. **58-150. EACH. \$7.00**  
**10 FOR. \$62.00**

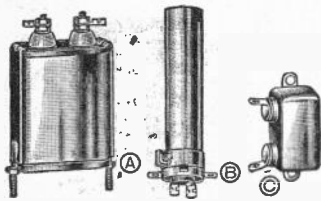
## HANDY SOCKET KIT



Consists of 20 assorted popular type 4, 5, 6, 7, and 8-prong sockets. Laminated or solid bakelite construction with 1 1/2" and 1 1/4" mounting centers respectively. Shpg. wt., 1 lb. **58-130. NET. \$79.00**

# AMATEURS

# FEATURE VALUES



## VALUES IN OIL-FILLED CONDENSERS

### Fig. A—METAL CASE TYPE

High quality oil filled condensers. Hermetically solder-sealed in heavy steel case. High glaze porcelain stand-off insulators.  
**4 Mfd. 600 Volts.** Size,  $4\frac{1}{2} \times 3 \times 1\frac{1}{4}$ ". With mounting screws. Shpg. wt., 2 lbs.  
**58-215. NET.....\$1.15**

**2 Mfd. 1,000 Volts.** Size,  $4 \times 1\frac{1}{2} \times 1\frac{1}{4}$ ". Mtg. centers,  $2\frac{1}{4}$ ". Shpg. wt., 2 lbs.  
**58-100. NET.....\$1.95**

### Fig. B—UPRIGHT TUBULAR

**2 Mfd. 600 Volts.** Hermetically sealed, universal mounting condenser in round aluminum container. Designed for use in heavy duty power supplies. With mounting bracket. Size,  $5\frac{1}{2} \times 1\frac{1}{2}$ " dia. Shpg. wt., 2 lbs.  
**58-101. NET.....95c**

### Fig. C—BATHTUB TYPE

Oil-filled condensers. 600 volts. Non-inductively wound, and hermetically sealed. Low power-factor and high leakage-resistance. Lug mounting type. 1 lb.

No.	Mfd.	Size	NET
11-001	0.25	$1 \times \frac{1}{2} \times 2\frac{1}{2}$ "	75c
11-002	0.5	$1 \times \frac{1}{2} \times 2\frac{1}{2}$ "	80c
58-217	1.0	$2 \times 1\frac{1}{2} \times \frac{1}{2}$ "	65c
58-102	3.0	$1\frac{1}{2} \times 2 \times 1$ "	85c



## RF CHOKES

**2½ mh, 125 ma, 60 ohms d.c. resis.** Universal winding, sectioned to reduce capacity. Ceramic core. For oscillators, etc. Shpg. wt., 8 oz.  
**58-800. EACH.....15c**  
**10 FOR.....\$1.35**

**1½ mh, 100 ma, 27 ohms d.c. resistance.** Ceramic core. Shpg. wt., 8 oz.  
**58-196. 10 For \$1.35 EA.....15c**  
**1 mh, 300 ma, 10 ohms d.c. resistance.** Ceramic core. Shpg. wt., 8 oz.  
**60-824. 10 For 70c EACH.....8c**

## SOCKET VALUES



### ACORN LOW LOSS

**Fig. A.** Low-loss wafer type acorn socket for triodes. High current carrying capacity. Five silver-plated contact clips. Insulant base.  $1\frac{1}{2}$ " dia., mtg. centers  $1\frac{1}{2}$ ". Shpg. wt., 3 oz.  
**40-236. NET.....49c**

### UHF OCTAL SOCKETS

Popular mica filled bakelite octal units.  
**58-151. Fig. B.** Has metal mtg. plate.  $1\frac{1}{2}$ " dia. Mtg. centers,  $1\frac{1}{2}$ ". Wt., 3 oz.  
**58-152. Fig. C.** Detachable mounting plate. Silver contacts.  $1\frac{1}{2}$ " dia. Mtg. centers,  $1\frac{1}{2}$ ". Wt., 3 oz.  
**10 FOR 45c EACH.....5c**  
 Insulant octal sockets. Metal mtg. plate. Silver contacts.  $1\frac{1}{2}$ " dia. Mtg. centers,  $1\frac{1}{2}$ ". Wt., 3 oz.  
**58-154. 10 FOR \$1.25 EA.....15c**  
**58-153.** Universal slot mtg.  $1\frac{1}{2}$ " dia. **10 FOR \$1.50 EACH.....17c**



## GENERAL ELECTRONICS CRYSTAL PROCESSING KIT

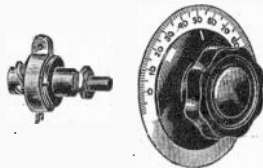
An economical and accurate method for regrinding your own crystals, or grinding new crystal blanks to any desired frequency. Kit contains: 2 AT and 2 BT cut highest quality Xtal blanks; separate containers of coarse and fine abrasives; special quartz etching fluid; tube of Prussian blue; glass finishing plate; carrier lapping plate with pentagon well; wire holder for immersing blank in etching fluid, and two Xtal holders for  $\frac{1}{2}$ " square Xtals with  $\frac{1}{4}$ " prong spacing to fit standard 5-prong socket. With instructions. Shpg. wt., 2 lbs.  
**58-170. NET.....\$8.75**



## ROBOTRON FREQUENCY METER

Frequency and activity control unit for use with crystal processing kit above. Accurately checks crystals to within  $\pm 1$  kc of any frequency in 10 to 80 meter bands. Includes 5 tubes, activity meter, and regulated power supply. In metal case. For 115 v. 60 cyc. AC. With tubes and calibration chart. Size,  $7 \times 7 \times 10$ ". Shpg. wt., 10 lbs.  
**58-175. NET.....\$37.50**

## PLANETARY DRIVE CONTROLS

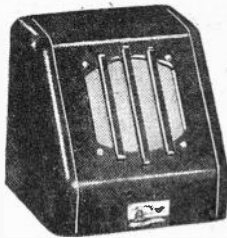


### PLANETARY DRIVE WITH 4" DIAL

Reduced speed dial assembly consisting of planetary drive, and 180° dial calibrated 0-100. Die stamped of heavy brass. Chromium plated, spun-ray finish. Brass gear housing. 5-1 ratio. Fits  $\frac{1}{4}$ " shaft. Wt., 1½ lb.  
**60-392. NET EACH.....\$1.95**  
**10 FOR.....17.50**

### PLANETARY DRIVE WITH 2¾" DIAL

Transmitter type reduced speed drive as above, but with  $2\frac{3}{4}$ " dial. Complete with hardware. Shpg. wt., 1 lb.  
**60-393. NET EACH.....\$1.65**  
**10 FOR.....14.75**



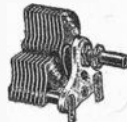
## MASTER OSCILLOTONE

The Model MS-700 Master Oscillotone provides an audio tone source for operation either as a practice oscillator for an individual student or as a master oscillator for groups as large as 300 persons. Pitch and amplitude adjusted by continuously variable controls. Frequency range from 600 to 1,500 cycles. Insulated terminals provided for output and keying circuit connections. Works into 15 ohm load, or higher. Means are provided for connecting keying units in the output circuit for low voltage keying. The 4" Permacin speaker used for monitoring purposes can be silenced when desired. Cabinet is molded bakelite. Has line cord and plug. On-off switch. Furnished complete with tube. For 110 V. AC or DC operation. Shpg. wt., 7 lbs.  
**76-021. NET.....\$7.95**

## VALUES IN VARIABLE CONDENSERS

### CERAMIC MIDGETS

High quality midget variable condensers. Ceramic insulation. Non-corrosive plates. Wiping phosphor-bronze contacts. Mounts in  $\frac{7}{8}$ " hole. Size with plates open,  $1\frac{1}{2} \times \frac{1}{4}$ ". Brass shaft  $\frac{1}{8}$ " dia., extends  $1\frac{1}{4}$ ". \*Double space unit. Shpg. wt., 10 oz.



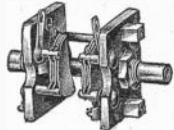
Stock No.	Max. Mmf.	Min. Mmf.	No. of Plates	NET EA.
58-180	15	3.0	3	60c
58-181	25	3.5	4	65c
58-182	50	4.0	7	67c
58-183	80	6.0	11	75c
58-184	100	6.0	14	77c
58-185	140	7.0	19	80c
58-186*	35	6.5	10	80c

Deduct 10% in lots of 10 or more.

## DUAL VARIABLE CONDENSER

### 2.5-7.0 Mmf.

Split stator mid-gate condenser, 2.5 mmf. to 7.0 mmf. Grounded rotor. Heavily silver-plated. Ceramic insulation. Mounting studs, 1" centers. Size,  $1\frac{1}{2} \times 1\frac{1}{2}$ ". Shaft,  $\frac{1}{8}$ " dia., extends  $\frac{3}{4}$ " from front plate,  $\frac{7}{8}$ " from rear plate. Sturdily constructed. Just the thing for VHF transceivers. Wt., 10 oz.  
**58-190. NET.....59c**



## AIR PADDER CONDENSER

### 15-25 MMF.

Variable from 15 to 25 mmf. Ceramic insulation. Three plates. Screwdriver slot adjustment. Shaft,  $\frac{1}{8}$ " long,  $\frac{1}{4}$ " dia. Mounting studs,  $\frac{1}{2}$ " centers. Require extremely small panel space. Unaffected by vibration and temperature changes. Ideal as trimmer for oscillators, and for ultra high frequency use. Fits  $1\frac{1}{4}$ " dia. plug-in coils. Shpg. wt., 6 oz.  
**58-195. NET.....25c**



# SPECIAL FEATURE VALUES

## WALSCO RADIO CHEMICALS

### CONTACT CLEANER FLUID



A special compound for cleaning tuning condensers, volume controls, band switches etc., where unclean surfaces may result in noisy reception. Also prevents corrosion.

43-160. 2 ozs. **21c**  
NET.....

43-161. 4 ozs. **29c**  
NET.....

### CEMENT SOLVENT AND THINNER

A universal thinner for speaker and similar lacquer-type cements. Acts quickly as solvent on speaker cones, voice coils, etc.

43-162. 2 oz. bottle. **21c**  
Shpg. wt., 1/2 lb. NET.....

43-163. 8 oz. bottle. **44c**  
NET.....

### WALSCOLUB B



A dependable combination cleaner and lubricant for use on switches, volume controls, tuners, variable condensers etc. 1/4 oz. tube. Shpg. wt., 8 oz.

43-124. NET. **26c**

### MOTOR-GEAR LUBRICANT

For use on phonograph motors, record changers, etc. 1/4 oz. tube. Shpg. wt., 8 oz.

43-125. NET. **26c**

### SUPER POLISH



A true "super polish" for cabinets. Requires little rubbing. Cleans as it polishes, for it removes old polish, grease and dirt, then forms a hard, dry, durable finish that looks like new. Protects original lustre of new cabinets. In 4 oz. bottle. Shpg. wt., 1 lb.

43-164. NET. **21c**

### SCRATCH REMOVING POLISH

A blend of staining and polishing ingredients. Covers scratches on furniture and at the same time applies a lustrous finish. In 4 oz. bottles. Shpg. wt., 1 lb.

43-165. NET. **21c**

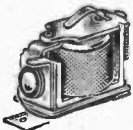


### SCRATCH REMOVER

New plastic fountain-pen shaped scratch remover instantly removes scratches on radios or furniture, etc. Just brush over lightly. Reverse end of pen contains special filler for staining. Unbreakable. Shipping weight, 6 oz.

43-131. NET. **29c**

### DC OVERLOAD RELAY



For use in series with 6V. DC circuits. Contacts rated at 5 amps; close at 5 amps through coil. Single pole, single throw type with contacts normally open. Shpg. wt., 1 lb.

75-750. NET. **39c**



### CORD SET VALUE

Cord set for lamps, fans and other electrical appliances. 6 foot cord and plug. Shpg. wt., 1 lb.

49-230. NET. **16c**

## 96" SIDE COWL AUTO AERIAL

High quality rustproof side cowl auto antenna. 3 section telescopic, extends from 31 1/2" to 96". Triple chromium plated admiralty brass construction. Has sturdy bakelite insulators. Brass inserts with attachment assure maximum life and accurate fitting. Rattling and vibration are prevented by brass shim contacts on all telescopic joints. Tapered ends of brass tubing prevent dust and moisture from entering tubes. Supplied with static discharge ball, and 33" spring tensioned low-loss cable, shielded to prevent noise pick-up. Used as standard equipment by car manufacturers. Requires two holes for mounting. Shpg. wt., 2 1/2 lbs.

97-115. NET. **\$2.85**



## AUTO RADIO ELBOW SUPPRESSOR

Carbon type noise suppressor. Eliminates interference caused by ignition system of any automobile engine. Resistance, 10,000 ohms.

56-660. NET. **7c**



## THE AMATEUR CALL BOOK NEW POST-WAR ISSUE

The only publication listing all licensed Radio Amateurs throughout the entire world. Official callbook for radio organizations everywhere. Lists station calls, names and addresses of Amateurs in U.S.A. and foreign countries. Includes other information, such as International Abbreviations, K-ST signal report tables, International Prefixes; map of United States divided into Call Areas; Time Chart, etc. 8 1/2" x 11 1/2". Shpg. wt., 3 lbs.

37-670. NET. **\$1.50**



## VALUES IN RECORDING SUPPLIES

### 6" BLUE LABEL METAL DISCS

Blue label discs. Provide brilliant and consistent reproduction over wide frequency range. Professional nitrate coating on carefully processed smooth steel base. Shpg. wt., 1/2 lb.

69-135. NET. **10c**

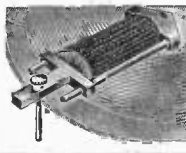
10 FOR 80c 100 FOR. **\$7.20**



### RECORD THREAD REMOVER

Rotary brush sweeps up thread cut by recording stylus. Has flange with hole to fit center spindle of turntable. For all 10" turntables. Shipping weight, 2 lbs.

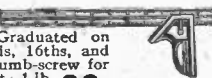
69-920. NET. **98c**



### COMBINATION STEEL RULE

46-154. 12" etched-steel combination square. Graduated on both sides in 32nds, 16ths, and 8ths. Head has thumb-screw for positive locking. Wt., 1 lb.

NET. **83c**



## SPECIAL VALUES IN MICA CONDENSERS



High-quality mica condensers. Fig. A has solder lugs and is insulated for chassis or panel mounting. Tolerance  $\pm 10\%$ . 3 oz. Fig. B. has threaded holes for 6-32 screws.

### 5000 VOLTS DC TEST Working Voltage 2500 volts

No.	Fig.	Mfd.	EACH	10 FOR
58-045	A	.0001	\$0.44	\$4.00
58-046	A	.0002	.52	4.70
15-559	B	.003	1.19	10.70
15-660	B	.004	1.19	10.70
15-661	B	.005	1.49	13.40

## OHMITE 25-WATT

### REOSTATS

Sturdy, compact vitreous enamel types. Wire wound over porcelain core. Copper graphite contacts. Underwriters' Lab. Listed.



58-200. 2 ohms. Max. current rating, 3,540 ma. Locking type screw-slot shaft. 3/8" bushing. Size, 1 1/8" x 1 1/8" dia. **95c**  
Wt., 1 lb. NET.

58-205. 40 ohms. Max. current rating, 1,580 ma. Dia., 1 1/8". Depth behind panel, 1 1/4". Shaft, 1 1/4" long; 1/4" dia. **\$1.25**  
Wt., 1 lb. NET.



## JONES 13-140 TERMINALS

Molded bakelite strip with 13 terminals. 3/8" wide x 1 3/4" high. Terminals are mounted on 3/8" centers. Wt., 10 oz.

58-210. NET. **38c**

## GENERAL PURPOSE CLIPS

General purpose clips. Non-corrosive. Strong spring gives sure grip. Shpg. wt., 5 oz.



58-065. 1 1/2" long. Jaw, 3/8". **3c**

10 for **27c. EACH**

58-066. 2" long. Jaw, 1/2". **3c**

10 For **27c. EACH**

58-067. 2 1/2" long. Jaw, 1". **5c**

10 For **45c. EACH**

58-068. 3 3/8" long. Jaw, 1 1/4". **6c**

10 For **54c. EACH**

## AMPHENOL "TWIN LINE"



Low loss solid dielectric parallel line for F.M. and television requirements. Excellent matched impedance feeder for "Ham" antennas. Stranded-copper pair embedded in flexible Amphenol polyethylene dielectric. Unaffected by weather, alkalis or alcohol. Shpg. wt., 10 ft., 1/2 lb.

49-440. Type 21-056. 300 ohms per foot. **\$2.85**

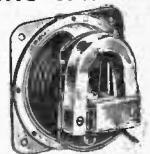
Per ft. 3c 100 ft. for.

49-445. Type 21-080. 75 ohms per foot. **\$1.95**

Per ft. 2c 100 ft. for.

## 3-INCH MAGNETIC SPEAKER

For use in pocket-sized midget sets, intercom systems, and compact SW receivers. Rigid pressed-steel frame, full-sized magnet and coil. 2 1/2" mtg. centers. Small in size but extremely efficient. Shipping weight, 1 lb.



81-614. NET. **\$1.15**



# DEALERS FEATURE VALUES



## JENSEN PHONO NEEDLES

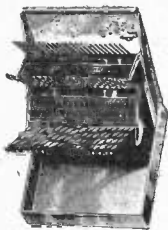
Handy sales kit which attractively displays and describes 6 high grade phonograph needles. Contains 3 Jensen \$1.00 Concert needles for up to 5,000 plays each; and 3 Jensen \$2.50 Royal Jewel needles, each of which plays over 10,000 times. Wt., 6 oz. 65-865. List, \$10.50. NET... \$5.25



## SPECO PLASTIC SHOCK-PROOF RADIO PLIERS

Non-magnetic and shock-proof pliers for working on radios, electrical appliances etc. 6,000 V. breakdown. Tensile strength, 5,000 lbs. per sq. inch. Heat resistant, 240° F. Pick up nuts, bolts, etc., without danger of short circuit. Wt., 6 oz. 40-035. List, \$1.50. NET... \$8c

Display card of 12. NET... \$9.50



## GENERAL HARDWARE DRILL CASE

Self-positioning metal drill case. Holds and identifies complete set of numbered drills, sizes 1 to 60. Drills are raised for easy selection as cover is lifted. Saves time, and protects drills from damage. Less drills. Size, 4 1/4 x 5 x 1". Shpg. wt., 2 lbs. 46-140. NET... \$2.45



## G.C. CABINET REPAIR KIT

Contains 9 shades of shellac sticks, bottles of light and dark oil stain, metal shading lacquer, polish, Magic Scratch Remover, alcohol lamp, spatula, brushes, steel wool, sandpaper, and wiping cloth. Useful on innumerable servicing jobs. Wt., 4 lbs. 43-115. List, \$3.50. NET... \$2.06

## RECHARGEABLE BATTERY AND FLASHLIGHT KITS



Kit consists of rechargeable flashlight battery, plastic flashlight case, and charger. Batteries will outlast 400 ordinary dry cells. Can easily be kept fully charged to provide continuous peak lighting service. Open circuit voltage, 2.2; rating, 2 ampere hours. Battery plates are of pasted lead oxide. Battery is spillproof and unaffected by water or salt air. Chargers are sturdy, dependable units consisting primarily of transformer and rectifier plates. Charging rate is controlled so that overcharging does not damage battery. Flashlight case is standard size two-cell prefocused type. Made of tough plastic with unbreakable lens to withstand roughest handling. Completely waterproof.

### HOME KIT

Home kit includes plastic flashlight case with bulb, rechargeable flashlight storage cell, water dropper, battery wrench, and charger for 115 V. 50-60 cyc. AC. Indicator shows when battery is charging. Provides most efficient flashlight service. 3 lbs. 53-405. List, \$7.95. NET... \$5.17

### AUTO KIT

Auto kit, same as above, but charger operates from 6 volt storage battery. Draws negligible amount of current. Does not interfere in any way with operation of car or boat. Indicator light shows when battery is charging. Complete with rechargeable storage cell, auto charger, flashlight case, and water bottle. Nothing else to buy! Shpg. wt. 3 lbs. 53-406. List, \$6.95. NET... \$4.52

For individual components, see page 21.



## BRUNO HOLE CUTTER KIT

Kit No. 790 consists of two Bruno expansion cutters, one No. 100 for holes 3/8" to 1 1/2" and one No. 101 for holes 1" to 2 1/2". Complete size range for cutting clean circular holes in sheet metal, wood, plastic, etc. Operate efficiently in a bench drill, drill press, or portable drill. Expertly made from high grade heat-treated steel. Ideal for use in home workshop or factory. For plumbers, electricians, carpenters, radio repairmen etc. A "must" in every tool chest. (See page 37 for listing of individual cutters.) Shipped in attractive display carton. 3 lbs. 45-625. NET... \$7.85

Write for Standard Package Discount.



## LITTELFUSE NITE-T-LITE

Tiny neon tube cast in transparent plastic plug. Costs only fraction of a cent per month for constant operation. Lasts a year burning 24 hours a day. Gives a soft glow, easy on the eyes. Operates on 115 V. 50-60 cyc. Wt., 4 oz. 52-640. EACH... 29c

Display carton of 24. NET... \$4.64

## LITTELFUSE TATTELITES

Pocket type neon tester with carrying clip. Has built-in 200,000 ohm resistor. Uses 122-1 lamp. Tests for live lines, polarity, and whether AC, DC, or RF. Quickly locates blown fuses, defective spark plugs, grounded lines, open circuits, shorts, etc. Shows approximate voltage (110, 220, 440, etc.). Shpg. wt., 1/2 lb. 78-055. List, 29c. \$1.00. NET... \$2.60

10 FOR... \$2.60  
100 FOR... \$23.50

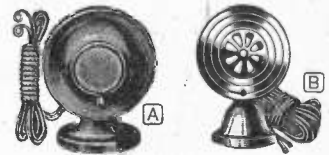


## "LUMINITE" LIGHTED SWITCH PLATE

Plastic toggle-switch plate with shielded neon light. Lights automatically when room lights are turned off. Permits instant location of switch. Goes off when room lights are turned on. Soft glow does not disturb sleep. Operates for less than two cents per year. Wt., 1/2 lb.



52-645. Ivory  
52-646. Brown. EACH... 98c  
10 FOR... \$5.88



## TOY MICROPHONES

Philmore (Fig. A.) Compact, well-built microphone for home use. Metal case mounted on pedestal with felt base. 3 3/4" high. Push-button switch. Attachable to any radio set. Adapter fits bases of all tubes except loktal types. Wt., 3 lbs. 59-325. List, \$1.00. NET... 59c

Sonata "Mike Jr." (Fig. B.) Quality home-entertainment radio microphone. Attachable to any radio set without extra wiring. Metal case, 4 1/2" high, 3" dia. Complete with cord and push-button switch, ready to operate. Shpg. wt., 3 lbs. 59-335. List, \$1.00. NET... 59c

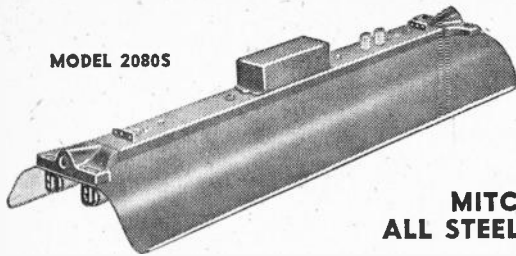


## 3-IN-1 RADIO TUNER

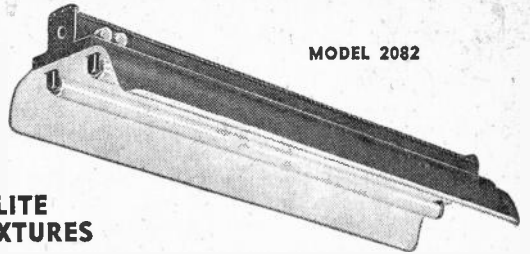
Combination 3-in-1 accessory for use as Antenna Tuner, Wave Trap, or Indoor Aerial. Improves reception when used with outdoor aerial. Easily installed. With instructions. Shpg. wt., 8 oz. 70-395. List, 75c. EACH... 44c  
10 FOR... \$3.75

# INDUSTRIAL FLUORESCENT FIXTURES

MODEL 2080S



MODEL 2082



## MITCHELITE ALL STEEL FIXTURES

### MODEL 2080-S SPECIAL

Steel reflector designed for general purpose industrial lighting service at extremely low cost. Uses two 40 watt T-12 fluorescent lamps. Has latest replaceable starters, sockets and Tulamp Ballast. "Wireway" channel completely enclosed. Ballast located "outside" operates at low ambient temperature. Knock-outs on ends for continuous row wiring. Mtg. brackets at either end for chain suspension. Power factor over 90%. Stroboscopic corrected. Operates from 110-125 V. 60 cyc. AC. Battleship-gray baked-enamel finish. Size, 7 1/4" x 48" x 1 3/4". Completely wired, ready to hang. Less cord, lamps, and chains. Shpg. wt., 30 lbs. **EACH..... \$10.26**  
**91-230. Lots of 3, EACH \$11.11**  
**91-235. 6 1/2 foot UL listed cord and plug set. NET..... 60c**

### MODEL 2082 HI-POWER

Entirely new, all-steel industrial lighting unit using 2-40 watt T-12 fluorescent lamps, with heavy steel "wireway" channel and reflector. Built for either individual or end-to-end continuous row mounting. Can be chain suspended, or attached directly to ceiling. Aircraft-engineered. Has latest approved Tulamp Ballast, sockets, and starters. Power factor over 90%. Stroboscopic corrected. Operates from 110-125 V. 60 cyc. AC. Reflector finished in attractive battleship gray enamel. Underwriters' Laboratory listed throughout. Size, 7" x 50" x 1 3/4". Completely wired, ready to hang. Less cord, lamps, and chains. Shpg. wt., 38 lbs. **EACH..... \$12.26**  
**91-231. Lots of 3, EACH \$11.32**  
**91-236. 8-foot Tenso Chains with S hooks. PER PAIR..... 45c**

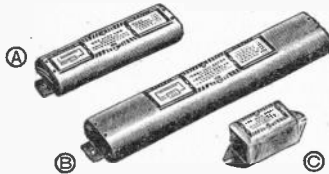
## COMPCO TESTER FOR FLUORESCENT LAMPS AND STARTERS



This unit tests all standard lamps: 14 watt—15" length; 15 watt—18" length; 20 watt—24" length; 30 watt—36" length; 40 watt—48" length. Tests starters, FS-2 for 14, 15, and 20 watt lamps; also FS-4 for 30 and 40 watt lamps. For 110-125 V. 60 cyc. AC. Metal case. Size, 5 1/2" x 11". Complete directions on panel. Shpg. wt., 5 lbs. **\$8.97**  
**84-915. NET.....**

## G. T. C. FLUORESCENT BALLASTS

Compact fluorescent lamp ballasts. Easily mounted in conventional channels and fixtures. 2-lamp ballasts are popular "Long-Fellow" types. Normal power factor types are 50-60% corrected. The high power factor type is 90-100% corrected and meets power company requirements. Scientifically designed for long life, easy starting, and efficient operation. Properly treated to minimize hum vibration. Underwriters' Labs. listed. For use with replaceable starters on 105-125 V. 60 cycles AC.



### 1-LAMP BALLAST—NORMAL POWER FACTOR

Stock No.	Mfrs. Type	Lamp Watts	Size	Mtg. Ctrs.	Fig.	Shpg. Wt.	NET EACH	
							1-9	10-up
78-811	15B	1-15	1 1/4 x 1 3/4 x 4 1/4"	3 3/4 to 4 1/2"	C	1	\$0.59	\$0.50
78-812	20B	1-20	1 1/4 x 1 3/4 x 4 1/4"	3 3/4 to 4 1/2"	C	2	.59	.50
78-813	30B	1-30	1 3/4 x 2 1/4 x 8 3/4"	8 1/4"	A	3	2.14	1.84
78-814	40B	1-40	1 3/4 x 2 1/4 x 8 3/4"	8 1/4"	A	3	2.14	1.84

### 2-LAMP BALLAST—NORMAL POWER FACTOR

Same as 1-lamp ballasts immediately above, except designed for operation in 2-lamp circuits.

78-816	220B	2-20	1 3/4 x 1 3/4 x 6 3/4"	5 1/4 x 6 1/2"	A	3	\$1.08	\$0.93
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### 2-LAMP BALLAST—HIGH POWER FACTOR

Fits standard channel. High power-factor. Reduced stroboscopic effect. Requires no compensator.

78-800	40BL2	2-40	1 3/4 x 2 1/4 x 14 3/4"	14 1/4"	B	5	\$4.48	\$3.85
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## G. E. TYPE "F" LAMPS



Genuine General Electric fluorescent lamps for all fluorescent fixtures. Furnish non-glaring light from entire surface with even diffusion and high illumination. Use 7 lot price for lamps when purchased with any fluorescent fixture which is listed on this page.

Stock No.	Type	Watts	Size	Color	Shpg. Wt. lbs.	NET EACH	Lots of 7, Each	Lots of 24, Each
91-520	T5	6	9"	Daylight	1 1/2	\$0.75	\$0.61	\$0.58
91-521	T5	6	9"	White	1 1/2	.75	.61	.58
91-525	T5	8	12"	Daylight	1 1/2	.86	.70	.67
91-526	T5	8	12"	White	1 1/2	.86	.70	.67
91-522	T12	14	15"	Daylight	2	.75	.61	.58
91-523	T12	14	15"	White	2	.75	.61	.58
91-500	T8	15	18"	Daylight	2	.61	.50	.47
91-501	T8	15	18"	White	2	.61	.50	.47
91-502	T12	20	24"	Daylight	2	.75	.61	.58
91-503	T12	20	24"	White	2	.75	.61	.58
91-504	T8	30	36"	Daylight	3	.75	.61	.58
91-505	T8	30	36"	White	3	.75	.61	.58
91-506	T12	40	48"	Daylight	4	1.02	.83	.78
91-507	T12	40	48"	White	4	1.02	.83	.78
91-508	*T17	100	60"	White	3	2.31	1.88	1.77
91-509	*T17	100	60"	Daylight	3	2.31	1.88	1.77

\*Mogul 2 pin base; all others have standard 2 pin bases. Prices include Excise Tax.



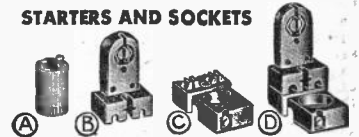
LITEMASTER  
"FLEXO"  
INDUSTRIAL  
FLUORESCENT  
LAMP

MODEL  
4303

Industrial type fluorescent lamp ideal for drafting board or laboratory table. Puts light just where you want it. Head tilts up and down 180° and turns 330° on its axis. Upper elbow swings in 160° vertical arc; lower elbow swings in 110° vertical arc. Double arm extends 36° straight up or in any direction. Friction joints permit easy manipulation of lamp, and hold it in any desired position. Screw clamps fasten firmly to edge of table. Finished in stately bronze. Uses two T8 15-watt lamps. 50% power factor corrected. For 115 V. 60 cyc. AC. Less lamps. Shpg. wt., 15 lbs. **\$16.41**  
**91-225. NET EACH.....**

Write for Quantity Prices

## STARTERS AND SOCKETS



High quality units. Average shpg. wt., 8 oz.

### STARTERS—FIG. A

No.	Type	Watts	Each	10 For
78-850	FS2	{14,15,20}	23c	\$1.95
78-851	FS4	{30 or 40}	56c	5.20
78-852	FS6	100		

### LAMPHOLDER SOCKETS—FIG. B

No.	Watts	Color	Each	10 For
78-860	{14,15,20}	Black	16c	\$1.44
78-861	{30 or 40}	White	18c	1.62
78-862	100	White	34c	3.06

### STARTER SOCKETS—FIG. C

For use with 78-860 and 78-861 holders above. **78-853. 10 For \$1.17 NET EACH.. 13c**

### STARTER SOCKET & LAMPHOLDER—FIG. D

78-865	{14,15,20}	Black	28c	\$2.52
78-866	{30 or 40}	White	30c	2.70



# HOW TO ORDER FROM ALLIED



All Local and Long Distance Phones  
**HAYmarket 6800**

## NOTICE TO CUSTOMERS

No price for any article offered in this book exceeds the Ceiling Price determined as directed by the Office of Price Administration, with the possible exception of a few items where final Ceiling Prices were not known at press time. Refunds will be made if OPA-approved final prices are lower. As required by OPA, we will furnish exact Ceiling Prices on any of the items listed in this catalog upon request.

ALLIED RADIO CORP.

## USE OUR ORDER BLANK

To speed handling of your orders, please use our order blanks unless you have your own purchase forms. Extra order blanks are included with each shipment and will also be sent to you promptly on request.

## HOW TO SEND MONEY

It is safest to remit by the new low cost "Postal Notes", postoffice or express money order, bank draft or check. Avoid sending coin or currency, but if necessary, be sure to register your letter. Because we use postage meter machines for our mailings, please do not remit in stamps except if necessary on very small orders.

## PARCEL POST SHIPMENTS

Compute postage from table at the right. Catalog listings give weights. Save C.O.D. fees by remitting enough for postage and insurance. We ship C.O.D. to cover any shortage and refund any surplus. To protect you, we insure all parcel post shipments.

### ALLOW FOR INSURANCE

Up to \$5.00.....	3c
\$5.00 to \$25.00.....	10c
\$25.00 to \$50.00.....	15c
\$50.00 to \$100.00.....	25c

## EXPRESS SHIPMENTS

Console Sets, Generators, Storage Batteries and similar bulky equipment must be shipped by express or freight. To assure safe arrival we prefer to ship all radios, sound systems, transmitting tubes, test units, and other fragile items by express. If there is no express agent at your location, be sure to specify your nearest express office. Do not include express charges with your order. Shipment will be made collect at no extra charge. Agent collects exact amount. All express shipments are insured.

## FREIGHT SHIPMENTS

If speed is not essential, freight service is cheapest on heavy shipments. Do not send shipping charges unless there is no agent at your station. Specify nearest freight station if there is no freight agent at your location.

## TRANSPORTATION ALLOWANCE

ALLIED offers a 2% transportation allowance on any cash or C. O. D. order for \$50.00 or more. This applies on shipments made anywhere in the United States on all merchandise except *Knigh* radios, amplifiers and sound systems, National Company merchandise, and items marked "Post-paid." Take advantage of this saving.

## ABOUT PRICES AND SUPPLY

**PRICES.** Prices in this book supersede prices in any previous *ALLIED* catalog. All items have been priced at OPA ceilings or lower. (See "NOTICE TO CUSTOMERS" box at left.) Due to prevailing uncertainties, *all prices are necessarily subject to change without notice.* All items will be billed at prices in effect at *time of shipment.* As always, we will give you the benefit of any price reductions. *You save at ALLIED.*

**SUPPLY.** Our stocks are exceptionally complete. We have placed record orders with our suppliers, and because of our long-established relationship with the country's leading manufacturers, we are scheduled to receive high quotas of total factory production. Every effort will be made to fill all orders completely. Wherever possible we shall ship alternate units at current prices if original selections are out of stock. Continued maintenance of our stocks, of course, will be governed by current conditions. In view of prevailing abnormal demand and uncertainties affecting production and delivery schedules, *all merchandise in this catalog is offered subject to prior sale.* In fairness to all our customers, also, we may find it necessary to limit the quantity of an item supplied on any one order. You can continue to depend on *ALLIED* as a reliable source of supply for all your requirements in Radio and Electronics.

## OUR TERMS

Our general terms of sale are cash with order. Catalog prices are net, F.O.B. Chicago (except where noted). **All trade discounts and a 2% cash discount have already been deducted from every price in this book.** Our NET catalog prices are the prices you pay. Send advance remittance on items not in our catalog. See column at right for C.O.D. policy.

## POLICY ON C.O.D. ORDERS

(1) Include full remittance with mail orders of less than \$3.00. (2) Include a minimum deposit of 25% with C.O.D. mail orders of \$3.00 or more. We reserve the right to deduct transportation both ways if delivery is not accepted through no fault of ours. Whether your order is large or small it will receive the same careful handling at *ALLIED.*

## HOW TO ESTIMATE PARCEL POST CHARGES

Packages Under 8 Ounces, Allow 1½¢ Each 2 Ounces

Weight limit, 70 lbs. Size limit, 100" (length and girth combined).

WEIGHT IN POUNDS	1st & 2nd Zone, up to 150 mi.	3rd Zone 150 to 300 mi.	4th Zone 300 to 600 mi.	5th Zone 600 to 1000 mi.	6th Zone 1000 to 1400 mi.	7th Zone 1400 to 1800 mi.	8th Zone Over 1800 mi.
1	9c	10c	11c	\$0.12	\$0.13	\$0.15	\$0.16
2	11c	12c	15c	.12	.20	.24	.27
3	12c	14c	18c	.23	.27	.33	.38
4	13c	16c	22c	.28	.34	.41	.49
5	14c	18c	25c	.34	.41	.52	.61
6	15c	20c	29c	.39	.48	.60	.72
7	16c	22c	32c	.44	.56	.70	.85
8	17c	24c	36c	.50	.63	.79	.95
9	18c	26c	39c	.56	.70	.89	1.06
10	19c	28c	43c	.61	.77	.98	1.17
11	20c	30c	46c	.66	.84	1.07	1.29
12	22c	32c	50c	.72	.92	1.16	1.40
13	23c	34c	54c	.77	.99	1.26	1.51
14	24c	36c	58c	.82	1.06	1.35	1.63
15	25c	38c	61c	.89	1.13	1.44	1.74
16	26c	40c	65c	.94	1.21	1.53	1.85
17	27c	42c	68c	.99	1.28	1.63	1.97
18	28c	44c	72c	1.05	1.35	1.73	2.09
19	29c	46c	75c	1.10	1.42	1.83	2.21
20	30c	48c	79c	1.15	1.49	1.91	2.31
For Each Extra lb.	Add 1c	Add 2c	Add 3½c	Add 5c	Add 7c	Add 9c	Add 11c

## HOW TO ESTIMATE EXPRESS RATES

(Note: Add 10c emergency charge to rates below for each shipment.)

Weight Pounds	Maximum Distance in Miles						Over 2000
	100	200	300	500	750	1000	
5	\$ .25	\$ .25	\$ .30	\$ .35	\$ .35	\$ .45	\$ .65
10	.34	.34	.47	.50	.50	.68	1.10
15	.42	.51	.47	.61	.70	.88	1.59
20	.42	.51	.59	.78	.90	1.14	2.09
25	.50	.61	.71	.94	1.09	1.40	2.59
35	.66	.82	.95	1.28	1.49	1.91	3.58
45	.82	1.02	1.19	1.62	1.89	2.43	4.57
55	.98	1.23	1.44	1.95	2.28	2.95	5.57
65	1.14	1.43	1.68	2.32	2.70	3.48	6.57
75	1.30	1.63	1.92	2.62	3.07	3.98	7.57
90	1.54	1.94	2.28	3.13	3.67	4.76	9.04
For Each 100 Lbs.	1.60	2.04	2.42	3.36	3.96	5.17	9.93

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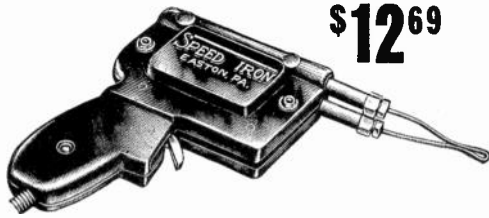
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**Wire Recorder** .80  
**Wrenches** .57-59, 98

# Last Minute Releases



**\$12<sup>69</sup>**

## Weller "Speed" Soldering Gun

This completely new soldering iron heats in five seconds. Just squeeze the pistol trigger and instant heat shoots right to the tip—where it's needed. Release trigger—current stops. Tip can be bent to get around corners and into spots inaccessible to ordinary irons. Iron is light weight, perfectly balanced. Tips are easily replaceable. Built-in, air-cooled transformer uses 100 watts on 115 V. 60 cycle AC. A fine tool for servicemen, production line superintendents, experimenters, electricians and mechanics. Shpg. wt., 3 lbs.

**46-570. NET** ..... **\$12.69**

**46-571. Replacement Tip. NET** ..... **.05**



Feiler  
Signal  
Tracing  
Analyzer  
Model TS-2

**\$29<sup>95</sup>**

Locates trouble in a flash! Just touch probe to any portion of circuit—hear signal in 5" speaker. Has provisions for use with output meter, vacuum tube voltmeter, or headphones. Service guide (included free) gives step-by-step procedure. Uses two 45 volt and one 4.5 volt batteries. Steel case, 8" x 11½" x 6". With tubes, probe, and guide. Less batteries. Shpg. wt., 6 lbs.

**84-976. Less Batteries. NET** ..... **\$29.95**

**80-546. 45 Volt Battery (2 required). EACH** ... **1.05**

**53-013. 4½ Volt Battery. NET** ..... **.32**

## NEW! Howard W. Sams Radio "PHOTOFACT" Service

Here's What It Gives You:

1—Analytical data obtained from actual work on each receiver; 2—Photos of each chassis from numerous angles to assure easy identification of parts; 3—Voltage and resistance measurements at each tube prong; 4—Physical and electrical specifications, plus available replacement numbers, of all components; 5—Data on alignment procedure, stage gain, and other specific information; *AND*—Membership in the Howard W. Sams Radio Institute, described at right.

Every PhotoFact group consists of at least 30 PhotoFact Folders covering new receivers, and some will include up to 50, wholly depending on the complicated nature of the receivers examined. Complete service data on any new set will cost you no more than five cents, and often as little as three cents. You can take the required folder with you on service calls and have the information you want, right at hand—no more searching for elusive data.

**38-501. PhotoFact Folder Group 1. Postpaid in U. S. A.** ..... **\$1.50**

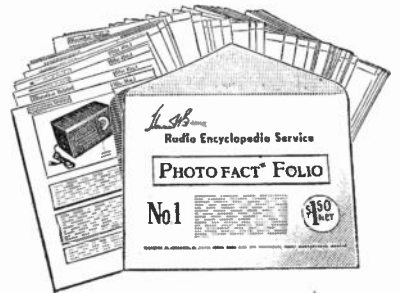
**38-502. PhotoFact Folder Group 2. Postpaid in U. S. A.** ..... **\$1.50**

**38-503. PhotoFact Folder Group 3. Postpaid in U. S. A.** ..... **\$1.50**

**38-549. Deluxe Binder for PhotoFact Folders. Rugged, attractive with imitation leather, hard covers. Holds 500 folders. Postpaid in U. S. A.** ..... **\$3.39**

**38-500. Descriptive literature and sample folder** ..... **FREE**

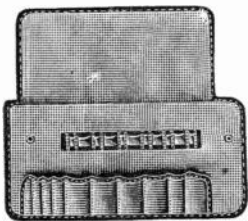
Future PhotoFact Folders will be announced as rapidly as they are produced. The publication of 20 Groups a year is planned. Each will contain 30 to 50 PhotoFact Folders, and all Groups will cost the same small amount—**\$1.50**.



**\$1.50**

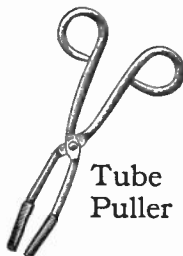
## Howard W. Sams Institute

The purchase of Group No. 1 will automatically give you membership in the Howard W. Sams Institute. Thirty specialists are at your service to: **A**—Help you tackle any service problem; **B**—Help you work out shop practices; **C**—Help you decide on equipment you need; **D**—Show you how to get more customers; **E**—Do anything within reason to help you.



## Tool Roll

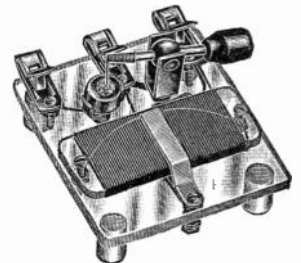
Tough, water repellent canvas tool roll. Ten individual pouches for screwdrivers, punches, test prods, etc. Sturdy inner flap. Metal tipped tie straps. Measures 22" x 19" overall. Shpg. wt., 2 lbs.  
**46-190. NET** ..... **59c**



## Tube Puller

Why burn your fingers taking out hot tubes? This puller reaches into out-of-the-way places for glass or metal tubes. Rubber covered tips protect glass tubes from injury. Shpg. wt., 12 oz.  
**46-093. NET** ..... **20c**

## Kitcraft Crystal Set Kit



Easily assembled into a beautiful little set, only 3" wide x 3" deep and 2" high, on a transparent, plastic base. All parts are included—all holes already drilled. The only tools required are pliers and screwdriver.

Supplied with easy-to-understand 26-page instruction booklet. Ready to operate as soon as assembled. Requires phones and antenna kit listed below. Shpg. wt., 2 lbs.

**83-092. NET EACH** ..... **\$2.95**

**Lots of 12, EACH** ..... **\$1.92**

**59-070. Acme Deluxe Phones. NET** ..... **1.62**

**83-105. Antenna Kit. NET** ..... **.59**

# Latest Amateur Releases



## James Knights Frequency Standard

FOR: Amateurs, Servicemen,  
Laboratories, Experimenters,  
Airlines Radio Maintenance,  
Research Workers . . .

Consists of a high stability dual-crystal oscillator, and electronic 100 KC multi-vibrator. Separate 100 KC and 1,000 KC crystals, hermetically sealed in metal holders, can be adjusted to zero-beat with WWV or other primary standards. Range, 100 KC to 40 MC in 10 KC and 100 KC steps, and 1 MC to 500 MC in 1,000 KC steps. Selection of 100 KC or 1,000 KC crystals, or 10 KC multivibrator, is instantly made by 3-position panel control. Adjustable output circuit has a minimum of 15 microvolts output on any frequency. Uses 1-6V6, 1-6N7, and 1-6L7 tubes. For 115 volts, 60 cycles AC. Steel-gray case, 8" x 12" x 8". Complete with tubes and crystals. Shpg. wt.. 12 lbs.

85-020. NET.....\$79.50



H-73



H-43



H-23

## James Knights Amateur Crystals

You'll want to use "stabilized" crystals! Carefully made, perfectly mounted—these crystals will stay "right on" at any normal temperature, and are not affected

**Type H-73.** Vertical type, miniature phenolic holder. Moisture sealed. Pin spacing, 1/2". Max. drift, 2C/MC/C°.

Stock No.	Frequency	EACH
99-266	3.5 to 4.0 MC	\$2.80
99-267	7.0 to 7.5 MC	
99-268	14.0 to 14.8 MC	
99-269	28.0 to 30.0 MC.....	\$4.75

**Type H-43.** Vertical mounting holder. Moisture sealed. 3/4" pin spacing. Maximum drift, 2C/MC/C°.

Stock No.	Frequency	EACH
99-270	3.5 to 4.0 MC	\$2.80
99-271	7.0 to 7.5 MC	
99-272	14.0 to 14.8 MC	
99-273	28.0 to 30.0 MC.....	\$4.75

by dust, moisture, or vibration. All are BT cut, polished, and etched by exclusive JK methods. Supplied within ±5 kc of frequency you specify. Av. wt., 8 oz.

**Type H-23.** Round Plug-in phenolic holder. Moisture sealed. Standard 3/4" pin spacing. Max. drift, 2C/MC/C°.

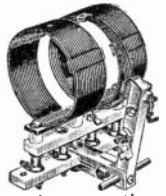
Stock No.	Frequency	EACH
99-274	3.5 to 4.0 MC	\$2.80
99-275	7.0 to 7.5 MC	
99-278	14.0 to 14.8 MC	
99-279	28.0 to 30.0 MC.....	\$4.75

### STANDARD FREQUENCY BARS

For use in crystal calibrators. Gas filled metal tube type holders fit std. octal sockets. Maximum drift, 2 parts per million per degree Centigrade.

\*Type H33. †Type T93A.  
99-276 \* 100 KC } \$7.50  
99-277 †1,000 KC }

## Barker-Williamson Air Inductors



Build your new rig with famous B & W air-inductors—accurately designed and spaced to serve the majority of amateur power applications. Wound with enameled wire. Equipped for plug-in with banana plugs of ample current carrying capacity for each power rating. Mounted on Isolantite bars. \*Capacity to resonate at low frequency end of band. Av. wt., 2 lbs.

### "BCL" 100 WATT—FIXED LINK

Stock No.	Type	*Cap. Mmf.	Wire Size	Dia.	NET
75-366	80BCL	52	16	2 1/2"	\$3.16
75-367	40BCL	43	14	2"	2.83
75-368	20BCL	40	14	2"	2.48
75-369	10BCL	28	12	2"	2.41

75-361. Jack Bar less jacks for "BCL" series coils. NET.....\$5c

### "TCL" 500 WATT—FIXED LINK

Stock No.	Type	*Cap. Mmf.	Wire Size	Dia.	NET
75-376	80TCL	60	12	3 3/4"	\$3.65
75-377	40TCL	38	12	2 1/2"	3.30
75-378	20TCL	20	12	2 1/2"	2.96
75-379	10TCL	25	12	2"	2.89

75-362. Jack Bar less jacks for "TCL" series coils. NET.....\$1.25

### "BVL" 100 WATT—SWINGING LINK

Stock No.	Type	*Cap. Mmf.	Wire Size	Dia.	NET
75-386	80BVL	70	16	2 1/2"	\$2.61
75-387	40BVL	40	14	2 1/2"	2.28
75-388	20BVL	40	14	2 1/2"	2.00
75-389	10BVL	35	8	2 1/2"	1.93
75-390	5BVL	25	8	2 1/2"	1.90

75-395. BVL Coil mounting assembly with swinging link. NET.....\$3.44

### "TVL" 250 WATT—SWINGING LINK

Stock No.	Type	*Cap. Mmf.	Wire Size	Dia.	NET
75-401	80TVL	55	14	2 1/2"	\$2.96
75-402	40TVL	34	12	2 1/2"	2.61
75-403	20TVL	28	12	2 1/2"	2.28
75-404	10TVL	22	6	2 1/4"	2.20

75-396. TVL Coil mounting assembly with swinging link. NET.....\$5.50

### "TVH" 500 WATT—SWINGING LINK

Stock No.	Type	*Cap. Mmf.	Wire Size	Dia.	NET
75-421	80TVH	50	14	2 1/2"	\$3.93 EACH
75-422	40TVH	32	12	2 1/2"	
75-423	20TVH	22	12	2 1/2"	
75-424	10TVH	22	6	2 1/2"	\$5.16
75-430	TVH Coil mounting assembly with swinging link. NET.....				

### "HDVL" 1 KW—SWINGING LINK

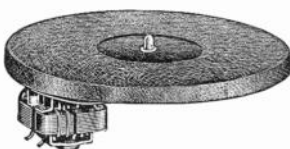
Stock No.	Type	*Cap. Mmf.	Wire Size	Dia.	NET
75-435	80HDVL	44	10	3 1/4"	\$6.19
75-436	40HDVL	28	8	3 1/4"	5.50
75-437	20HDVL	25	8	3 1/4"	5.16
75-438	10HDVL	25	4	2 1/2"	4.48

75-440. HDV coil mounting assembly with swinging link. NET.....\$6.88  
75-442. 40HDA 1KW antenna matching coil. NET.....\$6.88

### 75-WATT "JUNIORS"

Band	End Link	Center Link	Adj. Link	NET EACH
80	75-321	75-331	75-341	\$1.38
40	75-322	75-332	75-342	
20	75-323	75-333	75-343	
10	75-324	75-334	75-344	

## DEPENDABLE RECORD PLAYING EQUIPMENT



### Ballentine Phono Motor

\$429

Famous, quiet 78 RPM Ballentine motor manufactured by Russell Elec. Co. Self-starting, rim-drive type. Air-cooled. Bearings permanently lubricated. 9" turntable. Mounting depth below base plate, 2 1/4". For 110 volts, 60 cycles AC. Replaces Alliance or G.I. motors without motor-board change. Shpg. wt., 5 1/2 lbs.

85-425. List, \$7.30. NET.....\$4.29

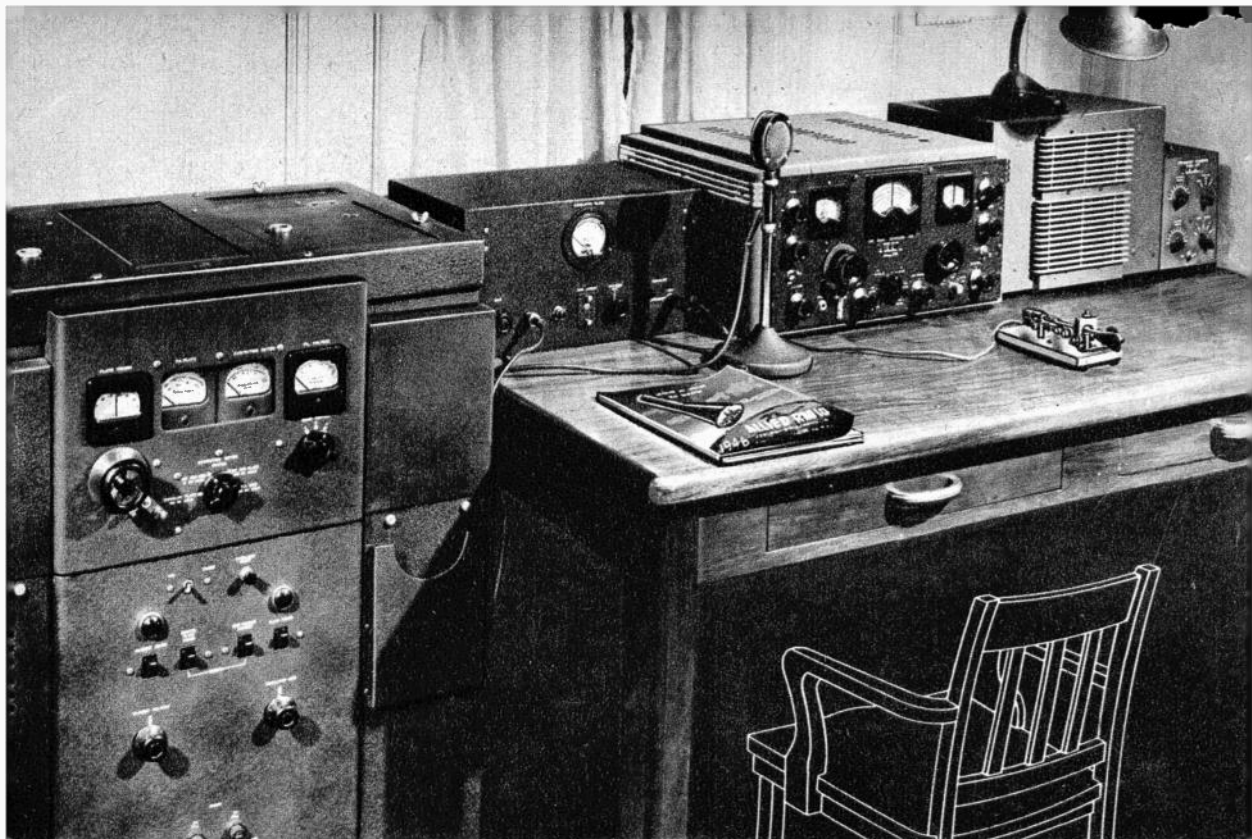
### Astatic Replacement Cartridges

These top quality crystal cartridges will provide maximum service in your phono pickup. See page 84 for additional listings. Shpg. wt., 8 oz.

Stock No.	Model	Description	Net
65-162	MLP1	Cartridge with stylus	\$5.23
65-168	MLP3	Cartridge with stylus	8.17

For coin machines—withstand high temperatures.

65-163	L70	1 1/4 oz. pressure. 1.1 V.	3.26
65-164	L71	1 oz. pressure. 1 V.	3.91
65-165	L72	1 1/4 oz. pressure. 3.5 V.	3.91
65-166	L75	1 1/4 oz. pressure. .85 V.	3.26
65-167	401A	RCA replacement	2.94



Courtesy of Hallicrafters Corp.

**PULL UP A CHAIR!** Here, OM, in the Ham Shack of Tomorrow, we invite you to gather and relax—to join us in a salute to the heroic performance of the American Radio Amateur in War and Industry—and to enjoy again the pleasures of friendly contacts “on the air,” in well-earned recognition of an extremely valuable contribution to the winning of Victory!

**HISTORY REPEATS ITSELF!** Again, as in 1919—the “lid is off”—and the Ham Bands are beginning to boil with activity. Amateur Radio is “back from the War”—and Allied joins the Amateurs in their enthusiasm to promote Ham Radio as the World’s greatest peacetime hobby. We’ve combed the markets for available supplies and equipment to meet your needs—and

will continue our policy of carrying complete stocks of the latest merchandise from reliable manufacturers. Whatever you want, we’ll have it for you as fast as it becomes available. Place your order with us even if the item is not listed in this catalog. Here’s a representative listing of manufacturers whose equipment is now, or soon will be, available at Allied.

**Abbott**  
**Aerovox**  
**AmpereX**  
**Amphenol**  
**Barker-Williamson**  
**Belden**  
**Bliley**  
**Bud**  
**Cardwell**  
**Cornell-Dublier**  
**Elmac**

**Guardian**  
**Hallicrafters**  
**Hammarlund**  
**Hytron**  
**E. F. Johnson**  
**Mallory**  
**McElroy**  
**Meissner**  
**Millen**  
**National**  
**Ohmite**

**Premax**  
**Raytheon**  
**RCA**  
**RME**  
**Sangamo**  
**Shure**  
**Sprague**  
**Stancor**  
**Taylor**  
**Thordarson**  
**Triplet**

Allied’s Amateur Division offers extra services, too, to help you in purchasing the equipment you want. Liberal trade-in allowances for communication receivers; just drop us a line stating make and model of the communication receiver you want to trade in—we’ll tell you the trade-in value and send shipping instructions by return mail.

Time payments, too! As in the past, we’ll help you get communication receivers, transmitters and accessories on easy monthly payments. Time payments are listed

on all Amateur receivers in this catalog; for other receivers, transmitters, or special equipment, write us for complete details.

And don’t forget, Allied’s Amateurs are here to help you—we’ll be glad to help you choose equipment to fit your purse or purpose, to answer your questions or help solve your problems, or to hunt for that elusive piece of special gear you need but can’t locate. Your letters will get individual attention, and when you’re in Chicago, drop in and visit us in our “Ham Shack.”



# hallicrafters

## "SUPER DEFIANT" MODEL SX-25

It's a "world-beater" for value! Designed and built with typical Hallicrafter precision, this "Super Defiant" will add the finishing touch in appearance to any Ham shack. Here, in addition to two tuned RF stages for greater selectivity and sensitivity, is full and complete coverage from 545 Kilocycles to 42 megacycles! Fully calibrated main tuning dial is divided into four tuning ranges, and frequency-meter type tuning is provided on the Amateur bands by means of the accurately calibrated separate bandspread dial. Among the other important features of this superior receiver are: Automatic Noise Limiter; Six-step variable selectivity with crystal, ranging from needle sharp for CW to broad high fidelity for phones; S-meter calibrated in "S" units and DB; Drift-compensated oscillator circuit; Send-receive switch with external break-in terminals; Variable pitch BFO; DC operation socket for batteries or vibra-pack; Translucent illuminated dials, etc. The "Super-Defiant" uses the following tubes: 1—6SK7 first stage preselection, 1—6SK7 second stage preselection, 1—6K8 converter, 1—6SK7 1st IF stage, 1—6SK7 second IF stage, 1—6SQ7 detector and AVC, 1—6SQ7 balanced phase inverter, 1—6H6 automatic noise limiter, 1—6J5GT BFO, 2—6F6G push-pull audio output, and

1—80 rectifier. Housed in a gray crackle finished steel cabinet, trimmed in black and chrome. Separate 10" PM speaker in a metal cabinet matches the receiver. Antenna input arranged for either single wire or doublet; output circuit is 5,000 ohms for matching speaker and 500 ohms for line connection if desired. Controls are: RF gain, Selectivity switch, Crystal phasing, Audio gain, Pitch control, Main tuning, Bandspread tuning, Automatic Noise Limiter, High-Low tone switch, Send-receive switch, and BFO. The SX-25 is supplied complete with tubes. Size only 19 1/2" long, 9 1/2" high, and 11 1/4" deep. For operation from 110 volt 50-60 cycle AC. Shpg. wt., 46 lbs.

**97-513. Less speaker. CASH PRICE..... \$94.50**

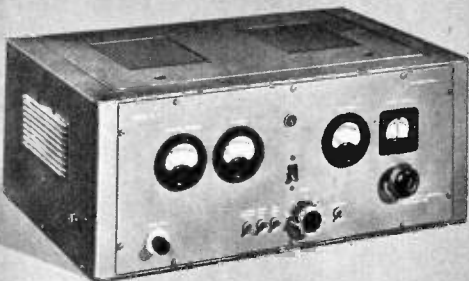
**Terms: \$18.90 down, one mo. at \$10.14; 7 mos. at \$10.00**

**97-572. PM-23. 10" PM speaker in matching metal cabinet. Also may be used with S36A and S37 Hallicrafter receivers. Wt., 15 lbs.**

**NET..... \$15.00**

**97-516. SX-25 with speaker. CASH PRICE..... \$109.50**

**Terms: \$21.90 down, one mo. at \$12.86; 8 mos. at \$10.00**



## HT-9 100-WATT TRANSMITTER

The ideal medium power Amateur transmitter. Rated at power output of 100 watts for CW and 75 watts at 100% modulation output on 'phone. Exciter section provides for pre-tuned coils and crystals for the five bands; exciter switches rapidly from one band to the next by front panel band-switch; only necessary to change final tank coil when changing bands. (Coils and crystals are not included. Write for complete information and prices.) Uses 6L6 crystal oscillator (ten meters only) 6L6 crystal oscillator or doubler, 814 final amplifier. Built-in speech-amplifier-modulator uses 1—6SJ7, 1—6J5, 4—6L6 push-pull-parallel modulators. Self-contained power supplies use 2—5Z3, 1—80, and 2—806 rectifiers. Three meters on front panel with switches provide metering of all necessary circuits. Antenna coils match any feed-line from 10 to 600 ohms. 29 1/2" wide, 12 1/2" high, 20 1/2" deep. For 110 volts, 60 cycles. AC. Shpg. wt., 125 lbs.

**97-575. With tubes, less coils and crystals. NET..... \$250.00**

**Available on time-payments.**



## VHF S-36A RECEIVER 27.0 MC to 143 MC FM-AM-CW

An outstanding receiver for very high frequency operation. Covers the wide range from 27.8 to 143 MC. Has new 3-watt audio system with flat response from 40 to 15,000 cycles. Advance features include: main tuning dial calibrated in MC.; mechanical bandspread dial; B.F.O.; A.V.C.; push-pull high-fidelity output stage; 4-position tone control with bass boost; dual-purpose "S" and tuning meter; FM-AM switch; 500 and 5,000 ohm output plus balanced 600 ohm line. Tubes: 1—956 (Acorn) RF Ampl., 1—954 (Acorn) Conv.-Mixer, 1—6AC7 1st IF Ampl., 1—6AB7 2nd IF Ampl., 1—6SK7 3rd IF Ampl., 1—6H6 AM Detector and Automatic Noise Limiter, 1—6AC7 FM Limiter, 1—6H6 FM Discriminator, 1—6SL7GT Audio Ampl., 1—VR-150 Voltage Reg., 2—6V6GT Power Audio Ampl., 1—5U4G Rect., 1—6J5 B.F.O., 1—955 (Acorn) HF Osc. Receiver measures, 9 1/4" x 19 1/4" x 15 1/4". For 115 or 230 volts AC. Shpg. wt., 95 lbs.

**97-535. Complete, less speaker. CASH PRICE..... \$307.50**

**Terms: \$61.50 down, one mo. at \$10.76; 10 mos. at \$25.00**

**97-545. With PM-23 10" speaker. CASH PRICE..... \$322.50**

**Terms: \$64.50 down, one mo. at \$23.48; 10 mos. at \$25.00**



## FEATURES

- Tunes 550 KC to 44 MC
- 4 Tuning Ranges
- Electrical Bandsread
- Auto. Noise Limiter
- Calibrated Main Dial
- Inertia Flywheel Tuning
- Adjustable Pitch BFO
- Shock-mounted Speaker
- Standby Switch
- Code-Phone Switch
- Glareless Dials
- Plug-in "S" Meter



# FAMOUS RECEIVERS

## HALLICRAFTERS NEW 1946 MODEL S-40

Here is a completely new post-war communications receiver, with the finest performance features ever offered in this popular price class. Tuning range is 550 KC to 44 MC in four bands, with full electrical bandsread. Main tuning dial is accurately calibrated; separate bandsread dial for fine tuning in crowded bands; both dials with inertia flywheel drive. True functional cabinet design results in a unit of striking beauty. Panel and chassis can be removed as a unit. Advanced engineering permits utilization of circuit refinements paralleling those in most expensive receivers; new wide-vision glareless translucent dials; permeability adjusted "micro-set" inductances in RF section; new 6SA7 converter circuit for high sensitivity and excellent signal to noise ratio; new rubber shock-proof mounting for the internal dynamic speaker; new simplified operation for non-technical users by means of special panel markings; new external carrier-level meter with special socket connector. Has antenna terminals for doublet or single wire antenna; front panel headphone jack; special socket for external batteries or vibrapack in emergency; break-in relay terminals. Front panel controls are: RF Sensitivity; Band Selector; Volume; Main Tuning; Bandsread Tuning; AVC on/off; CW/Phone; Noise Limiter; AC sv. and Three step tone control; BFO Pitch control; Standby switch. Uses nine tubes: 6SG7 RF, 6SA7 Converter; 2-6SK7 high-gain IF's; 6SQ7 2nd det.—first audio; 6H6G audio output; 6H6 AVC-Noise Limiter; 6J5GT BFO; 80 rectifier. The Hallicrafters S-40 receiver is attractively

housed in sturdy steel cabinet of modern design, 18 1/2" wide by 8 1/2" high by 8 3/4" deep, with entire top opening on full-length piano hinge. Chassis and front panel can be removed as one unit without disconnecting controls; finish is deep satin gray with satin chrome trim; dials are light translucent green to prevent glare; panel lettering in contrasting light gray and red. The S-40 operates from 110-120 volts, 50-60 cycles, AC; The S-40U operates from 110, 130, 150, 220, or 250 volts 25/60 cycles AC. Shpg. wt., 33 lbs. **\$79.50**

**97-546.** S-40, with tubes. CASH .....  
 Terms: \$15.90 down, one mo. at \$7.47, 6 mos. at \$10.00.  
**97-547.** S-40U, with tubes. CASH ..... **\$87.00**  
 Terms: \$17.40 Down, one mo. at \$13.78, 6 mos. at \$10.00.

### SM-40 CARRIER LEVEL METER

Accurately calibrated carrier level meter with scale marked in "S" units from one to nine, and DB units above S-9. Dial indirectly illuminated. Meter mounted in metal case to match S-40 or S-40U receivers. Complete with cable and plug to attach instantly to special socket at rear of receiver. **\$15.00**

**97-548.** SM-40 Meter. NET.....



### VHF S-37 RECEIVER

#### 130 MC to 210 MC FM-AM

The S-37 incorporates the latest developments in very high frequency circuit design. Covers the range from 130 to 210 MC with performance comparable in every way to the best communications receivers on the standard frequencies. New pre-loaded gear drive and separate bandsread dial eliminate band switching. Has two R.F. stages with acorn tubes, and a dual purpose S and tuning meter, plus many other new and improved features. Oscillator is compensated for drift. Antenna compensator is mounted on control panel. Switches include: Power, A.V.C., Send-Receive, A.N.L., and AM-FM. Has separate R.F. and A.F. gain controls. Fourteen tubes include: 3-954, 2-6AC7, 1-6AB7, 1-6SK7, 2-6H6, 1-6SC7, 1-VR150, 1-6V6GT, 1-5U4G, and 1-955. For 115 or 230 V, 50-60 cycles AC; with octal socket on rear of chassis for operation from external power source. Steel cabinet, 19 1/4" x 9 1/4" x 14 1/4". Black wrinkle finish. Complete with tubes, less speaker. Shpg. wt., 100 lbs. **\$591.75**

**97-536.** CASH.....

Terms: \$118.35 down, \$41.82 monthly for 12 months.

**97-572.** Model PM-23, 10" speaker in metal cabinet for above receiver. NET..... **\$15.00**



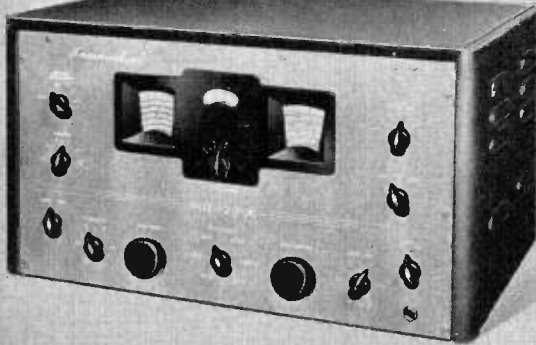
### "SKYRIDER JUNIOR" MODEL S-41G

The new "Skyrider Junior" is a 3-band AC/DC superheterodyne offering high performance at low cost. Designed for Broadcast and Short Wave reception, it covers the complete range from 550 KC to 30 MC. Dial has main scales calibrated in megacycles with all important services identified; fine tuning (electrical bandsread) dial has separate control. Automatic Noise Limiter suppresses electrical interference. Front-panel controls: Beat Oscillator for code signals; Band selector; Noise Limiter; Speaker-Headphones switch; Standby switch; Power switch and Volume control. Terminals for doublet or single wire antenna, and tip-jacks for headphones are on rear of chassis. PM dynamic speaker is mounted in top of cabinet with special sound projecting louvers. Sturdy steel cabinet only 11 1/4" wide by 8" high by 8 1/4" deep; finished in crystalline gray with maroon dial and satin-black knobs. Uses 2-12SQ7, 1-12SA7, 1-12SK7, 1-35L6GT, 1-35Z5GT, tubes. Operates from 110-125 volts AC (25 to 60 cycles) or DC. For 220-250 volts AC or DC use external resistance cord below. Shpg. wt., 12 lbs. **\$33.50**

**97-557.** Model S-41G, with tubes. NET.....

**49-580.** 220-250 volt resistance line cord. NET..... **85c**

# COMMUNICATIONS RECEIVERS



## HAMMARLUND HQ-129X

A new Hammarlund communications receiver to meet the critical demands of Amateur operators and short-wave listeners. Its many desirable features include: Continuous frequency coverage from 540 KC to 31 MC in six bands; special tuning condenser permits 310 degrees of bandspread for each Amateur band, calibrated tuning and bandspread dials; six-step crystal filter for phone or CW; noise limiter operates with or without AVC; "S" meter calibrated in "S" units and up to 40 db above S-9; tuned RF stage and 3 high gain IF stages produce highest possible signal-to-noise ratio; antenna compensator; standby switch; break-in relay terminals; automatic voltage regulation. Uses 4-6SS7 and one each 6H6, 6V6GT/G, 6K8, 6SN7GT/G, 6SJ7, 5U4G and VR-105 tubes. Finished in two-tone gray. This splendid receiver is housed in a sturdy and attractive two-tone gray metal cabinet. Size: 11"x20 1/4"x13 1/2". Shpg. wt., 47 lbs.

**97-682. HQ-129X. With tubes, less speaker. \$129.00**  
**CASH PRICE**.....

Terms: \$25.80 down, one mo. at \$19.39, 6 mos. at \$15.00

**97-695. 10" PM speaker in matched cabinet. NET.....\$10.50**  
**97-683. HQ-129X. Complete with speaker and tubes. \$139.50**  
**CASH PRICE**.....

Terms: \$27.90 down, one mo. at \$13.30, 7 mos. at \$15.00



## HAMMARLUND SPC-400X SUPER-PRO

NEW SUPER-PRO. Greatly improved model of the famous 18-tube "Super-Pro" with new features designed to meet Signal Corps specifications for worldwide use. Includes 6-position variable selectivity crystal filter. This filter, with the variable bandwidth IF, provides a selectivity range of less than 100 cycles to approximately 16 KC. Improved noise limiter greatly minimizes interference caused by ignition and similar disturbances. Maximum image suppression obtained by two tuned RF stages. Other features: Three stages of high selectivity IF; three stages of high-fidelity audio amplification; full bandspread on all bands; continuous coverage from 450 KC to 30 MC; AVC; calibrated "S" meter; beat oscillator; break-in relay terminals; and a sensitivity of better than 1 microvolt. All Super-Pro's are moisture-proofed and operate efficiently in extreme heat or cold. In two-tone gray table model metal cabinet. With tubes and 10" dynamic speaker. For 105-120 volt, 50-60 cycle AC. Shpg. wt. 110 lbs.

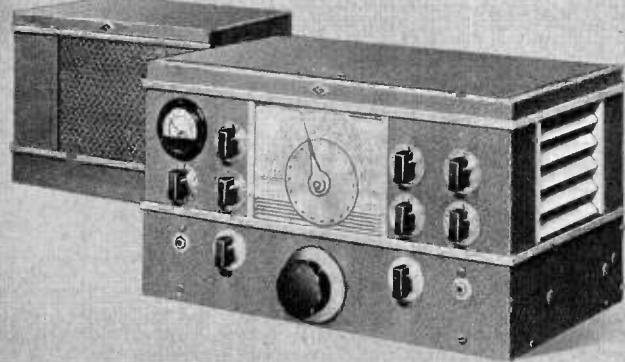
**97-684. SPC-400X. Range, 540KC to 30 MC. \$342.00**  
**CASH PRICE**.....

Terms: \$68.40 down, one mo. at \$15.02, 11 mos. at \$25.00.

**97-685. SPC-400SX, Range, 1250 KC to 40 MC. \$318.00**  
**CASH PRICE**.....

Terms: \$63.60 down, one mo. at \$19.66, 10 mos. at \$25.00.

**97-696. Matching speaker cabinet. NET.....\$5.25**



## NATIONAL NC-2-40C

One of the most outstanding developments of the National engineering staff, the Model NC-2-40C has every worthwhile feature to assure flawless performance. A full-visibility dial, operated through a 60-1 gear drive, is accurately calibrated on six frequency ranges, for continuous coverage from 490 to 30,000 KC. Precision tuning is accomplished by an auxiliary logging dial with direct drive from main dial. The sensitivity is particularly high, with an input signal of only 1 microvolt providing a 6 db signal-to-noise ratio. RF coupling circuits provide full sensitivity to extreme range of 30 MC. RF and IF coils are wound on polystyrene forms, assuring freedom from circuit losses caused by humidity. All critical components, such as tuning and trimmer condensers, are insulated with Isolantite to insure high stability. 6-step selectivity provided by crystal filter, calibrated signal level meter, self-balancing phase inversion circuit, image ratio of better than 30 db at 10 meters, separate high-frequency oscillator and first detector tubes, 8 watts undistorted audio output. Controls include: combination tuning and band switch knob, RF and AF gain controls, BFO on-off and variable pitch, 3-position hi-place-standby switch. Supplied complete with tubes (6SK7 tuned RF stage, 6K8 first detector, 6J5 HF oscillator, 6K7 1st IF, 6SK7 2nd IF, 6SL7 2nd detector-limiter, 6SJ7 AVC, 6SJ7 BFO, 6SN7 1st audio-limiter, 2-6V6 push-pull audio, and 5Y3 rectifier). In attractive modern cabinet finished in two-tone gray and chrome. Operates on 115 or 230 volts, 60 cycle, AC, and has provision for battery operation. Less speaker. Size: 19 1/4"x10 7/8"x15 1/2". Shpg. wt., 65 lbs.

**97-655. NC-2-40C. Complete with tubes. \$225.00**  
**CASH PRICE EACH**.....

Terms: \$45.00 down, one mo. at \$10.80, 9 mos. at \$20.00

**97-656. NC-2-40CS. Same as above, except has range of 200 to 400 KC and 1 MC to 30 MC. \$15.00**  
**CASH PRICE**.....

Terms: \$45.00 down, one mo. at \$10.80, 9 mos. at \$20.00



## NEW NATIONAL HRO-5TA1 RECEIVER

World-famous for performance, HRO's are in daily use the world over by top-ranking Amateur and Commercial operators. The HRO-5TA1 is equipped with a built-in noise silencer circuit. The two tuned pre-selector stages provide remarkable image suppression and high signal-to-noise ratio. Has two high-gain air-tuned IF stages with Litz-wound coils, adding further to the exceptional sensitivity and selectivity. Separate external power supply eliminates induced hum. Other circuit details include both manual and automatic volume control; vacuum-tube-voltmeter type carrier level indicator with meter calibrated in "S" units; single-signal crystal filter with wide-range continuously adjustable selectivity; single micrometer-type tuning dial with 20-1 gear drive for precision tuning. Extreme pre-set bandspread that spreads each Amateur band (80, 40, 20, and 10 meters) over 400 divisions of the 500 division dial; ganged pretuned coil assemblies are instantly interchangeable; standby switch; and a simple switching device to convert coil sets for Amateur bandspread or general coverage use from 1.7 to 30 MC. With full set of tubes: 6K7 First RF, 6K7 Second RF, 6J7 First Detector, 6J7 High Frequency Oscillator, 6K7 First IF, 6K7 Second IF, 6J7 Beat Frequency Oscillator, 6SQ7 Diode Detector—AVC—First Audio, 6V6GT Second Audio. Requires power supply and speaker below. Size: 9"x17 1/4"x12". Shpg. wt. 62 lbs.

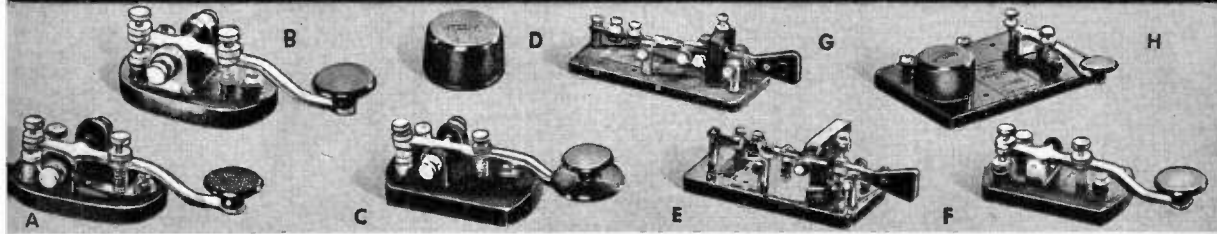
**97-657. HRO-5TA1 Receiver. With Tubes. \$274.35**  
**CASH PRICE (Subject to OPA approval).....**

**97-676. MCS Speaker. 8" PM speaker in matching cabinet. \$10.95**

**97-679. Model 697 Power Supply. Power unit for HRO Receiver. For 115 volt 60 cycle AC. Complete with type 80 rectifier tube. Shpg. wt., 15 lbs. \$17.70**  
**CASH PRICE**.....

Terms: \$60.60 down, one mo. at \$30.95, 9 mos. at \$25.00.

# POPULAR SPEED-X TRANSMITTING KEYS



## POPULAR SPEED-X KEYS FOR EVERY TRANSMITTING NEED

### MODEL 310

Fig. A. Skeleton frame type. Heavy die-cast base durably finished in black wrinkle enamel; other parts nickel plated.  $\frac{1}{8}$ " pure silver contacts. Dual adjustment for tension and lever action. Shpg. wt. 2 lbs.  
**76-055. NET. \$1.76**  
**76-056. As above, but has circuit closing switch. \$1.91**  
**NET. \$1.91**

### MODEL 301

Fig. B. Accurately-made standard key with molded bakelite base; adjustable, smooth-acting spring bearings. Metal parts nickel plated; pigtail connections;  $\frac{1}{8}$ " pure silver contacts. Shpg. wt. 1 lb.  
**76-057. NET. \$1.38**

### SIGNAL R-50 KEY

An inexpensive, high grade hand key. Smooth acting and well insulated. Has sturdy cast metal base with black finish, composition knob, and nickel-plated parts. Coin silver contacts. Shpg. wt. 1 lb.  
**76-090. NET. \$1.03**

### MODEL 320

Fig. C. Heavy duty professional type transmitting key with  $\frac{1}{4}$ " coin silver contacts. Extra heavy die-cast base with black wrinkle finish. Chrome plated key with adjustable steel bearings. Finger-rest type composition knob. Insulated for heavy duty work. Shpg. wt., 2 lbs.  
**76-058. NET. \$2.26**

### 400 BUZZER

Fig. D. Constant-frequency buzzer. Molded black bakelite base and cap eliminates insulation problems. Large pure silver contacts—precision parts hold adjustments. Requires 2-53-009,  $\frac{1}{2}$ " volt dry cells,  $6\frac{1}{2}$ ¢ each. Shpg. wt., 2 lbs.  
**76-060. NET. 82¢**

### 500-HIGH SPEED

Fig. E. Heavy-duty high speed model. Black wrinkle finished base with rubber feet. Free-action bearings.  $\frac{1}{8}$ " coin silver contacts. Adjustable double finger paddles. With shorting switch. Shpg. wt., 5 lbs.  
**76-052. NET. \$8.67**  
**76-050. Model 501. As above, but chrome finish;  $\frac{1}{4}$ " contacts. Wt., 5 lbs. NET. \$11.17**

### MODEL 300

Fig. F. Beginner's key. Bakelite base. Metal parts nickel plated.  $\frac{1}{8}$ " silver contacts. Has spring bearings and space adjustment. Shpg. wt., 1 lb.  
**76-053. NET. 97¢**

### 515-AMATEUR

Fig. G. A durable, heavy-duty Speed-Key. Base finished in black wrinkle enamel; all other parts chrome plated. Has two adjustable finger paddles and two adjustable weights.  $\frac{1}{8}$ " silver contacts. All adjustments made with lock nuts. Excellent for Professional or Amateur requirements. Shpg. wt., 4 lbs.  
**76-051. NET. \$5.88**

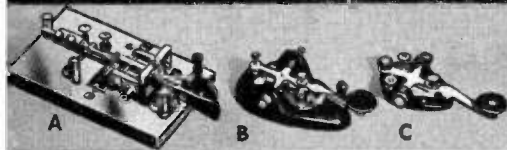
### CODE PRACTICE SET

Fig. H. A high quality practice set with key and constant frequency buzzer on walnut bakelite base. For class or individual code instruction. Requires 2-53-009,  $\frac{1}{2}$ " volt cells,  $6\frac{1}{2}$ ¢ each. Shpg. wt., 2 lbs.  
**76-059. NET. \$1.91**

### SIGNAL R-48 KEY

A high quality  $\frac{1}{4}$  kw key. Precision-made with open type frame, smoothly polished key lever, and lacquered parts. Platinor contact points. Shpg. wt., 1 lb.  
**76-091. NET. \$1.65**

# TELEGRAPH APPARATUS KEYS AND OSCILLATONES



**MODEL CP-810, Fig. A.** A professional "bug" designed for smooth effortless keying. One of the finest semi-automatic keys made. Heavy cast metal base entirely finished in beautiful chrome plate. Molded plastic knob and finger paddles.  $\frac{3}{8}$ " coin silver contacts. Nine points of adjustment. With circuit closing switch. Shpg. wt., 6 lbs.  
**76-018. NET. \$9.75**

**MODEL CP-510.** Same as Model CP-810 above, but base is finished in gray crackle; other parts chrome plated. Shpg. wt., 6 lbs.  
**76-019. NET. \$6.75**

**MODEL 200, Fig. B.** A professional type streamlined hand key for training or commercial use.  $\frac{3}{8}$ " silver contacts. Heavy metal base finished in black wrinkle enamel. Molded plastic knob. Has circuit closing switch. Shpg. wt., 1 1/2 lbs.  
**76-005. NET. \$2.25**

**MODEL 300.** Deluxe streamlined key. Same as Model 200 above, but beautifully finished in high lustre chrome. Shpg. wt., 1 1/2 lbs.  
**76-020. NET. \$3.45**

**MODEL J-37, Fig. C.** Made to Signal Corps specifications. Bakelite base with silver plated lever, and plastic knob. Solid coin silver contacts; smooth operation. Shipping weight, 1 lb.  
**76-024. NET. \$1.80**

### CODE COURSE RECORDS

Learn code quickly and easily. The Linguaphone course consists of five double-faced 10" records with instruction book and album. Copying speeds progress from two to fifteen words per minute. You can sit at home beside your record player and follow the code as it sounds when "keyed" by expert instructors. You'll soon be able to "copy" code with ease. Can be used with an electrical or mechanical phonograph. Shpg. wt., 6 lbs.  
**89-950. NET. \$8.82**



**MODEL MS-710PR, Fig. A.** Deluxe Oscillatone with Resonator and Key. Handles up to 300 headphones. Adjustable resonator increases speaker volume five times. Tone frequency adjustable from 600 to 1,500 cycles. Continuously variable master volume control. Has PM dynamic speaker, phone jack, and built-in key. Speaker may be disconnected during headphone operation if desired. Metal case,  $7\frac{1}{4}$ " x  $5\frac{1}{2}$ " x  $5\frac{1}{4}$ ". Gray crackle finish. For 110 volts AC or DC. With 1-117N7GT tube. Shpg. wt., 4 lbs.  
**76-040. NET. \$13.00**

**MODEL MS-710P, Fig. A.** With built-in sending key. Same as Model MS-710PR above, but without the resonator. With 117N7GT tube. Shipping weight, 4 lbs.  
**76-041. NET. \$11.50**

**MODEL MS-710R, Fig. B.** With same features as Model MS-710PR above, less key. Metal case,  $6\frac{1}{4}$ " x  $5\frac{1}{4}$ " x  $5\frac{1}{4}$ ". Gray crackle finish. Shpg. wt., 3 lbs.  
**76-042. NET. \$10.50**

**MODEL MS-710, Fig. B.** Oscillatone with same features as Model MS710PR above, less resonator and key. Metal case,  $6\frac{1}{4}$ " x  $5\frac{1}{4}$ " x  $5\frac{1}{4}$ ". Gray crackle finish. With 117N7GT tube. Wt., 3 lbs.  
**76-043. NET. \$9.00**

## ICA SIGNATONES

Fig. C. Deluxe Speaker Model 4300. An audo oscillator with three output frequencies and variable volume control. Ideal code practice set with facilities for keys and phones for group instruction. With tube and built-in speaker.  $7\frac{1}{2}$ " x  $4\frac{1}{2}$ " x 4". For 110 volts AC or DC. Wt., 4 lbs.  
**73-430. NET. \$11.76**

Fig. D. Phone Model 4301. Has phone and speaker jacks, 3-tone adjustment, volume control, and extra terminals for keys and phones.  $4\frac{1}{2}$ " x 4" x 4". For 110V. AC or DC. With tube and practice instructions. Wt., 3 lbs.  
**73-431. NET. \$8.82**

Station Terminal Box 4302. Consists of key and phone jacks mounted in compact case. Shpg. wt., 1 lb.  
**73-432. NET. \$1.47**



## Knight "CLASSIC" ELECTRIC PHONOGRAPH

This luxurious musical instrument—a new Knight electric record player—will bring unusually fine entertainment to your home. Late type record playing equipment is built into an attractively styled cabinet, fashioned of matched and fitted walnut veneers. Everything you need for the quality reproduction of phonograph records is included; turntable, pickup, speaker, and amplifier—all well-built components to play your favorite records with utmost clarity.

**Deluxe Amplifier.** Exceptional fidelity is assured by a modern 4-watt inverse feedback amplifier. A highly efficient 5" dynamic speaker provides wide range coverage of voice and music.

**Constant Speed Motor.** The dependable rim-drive motor maintains a constant speed of 78 RPM. The well-balanced 9-inch turntable accommodates all 10" or 12" records. A crystal pickup comes equipped with a 4,000 play precious metal tipped needle; low pressure (1 oz.) assures low wear and maximum record life. Has tone and volume controls.

**Attractive Cabinet.** Record player and amplifier are combined in a handsome walnut table cabinet, hand rubbed to a rich and lustrous finish. Has smoothly rounded ends and grille panels. Plays all records with lid open or closed. Measures, 9 1/4" high, 15" wide, 12 1/4" deep. You'll be proud to own this fine instrument!

**Knight "Classic" Complete.** One of our most popular record players. Complete with long-play needle and tubes. Uses, 2—25L6's, 1—6SL7, and 1—25Z6 rectifier. For 105-120 v. 60 cycles AC. Shpg. wt., 19 lbs. **96-286. NET \$42.25**

## Knight PORTABLE ELECTRIC PHONOGRAPH

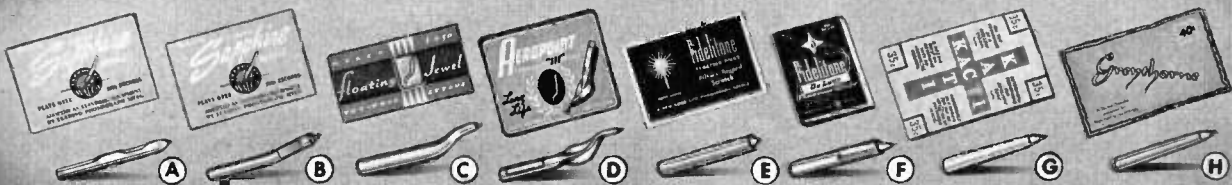
A new, modern portable electric record player, versatile in operation, and packed with features for top performance and rich tone that will delight every listener. An excellent instrument for the home, campus, recreation room, or wherever quality reproduction of records is desired. Design incorporates up-to-date developments in modern phonograph construction. Lightweight, compact—easy to carry.

**Built-in Amplifier.** The amplifier unit is efficiently designed, and provides 4-watts power output. A 5" dynamic speaker reproduces voice and music with clarity and fine tonal quality. The tube complement consists of: 2—25L6's, 1—6SL7, and 1—25Z6 rectifier. Separate tone and volume controls permit adjustment for desired response.

**Quality Phono Equipment.** Only high-grade phono components are used. Incorporates a dependable rim-drive, silent phono motor for steady 78 RPM operation; self-starting, with 9" turntable. Accommodates 10-inch and 12-inch records. Has low-pressure (1 oz.) crystal pickup with precious metal tipped needle for over 4,000 plays.

**Handsome Carrying Case.** The portable carrying case is finished with attractive brown, simulated lizard skin covering. Has compartment in lid for carrying records, and is provided with snap-lock and leather carrying handle. Measures: 6" high, 16 1/2" wide, and 15 1/2" deep.

**Knight Portable Complete.** Each unit is supplied ready to operate with tubes and long-play needle. On-off switch and volume control are combined. For 105-120 volts 60 cycles AC. Shipping weight, 18 lbs. **96-287. NET \$38.75**



### GENUINE SAPPHIRE NEEDLES

**Fig. A. Walco WN-55.** Straight shank sapphire needle. Plays over 2,000 records with any pickup. True tracking angle reduces distortion and record wear. Shpg. wt., 2 oz. **65-821. List Price \$1.00. NET 73c**

**In lots of 12, EACH 60c**

**Fig. B. Walco WN-50.** Long-life bent-shank sapphire needle. Plays over 2,000 records with any pickup. Shadowgraph inspected. Shpg. wt., 2 oz. **65-820. List Price \$1.00. NET 73c**

**In lots of 12, EACH 60c**

**Fig. C. Walco WN-250.** "Floating Jewel" sapphire. Offset shank. Over 10,000 plays with any 1/4 oz. pickup, 2 oz. **65-822. List Price \$2.50. NET \$1.47**

**In lots of 12, EACH \$1.25**

### PRECIOUS-METAL TIP

**Fig. D. Aeropoint 111.** Osmium alloy tip. Flattened spring design reduces "needle talk" and surface noise. Lasts six months or over 2,000 plays. Shpg. wt., 2 oz. **\$1.00**

**65-891. EACH 60c**

**Display card of 13, NET \$6.00**

**Fig. E. Permo Fidelitone.** Gives up to 2,000 plays when used with 1 oz. pickup. Shipping weight, 2 oz. **65-915. NET 50c**

**In lots of 24, EACH 30c**

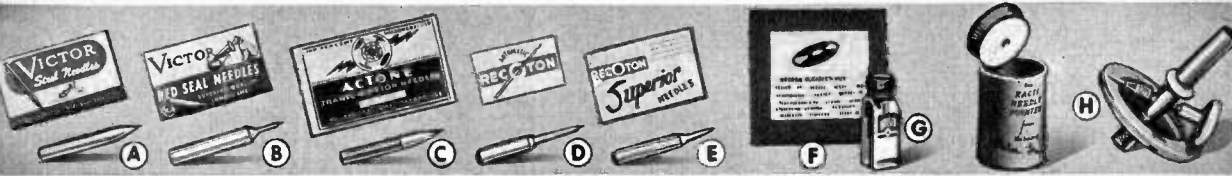
**Fig. F. Fidelitone Deluxe "Floating-Point".** Microspotted precious-metal tip assures minimum record wear. Gives over 4,000 plays. Shpg. wt., 2 oz. **65-813. NET 98c**

**In lots of 12, EACH 60c**

### QUALITY THORN NEEDLES

**Fig. G. Kacti.** Popular Peter Grey long-playing Kacti needles. Assure clear full-bodied tone quality without annoying surface noise. Record wear is extremely low. Needles can be resharpened for use over and over again with thorn sharpener listed below. Shipping wt., 4 oz. **65-832. Pkg. of 12. NET 29c**

**Fig. H. Greythorns.** Peter Grey thorn needles. Carefully selected and inspected to give perfect reproduction on all types of records. Wear records less than steel needles. Easy to resharpen with thorn sharpener listed below. Provide real economy and extra enjoyment for record playing. Shipping wt., 4 oz. **65-830. Pkg. of 15. NET 33c**



### VALUES IN FAMOUS STEEL NEEDLES

#### Fig. A. VICTOR

Highly polished long-life steel needles. Economical to use. For all types of recordings. **65-881. Soft Tone. NET 10c**

**65-883. Loud Tone. NET 75c**

**Pkg. of 100, Wt., 4 oz. NET 10c**

**10 Pkgs. Wt., 8 oz. FOR \$1.25**

#### Fig. B. RED SEAL

Designed to play back Red Seal records. **65-885. Superior Tone. NET 15c**

**Pkg. of 50, Wt., 4 oz. NET \$1.25**

#### Fig. C. ACTONE

High quality, long-life shadowgraphed steel needles. Good for approximately 20 plays each. **65-825. 10 Packages for \$3.42. NET 38c**

**Pkg. of 100, Wt., 4 oz. NET 15c**

#### Fig. D. RECOTON AUTOMATIC

**65-930. Pkg. of 30, NET 23c**

**In lots of 50, each pkg. 15c**

#### Fig. E. RECOTON SUPERIOR

**65-932. Pkg. of 10, NET 10c**

**In lots of 100, each pkg. 6c**

### HANDY ACCESSORIES

**Fig. F. Record Cleaning Cloth.** Specially treated cloth cleans record grooves; extends record life. Wt., 6 oz. **69-905. 4" x 4". NET 12c**

**69-906. 6" x 6". NET 18c**

**Fig. G. Walco Recordene.** Cleans records. Prolongs record life. Wt., 4 oz. **69-910. NET 26c**

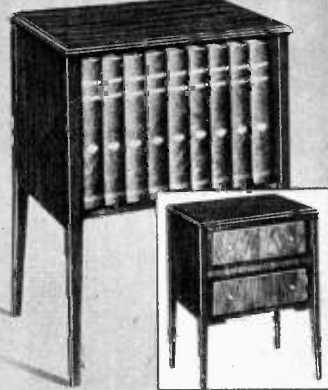
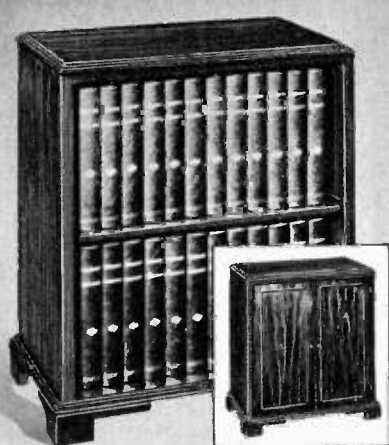
**Fig. H. Thorn Sharpener.** For use on non-metallic needles. Makes a smooth, accurately shaped point. Wt., 1 lb. **\$1.32**

**69-945. NET 10c**

**69-946. Extra Discs. EACH 10c**

**10 FOR 90c**





### KNIGHT "DUET" AMPLIFIED PHONO WITH AUTOMATIC RECORD CHANGER

An extremely versatile amplified phonograph with automatic record changer. Plays twelve 10" records or ten 12" records in a single loading. Self-adjusting for playing both sizes intermixed. Records are rejected by pushing "Press-to-Reject" button, which also serves as "Manual" and "Automatic" switch. Counter-balanced tone arm with crystal cartridge and semi-permanent needle for 4,000 plays. 1 oz. needle pressure. Positive action trip mechanism insures instant change-over when needle reaches end of record. 4-watt amplifier uses 2—25L6 tubes in push-pull, 1—6SL7, phase inverter and input amplifier, and 1—25Z5, rectifier. 6" built-in dynamic speaker reproduces full output without distortion. Heavy duty, constant speed motor drives full floating, spring mounted turntable. Attractive case covered with brown, lizard-finish fabricoid. Plays records with lid open or closed. Size, 18 x 17 1/2 x 10". With combined volume control and on-off switch. For 115 v. 60 cyc. AC. Shpg. wt., 35 lbs. **\$58.25**  
96-285. NET.....

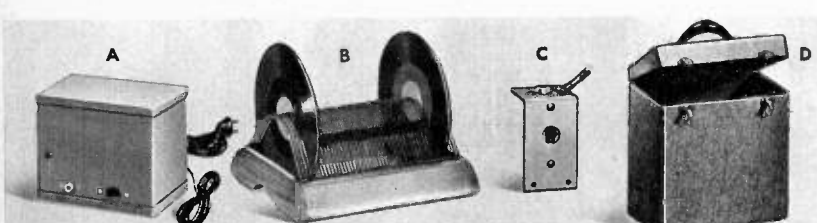
### DELUXE RECORD STORAGE CABINETS

Magnificently styled of heavy walnut veneers and fine cabinet hardwoods, this Record Album Cabinet conforms to highest standards of furniture construction. Blends with any interior. Large capacity of twenty-four 12" albums provides space for 288 records. Finish is hand-rubbed walnut. Has two partitions in each section. Size—33" high; top, 28" x 16 1/2". (Less albums.) Wt., 55 lbs. **\$23.65**  
98-955. NET.....

Luxurious Record Album Table provides maximum album storage facilities. Top has ample space for table-type phono-radio or record changer. Made of fine walnut veneers and cabinet hardwoods. Has space for nine 12-inch size record albums. Has two partitions. Walnut finish. Size: 28 1/2" high; top measures 20 1/2" x 16". (Less albums.) Wt., 25 lbs. **\$11.15**  
98-957. NET.....

The closed model in inset view has double hung doors of 3/4-inch walnut veneer with genuine inlaid moulding. Size and capacity same as 98-955 above. (Less albums.) **\$31.15**  
98-956. NET.....

Closed commode model shown in inset. Bottom hinged door provides easy access. Design simulates attractive double drawer front. Size same as cabinet above. (Less albums.) Shpg. wt., 30 lbs. **\$14.30**  
98-958. NET.....



### WIRELESS PHONO-OSCILLATOR

Fig. A. Permits operation of any record player through your radio set by remote control. Permeability tuned oscillator transmits signals to your receiver, with no connection necessary. Uses 1—35L6GT oscillator, and 1—35Z5GT rectifier. Operates on 105 to 125 volts, AC or DC. Supplied in metal case, 5 1/2" x 4 1/2" x 3 3/4", with modern bronze metalic finish. Matches any high impedance crystal or magnetic pickup. Complete, with tubes and easy-to-follow instructions. Shpg. wt., 3 lbs. **\$8.95**  
83-070. NET.....

### DELUXE RECORD HOLDER

Fig. B. Holds 50—10" or 12" records. Heavily covered wire separators prevent records from being scratched or marred. Walnut finished wood base. With index card and filing stickers. 13 1/2" long, 10 1/4" wide, 3" high. Wt., 5 lbs. **\$2.45**  
96-835. NET.....

### RECORD PLAYER SWITCH

Fig. C. Radio to record player change-over switch. With instructions. Wt., 1 lb. **97¢**  
59-230. NET.....

### PORTABLE RECORD CASES

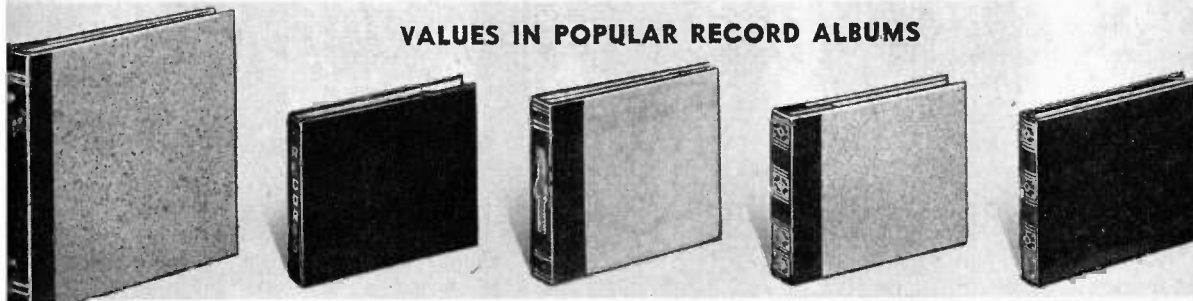
Fig. D. Expertly fashioned portable record cases (illustrated at left). Permit you to carry phonograph records conveniently and safely. A necessary accessory for portable public address systems. Hinged top lid and comfortable carrying handle. With strong fastening clasp and hinges. Choice of popular sizes for every requirement. **\$1.42**  
96-890. Holds 25—12" records. A well built case at a very low price. Shpg. wt., 8 lbs. NET.....

**\$1.27**  
96-891. As above, but holds 25—10" records. An attractive case which will easily solve your problem of safely transporting valuable records. Shpg. wt., 7 lbs. NET.....

**\$2.80**  
96-892. As above, but has large capacity. Holds 50—12" records. Shpg. wt., 10 lbs. NET.....

**\$2.35**  
96-893. As above, but holds 50—10" records. Wt., 9 lbs. NET.....

### VALUES IN POPULAR RECORD ALBUMS



#### VALUE LEADER

Convenient protection for 10" records at unusually low cost. Durable composition binder has attractive two-tone finish. Opens flat for easy selection of desired record. Records are held in nine heavy Kraft-paper envelopes assembled permanently in binder. Protects records from marring or breaking. In assorted colors of our own selection. Shipping weight, 2 lbs. **31¢**  
96-888. For 10" records. NET.....

#### STANDARD

Keep your records safe and orderly in this sturdy album. Has 12 record pockets. Index for title and artist permits easy selection of records. Wine color fabricoid cover. Opens flat. Wt., 3 lbs. **56¢**  
96-850. For 10-inch records. NET.....  
**70¢**  
96-851. For 12-inch records. NET.....

#### TWO TONE

Smart, sturdy 12-pocket album. Index for listing title and artist assures fast selection of records. Fabricoid binder finished in beautiful tweed-effect with dark-brown, gold-stamped back. Wt., 2 lbs. **63¢**  
96-867. For 10-inch records. NET.....  
**78¢**  
96-868. For 12-inch records. NET.....

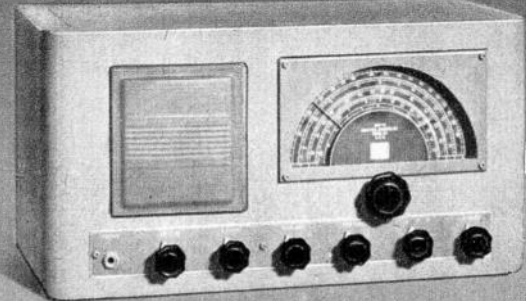
#### CORK GRAINED

Soldily-made binder, finished in matching cork-grain material. Stiff back covered with brown swirl-cloth; has gold-stamped design. Holds 12 records. Opens flat. Has index for titles. Shpg. wt., 4 lbs. **85¢**  
96-852. For 10-inch records. NET.....  
**96¢**  
96-853. For 12-inch records. NET.....

#### PADDED COVER

Deluxe album designed for fine appearance as well as utility. Covers are padded and bound with durable rich brown swirl design material. Gold stamped back. Holds 12 records. Shpg. wt., 4 lbs. **\$1.12**  
96-865. For 10-inch records. NET.....  
**\$1.27**  
96-866. For 12-inch records. NET.....

# COMMUNICATIONS RECEIVERS



## NEWEST ADDITIONS TO RME'S FAMOUS LINE

### RME-45 RECEIVER

Latest of a long line of famous receivers, the RME-45 brings you peak performance and precision craftsmanship. Tunes 550 KC to 34,000 KC in six bands. All bands directly calibrated on a full-vision, indirectly illuminated dial with separate calibrated dial for Amateur bands. Two-speed "Calomatic" tuning automatically determines all calibration points as tuning proceeds. Has 5-step crystal filter and adjustable pitch BFO. DB meter is calibrated in 6-db. steps from zero to S-9. New noise silencer circuit has in-out switch on audio volume control. Uses new low-drain tubes, 7B7 RF, 7J7 det.-osc., 2-7B7 IF's, 7B6 det. and BFO, 7A6 noise limiter, 7C7 AF, 7C5 output, and 80 rectifier. PM speaker supplied in metal cabinet, 10" x 19 1/4" x 9 1/4" to match receiver. The RME-45 is housed in an attractive steel-grey metal cabinet with black trim. Size, 10 1/4" x 22 1/4" x 12". With tubes. For 115 volts, 60 cycles AC. Shipping weight, 65 pounds.

**97-635.** With tubes and speaker. CASH ... **\$186.00**

Terms: **\$37.20 down, one mo. at \$17.73; 7 mos. at \$20.00.**

**97-616.** DB-20 Preselector..... **\$59.30**

**97-620.** VHF-152 Converter..... **\$86.60**

### MODEL RME-84

A new, medium priced communications receiver built to rigid specifications in the RME tradition. Has complete tuning range from 540 KC to 44 MC in four bands. Directly calibrated main tuning dial with separate bandspread dial. Uses 1-7B7 RF, 1-7S7 mixer, 2-7B7 IF's, 1-7K7 2nd detector-audio, 1-7K7 BFO noise limiter, 1-6G6G output, and 5Y3GT rectifier tube. Average sensitivity is 2 microvolts over the entire frequency range. Panel controls are: Main tuning, bandspread tuning, AVC switch, separate RF and AF gain controls, BFO on-off and pitch control, noise limiter switch, tone control and power switch, standby switch, and headphone jack. Has rugged 5" built-in dynamic speaker. Connections at the rear of set for standard antenna, external RME Carrier Level Meter (to be announced later) and for use of external batteries or vibrator-type power supply for portable operation. Welded, one-piece cabinet is sturdy and attractive. Finished in two-tone gray. Size: 18" long, 9 1/4" high, 9 3/4" deep. For 110 volts, 60 cycles. Shipping weight 35 lbs.

**97-634.** With tubes and speaker. CASH... **\$98.70**

Terms: **\$19.74 down, one mo. at \$13.70, 7 mos. at \$10.00.**



### NEW NATIONAL MODEL NC-46

Newest in a long line of world-famous communications receivers, the 10-tube NC-46 brings top-notch performance to the medium price field. Designed to satisfy the requirements of AC-DC operation, many worthwhile features have been included for peak performance over a total range of 540 KC to 30 MC. Tuning range is divided into four bands with full-vision horizontal tuning scales; separate electrical bandspread condenser and dial scales provide vernier tuning on all short-wave bands, with ample spread in Amateur 80, 40, 20 and 10 meter bands. Both main and bandspread tuning controls are inertia-controlled for smooth, effortless tuning. Modern styled cabinet and front panel with full complement of controls including main tuning dial, bandspread tuning, sensitivity control, volume control, tone switch, beat oscillator on-off switch, AVC switch, noise limiter switch, band selector switch, standby switch, and power on-off switch. Terminals on rear of set for antenna, 8-ohm speaker, break-in terminals, and phone jack and extractor-type fuse post. The new NC-46 operates from 110 to 120 volts AC or DC. Tubes used are 6K8 mixer, two 6SG7 IF's, 6H6 detector-limiter, 6SF7 AVC amplifier, 6SJ7 beat oscillator, 6SC7 audio-inverter, two 25L6 push-pull audio output stage, and a 25Z5 rectifier. Sensitivity, 5 microvolts over the entire tuning range for 50 milliwatt output. Audio output maximum is 4 watts; output with AVC operating varies less than  $\pm 4$  db with input from 10 to 100,000 microvolts. Cabinet size, 9 1/2" high, 17 1/2" wide, 12 3/4" deep. Finished in two contrasting gray tones with black knobs. Separate PM dynamic speaker supplied in matching metal cabinet, 8 1/2" high, 10 1/2" wide, and 7 1/2" deep. Shpg. wt., 50 lbs.

**97-677.** NC-46, less speaker. CASH..... **\$97.50**

**97-678.** NC-46TS speaker. CASH..... **\$9.90**

**NC-46 Receiver with speaker. CASH..... \$107.40**

Terms: **\$21.48 down, one mo. at \$11.08, 8 mos. at \$10.00.**

### PANADAPTER PCA-2

Here it is—"The Seeing Eye of Radio!" Quickly and easily attached to any superheterodyne-type communications receiver. An invaluable aid to the Amateur or commercial operator, the Panadaptor provides true panoramic visible or visible-audible reception of six different types for either CW or voice modulated signals over a band width of 200 KC. Enables the operator to locate stations whose frequency is unknown, to spot replies to calls; assist in making transmitter or antenna adjustments; indicates modulation percentage, frequency deviation, frequency modulation, audio distortion of carrier, carrier shift and splatter, spurious parasites, carrier hum level, key clicks, noise, and frequency drift. Indicates instantaneous signal strength of all signals under observation for relative strength and comparison purposes. Enables operator to select QRM-free spots for listening or transmitting and identifies interfering signals. Serves as an additional tunable receiver for three-way contacts where stations are using different frequencies. Complete with all tubes, instructions, and coaxial connector cable. Guaranteed for one year. Size, 11" wide, 9 3/4" deep, 6 3/4" high. For 110 volts, 60 cycles AC. Shpg. wt., 30 lbs.

**84-995. CASH PRICE..... \$99.75**

Terms: **\$19.95 down, one mo. at \$14.59, 7 mos. at \$10.00.**

# Hallicrafters FAMOUS SX-28A



**\$223.00**

AVAILABLE ON EASY TERMS

## THE SUPER SKYRIDER WORLD'S LEADING STANDARD-BROADCAST AND SHORT-WAVE RECEIVER

Built by Hallicrafters—suppliers of combat radio equipment for the Armed Forces—the SX-28A incorporates every desirable feature and engineering development for precision all-wave reception. This post-war model of the SX-28 combines superb broadcast reception with top-notch performance on the high-frequency bands. Here, in one receiver, is the maximum in performance for standard or short-wave broadcasts, for Amateur use, or for commercial point-to-point or monitoring purposes.

**WORLD-WIDE RECEPTION.** Covering the entire frequency range from 550 KC to 42 MC, the SX-28A receives standard Broadcasts, Domestic and Foreign Short-wave broadcasts, police calls, airports, and other short-wave services. Tuning range is divided into 6 bands, selected instantly by front-panel control: Band 1 tunes 550 to 1620 KC, Band 2 tunes 1.5 to 3.1 MC, Band 3 tunes 2.9 to 5.9 MC, Band 4 tunes 5.75 to 11.5 MC, Band 5 tunes 10.3 to 21.5 MC, and Band 6 tunes 20.4 to 42 MC. Micrometer scale main tuning dial is directly calibrated in KC and MC, with all important high-frequency bands clearly indicated. Calibrated separate electrical bandspread dial for the 80, 40, 20, and 10 meter Amateur bands, with arbitrary 0-100 degree scale for use on all other short-wave ranges; both dials inertia-controlled through preloaded ball-bearing drives, and indirectly illuminated.

**HIGH FIDELITY AUDIO.** Push-pull 6V6G tubes in the output stage give full 8 watts of audio power with fully adjustable tone quality provided by a tone control, plus an exclusive bass-boost circuit for full tonal range. Reproduction range is extremely wide. To round out the versatile performance of the SX-28A, an input jack is provided to accommodate a high-impedance phono pickup, thus making it possible to attach a record player or changer to utilize to the fullest the high-fidelity audio system of the receiver.

**FOR AMATEURS AND SWL's.** The many exclusive features incorporated in this fine quality receiver make it ideally suited for use by Amateur or Commercial operators, and Short-Wave Listeners. Calibrated main dial with lock permits accurate resetting to any desired frequency or band, and wide-angle carrier-level meter calibrated in "S" units and in db up to 50 db over S9 gives accurate signal strength indication. Extremely high usable sensitivity at all frequencies and improved signal to noise and image ratio are made possible by two tuned RF stages and two high-gain IF stages. Six steps of IF selectivity, with crystal filter in three positions, are available to suit receiving requirements.

**MANY OTHER FEATURES.** Other desirable features included in the SX-28A: Antenna compensator, Input for doublet or single-wire antenna, standby-receive switch, adjustable pitch beat-frequency-oscillator, AVC, AF and RF gain controls, adjustable 3-stage noise limiter, break-in relay terminals, temperature compensated high-frequency oscillator, crystal phasing control, emergency power socket for batteries, micro-set permeability tuned RF coils, brushed cadmium plated chassis and components, speaker output terminals of 500 and 5000 ohms.

**MODERN DESIGN.** Attractive steel cabinet 20 1/2" long, 10" high, 14 1/4" deep, is finished in gray wrinkle with chrome trim; concealed openings for cooling and ventilation; black morocco-grain enamel panel with etched markings. Uses 1—6AB7 1st RF, 1—6SK7 2nd RF, 1—6SA7 mixer, 1—6SA7 Oscillator, 1—6L7 1st IF, and noise amplifier, 1—6SK7 2nd IF, 1—6B8 AVC amplifier, 1—6B8 2nd detector and "S" meter tube, 1—6AB7 noise amplifier, 1—6H6 noise rectifier, 1—6J5 beat oscillator, 1—6SC7 1st audio, 2—6V6GT push-pull output amplifier. Also 1—5Z3 rectifier. For 105-120 volts, 50-60 cycles AC. The SX-28A is supplied complete with tubes, but less speaker which is listed at \$20. Shipping weight, 87 lbs.

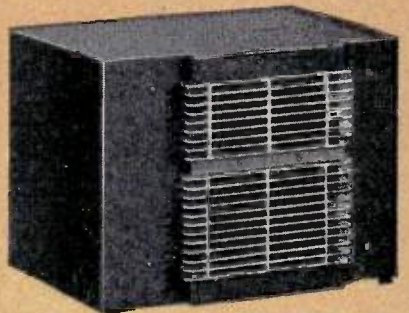
**\$20.** SX-28A, Less speaker. **CASH PRICE**..... **\$223.00**

Terms: \$44.60 down, one mo. at \$9.10, 9 mos. at \$20.00.

For additional Communications Type receivers, please refer to pages 106-108.

## FINEST FEATURES FOR PRECISION PERFORMANCE

- Tunes 550 KC to 42 MC
- Six Frequency Bands
- Six-Step Selectivity
- Full Bandsread
- Frequency-Meter Tuning
- Calibrated Dials
- Two Tuned RF Stages
- Carrier-Level Meter
- Record Player Input
- High Fidelity Audio
- 8 Watts Audio Output
- Bass-Boost Audio Circuit
- Adj. Noise Limiter
- Temperature Compensated
- Beat-Frequency Oscillator
- Three Step Crystal Filter
- Crystal Phasing Control
- 2 MV Sensitivity



**PM-23 10" PM SPEAKER IN METAL CABINET**  
Finished in gray wrinkle to match the SX-28A receiver, with contrasting metal trim. High quality PM dynamic speaker with 5000 ohm matching transformer and connecting cord. Shpg. wt., 17 lbs. **\$15.00**  
97-572. NET.....

# NEW HALLICRAFTERS MODEL S-38



## RADIO'S FINEST RECEIVER VALUE

- New 1946 Superhet Circuit
- 4 Bands
- AC or DC
- Automatic Noise Limiter
- Electrical Bandsread

Here's an all-star, all-wave performer in the low-price field. It's years ahead in styling and performance. Built by world-famous Hallcrafters, the S-38 has the quality of workmanship and far-reaching sensitivity that you'd expect only in sets at much higher prices. This new post-war receiver is a set for all the family to use and enjoy—for standard broadcast reception—for thrilling short-wave programs—and its new, up-to-the-minute styling adapts it for use in living room, library, den, recreation room—anywhere you like. It's an instrument you will be proud to own.

**All-Wave Reception:** The S-38 brings you thrilling 4-band reception. Overall range: 540 KC to 32.4 MC. Coverage: Band 1, 540 KC to 1680 KC, standard broadcast stations; Band 2, 1.65 to 5.2 MC, police calls, airports, Amateurs; Band 3, 4.75 to 15 MC, foreign and domestic short-wave, Amateurs; Band 4, 13 to 32.4 MC, Latin-American and domestic short-wave, HF police calls, Amateurs. Main dial is calibrated in MC with important short-wave channels clearly shown.

**Easy to Operate:** Anyone can operate the S-38. All controls are plainly marked. Illuminated dial covered with green translucent material to reduce glare. Other front-panel controls: Noise Limiter, Band Selector, Beat Oscillator Pitch Control, Broadcast-Code Switch, Speaker-Headphones Switch, and Standby-Receiver Switch. Terminals for doublet or single-wire antenna, and headphone jacks are provided.

**Inspired Cabinet Styling:** Cabinet styling is a triumph of America's most talented designers. The steel cabinet is finished in satin gray. Lettering is light gray. Switch knobs are contrasting red. Speaker grille in top of cabinet is of airozidized steel with sound-projecting louvres for the built-in PM dynamic speaker. Maximum audio output is 1.6 watts, more than ample for all receiving requirements.

**For Amateur or SWL.** For the beginning Amateur or short-wave listener, the S-38 is an unusual value with many features of higher-priced communications receivers. Electrical-bandsread dial spreads crowded short-wave bands for easy tuning with quick re-set to any desired band. Has adjustable pitch beat-frequency oscillator for tuning code (CW) signals, with finger-tip on-off switch on front panel.

**New AC-DC Superhet Circuit.** Uses each tube for maximum efficiency; 1—12SA7 converter, 1—12SK7 IF amplifier, 1—12SQ7 second detector-AVC-first audio amplifier, 1—12SQ7 beat frequency oscillator and automatic noise limiter, 1—35L6GT second audio amplifier. Also 1—35Z5GT rectifier. For 105-120 volts, 40-60 cycles AC or 105-120 volts DC; also 220 to 250 volts, AC or DC, with line cord below. Size, 12 $\frac{1}{2}$ " wide, 7 $\frac{1}{8}$ " high, 8 $\frac{3}{8}$ " deep. Shpg. wt., 14 lbs.

**97-565.** Model S-38 Receiver, with tubes. **NET**..... **\$39<sup>50</sup>**  
**49-580.** 220-Volt Adapter line cord. **NET**..... **85c**

