



EVERYTHING IN RADIO

Allied Radio

C O R P O R A T I O N

**833 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS**

1939

HERE'S RADIO'S BIGGEST VALUE!

It's Beautiful... It's Powerful!

and it has **AUTOMATIC TUNING!**



R.C.A. AND HAZELTINE LICENSED

WITH *New* **ACOUSTIC BAFFLE & MAGNI-GLAS DIAL**

Plus THESE FEATURES

- PUSH-BUTTON TUNING
- NEW PLASTIC CABINET
- FULL-RECTIFYING A.V.C.
- DYNAMIC SPEAKER
- ILLUMINATED DIAL
- LATEST TYPE TUBES
- GETS POLICE CALLS

Knight **5 TUBE A.C. SUPERHET**

ALLIED brings you an all-star radio value in this new, versatile, and beautiful compact radio receiver with Push-Button Automatic Tuning. It has the quality, the performing power, the features of sets selling at two or three times our low price. The ideal "utility" radio for bedroom, kitchen, den, spare room or office use. A 1939 Radio Leader!

• **AUTOMATIC TUNING.** The simplest and most effective system yet devised. Offers you a choice of any four of your favorite stations. Simply push a button and there's your station—tuned instantly, easily, perfectly. Each button is directly geared to the tuning condenser; adjustment is made in a few seconds; operation is instantaneous and tuning is always right on the head. Regular tuning is made easy, too, by the unique illuminated dial with the magnifying glass face which makes the calibrations appear large and legible. 175 to 550 meters (535-1730 K.C.) are covered powerfully and dependably, bringing in all standard Broadcast programs as well as many police calls.

• **NEW PLASTIC BEAUTY.** The beautiful molded plastic cabinet of the new **Knight 5** is a triumph of harmonious design. All edges are softly rounded; the front face has pleasing beveled design with dial portion set forward for tuning convenience. The speaker grille is uniquely formed on a new principle to give a louvre effect which greatly enhances the tonal production of the speaker. The **Knight 5** is available in plastic-molded cabinets of soft Ivory, attractive mottled Walnut or gleaming Black. Cabinet measures 10 1/2" x 7" x 5 3/4". The **Knight 5** is distinguished for performance and for outstanding beauty, conforming to the rigid **Knight** standards of radio quality and value.

• **1939 CIRCUIT DESIGN.** Licensed by the famous R.C.A. and Hazeltine laboratories, the circuit of the **Knight 5** assures you of the latest engineering developments. Uses the latest type tubes as follows: 6A8 as Converter; 6106 as I.F. Amp.; 75 as Diode-Det.-A.V.C.-1st Audio (triple-purpose); 41 as Audio Output; 5Y3G as Rectifier. This tube line-up assures high gain, big output, and flawless tonal fidelity.

• **LATEST FEATURES.** The new **Knight AC 5** has full A.V.C. action to assure uniform volume and freedom from fading. Incorporates a sturdy 5-inch electro-dynamic speaker with fine volume-lending capacity and excellent tonal response. Output is 1 watt undistorted, 1 1/2 watts peak. All circuit components are of the finest standard makes and are designed to give long, dependable life. Underwriters' Approved. These advantageous features plus Automatic Push-Button Tuning give you top-value.

• **5 TUBE MODEL COMPLETE.** Value is the keynote of the 1939 **Knight 5 A.C. Superhet**. It's a quality receiver every one can afford to own. The **Knight 5** comes complete in a handsome plastic-molded cabinet, with R.C.A. tubes, for operation on 110 volts, 60 cycles A.C. Shug. wt., 11 lbs.

E10840.
Black.
List, \$19.95.
NET EACH, \$10.95.
LOTS OF 3,
EACH.....

\$10⁴⁵

E10841.
Walnut.
List, \$22.50.
NET EACH, \$11.45.
LOTS OF 3,
EACH.....

\$10⁹⁵

E10842.
Ivory.
List, \$24.00.
NET EACH, \$12.45.
LOTS OF 3,
EACH.....

\$11⁹⁵

E9150. CARRYING CASE. Of Suedette; with zipper opening and handle. **NET \$1.15**

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NEW... SMART...

"Tiny Knights"

with
**ACOUSTIC BAFFLE
DYNAMIC SPEAKER
2 WATTS OUTPUT**



America's

Smallest Radio!

With Big Set Tone

and Power!

4 TUBE AC-DC MODEL

So small that you can hold it in the palm of your hand—so light that you can carry it anywhere—so low in price that anyone can easily afford it—this new "Tiny Knight" 4 Tube A.C.-D.C. Model is the year's sensation in ultra-compact radios! Tone quality, distance-reach, and sturdy dependability have not been sacrificed; in power output and in performance, this compact set is equal to models ten to twelve times its size.

• **PLAYS ANYWHERE.** Unusual versatility is an outstanding feature of this "Tiny Knight". You can play it wherever 110 volt, 40-60 cycle A.C. or D.C. current is available. You can take it with you on trips—it is easily packed into any size suitcase or overnight bag. Built-in aerial permits instant operation.

• **SPLENDID NEW CIRCUIT.** The "Tiny Knight" 4 is built around an exceptionally efficient R.C.A. and Hazeltine licensed circuit using the latest tubes as follows: 6J7GT as Det.; 6K7GT as R.F. Amp.; 25L6GT as Beam Power Output; and 25Z6GT as Rectifier. Every tube works, contributing to splendid, thoroughly enjoyable performance. The 25L6GT Beam Power Output stage develops a full 1½ watts undistorted output (2 watts maximum) achieving strong volume seldom found in compact sets. Both voice and music are delightfully reproduced through the newly designed 4-inch electro-dynamic speaker.

• **NEW EASY-TO-TUNE DIAL.** The large molded dial of the "Tiny Knight" 4 is clearly marked and easy to operate. Calibrations are in both meters and kilocycles, covering the complete standard Broadcast range of 175 to 560 meters (535-1730 K.C.) and permitting reception of all standard Broadcast programs plus many Police Calls.

• **STRIKING NEW CABINET.** An entirely new and beautiful cabinet has been especially created for this splendid receiver. Molded of one-piece Bakelite, the cabinet combines simple lines with flowing harmony. Louvre grille is both attractive and practical; it acts as an acoustic baffle, greatly enriching the tonal quality. Cabinets are available in a choice of four rich colors: soft Ivory, lustrous Black, warm Walnut, and handsome Red. Size is only: 7" wide, 5" high, and 4½" deep.

• **BEAUTIFUL TONE QUALITY.** No other receiver as small as the "Tiny Knight" 4 approaches the superb tonal quality it offers. You will actually be amazed that so tiny a receiver can furnish such strong volume, such beautiful tone. Sensitivity and selectivity are likewise surprising. Definitely not a novelty, not a toy, the "Tiny Knight" is America's smallest quality radio—delivering full performance and full value.

• **SET COMPLETE.** The "Tiny Knight" 4 Tube A.C.-D.C. receiver is supplied complete with Hytron tubes in plastic-molded cabinet as illustrated. For 110 volts, 40-60 cycles A.C. or D.C. Shpg. wt., 6 lbs.

E10857.
Black.

List \$12.95.
NET EACH, \$7.45.
LOTS OF 3,
EACH.....

\$6.95

E10855, Ivory.
E10856, Walnut.
E10858, Red.
List Each, \$13.50.
NET EACH, \$7.95.
LOTS OF 3, EACH

\$7.45

5 TUBE AC-DC SUPERHET

In the same stunning Bakelite cabinet shown above we also offer another "Tiny Knight" model—a powerful 5 Tube A.C.-D.C. Superhet. All-around utility and beauty are exactly the same as in the Knight 4—but even greater distance reach and selectivity are derived from the brilliant Superhet circuit which incorporates an additional tube for added strength.

• **BRILLIANT TONE.** The "Tiny Knight" 5 reproduces all programs in a manner you'd ordinarily expect only from large-size receivers. The combination of a newly designed 4" electro-dynamic speaker and the special acoustic baffle louvre grille results in rich, full-voiced reproduction of both music and speech. Generous power is provided too—a full 1½ watts undistorted output (2 watts maximum) for enjoyable reception.

• **PRACTICAL VERSATILITY.** You can take the "Tiny Knight" 5 along and play it practically anywhere. It operates perfectly from either Alternating or Direct Current (110 volts, 40-60 cycles). It has a special built-in aerial which means that the set is ready to play as soon as you plug in the line cord. Here is the ideal traveler's radio—as well as the perfect personal or "second" receiver for the home.

• **NEW 1939 SUPERHET CIRCUIT.** The latest Superhet circuit, licensed by the R.C.A. and Hazeltine laboratories, assures you of the newest engineering developments. Five tubes—everyone working—are used as follows: 6A8 as 1st Det.-Osc.; 6K7 as I.F. Amp.; 6Q7-2nd Det.-1st Audio; 25L6 as Beam Power Output; 25Z6 as Rectifier. This circuit with its two dual-purpose tubes achieves seven-tube power and efficiency!

• **GETS POLICE CALLS.** In addition to full coverage of all standard Broadcast programs, the "Tiny Knight" 5 also tunes upper channel Police Calls. Reception range extends from 175 to 560 meters (535 to 1730 K.C.). Tuning is always easy by means of the big molded dial with clear calibrations (in both meters and kilocycles) etched into its surface. The entire range is alive with programs which are quickly and easily tuned by the unusually selective new superheterodyne circuit.

• **SUPERB BEAUTY OF DESIGN.** No other ultra-compact cabinet offers the graceful lines, the winning beauty, of the "Tiny Knight" models. Molded of one-piece Bakelite, the cabinet presents a lustrous, mar-proof finish enhancing its pleasing streamlined design. Speaker is housed behind a special louvre grille which is built on a new principle to act as acoustic baffle. Cabinets are available in Black, Ivory, Walnut, and Red. Size is only 7" wide, 5" high, 4½" deep. The "Tiny Knights" possess an attractive gem-like quality resulting in universal appeal.

• **SET COMPLETE.** The "Tiny Knight" 5 Tube A.C.-D.C. Superhet is supplied complete with R.C.A. tubes in plastic-molded cabinet as illustrated. For 110 volts, 40-60 cycles A.C. or D.C. Shpg. wt., 6 lbs.

E10847.
Black.

List, \$15.00.
NET EACH, \$8.95.
LOTS OF 3,
EACH.....

\$8.45

E10845, Ivory.
E10846, Walnut.
E10848, Red.
List Each, \$16.00.
NET EACH, \$9.45.
LOTS OF 3, EACH

\$8.95

R.C.A. & HAZELTINE LICENSED

PLAY IT ANYWHERE



**TAKE IT
WITH YOU
ON TRIPS**



**THE IDEAL
"EXTRA"
RADIO**

**WHEREVER HIGH-GRADE LOW-COST
RADIO EQUIPMENT AND FAST SERVICE
ARE IN DEMAND—**

**Allied IS
FIRST CHOICE!**

To thousands of wise radio buyers everywhere there is only one single, dependable source of supply for everything in the radio field—**ALLIED RADIO**—the house that is *First Choice* wherever high-grade, low-cost radio equipment is required. There is no magical formula, no mysterious secret behind this overwhelming preference. There are just three simple reasons for **ALLIED'S** enduring leadership:

FIRST—**ALLIED'S** high standards of quality are your assurance that you can buy with confidence—that every item you order from us will meet the most exacting standards for performance and dependability.

SECOND—**ALLIED'S** low prices always assure you of fullest value for your money. You get more—you save more—you profit more on every purchase. You obtain the full benefits of our efficient way of doing business.

THIRD—**ALLIED'S** prompt, careful service saves you time and effort. You get what you want just when you want it. Our central location and our efficient shipping methods mean that your orders are delivered quickly and safely.

OUR COMPLETE STOCKS COVER EVERY RADIO REQUIREMENT

In every field of radio, the **ALLIED** Catalog is recognized as the foremost Buying Guide. Whether your particular interest is a Sound System for a school, a new tester for your service bench, a new rig for your Amateur "shack," replacement parts for any radio set, or experimental equipment for a laboratory, you will find us a complete, dependable source of supply. By consolidating your purchases and by ordering all your radio equipment from one source, you can effect considerable savings in time and transportation costs.

In addition to the full lines of equipment shown in this 180-page catalog, we can always supply—with the least delay—any special or made-to-order equipment you may need. We are constantly in touch with the leading radio manufacturers and can furnish all the newest products promptly.

**EXTRA-VALUE SERVICES —
EXCLUSIVE WITH ALLIED**

Technical Staff. We maintain an extensive staff of expert radio engineers to help you solve problems involved in every phase of radio. Write to us for authoritative advice on your Amateur, experimental, radio building or Public Address problems.

Educational-Industrial Division. To schools, industries and institutions we are ready to offer valuable and concrete suggestions in adapting radio and sound to special needs. We are prepared to give estimates and to recommend equipment for special purposes.

Sales Promotion Division. Let us help you to increase your sales and profits. We offer dozens of useful sales aids in this catalog and can furnish additional sales literature covering many popular items.

See Complete Index on
Pages 159-160. How-to-
Order Information and
Freight Allowance Offer
on Page 158.

Guarantee

**WE GUARANTEE 100% VALUE IN
PRICE, QUALITY AND SERVICE**

Every item in our catalog is guaranteed to conform exactly to the description and illustration. We guarantee that our merchandise conforms to the standards of the Radio Manufacturers' Association and will perform in the manner intended for such apparatus. Any merchandise that does not so operate, if returned at once, will be promptly adjusted by exchange, repair or refund.

—**ALLIED RADIO CORPORATION**



DEALERS



SERVICEMEN



AMATEURS



**BUILDERS &
EXPERIMENTERS**



SCHOOLS



LABORATORIES



INDUSTRIES

1939's Latest - Smallest "BIG-POWER" Radio Made!



CARRIES EVERYWHERE PLAYS ANYWHERE

5 TUBE "Tiny Knight" AC-DC SUPERHET

- Full A.V.C.
- Dynamic Speaker
- 2 Watts Output
- Plays Anywhere
- Smart Cabinet
- Weighs Only 4 Lbs.

This diminutive new "Tiny Knight" 5 Tube A.C.-D.C. Superhet is a striking example of progress in the radio art! Here in an ultra-compact bakelite cabinet measuring only 6 1/4" x 4 1/2" x 4 1/2" is a real Superhet receiver offering big set tone quality, selectivity and power. Designed and built with all the painstaking care lavished on masterpieces of miniature art, this new "Tiny Knight" will actually amaze you. You can hold the set in the palm of your hand—you can carry it in an overcoat pocket—you can take it anywhere—and always you can enjoy radio's finest entertainment!

- **PLAYS ANYWHERE.** The "Tiny Knight" 5 may be used almost anywhere with unusual efficiency. It operates equally well on Alternating or Direct Current, 110 volts, 50-60 cycles. The complete set weighs only 4 lbs. A built-in antenna permits instant operation. These features make the "Tiny Knight" the ideal travelling companion or "personal" radio. Use it in any room of your home. Take it along wherever you go.
- **GETS POLICE CALLS.** The tuning range covers 175 to 545 meters (550 to 1720 K.C.) affording excellent reception of all standard Broadcast programs plus upper channel Police Calls. You will thrill to the way in which this powerful performer reproduces each program in a thoroughly delightful manner—without distortion or blasting.



- **SPLENDID NEW CIRCUIT.** The "Tiny Knight" 5 is built around an efficient Superhet circuit, fully licensed by R.C.A. and Hazeltine. New type ultra-compact tubes—fully equal in performance and durability to larger tubes—are employed as follows: 6A8GT as Converter-Osc. (dual purpose); 6K7GT as I.F. Amp.; 6Q7GT as Diode Det.-A.V.C.-1st Audio (triple purpose); 25L6GT as Beam Power Pentode Output; and 25Z6GT as Rectifier. This circuit actually achieves brilliant seven-tube power and efficiency. Full 2 watts undistorted output is developed and smoothly handled by the special electro-dynamic speaker. Full Automatic Volume Control maintains uniform volume level.
- **EASY TUNING DIAL.** The "Tiny Knight" 5 features a new clock-type full vision slanted dial face, with soft, indirect illumination. Clear calibrations are in kilocycles for easy station logging.

- **SMART CABINET STYLING.** A new compact molded plastic cabinet—flawlessly designed and executed—is available in a choice of two charming colors: soft Ivory, and lustrous mottled walnut. Attractive grille permits finest acoustical reproduction.
 - **SET COMPLETE.** The "Tiny Knight" 5 Tube A.C.-D.C. Superhet is molded plastic cabinet is offered complete with tubes, Dynamic Speaker, and built-in aerial. For operation on 110 volts, 50-60 cycles, A.C. or D.C. Shpg. wt. 5 lbs.
- E10801, Walnut.**
List, \$14.50.
NET EACH, \$8.75.
PRICE, LOTS OF 3, EACH \$825
- E10802, Ivory.**
List, \$15.50.
NET EACH, \$9.25.
PRICE, LOTS OF 3, EACH \$875
- E9145, 220 Volt Adapter. NET. 59c**

Knight 6 TUBE AC-DC 2 BAND SUPERHET

This handsome new 1939 Knight 6 Tube A.C.-D.C. 2 Band Superhet (with ballast) is the kind of value for which ALLIED is noted. Its reception range, tonal quality, and circuit features, the Knight 6 is easily the equal of many A.C.-D.C. sets at much higher prices. Just try it out (or yourself under our Free Trial and Money-Back Guarantee offer (see Page 10) and discover what an exceptional buy this is!

- **DUAL-WAVE RECEPTION.** The Knight 6 offers unusually fine Short-Wave and Broadcast reception on two full bands—from 174 to 560 meters (535 to 1720 K.C.) and from 41 to 136.4 meters (2200 to 7000 K.C.). This is actual 2-Band utility and coverage. The Short-Wave band covers thrilling foreign stations on the ever-popular 49 meter band plus Police, Aviation and Amateur calls. The 174-560 meter band provides powerful standard Broadcast American and Canadian reception and tunes upper channel Police Calls.
- **NEW SUPERHET CIRCUIT.** The new R.C.A. and Hazeltine licensed Superhet circuit includes R.C.A. tubes as follows: 6A8G as 1st Det.-Osc. (dual purpose); 6K7 as I.F. Amp.; 6Q7G as triple purpose 2nd Det.-A.V.C.-1st Audio; 25L6G as Beam Power Pentode Output 25Z6G as Rectifier; 165R4G Ballast. Full Automatic Volume Control maintains unvarying volume level on all stations. Other circuit features contributing to added stability are individual coils for each band, rubber-mounted tuning condenser, etc.
- **SUPERB TONAL QUALITY.** Even the most discriminating listener will thrill to the wonderful tone quality produced through the use of a new super-efficient 5" electro-dynamic speaker. More than adequate volume on all programs is assured through the big Beam Power Output of 2 watts.
- **FULL VISION SLIDE-RULE DIAL.** The finest type of new slide-rule vernier dial affords remarkable ease of tuning. Separate scales are provided for Short-Wave and Broadcast bands. Dial measures 3 1/4" x 1 3/8". Easy to read and tune.
- **SET COMPLETE.** Knight 6 A.C.-D.C. 2 Band Superhet (with ballast) in table cabinet is supplied complete with 5" Dynamic speaker and R.C.A. tubes. For operation from 110 volts, 40-60 cycles, A.C. or D.C. Shpg. wt., 11 lbs. Code: SHORE

E10803, Retail Value, \$26.50
NET PRICE, EACH, \$12.95.
YOUR PRICE, \$1225
LOTS OF 3, EACH
E9145, 220 volt AC-DC Adapter. NET. 59c



R.C.A. & HAZELTINE LICENSED

LATEST FEATURES

- SLIDE-RULE DIAL
- DUAL-WAVE RECEPTION
- FULL A.V.C. ACTION
- INDIVIDUAL COILS
- NEW DYNAMIC SPEAKER
- BUILT-IN AERIAL
- WILL PLAY ANYWHERE
- LATEST SUPERHET

The Knight 6 may be operated from 110 volts, 50-60 cycles, A.C. or D.C. or (with line cord listed below at left) from 220 volts, A.C. or D.C. This remarkable adaptability means that you can obtain exceptionally fine two-band reception practically anywhere that electric current is available. The beautiful new table cabinet shown above has been especially designed to house this new set. Of lustrous finished walnut woods, cabinet has one-piece horizontally-stripped front and sides with contrasting vertically-stripped top and bottom trim. Size: 13 1/2" long, 7 3/4" high, 7 3/4" deep. Beautifully-styled throughout. 3



R.C.A. & HAZELTINE LICENSED

\$7²⁵

Each, Lots of 3

Knight 5 TUBE

Completely new—in cabinet design, in circuit features, in compact portability—this attractive Knight 5 Tube AC-DC (with ballast) is the ideal personal or "spare" receiver. Priced to sell, yet quality components and careful construction come up to our high standards in every respect.

• **SMART PLASTIC CABINET.** The beautiful new cabinet, one-piece molded of strong plastic, is exceptionally attractive and practical. Available in either soft ivory or handsome mottled Walnut; cabinet measures only 7" x 8" x 4 1/2", yet it houses a full-sized chassis and built-in aerial. Pleasing speaker grille louvers are designed for perfect acoustical response. Cabinet will not scar or discolor.

• **PLAYS ANYWHERE.** The compact Knight 5 is unusually versatile and may be used almost anywhere with exceptional efficiency. Operates on Alternating or Direct Current, 110 volts, 40-60 cycles, or may also be used on 220 volts, A.C. or D.C., with adapter listed below. Here is the ideal traveling companion—the set you can take everywhere. It's small enough to fit into luggage, yet powerful enough to furnish the type of performance everyone will enjoy. Few radios as compact as the Knight 5 can offer such splendid tone quality, such big volume, and such remarkably dependable operation, day-in and day-out. There's never a dull moment when the Knight 5 is at your finger tips—all your favorite programs are instantly at your command. It's the real life of every party!

• **BIG PILLOW-SHAPED DIAL.** The large, easy-to-read flood-lighted dial is dual-calibrated in meters and kilocycles. Covers the complete standard Broadcast range of 175 to 550 meters (535 to 1730 K.C.). Offers selective and sensitive tuning of all standard Broadcast programs plus upper channel Police Calls. A real performer with fine tone and power.

Knight 5 TUBE

A real price leader! This new Knight 5 Tube (with ballast) A.C.-D.C. receiver would sell for much more even without its many special features. But with true Automatic Push-Button Tuning at our amazing low price, it's this year's sensation of the industry. Combines smart styling, fine versatility, and powerful performance in a truly unmatched manner. Stock up with several of these new sets. They'll sell quickly to bring you large sales volume at excellent profits. Just compare these features:

• **PUSH-BUTTON TUNING.** The Knight 5 offers genuine Automatic Push-Button tuning of any four favorite stations. Initial adjustment is easy to make right at the buttons, and operation is always accurate. This new convenient way of tuning makes the Knight 5 unusually easy for anyone to tune. The four station buttons are sufficient to accommodate practically all of the most popular stations in any locality. Everyone wants Push-Button Tuning. And here it is at a price everyone can easily afford!

• **PLAYS ANYWHERE.** You can operate the Knight 5 with fine efficiency practically anywhere that electric current is available. Works equally well from 110 volts, 40-60 cycles, A.C. or D.C., or with fine cord adapter listed below, will also operate from 220 volts, A.C. or D.C. A truly versatile performer.

• **LARGE 4" DIAL.** In addition to Automatic Push-Button Tuning, the Knight 5 features a big 4" full-vision dial with a handy pointer knob. Easy-to-read calibrations are in kilocycles from 176.5 to 556 meters (540 to 1700 K.C.), covering all standard Broadcast programs as well as many Police Calls. At every point on the dial, the Knight 5 brings in programs clearly and strongly—in a way that you'll enjoy.

Knight 5 TUBE

This new Knight 5 Tube A.C.-D.C. (with Ballast) gives you more for your money—more power, better performance, and finer tone—than any other set in its price class. Buy several—their handsome appearance and strong power will win the approval of everyone who is looking for a quality-built receiver at a low price. Take advantage of our lots of 3 price for extra savings and for bigger profits.

• **Plays Anywhere.** Just plug the Knight 5 into any 110-volt A.C. or D.C. (40 or 60 cycle) outlet, and listen to it bring in program after program in clear, undistorted fashion! On 220 volts use the adapter listed below. Designed especially for portable use, it is ideal for den, bedroom, office, kitchen, etc.—wherever a radio, efficient performer is desired. The ideal "extra" or "personal" radio receiver for the home.

• **Powerful Circuit.** The dependable circuit of this remarkable performer is fully licensed by R.C.A. and Hazeltine. It uses the following matched tubes: 6D6 as R.F. Amp.; 6C6 as Det.; 25L6G as Beam-Power Pentode Output; 25Z5 as Rectifier; and 185R4G as Line Ballast. Here's a tube lineup that attains a remarkable sensitivity and selectivity rarely found in so compact a receiver.

• **Slide-Rule Dial.** For greatest ease and accuracy in tuning, the 1939 Knight 5 uses the latest Slide-Rule Dial. Dial pointer travels horizontally across the dial face. Calibrations are in kilocycles and meters—covering 174 to 560 meters (535-1720 K.C.) for American and Canadian standard Broadcast programs and many police calls. You get powerful, enjoyable reception no matter what program you tune.



\$9⁹⁵

Each, Lots of 3



R.C.A. & HAZELTINE LICENSED

\$8⁴⁵

Each, Lots of 3

AC-DC PLASTIC

• **EFFICIENT NEW CIRCUIT.** Many new developments have been incorporated into the carefully engineered R.C.A. and Hazeltine licensed circuit of the Knight A.C.-D.C. 5. Employs 6C6 as Detector; 6D6 as R.F. Amp.; 25L6G as Beam Power Output; 25Z5 as Rectifier; and L55B8 Ballast. A full 2 watts output is developed from the 25L6G Beam Power stage—large enough to handle any program with pleasing quality. A special iron-core antenna coil makes for unusual sensitivity in so compact a radio. Built-in antenna adds to convenience and utility.

• **WONDERFUL TONE.** The latest full 5" electro-dynamic speaker mounted behind the acoustic baffle louvre grille renders every program in an unusually enjoyable manner. The full 2 watts output is easily accommodated without distortion. This exceptional tone quality compares favorably with that of many sets of much larger size and higher cost. All programs are reproduced with pleasing fidelity and big-set volume. Whether the Knight 5 is operated from A.C. or D.C., reception is always powerful and full-toned, always dependable and enjoyable.

• **SET COMPLETE.** The Knight 5 Tube A.C.-D.C. (with ballast) is supplied complete with genuine R.C.A. tubes, 5" Dynamic speaker, and built-in antenna. For operation from 110 volts, 40-60 cycles, A.C. or D.C. Shpg. wt., 7 lbs.

E10861, Walnut model.

Retail Value, \$13.50.

NET EACH, \$7.75.

YOUR NET PRICE,

LOTS OF 3, EACH

\$7.25

E10860, Ivory model.

Retail Value, \$14.95.

NET EACH, \$8.75.

LOTS OF 3, EACH

E9145, 220 Volt Adapter, NET 59c

\$8.25

AC-DC MODEL

• **POWERFUL CIRCUIT.** An efficient new circuit, fully R.C.A. and Hazeltine licensed, uses latest tube types as follows: 6C6 as Detector, 6D6 as R.F.; 43 as Power Output; 25Z5 as Rectifier, and L55B as Ballast. These tubes and this circuit attain a fine degree of sensitivity and selectivity seldom found in sets priced so low. Litz-wound coils add to distance reach. A built-in antenna provides for instant operation wherever you take the set. You can carry this fine receiver from room to room; it is ideal for kitchen, den, guest room, office, bedroom, etc.—wherever a "personal" set is in demand.

• **ATTRACTIVE CABINET.** The Knight 5 is presented in a very attractive table cabinet, measuring 12 $\frac{1}{4}$ " wide, 6 $\frac{1}{2}$ " deep, and 8" high. Front and sides are of one-piece smoothly grained walnut, with beaded edges, and contrasted bottom trim. Rounded corners and simple but tasteful speaker grille emphasize the graceful lines. Cabinet accommodates a full 5" Dynamic speaker which provides for pleasing reproduction of both voice and music and handles all programs in an effective fashion.

• **SET COMPLETE.** The Knight 5 Tube (with ballast) A.C.-D.C. receiver with Automatic Push-Button Tuning is supplied complete with matched Raytheon tubes and 5" Dynamic speaker. For use from 110 volts, 40-60 cycles, A.C. or D.C. The "price-leader" set for every dealer. Shpg. wt., 11 lbs. Code: VOGUE.

E10893, Retail Value, \$18.50.

NET PRICE, EACH, \$10.45.

YOUR NET PRICE,

LOTS OF 3, EACH

\$9.95

E9145, 220 Volt Adapter, NET 59c

AC-DC MODEL

• **Excellent Tone.** The heavy-duty 5" dynamic speaker of the Knight 5 handles the exceptional volume of the set (full 2 watts output) with a clarity and richness of tone that is amazing in such a low-priced radio. You'll find a new conception of compact-radio tone quality in the Knight 5! You'll enjoy its full-voiced reproduction of every program.

• **Other Features.** Additional value features of the Knight 5 A.C.-D.C. are: 25-foot built-in antenna for maximum convenience; heavy-duty tuning condenser for sharper tuning; quality-built parts throughout, etc. You get amazing value in the Knight 5—an outstanding compact radio of 1939.

• **Charming Cabinet.** So that the Knight 5 will harmonize beautifully with any interior, we have chosen for it a gracefully designed cabinet of the latest 1939 style. Front and sides are of one-piece delicately-grained walnut, while top and bottom are of darker matched woods. Size: 11 $\frac{1}{4}$ " wide, 7 $\frac{1}{4}$ " high, 6 $\frac{1}{2}$ " deep. Easily portable, the Knight 5 may be carried anywhere and plugged-in for instant operation.

• **Set Complete.** The Knight 5 Tube A.C.-D.C. (with Ballast) is offered complete with 5" speaker and R.C.A. tubes. For operation from 110 volts, A.C. or D.C., 40 to 60 cycles. Shpg. wt., 9 lbs. Code: TEMPO.

E10805, Retail Value, \$16.50.

NET PRICE, EACH, \$8.95.

YOUR PRICE,

LOTS OF 3, EACH

\$8.45

E9145, 220 Volt Adapter for above set, NET 59c

America's
Lowest-Priced
QUALITY RADIOS



COMPACT... POWERFUL... BEAUTIFUL PERFORMERS



Knight 6 TUBE A.C. SUPERHET

If we had to name our first choice for leadership in the low-priced A.C. radio field, we'd have to include this superb 1939 Knight 6 Superhet. Its remarkable power, quality performance, and sparkling tone quality mark it as one of the year's outstanding buys—and we predict it will outsell many so-called "leader."

• **Power-Boost Circuit.** An exclusive new development which provides twice as much voltage from the power supply, allowing each tube 100% increase in plate voltage to assure full voltage rating. This ingenious innovation makes the Knight 6 equal in performance to many 7 and 8 tube receivers!

• **Slide-Rule Dial.** Beautiful, practical and efficient, this dial makes for the simplest, most accurate tuning. Dial has gold face with light green calibrations in both kilocycles and meters. The Knight 6 tunes 174 to 560 meters (535-1720 K.C.) for strong, reliable reception of American and Canadian standard Broadcast stations, as well as many police calls. Dial-pointer travels horizontally over easy-to-read scales.

• **Splendid Tone.** For sheer beauty of tone, no other low-priced A.C. radio can compare with the Knight 6 Super. The full 2 watts output of the set is handled capably and smoothly by the 5" dynamic speaker, to produce rich, mellow tone—the kind you'd expect only from more expensive receivers.

• **1939 Superhet Circuit.** Licensed by R.C.A. and Hazeltine. Uses the latest R.C.A. tubes: 6A8G as 1st Det. Osc.; 6K7 as I.F. Amp.; 6Q7G as 2nd Det.-A.V.C.-1st Audio; 25A6G as Pentode Power Output; 25Z6G as Rectifier; and 165R4G as Power-Boost Regulator. The use of double and triple-purpose tubes adds to the power and sensitivity of the Knight 6, developing 2 full watts output.

• **Additional Features.** Other value features of the Knight 6 are: Full A.V.C. for freedom from blasting and fading; heavy-duty rubber-mounted tuning condenser; fully shielded components, etc.

• **Beautiful Cabinet.** The tasteful cabinet of the Knight 6 reflects the quality which is built into the set. Built of selected solid walnut, with dark top and bottom bands contrasting with lighter-finished raised center instrument and grille panel. Horizontal grille bars lend unusual grace and distinction. Size: 12" x 5 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ ".

• **Set Complete.** The Knight 6 Tube A.C. Superhet is offered complete, as illustrated, with 5" speaker and R.C.A. tubes. For 110 volt 60 cycles A.C. operation. Shpg. wt., 12 lbs. Code: CHEER.

E10804, Retail Value, \$26.50.

NET PRICE, EACH, \$12.95.

YOUR PRICE, LOTS OF 3, EACH

\$12.25



Knight 7 TUBE AC-DC 2 BAND SUPERHET

Here is a new 1939 Knight 7 Tube A.C.-D.C. Superhet (with Ballast) which is so efficient it will give you hours of pleasurable radio entertainment, so goodlooking it will enhance any room, so low-priced everyone can afford it! Sets a new standard for radio performance at a price ordinarily associated with smaller sets. Look at these features:

• **Wide Tuning Range.** The Knight 7 A.C.-D.C. covers two full bands: 17 to 51 meters (5800 to 17500 KC.) for foreign and domestic Short Wave, including police, Amateur, airplane and commercial signals; and 175 to 545 meters (550-1720 KC.) for the best in American and Canadian standard broadcast programs. The superhet circuit makes for greater selectivity in tuning long distance.

• **Push-Button Tuning.** Just push a button—and there's your favorite broadcast station, tuned to hairline accuracy. The tuning condenser and push-button unit are all in one assembly. Buttons are provided for four of your favorite broadcast stations; once set, the buttons need

no further attention. Manual tuning knob allows you to tune also by the regular method.

• **Latest Circuit.** Fully licensed by R.C.A. and Hazeltine, this is one of the finest A.C.-D.C. superhet circuits ever designed. It employs the latest Raytheon tubes: 6A7 as Det.-Osc. (dual-purpose), 6D6 as I.F. Amp., 6Q7G as 2nd. Ict. A.V.C. Audio (triple-purpose), 25A6 as Power Output; 2S25 as Rectifier; L49H as Ballast, and 6U5 as Electric Eye.

• **Electric Eye.** For utmost accuracy in manual tuning, there's nothing like the Electric Eye. Precise and efficient. When the dark sector is narrowest, you are tuned in accurately.

• **Additional Features.** Other valuable features include: Full A.V.C. for uniform maintenance of volume, and freedom from hissing and fading; separate coils on each band for maximum efficiency; heavy-duty tuning condenser, etc.

• **Beautiful Tone.** For beauty of tone, the Knight 7 is unequalled by any other A.C.-D.C. receiver at its price. All programs are reproduced

through the full 5" dynamic speaker with a life-like fidelity that will amaze you. Tune in your favorite program—see how much better it sounds with the Knight 7!

• **Handsome Cabinet.** The Knight 7 Tube A.C.-D.C. is housed in a quality-built cabinet of winning design. Made of one-piece selected walnut, it has a roll-top effect which will blend charmingly in any interior scheme. Grille is cut in an unusual design. Beautiful pillow-shaped dial has gold face. Size 17 1/2" x 11" x 8".

• **Set Complete.** The Knight 7 Tube A.C.-D.C. 2 Band Superhet (with Ballast) for 110 volt A.C.-D.C., 40-60 cycles operation, is offered complete with Raytheon tubes as illustrated. Shpg. wt., 14 lbs. Code: TR16.

E10894, Retail Value, \$34.95. **\$16.45**
NET PRICE EACH, \$17.45.

NET, LOTS OF 3, EACH ...
E9145, 220 Volt Adapter for above set. NET ... 59c

R.C.A. & HAZELTINE LICENSED



\$9.45
Walnut
Each,
Lots
of 3

- 5" Dynamic Speaker
- Gets Police Calls
- Bakelite Cabinet
- Pillow-Shaped Dial
- Dual-Purpose Tubes
- Superhet Circuit

Knight 5 TUBE A.C. SUPERHET

If you are looking for a compact A.C. radio which will give you more performance, more beauty and more real value than any other set in its price class—then the Knight 5 A.C. is your choice. From its neat bakelite cabinet to its brilliantly designed superhet circuit, it incorporates every new 1939 development for delightful, sparkling performance.

• **SMART PLASTIC CABINET.** The beautiful new cabinet is made of one-piece molded Bakelite; you have your choice of either smooth Ivory or rich, sleek Walnut. Unusually attractive and practical, it will not mar or fade in color. Measures 7" x 8 1/2" x 4 1/2". Novel speaker grille louvers are designed for perfect acoustical response.

• **ATTRACTIVE DIAL.** Pillow-shaped and fully illuminated, the dial of the Knight 5 is clearly calibrated in both meters and kilocycles, for easiest and most accurate tuning. Blends perfectly with the modern cabinet design.

• **SPLENDID NEW CIRCUIT.** The Knight 5 uses a superhet circuit fully licensed by R.C.A. and Hazeltine. Employs the latest tubes as follows: 6A7 as 1st. Det. Osc. (dual-purpose), 6D6 as I.F. Amp., 75 as Diode Det.-A.V.C., 1st Audio (triple-purpose); 41 as Power Output, and 80 as Rectifier.

• **BEAUTIFUL TONE.** The use of the latest dual- and triple-purpose tubes gives the Knight 5 an output and tone quality comparable to many sets of larger size and higher price. The splendid output of the set is capably handled by the 5" electro-dynamic speaker, which reproduces all programs with clear, pleasing tone quality.

• **COMPLETE COVERAGE.** The 1939 Knight 5 tunes the entire Broadcast band, covering 175 to 550 meters (535-1730 KC.) powerfully and dependably for the finest Broadcast program plus police calls. It's a set that can be used anywhere—you'll like it for its compactness, good looks, and strong performance!

• **SET COMPLETE.** The Knight 5 Tube A.C. Superhet Plastic Model is offered complete with Raytheon tubes and 5" electro-dynamic speaker. For operation from 110 Volts, 60 cycles A.C. Shpg. wt., 8 lbs.

E10866, WALNUT, Retail Value, \$17.50. **\$9.45**
NET EACH, \$9.95. NET PRICE, LOTS OF 3, EACH

E10865, IVORY, Retail Value, \$18.95. **\$10.45**
NET EACH, \$10.95. NET PRICE, LOTS OF 3, EACH

E9151, Suede Zipper carrying case. NET ... 85c



OUTSTANDING 1939 FEATURES



WITH
PUSH-BUTTON
TUNING

WITH
ELECTRIC EYE



Knight 6 TUBE A.C. Push-Button SUPERHET

- * Push-Button Tuning
- * Full-Acting A.V.C.
- * Thermometer Dial
- * 5" Dynamic Speaker
- * With Electric Eye
- * Gets Police Calls

We couldn't have chosen a better example to illustrate what ALLIED means by "value". This new 1939 Knight 6 is a perfect combination of strong power, sparkling performance, excellent tone quality, and low price—a combination that no competition can meet!

*** Push-Button Tuning.** It's easy, it's simple, it's fool-proof! Just press a button and there's any one of your five favorite stations. The Knight 6 uses the latest front-adjusted, electric permeability type of push-button tuning, the most efficient system available. Convenient manual tuning is provided for, also.

*** New "Thermometer" Dial.** A novel, practical dial which is fully illuminated. A moving band of color clearly shows the exact position of the station indicator on the kilocycle calibrated scale. Easy to read—easy to tune.

*** Powerful New Circuit.** The perfected R.C.A. and Hazeltine licensed circuit of the Knight A.C. 6 makes for utmost power, sensitivity, and selectivity. Uses the following tubes: 6A8G as Osc.-Mod. (dual-purpose); 6K7G as L.F. Amp.; 6Q7G as Det.-A.V.C.-1st. Audio (triple-purpose); 6K6G as Audio Output; 5Y4G as Rectifier; and 6G5 as Electric Eye. This new circuit develops more than 2 watts output, resulting in better reproduction and finer tone quality.

*** Flawless Tone.** To bring you the mellow, delightful tone quality you'd expect only from a much higher-priced set, the Knight 6 uses a special 5" dynamic speaker which reproduces every note at every volume level with a realism that is astonishing. You'll like your favorite programs even better with the Knight 6!

*** Electric Eye.** The easy visual aid to accurate tuning. Enables you to "see" when your program is perfectly tuned. Keep the volume down; when the dark sector is narrowest, turn the volume up—and there's your program!

*** Additional Features.** Other value features of the Knight 6 are: Full Automatic Volume Control, to prevent fading and distortion; heavy-duty type tuning condenser for maximum tuning selectivity; highest grade circuit components, etc.

*** Beautiful Cabinet.** The Knight 6 is fittingly presented in one of the best-looking cabinets we have ever offered. Front and sides are of handsomely grained light walnut, while top and bottom are of deeper contrasting shade. Horizontal grille bars enhance the flowing lines. Size: 14 1/4" x 9" x 6 1/2".

*** Set Complete.** The Knight 6 Tube A.C. Superhet is offered complete, as illustrated above, with R.C.A. tubes and 5" Dynamic speaker. For operation from 110 volts, 60 cycles A.C. Shpg. wt. 14 lbs. Code: FLAME.

E10905.
Retail Value, \$37.50.
NET EACH, \$18.95.
NET, LOTS OF 3, EACH.....

\$1795

Knight 5 TUBE A.C. 2 BAND SUPERHET

\$1325

Each,
Lots of 3

- * Tunes Two Bands
- * Automatic Tuning
- * 5" Dyn. Speaker
- * Full A.V.C. Action
- * Beautiful Dial
- * Superhet Circuit

Here is ALLIED'S Value Leader!—a Knight 5 Tube 2 Band A.C. Superhet that sweeps aside all previous conceptions for quality radio performance at a low price. Combining Push-Button Tuning, smart styling, strong power, excellent tone quality, and genuine 2-band reception, it can't be matched for "leader" purposes.

*** Tunes 2 Full Bands.** Covering a surprisingly wide range, the Knight 5 tunes 75 to 175 meters (1730-4000 KC.) for Short Wave, amateur and police signals; and 177 to 545 meters (550-1700 K.C.) for excellent reception of American and Canadian standard Broadcast programs. You get 2-band reception at a price ordinarily paid for Broadcast only.

*** Push-Button Tuning.** The newest type, making tuning easier, simpler, and more accurate than ever before. The Knight 5 will tune any four of your favorite Broadcast stations. Condenser and push-button assembly are combined in one unit making for greater efficiency in operation. Automatic and foolproof, with easy front adjustment.

*** Powerful Circuit.** Licensed by the famous R.C.A. and Hazeltine laboratories, the superhet circuit of the Knight 5 is built for fullest sensitivity and selectivity. It employs the following latest tubes: 6A7 as Det.-Osc. (dual-purpose); 6D6 as I.F. Amp.; 6Q7G as 2nd. Det.-A.V.C.-Audio (triple-purpose); 41 as Power Output; and 80 as Rectifier. The double and triple-purpose tubes add greatly to the circuit efficiency, giving the Knight 5 surprising power and tone.

*** Full-Bodied Tone.** The life-like tonal quality of the Knight 5 Superhet is the type you'd ordinarily associate with much higher-priced receivers: rich and clear, reproducing every note with realistic vitality. The full 5" dynamic speaker superbly handles the strong output of the Knight 5.

*** Extra Features:** Beautiful rectangular dial, with gold face; kilocycles and megacycles are clearly marked; full A.V.C. for uniform maintenance of volume; heavy-duty tuning condenser for greater selectivity, etc.

*** Attractive Cabinet.** You'll have to go into the higher price ranges to find a more handsome cabinet than this. Front and sides are of one-piece, horizontally-grained walnut; top and bottom of contrasting darker woods. Vertical grille bars add a distinctive note. Size: 13" x 8" x 6 1/2".

*** Set Complete.** The Knight A.C. 5 Tube 2-Band Superhet, for 110 Volt 60 cycle operation is offered complete as illustrated, with 5" dynamic speaker and Raytheon tubes. Shpg. wt. 14 lbs. Code: PROUD.

E10895. Retail Value, \$24.50.
NET PRICE EACH, \$13.85.
YOUR PRICE, LOTS OF 3, EACH.....

\$1325



R.C.A. & HAZELTINE LICENSED

Knight 6 TUBE A.C. 2 BAND SUPERHET

WITH
PUSH-BUTTON
TUNING

3
WATTS
OUTPUT

- Slide-Rule Dial
- 5" Speaker
- Tone Control
- Power Booster
- Full A.V.C.
- Separate Coils

This beautiful new 1939 Knight 6 Tube 2 Band A.C. Superhet is thoroughly in the ALLIED tradition of value—incorporating exclusive circuit refinements, expertly engineered for finest performance and tone, and offered at a record-breaking low price. Compare this receiver with other makes selling even at twice the price and you'll find that only the Knight 6 gives you all these features:

- **DUAL-WAVE RANGE.** In addition to powerful standard Broadcast reception, fascinating Short-Wave foreign and domestic programs are at your finger-tips with the Knight 6. Tuning range covers the two most important bands of the radio spectrum; 16 to 53 meters (5650 to 18100 K.C.) for Short-Wave, and 174 to 560 meters (535 to 1720 K.C.) for standard Broadcast and Police Calls. On both ranges, the Knight 6 is extraordinarily selective and sensitive—separating stations smoothly and easily.
- **AUTOMATIC PUSH-BUTTON TUNING.** Any of 6 favorite stations is instantly available simply by pushing a button. The automatic tuning system used in this receiver is of the latest

1939 perfected type. Initial adjustment is made instantly from the front, at the buttons, and is surprisingly simple. Operation is smooth, effortless, and "right on the head" for each station.

- **OUTSTANDING NEW CIRCUIT.** A newly developed R.C.A. and Hazeltine licensed Superhet circuit—with exclusive big features—is the secret of the fine performance obtained from the Knight 6. Incorporated is the special new "Power Booster" stage which provides twice as much voltage from the power supply. Operates each tube at full voltage rating, and secures tremendous increase in amplification over ordinary 6-tube sets. Conservatively rated, the "Power Booster" attains three times the output of conventional 6 tube radios. Efficient tube line-up includes: 6K8-1st Det.-Osc. (dual purpose); 6K7-1 F. Amp.; 6C6G—Triple-purpose Diode Det.-A.V.C.—1st Audio; 25A6G—Pentode Power Output; 25Z6G—Rectifier; 165R4G—"Power Booster" Voltage Regulator. Here is actual eight and nine tube efficiency at big savings!

- **EXTRA-VALUE FEATURES.** Full Automatic Volume Control provides uniform, unvarying volume level for all stations. Continuously variable Tone Control permits personal tone selection from Bass to Treble. Rubber-floated condenser. Individual Coils on each band, and

I.F. Wave-Trap add to circuit stability, distance reach, and selectivity.

- **SUPERIOR TONE QUALITY.** For tonal beauty and full strength faithful reproduction of voices and music, the Knight 6 is unsurpassed in its price class. A full undistorted 3 watts output is easily achieved and is smoothly handled by the 6" electro-dynamic speaker. So big an output is a feature ordinarily available only in expensive 7 to 9 tube radios. Every program is re-created for you with all the color, the strength, and the beauty of the original Broadcast studio performance.

- **SET COMPLETE.** The Knight 6 Tube 2 Band A.C. Superhet is presented in the unusually attractive modern table cabinet shown above. Has horizontally-grained walnut face and sides with contrasting center band of vertically striped walnut. Measures: 17 1/2" long, 10 1/2" high, 8" deep. With genuine R.C.A. tubes and 6" dynamic speaker. For operation from 110 volts, 60 cycles A.C. Shpg. wt., 20 lbs. Code: AMBER. E10806. Retail Value, \$42.50. NET EACH, \$20.85. YOUR NET PRICE, **\$19.85**—LOTS OF 3, EACH.....

Knight 8 TUBE AC-DC SUPERHET

3 FULL
BANDS

- Slide-Rule Dial
- Push-Button Tuning
- Dynamic Speaker
- Tone Control
- Electric Eye
- Separate Coils

Here is a fine value in a new 1939 Knight 8 Tube All-Wave A.C.-D.C. Superhet (with ballast) incorporating all the latest refinements and offered at a surprisingly low price. From its efficient new Superhet circuit to its striking cabinet design, the Knight 8 is thoroughly in the modern trend.

- **ALL-WAVE RANGE.** The Knight A.C.-D.C. 8 tunes three full bands continuously for enjoyable all-wave reception. Covers 17 to 52 meters (5800-17500 KC.) for Short-Wave foreign programs; 52 to 175 meters (1720-5800 KC.) for Amateur, Aviation and Police Calls; and 175 to 556 meters (540 to 1720 KC.) for strong reception of all standard Broadcast programs.
- **AUTOMATIC PUSH-BUTTON TUNING.** Any of 6 favorite stations can be tuned automatically simply by pushing a button. The push-button assembly and the gang condenser are one complete unit, assuring an extremely simple initial adjustment and consistently accurate operation. Anyone can tune the Knight 8 without difficulty or tedious dial-twirling.
- **BIG SLIDE-RULE DIAL.** Manual tuning, too, is thoroughly up-to-date in this new set. A big 7" x 2 1/4" gold-faced Slide-Rule type dial shows separate scales for each wave-band. Calibrations are large, clear, and easy-to-read. Smoothly-acting needle-pointer travels horizontally across dial face, quickly covering the full dial space. For added tuning ease, the Electric Eye is incorporated. This visual tuning aid is especially valuable when the receiver is tuned manually; it shows instantly when stations are correctly in tune.
- **ADVANCED SUPERHET CIRCUIT.** A new R.C.A. and Hazeltine licensed Superhet circuit is built around the newest tube types. Tubes used are: 6A7 as Det.-Osc., 6D6 as I.F., 76 as 2nd Det.-A.V.C., 6K5G as Audio, 25A6G as Power Output, 25Z5 as Rectifier, 1A2B as Ballast, and 6U5 Electric Eye. The use of two dual-purpose tubes adds to distance-reach and power. Individual coils on each band assure exceptional stability of operation and unusual selectivity. Other circuit features include: full Automatic Volume Control to prevent fading or blasting; continuously variable Tone Control to permit personal selection of treble or bass emphasis; and 6U5 components throughout for lasting dependable performance; etc.



- **VERSATILE OPERATION.** The Knight 8 is designed to operate with equal efficiency from 110 volts, 50-60 cycles, A.C. or D.C., or (with adapter listed below) from 220 volts A.C. or D.C. This means that fine radio reception is available at low-cost practically anywhere that electric current can be had. In addition to this unusual versatility, the Knight 8 offers pleasing tone quality on all programs through the use of a full 6 1/2" electro-dynamic speaker. Both voice and music are reproduced with excellent clarity and volume. The Knight 8 makes available fine entertainment on all-wave bands at unusually low-cost.

- **SET COMPLETE.** The Knight 8 Tube A.C.-D.C. Superhet (with ballast) is presented in a new table cabinet of horizontally-grained walnut woods with contrasting top and bottom trim bands. Speaker grille extends around corner, adding a distinctive note. Measures: 19 1/2" x 11 1/2" x 9 1/2". Supplied with Raytheon tubes and 6 1/2" dynamic speaker. For operation from 110 volts, 50-60 cycles, A.C. or D.C. Shpg. wt., 18 lbs. Code: MORN. E10896. Retail Value, \$17.50. NET EACH, \$22.95. PRICE, Lots of 3, EACH **\$21.75**—E9145, 220 Volt Adapter. NET 59c



"Just
Push a Button!"

- ALL-WAVE RANGE
- SLIDE-RULE DIAL
- 5 WATTS OUTPUT
- FULL A.V.C. ACTION
- TONE CONTROL
- 8" DYNAMIC

Knight 8 TUBE AC-DC 3 BAND SUPERHET

This new 1939 8 Tube A.C.-D.C. Superhet (with ballast) will delight "DX" enthusiasts—will amaze lovers of fine tone quality and rich cabinet design—will fully satisfy the demands of critical radio buyers. Those who are familiar with the high standards of Knight quality will readily appreciate what an extraordinary value this is; to our new customers we say: Try it out under our Free Trial. Money-back Guarantee—put it through its paces—check its brilliant features—if it doesn't meet your demands for a top quality A.C.-D.C. receiver we'll refund every penny of your purchase price!

• **World-Wide Reception.** The Knight 8 tunes everything on the air: 16 to 53 meters (5650-18000 KC.) for thrilling foreign and domestic Short Wave programs; 52 to 175 meters (1710-5650 KC.) for Short Wave Amateur, police, aircraft, and ships-at-sea signals; and 174 to 560 meters (535-1720 KC.) for your choice of the finest American and Canadian standard Broadcast programs. Here's genuine all-wave tuning that brings you the entire world of radio! Here's radio reception brought to you clearly, powerfully and enjoyably on all programs.

• **Push-Button Tuning.** The simplest, finest, fool-proof automatic tuning system ever devised. Buttons are provided for seven of your favorite stations, plus one for clearing when manual tuning is desired. Buttons are easily set at front; tuning thereafter is always "right-on-the-head." Station tabs for all important U. S. Broadcast stations are included. You'll like the convenience and accuracy of Push-Button Tuning—the easiest and most enjoyable way of tuning your favorite stations.

• **Slide-Rule Dial.** A beautiful, rectangular type, measuring $8\frac{3}{8}$ " x $3\frac{3}{8}$ ". Upper scale is calibrated in kilocycles for Broadcast band, lower scales in megacycles for Short Wave. Calibrations are clearly etched in black on an attractive gold background, showing important Broadcast stations and Short Wave channels. Has easy-to-see horizontal-traveling pointer.

• **Exceptional Circuit.** One of the finest A.C.-D.C. circuits ever produced; fully licensed by R.C.A. and Hazeltine. Uses the following tubes: 6K8 as Det.-Osc. (dual purpose); 6K7 as I.F. Amp; 6Q7G as Diode Det.-A.V.C.-1st. Audio (triple purpose); 615G as Phase Inverter-Audio Amp; 2-25L6G as Beam-Power P.P. Osc. as 25L6G as 5th. Aft. and BK17E1 as Ballast. This remarkable circuit, using 4 Beam-Power Tubes, develops a matchless degree of power and tone quality.

• **Superlative Tone.** Never before has an A.C.-D.C. receiver achieved the tonal brilliance of the Knight 8. The concert-type speaker (8" in the table model) handles the full 5 watts output adequately, as full, rich, enjoyable tone. The special Bass-Booster circuit retains all the depth and warmth of the deepest overtones on both voice and music.

• **Real Versatility.** No matter whether you have A.C. or D.C., 40 or 60 cycles, 110-volt current available, the Knight A.C.-D.C. 8 will play perfectly at all tunings. It will also operate from 220 volts A.C. or D.C. with the adapter listed below. Here's real versatility plus top performance!

• **Outstanding Features.** Check these extra luxury features: Full-acting A.V.C. to maintain uniform volume on all programs; Continuously Variable Tone Control for emphasis of either treble or bass; 3-gang tuning condenser, rubber-floated for maximum selectivity; preselector for added sensitivity; separate coils on each band, promoting unequal stability, etc. Each feature contributes to the magnificent tuning range, tonal excellence, and versatility of the Knight A.C.-D.C. 8.

• **Beautiful Table Cabinet.** No matter what the decorative scheme in your home is, the handsome cabinet of the Knight 8 will harmonize perfectly. Beautifully proportioned, it features a dual grille effect in the newest 1939 mode. Fashioned of choice walnut woods, with horizontal graining on front and sides, and vertical striping for top and bottom trim. Size: $21\frac{1}{2}$ " long x $11\frac{3}{8}$ " high x $10\frac{3}{8}$ " deep.

• **Table Model Complete.** The Knight 8 Tube A.C.-D.C. Superhet is offered complete in table model as illustrated above, with 8" speaker and R.C.A. tubes. For 110 volts, A.C. or D.C., 40 or 60 cycles operation. Shpg. wt., 32 lbs. Code: SHELL.

E10807, Retail Value, \$67.50.

NET PRICE EACH, \$33.95.

LOTS OF 3, EACH

E9145, 220 Volt adapter for Knight 8 Tube A.C.-D.C. NET. 59c

\$31.95

8 TUBE AC-DC CONSOLE MODEL

A magnificent presentation of the Knight 8 Tube A.C.-D.C. Superhet is shown at the left. Includes all features of the table model described above; Push-Button Tuning; Slide-Rule Dial; All-Wave tuning; Tone Control; Bass Booster; full A.V.C.; 3-gang condenser; preselector, etc. Has large 8-inch super-dynamic speaker. Attractive low-boy console cabinet has large baffle area. Sloping instrument panel is of choice grained walnut, with curved side pilasters in richly marked walnut, enhanced by tasteful vertically striped head overlays. Entire cabinet is hand-rubbed to a rich lustrous piano finish. Size: $32\frac{1}{2}$ " wide x $36\frac{1}{2}$ " high x $13\frac{1}{2}$ " deep. A superb musical instrument.

• **Console Model Complete.** The Knight A.C.-D.C. 8 Tube Superhet is offered complete with 8" speaker and R.C.A. tubes. For operation from 110 Volts, A.C. or D.C., 40-60 cycles. Shpg. wt., 75 lbs. Code: SLOPE.

E10808, Retail Value, \$89.95.

NET PRICE EACH, \$45.95. LOTS OF 3, EACH

\$43.45

8 TUBE AC-DC CHASSIS MODEL

The chassis model of the Knight A.C.-D.C. 8 makes an especially desirable replacement for obsolete sets. Incorporates all the features described above, including a heavy-duty 8" Dynamic speaker. Built to meet 1939's demands for peak radio performance, power and tone at a moderate price, it will give brilliant, dependable performance for years to come. It's a set we're confident of and proud to back with our Free Trial. Money-Back Guarantee! Chassis size: $15\frac{1}{2}$ " long, 9" deep, and 9" high. Complete with escutcheon, 8" speaker and R.C.A. tubes. For operation from 110 volts, A.C. or D.C., 40 or 60 cycles.

Shpg. wt., 20 lbs. Code: COVER.

E10809, Retail Value, \$56.95.

NET PRICE EACH, \$28.50. LOTS OF 3, EACH

E9145, 220-Volt adapter for use with above sets. NET. 59c

\$26.95





Prove to Yourself
THAT NEW KNIGHT RADIOS
ARE 1939's BEST BUYS!



15 DAY FREE TRIAL
& MONEY-BACK GUARANTEE

Guarantee

Into the making of the new 1939 KNIGHT RADIOS have gone months of careful research, painstaking planning and designing, and rigorous laboratory testing with the most precise of modern instruments—so that we might bring you the finest radios that modern science and craftsmanship can produce. Not until every model had passed the most exacting tests for quality, durability and performance, and had met our high standards in every detail, were we satisfied that these new sets offer you the most for your money.

And now, so certain are we that you will be thoroughly pleased with any KNIGHT RADIO you may buy—that the new 1939 KNIGHT models will bring you more brilliant performance, finer tone, more luxurious beauty, and more exclusive features—that we make the liberal Free Trial Money-Back Guarantee Offer at the right—the fairest and squarest you could ask for.

Buy any KNIGHT RADIO on our regular terms. Try it out for fifteen days without risk—you be the judge! We make this offer so that you can prove to yourself—what we already know—that KNIGHT RADIOS are 1939's best buys!

Order any KNIGHT RADIO on our regular terms. Try it out under your own operating conditions. Check the tone quality, the distance-getting performance, the rugged stability of operation. Observe the quality construction, the beauty of cabinet design, the ease of operation. And then, if within 15 days—for any reason—you are not fully satisfied with your choice, you may return the set to us, and we will promptly refund your full purchase price, less transportation charges. This powerful Guarantee is further supplemented by the regular Radio Manufacturers' Association Guarantee against defects in materials and workmanship over a period of three months from date of purchase.

—ALLIED RADIO CORPORATION

NEW FEATURES — NEW LOW PRICES!

1939 KNIGHT Radios incorporate every new and advantageous refinement, and yet they are lower in price than ever before. Take advantage of our additional lots-of-3 discount. This offer applies on orders for any 3 sets, whether of the same model or assorted—to bring you bigger savings and profits.

EVERY RADIO WORKS BETTER WITH A KNIGHT ANTENNA

To get the best results on both Broadcast and Short Wave bands—to realize what radio enjoyment really means—install a KNIGHT Antenna Kit. Utilizing the famous doublet principle for utmost efficiency, it provides greater signal strength while reducing noise interference. Works with any set having input for either the single or doublet-type—is especially effective when used with KNIGHT Radios (see Page 145 for complete description).

\$195

E3391. NET





Knight 7 TUBE 2 BAND A. C. SUPERHET

We'll back up every claim we make for this wonderful new 1939 Knight 7 Tube 2 Band A.C. Superhet. Only when you have seen and heard it in operation can you appreciate its exceptional combination of brilliant tone, long-distance range, and the convenience of Automatic Push-Button Tuning. Try it out for yourself and put it through its paces—take advantage of our liberal Free Trial and Money-Back Guarantee offer (see opposite page for details). Just check these value-giving features:

- **PUSH-BUTTON TUNING.** Any of six favorite stations can be tuned instantly and automatically just by pushing a button. The Knight 7 incorporates the permeability-tuned type of automatic system—the simplest, fool-proof method ever developed. In initial adjustment, push-buttons are set to required station frequencies directly from the front panel—and no special tools or skill are needed. Once buttons are set, no further attention is needed. "Drifting" is entirely eliminated; stations will always come in "right-on-the-head." In addition to six station buttons, there is a push-button for wave-band switching, and another button for shifting from automatic to manual tuning.
- **1939 SLIDE-RULE DIAL.** 5 3/4" long by 2 1/4" high, this dial offers a new conception of manual tuning ease. Needle pointer travels horizontally across dial face to permit quick, accurate station logging. Separate dial scales are provided for the standard Broadcast and Short-Wave bands. Popular foreign stations are indicated in the Short-Wave sector. All calibrations are large, clear, and easily-read. The Electric Eye—built into the dial face—enables you to log stations manually with volume tuned down; when dark area of the Eye is narrowest, you turn up volume, and your program comes in perfectly.
- **TWO-BAND RECEPTION.** The Knight 7 offers you on two full bands the cream of the airwaves. In addition to powerful, enjoyable reception of all American and Canadian stations, from 175 to 560 meters (535 to 1730 K.C.), the receiver tunes the most popular foreign and domestic Short-Wave programs

from 16.5 to 54 meters (5650 to 18,100 K.C.). This combination covers the most important and fascinating channels of 3-band sets and brings you thrilling entertainment at every point on the dial.

- **R.C.A. LICENSED CIRCUIT.** Built up to exacting standards—not down to a price—the Superhet circuit of the new Knight 7 incorporates the latest features developed by the great R.C.A. and Hazeltine laboratories. The newest tube types are correctly combined to produce extra sensitivity, selectivity, and power: 6A7 as 1st Det.; 76 as Osc.; 6D6 as I.F. Amp.; 75 as Diode Det.-A.V.C.-1st Audio; 41 as Power Output; 80 as Rectifier; and 6U5 Electric Eye. Additional circuit features include full Automatic Volume Control; continuously variable Tone Control; extra safety factors, etc.
- **REALISTIC TONAL QUALITY.** The Knight 7 employs the most efficient type of 8" electro-dynamic speaker (8" in console) to furnish true-toned reproduction of all ranges in the musical register. Full undistorted 1 1/2 watts output (2 watts maximum) provides plenty of volume for all programs. In addition, Tone Control enables you to emphasize bass or treble ranges to suit your personal taste.
- **ATTRACTIVE TABLE CABINET.** The pleasing beauty of the newly designed table cabinet housing the Knight 7 will meet with universal approval. Horizontally-grained walnut panel with wrap-around side is set off by contrasting bands of diagonally-stripped lighter-toned walnut. Speaker grille extends around left side of cabinet. Size: 18 1/4" long, 11 1/4" high, 9" deep.
- **SET COMPLETE.** The Knight 7 Tube 2 Band A.C. Superhet is supplied complete with 6" speaker and Raytheon tubes. For operation from 110 volts, 50-60 cycles A.C. Shpg. wt., 25 lbs. Code: WARM. E10870. Retail Value, \$49.95. NET PRICE, EACH, \$24.45. YOUR PRICE, LOTS OF 3, EACH

Tune any six of your favorite stations just by pressing a button! It's quick, effortless, and always accurate. Call letters of any easily inserted from complete printed list which is furnished.

Even manual tuning is easier with this big new slide-rule type dial! Separate scales are provided for Short-Wave and Broadcast bands. Large, clear calibrations are in Kilocycles and Megacycles. Foreign stations are clearly indicated on Short-Wave Scale.

Built right into the dial face, the Electric Eye shows you exactly when your station is correctly tuned in. This precise visual tuning indicator is the best aid ever developed to assure correct manual tuning.



The chassis of the Knight 7 is the product of expert engineering and careful construction. Highest quality components are used throughout with extra safety factors built in. Correctly aligned and rigidly tested, the receiver is geared to provide the finest type of performance modern radio science can devise.

7 TUBE A.C. CONSOLE MODEL

The 1939 Knight 7 Tube 2 Band A.C. Superhet is also offered in the beautiful new console cabinet illustrated at the right. Thoroughly in the modern mode, the console is designed to harmonize with any decorating scheme. Walnut woods are used throughout. Instrument panel, tilted and recessed for ease of operation, is of straight grain walnut. Wrap-around sides and contrasting bands of lighter-toned walnut are in excellent taste. Grille cloth is in thorough harmony with the cabinet details. The cabinet houses the powerful 7 tube chassis shown above at right. Has all features as described above, plus the added advantage of a full 8" electro-dynamic speaker. Unusually large baffle area assures full-voiced tone quality that is a delight to hear. Features include: Automatic Push-Button Tuning, 5 3/4" slide-rule dial, two-band tuning range, Superhet circuit, etc. Console measures: 29" high, 21" wide, and 8" deep. Here is the ideal low-priced receiver for those who want domestic and foreign reception, superb tone quality, and thorough dependability of operation.

- **SET COMPLETE.** The Knight 7 Tube A.C. Superhet in console cabinet, complete with Raytheon tubes and 8" speaker. For 110 volts, 50-60 cycles A.C. Shpg. wt., 58 lbs. Code: SWING. E10871. Retail Value, \$69.50. NET PRICE EACH, \$34.45. NET PRICE, LOTS OF 3, EACH

\$32⁹⁵

7 TUBE A.C. CHASSIS MODEL

The complete chassis of the Knight 7 Tube 2 Band A.C. Superhet (pictured at right above) is also offered separately. Ideal as a replacement set for your present cabinet or for custom installations. Ruggedly constructed of highest quality components for strong power and long-life stability. Includes all features of table and console models described above. Tunes 16.5 to 54 and 175 to 560 meters. Offers automatic push-button tuning and features such as: Slide-Rule Dial, variable Tone Control, full Automatic Volume Control, Electric Eye, 8" Electro-dynamic speaker, etc. Measures 14" long, 8 3/4" deep, and 9" high. Supplied complete with automatic tuning mechanism, set of Raytheon tubes, control knobs, etc. For operation from 110 volts, 50-60 cycles A.C. Shpg. wt., 16 lbs. Code: CEDAR. E10872. Retail Value, \$45.00. NET PRICE EACH, \$22.45. YOUR NET PRICE, LOTS OF 3, EACH

\$20⁹⁵





Push-Button Tuning—1939's outstanding radio development is incorporated in the new receivers shown on these two pages. Push-Button Tuning used in these 1939 Knight sets brings a new concept of luxurious radio enjoyment. Just push a button—and there's your program!

Knight 7 TUBE 3 BAND A. C. SUPERHET

We set out to develop a seven tube radio with better-than-ordinary seven tube radio power and efficiency. We set out to develop such a set with newer and more features, with greater cabinet appeal—and we're proud to say that we've come through with an outstanding new 1939 seven tube radio receiver! We're proud to present it for your consideration.

• **Push-Button Tuning.** Just push a button to tune any one of six favorite stations! The latest perfected 1939 foolproof mechanical type system. Initial adjustment is made instantly from the front, at the buttons, with the utmost ease. Operation is smooth, effortless and right-on-the-head for each station. Horizontal-traveling pointer moves with button touch. This new system puts real meaning into the phrase: "Just push a button—there's your program!"

• **3 Full Bands.** The 1939 Knight 7 tunes everything on the air: 16 to 53 meters (5650-18100 K.C.) for thrilling foreign and domestic Short Wave programs; 53 to 175 meters (1710-5650 K.C.) for Short Wave amateur, aviation and police signals; and 174 to 560 meters (535-1720 K.C.) for your choice of American and Canadian standard Broadcast programs.

• **Slide-Rule Dial.** The latest 1939 6-inch Slide-Rule Dial is used in the Knight 7 to make manual tuning more convenient and accurate. Has illuminated translucent scales and horizontal-traveling pointer. There are separate scales of equal length for each band. The Broadcast band is calibrated in kilocycles; the Short Wave bands are indicated in megacycles.

• **Latest Tubes.** Fully licensed by R.C.A. and Hazeltine, the matchless circuit of the Knight 7 uses the following newest type R.C.A. tubes: 6K8 as Conv.-Osc. (dual-purpose); 6K7 as I.F. Amp.; 6G7G as Signal Diode A.V.C.-1st Audio (triple-purpose); 6J5G as Phase Inverter Audio Amplifier; 2-25A6G as Push-Button Output; 25Z6G as Rectifier. Dual-purpose and triple-purpose tubes attain added power and efficiency comparable to that of many nine tube receivers.

• **Power-Boost Circuit.** Full five watts output is developed by the Knight 7. This tremendous power in a low-cost model is made possible by the exclusive new Power-Boost Circuit which actually achieves nine-tube power, efficiency and performance. This new circuit provides twice as much voltage from the power supply, allowing each tube at least 100% increase in plate voltage to obtain maximum voltage rating results. This means maximum power and efficiency from each tube. The splendid power output of the Knight 7 is enhanced by such features as full-acting A.V.C. which maintains uniform volume on all stations; Wave Trap which blocks out code interference in the Broadcast band; Individual Coils on each band for added sensitivity and more dependable tuning on each band; rubber-floated tuning condenser for greater selectivity, etc.

• **Superlative Tone.** Never has a 7 tube receiver achieved the tonal brilliance of the Knight 7. The high-fidelity, high output push-pull audio system develops full five watts output. A full 6-inch special Electro-dynamic speaker of new design reproduces each program with exceptional faithfulness at any frequency level. Continuously variable Tone Control allows bass or treble emphasis as desired.

• **Beautiful New Table Model.** The Knight All-Wave 7 is superbly presented in a beautiful table model cabinet reflecting exceptionally good taste. The instrument panel and sides are of one-piece horizontally-striped walnut with roll-effect. Has top and bottom trims of contrastingly striped walnut. The speaker grille has three curved overlay bars which harmonize beautifully with the cabinet design. Dimensions: 18" x 10 1/4" x 8".

• **Table Model Complete.** The Knight 7 All-Wave Superhet is offered complete with 6-inch Dynamic Speaker and R.C.A. tubes in the table model cabinet illustrated above. For operation from 110 volts, 60 cycles A.C. Shpg. wt., 23 lbs. Code: SLEEK.

E10810. Retail Value, \$49.95.
NET PRICE, EACH, \$24.75.
NET LOTS OF 3, EACH,

\$23.45

- 3 Full Bands
- Slide-Rule Dial
- 5 Watts Output
- Tone Control
- Full A.V.C.
- Wave Trap
- Power Booster

Prove the outstanding worth and value of this new Knight A.C. 7 by putting it through its paces under your own operating condition. Take advantage of our trial offer and money-back guarantee (see Page 10) and find out for yourself that only ALLIED can give you so outstanding a radio value. The Knight 7 offers you 1939 radio's finest features at a price everyone can afford.



7 TUBE CONSOLE MODEL

The Knight A.C. 7 is also available in a strikingly beautiful new 1939 console model. Features the latest distinguished new lowboy type of design which harmonizes beautifully in any home environment. Instrument panel is of striped walnut and is sloped for perfect tuning visibility. The entire cabinet is band-rubbed to a high piano finish. Dimensions: 32" wide, 36" high, 13 1/2" deep. The Knight A.C. 7 in console model is presented complete with all features exactly as described above: Automatic Push-Button Tuning; All-Wave coverage on three full bands; new 6" Slide-Rule Dial; latest Superhet circuit with Power-Boost feature; full five watts output; Automatic Volume Control; variable Tone Control; Wave Trap; Individual Coils; etc. In addition, a full 8" Electro-dynamic speaker is incorporated in the Console model and is mounted with unusually effective baffle area. Includes R.C.A. tubes. For 110 volts, 60 cycles A.C. Shpg. wt., 65 lbs. Code: SPEED. An outstanding value in a 1939 console model offering powerful distance-reach, glorious tone quality, and rich beauty of design at a truly remarkable low price.

E10811. Retail Value, \$74.50.
NET PRICE, EACH, \$36.95.
NET PRICE, LOTS OF 3, EACH,

\$34.95

7 TUBE CHASSIS MODEL

The Knight 7 may also be had in chassis form only to replace obsolete receivers. Exactly as described above, but with 8-inch dynamic speaker, less cabinet. Size: 14 1/2" x 7 1/4" x 8". Complete with escutcheon, push-button tuning mechanism and R.C.A. tubes.

Shpg. wt. 19 lbs. Code: SILK.
E10812. Retail Value, \$44.50.
NET PRICE, EACH, \$21.85.
NET PRICE, LOTS OF 3, EACH,

\$20.75

(For efficient all-wave aerial, see page 145.)



R.C.A. & HAZELTINE LICENSED

Knight 8 TUBE 3 BAND A.C. SUPERHET

- SLIDE-RULE DIAL
- ELECTRIC EYE
- TONE CONTROL
- A.V.C. ACTION
- SEPARATE COILS
- 3½ WATTS OUTPUT
- DYNAMIC SPEAKER
- 3 FULL BANDS
- BEAUTIFUL TONE

The convenience of Automatic Push-Button Tuning, the thrill of All-Wave reception, and the beauty of an exquisite table cabinet are combined in this new 1939 Knight 8 Tube 3 Band A.C. Superhet to provide unusually enjoyable radio entertainment at a very moderate price. On every count, the Knight 8 scores with the latest features to assure powerful reception and beautiful tone. Most 8 tube sets with comparable features cost twice the price. Only ALLIED can give you such value!

• **ALL-WAVE RANGE.** The Knight 8 tunes three full bands for continuous and powerful all-wave reception. Covers 17 to 52 meters (5800 to 17500 K.C.) for Short-Wave foreign and domestic programs; 52 to 175 meters (1720 to 5800 K.C.) for fascinating Amateur, Aviation, and Police Calls; and 175 to 545 meters (550 to 1720 K.C.) for sensitive and selective American and Canadian standard Broadcast reception. This complete range covers everything of interest that's broadcast.

• **AUTOMATIC PUSH-BUTTON TUNING.** Tune any of six selected stations automatically and instantly—simply by pushing a button! The newest type of push-button assembly—one unit with the tuning condenser—provides for unusually simple initial adjustment at the buttons and for fool-proof operation. This automatic system always works—and always gets your favorite stations right on the beat.

• **STRAIGHT LINE SLIDE-RULE DIAL.** Even manual tuning is easy with this big new 7" x 2½" gold-faced Slide-Rule type dial. Has separate scales for each wave-band with all calibrations in large, clear numerals. Broadcast band is directly calibrated in kilocycles; Short-Wave bands are marked in megacycles. In addition, the valuable Electric Eye incorporated affords precise visual tuning facilities. Shows exactly when manually selected stations are in tune.

• **LATEST SUPERHET CIRCUIT.** Fully licensed by the famous R.C.A. and Hazeltine laboratories, the Superhet circuit of the Knight 8 Tube 3 Band A.C. features valuable new developments. Uses 8 latest tubes as follows: 6A7 as Det.-Osc. (double-purpose); 6D6 as I.F.; 6Q7 as triple-purpose 2nd Det.-A.V.C.-Audio; 76 as Phase Inverter; 2-43 as strong Push-Pull Output; 25Z5 as Rectifier; 6U5 Electric Eye. This combination achieves the efficiency and power of many conventional 10 and 11 tube radios. Individual coils on each band contribute to stable operation. Other features include: a full undistorted 3½ watts output (5 watts maximum) to provide plenty of power for all programs whether distant or local; full Automatic Volume Control to maintain steady volume level; continuously variable Tone Control for personal tone emphasis on any range within the whole musical register.

• **DELIGHTFUL TONE QUALITY.** The full 3½ watts output developed from the Push-Pull Output stage is smoothly handled and beautifully reproduced by a full-sized 8" electro-dynamic speaker (10" in console and chassis models). The inclusion of continuously variable personal Tone Control contributes materially to the easy selection of proper tonal emphasis and acoustical reproduction of any program in any size room. You will never tire of listening to the beautiful tone of the Knight 8.

• **EXQUISITE TABLE CABINET.** To house the fine new 1939 Knight 8 Tube 3 Band A.C. Superhet, we have selected the distinctive and beautiful table cabinet pictured above. An entirely new note of beauty is struck by the louvre type speaker grille which, in addition to pleasing the eye, offers finest acoustical properties for correct tone rendition. Cabinet is of selected horizontally-grained walnut woods with contrasting top and bottom bands of vertically striped walnut. Entire cabinet is hand-rubbed to a high finish. Cabinet measures 19¼" wide, 11¾" high, 9¾" deep. Ideally suited for any room in the home. May be placed on bookshelves or end table in practically any type of setting.

• **8 TUBE TABLE MODEL COMPLETE.** The Knight All-Wave A.C. 8 is offered complete with matched Raytheon tubes and 8" electro-dynamic speaker in table cabinet. Check its many features—its startlingly low price—and you'll agree that it's the outstanding 8 tube radio value of the year. For 110 volts, 50-60 cycles, A.C. Shpg. wt., 19 lbs.

Code: MUSIC.
E10898, Retail Value, \$52.50.
NET PRICE, EACH, \$25.85.
YOUR NET PRICE,
LOTS OF 3, EACH,

\$24.45

Knight 8 TUBE CONSOLE MODEL

A deluxe presentation of the Knight 8 Tube 3 Band A.C. Superhet is the superb console model cabinet shown at the right. Finest walnut hardwood veneers are used throughout. Recessed and slightly tilted instrument panel is set off by fluted pilasters and harmonious horizontal speaker grille bars. Entire cabinet is hand-rubbed to a lustrous finish. Measures: 36" high, 22" wide, and 10½" deep. Incorporates chassis having all features of table model described above, but has special 10" concert-dynamic speaker mounted for exceptionally large baffle area. Tunes three full bands (no skips) from 17 to 545 meters (550 to 17500 K.C.) for continuous all-wave reception. For fine stability, strong power, and long distance-reach, the Knight 8 features: 3½ watts undistorted output (5 watts maximum); full Automatic Volume Control; individual coils on each band; continuously variable Tone Control, etc., as described in detail above. Includes Automatic Push-Button Tuning of any 6 selected stations, Electric Eye, and full 7" x 2½" gold-faced Slide-Rule dial. At our exceptionally low price, this full-sized console model All-Wave 8 tube receiver is a rare value. With Raytheon tubes. For operation from 110 volts, 50-60 cycles, A.C. Shpg. wt., 65 lbs.

Code: STYLE.
E10899, Retail Value, \$64.50.
NET PRICE, EACH, \$31.85.
YOUR NET PRICE, LOTS OF 3, EACH

\$29.95

8 TUBE CHASSIS MODEL

The Knight 8 Tube 3 Band A.C. Superhet is also available in chassis form suitable for replacing obsolete sets in your present cabinet or for custom-type installations. Supplied complete with tubes and 10" electro-dynamic speaker, but less cabinet. Features are exactly the same as those of table and console models described above. Includes: Superhet circuit, 17 to 545 meter range (550-17500 K.C.), Automatic Push-Button tuning, Slide-Rule Dial, A.V.C. continuously variable Tone Control, separate coils on each band, Electric Eye, 3½ watts undistorted output, etc. Complete with Automatic tuning mechanism, Raytheon tubes, control knobs, etc. For operation from 110 volts, 50-60 cycles, A.C. Shpg. wt., 15 lbs. Code: VOCAL.

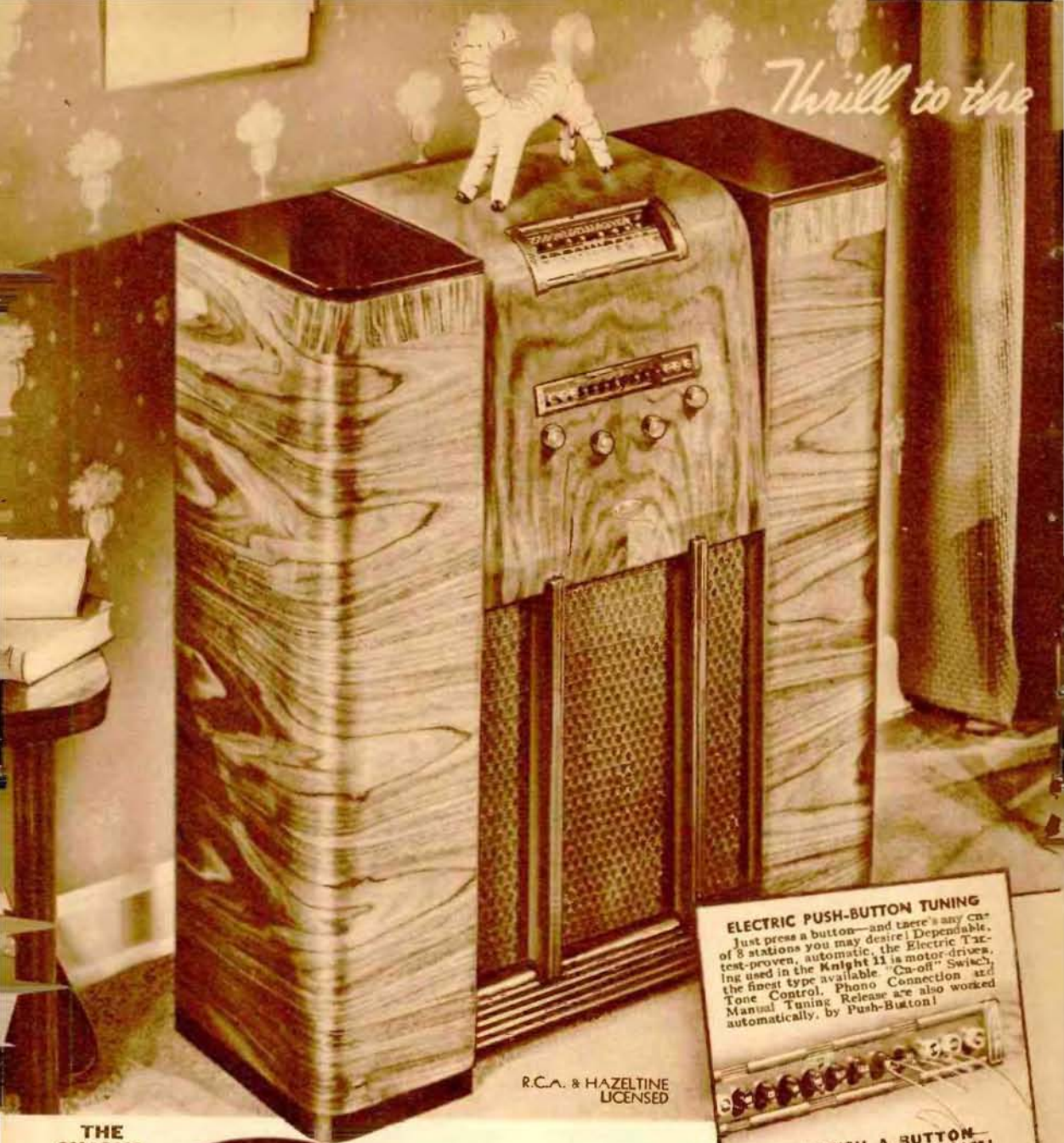
E10897, Retail Value, \$44.95.
NET PRICE, EACH, \$21.95.
YOUR NET PRICE, LOTS OF 3, EACH

\$20.65

(For efficient all-wave aerial, see page 145.)



Thrill to the



R.C.A. & HAZELTINE
LICENSED

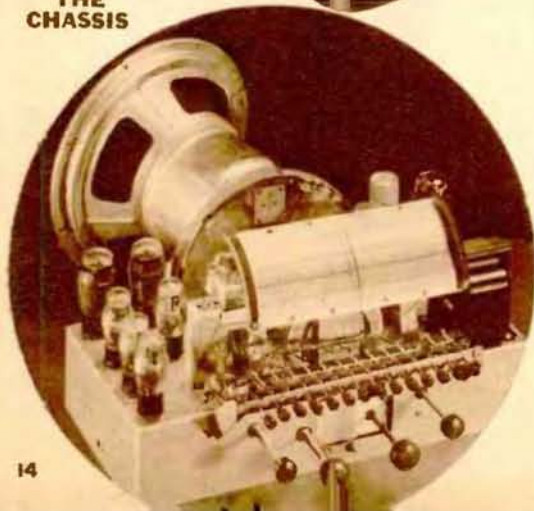
ELECTRIC PUSH-BUTTON TUNING

Just press a button—and there's any one of 8 stations you may desire! Dependable, test-proven, automatic, the Electric Push-button tuning used in the Knight 11 is motor-driven, the finest type available. "On-off" Switch, Tone Control, Phono Connection and Manual Tuning Release are also worked automatically, by Push-Button!



**JUST PUSH A BUTTON—
THERE'S YOUR PROGRAM!**

**THE
CHASSIS**



OUTSTANDING 1939 FEATURES!

- ELECTRIC TUNING
- NEW SLIDE-RULE DIAL
- FULL-ACTING A.V.C.
- BASS COMPENSATION
- 2 STAGES OF I.F.
- 7 WATTS OUTPUT
- PUSH-BUTTON TONE CONTROL
- TEMPERATURE COMPENSATOR
- SPECIAL BASS CONTROL
- TUNES THREE FULL BANDS
- PHONOGRAPH CONNECTION
- 12-INCH DYNAMIC SPEAKER

We invite you to make this test: Order the Knight 11 on our regular terms and use it under your own operating conditions for a full 15 days. Enjoy its convenient, entirely automatic Push-Button control system; thrill to its luxurious reproduction of every program, both foreign and domestic; examine the rugged precision-built, over-sized chassis. And then—if you do not agree with us that this is the finest deluxe radio ever offered at so low a price—if you are not entirely satisfied that this is the radio set you have always wanted, you may return the receiver to us under our generous Free Trial and Money-Back Guarantee offer (see page 10 for details). We make this offer with full confidence that the Knight 11 will delight the most critical and exacting listener—that it will give an entirely new conception of modern radio enjoyment. You can buy the Knight 11 with absolute confidence—confidence in its ability to tune powerfully, to operate with extreme selectivity and sensitivity, to perform always with enjoyable and faithful tone quality on every program.

New Knight 11 TUBE A. C. SUPERHET

The De Luxe Instant Action Electric Tuning Radio Everyone Can Afford

ALLIED is proud to present this new 1939 feature-studded **Knight 11**—the season's champion radio value! No other 11-tube radio at any price near its price can touch it for its combination of outstanding power, Automatic Tuning, marvelous tone and up-to-the-minute styling. We know of no other 11 tube radio that offers so much built-in quality and the promise of so much glorious, enjoyable entertainment at so low a price. Check these outstanding specifications for yourself:

• **ELECTRIC PUSH-BUTTON TUNING.** The **Knight 11** is the first radio to offer practically complete automatic control of all tuning operations. It not only offers you a choice of any one of eight favorite stations at the touch of a button, but it also provides **Tone Control** operated by three push-buttons, "on-off" switch on push-button, push-button for switching to phono in case phono attachment is used; push-button for making the change from Electric to manual tuning. This ingenious Push-Button control of practically all operations is exclusively used in the **Knight 11** for the first time in radio. You'll like Electric Push-Button Tuning because it's easy to adjust; it's fool-proof; it tunes your favorite eight stations in less than eight seconds, precisely, smoothly, unerringly. And, in addition, you regulate **Tone Control** accurately and delightfully by Push-Buttons.

• **WORLD-WIDE RECEPTION.** Everything that's broadcast is brought to you by the **Knight All-Wave 11**—powerfully, smoothly, dependably. Its complete range covers three full bands: 16 to 54 meters (5650-18100 K.C.) for world-wide Short Wave reception; 54 to 175 meters (1715-5650 K.C.) for Short Wave police, amateur, ship and airplane signals; and 175 to 560 meters (535-1730 K.C.) for superlative long distance reception of all American and Canadian standard Broadcasts. A special wave-band knob and plate indicator are provided so that you always know the band you are tuning. Just select the program you want—the **Knight 11** will bring it to you—quickly, dependably, perfectly!

• **LATEST SLIDE RULE DIAL.** For easy, accurate manual tuning the latest Slide-Rule Dial is incorporated. It is ingeniously tilt-mounted for easy visibility and "no-stoop" tuning. An individual full-length scale is provided for each band. Calibrations are in kilocycles for the Broadcast band and in megacycles for Short Wave. Names of popular stations and country locations are indicated on all bands. A horizontal-traveling pointer is featured. You just push a button to make the change from Push-Button tuning to regular manual tuning.

• **BRILLIANT NEW CIRCUIT.** The very latest efficient tubes are used in the R.C.A. and Hazeltine licensed circuit of the **Knight 11** as follows: 6AR6 as Osc.-Conv. (dual-purpose); 6J5G as Oscillator; 6K7G as I.F. Amp.; 6K7G as I.F. Amp.; 6J5G as A.V.C. Diode; 6J5G as Signal Diode; 6J5G as Audio Amp.; 6J5G as Silent Inverter; 2-6AR5 as Power Audio Output; 5Z3 as Rectifier. There's real teamwork in this advanced super-het circuit, for each tube contributes its full share to make the **Knight 11** a marvel of power, tone beauty and matchless efficiency.

• **NEW TEMPERATURE COMPENSATOR.** The mark of the most luxurious 1939 radios. Used in the Electric Tuning Circuit to maintain the **Knight 11** circuit in hairline tuning for absolutely perfect tone and for precise program location. With the Temperature Compensator you simply can't drift "off-tone." That's why the **Knight 11** is so easy to tune and so beautiful to listen to—it's as automatically perfect as a radio can be made and will bring you delightful performance for years to come.

• **ADDITIONAL VALUE FEATURES.** Other noteworthy features of the 1939 **Knight A.C. 11** include: Full Automatic Volume Control for uniform volume on all stations and freedom from fading; R.F. pre-selector for added sensitivity and stability; rubber-floated 3-gang tuning condenser for sharper, more dependable tuning; 2 I.F. stages for more dependable reception on each band; phono connection provision with Push-Button control for adding Record Player (see Page 175); "On-off" Push-Button control for turning set on or off instantly, etc. Finest grade components are used throughout, with exceptionally wide safety factors to make long dependable service and enduring enjoyment a certainty.

• **POWER TO SPARE.** The **Knight 11** has amazing power output—7½ wats undistorted, 10 wats peak. This volume is beautifully handled by the newly developed 12-inch giant super-dynamic speaker, and is reflected in thrilling tone that reproduces the entire tonal register to perfection from highest treble to lowest bass. Special bass compensation is built in with separate control knob offering 10 positions for subtle variation of bass emphasis. You will never grow tired of listening to the **Knight 11**—so life-like, so true to the original in its powerful tone! Even the most discriminating and critical music lover will applaud the true-toned performance of this brilliant 1939 All-Wave Radio Receiver.

• **PUSH-BUTTON TONE CONTROL.** For the first time in any radio receiver! Three buttons are provided for varying tone to give bass or treble emphasis as desired. Assures perfect acoustical correction for every room. Provides absolutely faithful response along the entire tonal range without cutting off frequencies. Gives complete tonal control of all programs just by pressing a button! Together with the 10-position bass control knob, the **Knight 11** offers 42 separate tonal variations for the most complete tonal control ever incorporated in any radio receiver. It's amazing; it's new; it's exclusive in the **Knight 11**. You'll be sure to appreciate these outstanding features which explain the secret of the wonderful tone quality achieved by the **Knight 11**. You have only to listen to your favorite program over this amazingly fine musical instrument, to note the wonderful difference over ordinary receivers.

• **AN OUTSTANDING CONSOLE.** The **Knight 11** is handsomely presented in a magnificent new console in the latest 1939 low-boy vogue. Has outstanding appeal and perfect acoustical properties. Features a tilted dial panel of choicely grained walnut, with curved side pilasters in richly marked walnut, enhanced by tasteful vertically-stripped head overlays. The console is beautifully finished in a high lustrous effect. Dimensions: 32" wide, 36" high, 13" deep. The new 1939 **Knight "Tilt-Tuner"** cabinet is a fine advance in radio cabinet design. You can easily see and tune the large slide-rule dial without bending or stooping uncomfortably. It's easy to tune the "Tilt-Tuner."

• **KNIGHT 11 COMPLETE.** The **Knight 11 All-Wave A.C. Superhet** is offered complete in the new "Tilt-Tuner" console as illustrated at left, with 12-inch dynamic speaker and R.C.A. tubes. For 110 volts, 60 cycles, A.C. Shipping weight, 85 lbs. Code: CHANT.

E10850. Retail Value, \$105.00.
NET PRICE EACH, \$51.50.
YOUR PRICE, LOTS OF 3, EACH.

\$48⁹⁵

The new **Knight 11 Tilt-Tuner Cabinet**—no stooping—no bending—Easy to tune sitting or standing



R.C.A. & HAZELTINE LICENSED

The circuit of the **Knight 11** is fully licensed by R.C.A. and Hazeltine—your assurance of the very latest and finest 1939 radio developments from these world-renowned radio laboratories. Every feature built into the 1939 **Knight 11** is an advance on, intended to increase radio enjoyment on every program whether on Short Wave or Broadcast, whether near or far. Never before have so many new features, so many distinct advantages and refinements been embodied in a radio receiver at so low a price. You'll agree once you see and hear this wonderful 1939 performer, that only **ALLIED** can bring you such outstanding quality, such cabinet beauty and such value! Order the **Knight 11** now—put it through its paces under your own operating conditions. You be the judge!

with AUTOMATIC RECORD CHANGER

11 TUBE PHONO COMBINATION

For the most exacting music-lover who wants the best in music reproduction, the **Knight 11** is also offered in an outstanding Phono-Radio combination. Equipped with a de luxe R.C.A. automatic record changer, this fine instrument offers the entire world of musical entertainment—the music you want when you want it. Incorporates the de luxe radio described above, providing powerful World-Wide radio reception, life-like fidelity of tone and remarkable all-around performance. High-grade new top-loading offer Crystal Pickup, silent powerful phono motor and automatic record changer assure perfect reproduction of recordings. Records are played through the radio amplifying circuit with utmost clarity. Plays eight 10" records or seven 12" records automatically, or will play 10-inch and 12-inch records in mixed sequence. 7 wats output provides perfect amplification of every nuance and overtone. The **Knight 11 Phono-Combination** includes all the features described above: Electric Push-Button Tuning, A.V.C., new Tone Control, 3-band coverage, Bass Compensation, 12-inch Speaker, etc. The massive cabinet of the **Knight 11 Phono-Radio** is an outstanding creation. Features a double-rod front panel of center-matched butted walnut with straight grain walnut side panels; has record compartment at sides. Dimensions: 40" wide, 38" high, 18" deep. For 110 volts, 60 cycles, A.C. Ship. wt., 160 lbs. Code: WIND. E10851. Retail Value, \$250.00. NET PRICE EACH

\$119⁵⁰



R. C. A. &
HAZELTINE
LICENSED



Knight 8 TUBE 3 BAND A.C. SUPERHETERODYNE

- Push-Button Tuning
- Preselector Stage
- Button Tone Control
- Big Slide-Rule Dial
- Bass Compensation
- 3 Gang Condenser
- World-Wide Range
- Full A.V.C. Action
- Individual Coils

Here is true luxury radio at a popular price. Here are thrilling performance, stirring tone quality, world-wide reception, and the convenience of automatic Push-Button Tuning in a new set so beautifully styled, so richly finished, that our unusually low price is truly amazing. So certain are we this all-new 1939 Knight 8 Tube A.C. Superhet will please even the most critical, that we urge you to try it out for yourself—with full protection under our generous Free Trial and Money-Back Guarantee offer (see page 10 for details).

• **AUTOMATIC PUSH-BUTTON TUNING.** Don't "tune-in" your favorite stations—just push a button—and the station is brought to you instantly, easily. The permeability-type Push-Button System used in this set is fool-proof and quick-acting. At initial adjustment the push-buttons are set directly from the front panel—quickly and easily. Six buttons afford automatic selection of any six desired local stations. The seventh and eighth buttons ingeniously provide Tone Control, emphasizing bass or treble as desired.

• **WORLD-WIDE TUNING.** The full range of modern radio—fascinating foreign broadcasts as well as local programs—is easily within the reach of the Knight 8. Tunes 16.5 to 54 meters (5650 to 18100 K.C.) for world-wide Short-Wave programs; 54 to 175 meters (1715 to 5650 K.C.) for Police, Amateur, Airplane Calls, and Ship-at-Sea; and 175 to 565 meters (535 to 1730 K.C.) for powerful Standard Broadcast reception of American and Canadian stations.

• **EASY-TO-READ SLIDE-RULE DIAL.** In addition to Push-Button Tuning, the Knight 8 is provided with an 8 3/4" x 5 1/4" slide-rule type dial offering a separate scale for each wave-band. Needle-pointer travels horizontally across the dial face permitting quick station logging when manual tuning is desired. Popular stations on both Broadcast and Short-Wave ranges are clearly indicated.

• **SUPERB TONE QUALITY.** For splendid reproduction of all programs whether music or voice, the Knight All-Wave Superhet is unsurpassed in the 8-tube class. A big 8-inch electro-dynamic speaker (10-inch speaker in console and chassis) brings out the full depth and tone quality of each program. Clever Push-Button Tone Control permits you to select the tone emphasis you most enjoy. Bass Compensation—another expensive set feature—provides proper balance of tone elements, with bass notes always clearly defined. In addition new Bass Booster feature assures correct rendition of the bass register no matter how tone control is set. For added enjoyment, a phonograph connection is provided so that you can plug in the Knight Record Player (see page 175) or any similar unit.

• **NEW 1939 CIRCUIT FEATURES.** Fully licensed by R.C.A. and Hazeltine Laboratories, the new Superhet circuit develops uncanny sensitivity and selectivity. Latest R.C.A. tube types are used as follows: 6A7 as 1st Det.; 6D6 as LF. Amp.; 76 as Osc.; 76 as Phase Inverter; 75 as 2nd Det.-A.V.C.-1st Audio (triple-purpose); 2-41 as Push-Pull Audio Output; and 80 as Rectifier. The use of the triple-purpose tube 75 tube enables this receiver to equal 9 and 10 tube performance. A pure, undistorted 3 1/2 watts output (5 watts maximum) is easily achieved from the strong Push-Pull Output power stage. Such features as the 3-gang rubber-mounted condenser, preselector stage, full Automatic Volume Control, and individual coils on each band, assure you of consistently fine reception.

• **GRACEFUL CABINET DESIGN.** The Knight All-Wave 8 is presented in an unusually beautiful walnut table cabinet distinguished by a harmonious louvre-type speaker grille, diagonally-striped top and bottom bands, and dark-toned strip at base and top edge. Size: 19 1/2" x 11 1/4" x 9 1/4".

• **SET COMPLETE.** Knight 8 Tube 3 Band A.C. Superhet in table cabinet, with Raytheon tubes and 8" speaker. For operation on 110 volts, 60 cycles A.C. Shpg. wt., 30 lbs. Code: RIGHT.

E10874, Retail Value, \$62.95.

NET PRICE EACH, \$31.45.

YOUR PRICE, LOTS OF 3, EACH.....

\$29⁹⁵



8 TUBE A.C. CONSOLE

Presented in the exquisite console shown above, the Knight 8 Tube 3 Band A.C. Superheterodyne is a distinguished musical instrument perfectly suited for the most luxurious setting. Rich walnut woods are rubbed to a piano finish. Instrument panel is slightly tilted and recessed to afford fullest convenience in operating controls. A full 10" electro-dynamic speaker is incorporated in the circuit which is otherwise exactly the same as that used in the table model described in detail at the right. Cabinet measures: 17" x 27" x 11 1/4". Shpg. wt., 60 lbs. With Raytheon tubes. For operation from 110 volts, 60 cycles A.C. Code: FLUTE.

E10875, Retail Value, \$79.95.

NET EACH, \$39.95. LOTS OF 3, EACH.....

\$37⁹⁵

8 TUBE CHASSIS MODEL

The deluxe chassis incorporated in console model above is also offered separately. Includes all latest features as described at right. Measures: 14" wide, 8 1/4" deep, 9" high. Complete with automatic tuning mechanism, escutcheon, 10" electro-dynamic speaker, Raytheon tubes, knobs, etc. For 110 volts, 60 cycles A.C. Shpg. wt., 25 lbs. Code: NEWS.

E10876, Retail Value, \$52.95.

NET EACH, \$26.45.

YOUR NET PRICE, LOTS OF 3, EACH.....

\$24⁹⁵

Special FEATURE VALUES



NEW G.T.C. "PEE-WEE" TRANSMITTER KIT

Here's a peach of a little crystal-controlled rig that makes a hit with everybody—beginners and old-timers alike. A complete 25 watt crystal controlled transmitter that enables you to get on the air at low cost. It just naturally fits into any Ham Shack, and makes itself indispensable in a hurry. Assembled on a richly finished gray chassis base with built-in power supply, it has a modern circuit using a 6L6C oscillator with crystal control, and a type 80 rectifier tube. Packs a wallop, too! Full 25 watts input, enough to "work" stations over long distances, or to drive a 100 watt R.F. amplifier. Old-timers like it, too, as an auxiliary or emergency rig, or to take along on vacation jaunts. The "Pee-Wee" Kit includes a crystal for CW operation on the 40 meter band; with additional plug-in coils you can work the 20 and 10 meter bands without changing crystals. Will work 80 and 160 meters with appropriate coils and crystals. Chassis base is drilled, plate coil, with antenna coil, is already wound. Every necessary part—tubes, meters, Biley 40 meter crystal, etc.—is included. You can wire the "Pee-Wee" in a couple of hours, hook on the antenna and key—and start "pounding brass." **E9555. Complete "PEE-WEE" Kit. For 110 V. A.C. 60 cycles. NET. \$19.95**

E9556. BATTERY MODEL "PEE-WEE". Operates from a 6 Volt Battery. For use on motor boats, yachts, automobiles, trailers—wherever emergency communication might be required. Built-in vibrator power supply. Uses metal 6L6 oscillator and 6X5 rectifier. Works CW on all five bands and, like the AC model above, is a complete transmitter—power supply and all on a small chassis. Complete with tubes and crystal. **NET. \$21.95**



CODE PRACTICE SET

This Signal-twin wireless code practice set is a practical, scientifically designed set, invaluable for learning wireless code. Enables the operator, through practice, to develop professional speed and accuracy. Consists of two complete "stations" each equipped with key buzzer and easy-to-read code plate mounted on a sturdy, attractive base. 75 feet of wire supplied. Signals are clear and strong. May be operated up to 1000 ft. apart by adding more wire. Uses standard dry cell. Complete with instructions. Shipping weight, 2 1/2 lbs. **E7700. YOUR PRICE, EACH. LOTS OF 3, EACH. \$2.03 \$1.91**



KNIGHT "MAGIC WIRELESS" RECORD PLAYER

Here is the most amazing, most versatile record player ever developed! With absolutely no connections to radio set, this new Knight "Magic Wireless" Record Player will reproduce all phonograph records through any radio with the full tone and volume regularly obtained from your set! May be used anywhere—with any A.C. or A.C.-D.C. receiver no matter what size, model, or age. It's portable—weighs only 12 lbs. and can be carried anywhere; it's versatile—will accommodate all records up to full 12" size; it's economical—saves on installation costs. Anyone can install this unit—no technical knowledge is required. Simply plug into convenient electric outlet and you can play records instantly. No need to meddle with radio chassis—no impedance-matching problems. Anyone—anywhere—with any electrically-operated radio can use the "Magic Wireless" Record Player at once. Newly developed unit uses 2 tubes and is, in effect, a miniature broadcaster which transfers energy from record pickup to radio set by radiation over maximum distance of 20 feet. Employs unused radio channel—at no time preventing instantaneous regular use of radio for broadcast reception. Features include: quiet 110 Volt 60 cycle A.C. synchronous motor; quality pickup; 8" turntable which takes all 8-, 10-, or 12-inch records. Housed in attractive walnut-finished wood case with hinged cover. Size, 12 1/4" x 7" x 10 1/4". Volume and tone can be set through regular controls on radio set. Here is a real achievement—bringing ideal record-playing facilities within the reach of everyone—at a price everyone can afford! Shpg. wt., 15 lbs. **E10057. NET EACH. \$14.95**

YOUR PRICE, LOTS OF 3, EACH. \$14.20



LATEST HOME BROADCASTERS STUDIO TYPE MICROPHONE

A popular style hand carbon microphone for use with any radio set or amplifier. Looks like a professional crystal type microphone. Includes on-off switch mounted on handle. Furnished with 10 ft. cord and connector prong. (Shown at left.) **E7100. NET EACH. \$1.18**

E7087. Similar in size to the Standard Model but fitted with wood handle. Includes cord. (Shown at left center.) YOUR PRICE. 98c

HAND MICROPHONE

DELUXE MODEL

An efficient microphone for home radio use. Can be easily connected to any set. Provides endless entertainment for everyone; make your own broadcasts and announcements. Does not interfere with radio reception; push-button controls operation. Sturdily built, finished in attractive wren, or bronze. 5" high. Weight, 1 pound. (Shown at center right.) **E7085. NET EACH. 85c**

STANDARD MODEL

Similar to the De Luxe Model described above, but is slightly smaller in size. In bronze metal case, 3 1/4" high. Complete with adapters. Weight, 12 oz. (Shown at right.) **E7086. NET EACH. 57c**



POWER LINE FILTER

End bothersome radio interference! Use this capacity type filter for effectively eliminating line noises. The Tobe Power Line Filter may be used either on the interfering device, or on the radio set. It requires no ground connection; plugs into any standard receptacle. Has socket for receiver plug. Simple to install. Ideal for elimination of noises from home appliances such as electric razors, vacuum cleaners, hair dryers, etc. Low in cost, but very efficient in results. Will not interfere with radio reception. For operation from any 110-volt line, AC or DC. **E8406. List, \$1.00. YOUR PRICE. 59c \$3.35**



ELECTRIC TIME SWITCH CLOCK

An electric clock and automatic control for electrical appliances. Will switch radios, store lights, heaters, etc., "on" or "off" at predetermined time. Can be set for any period "on" or "off" from 10 minutes to 5 hours. No special wiring is required—it can be attached in a few seconds. Easily adjusted by means of small dials on face. Self-starting motor assures long life, accurate time service, and dependable operation. Underwriters' approved. In brown bakelite case. Attractive, effective. For 110 volt, 60 cycle AC. **E7644. NET. \$5.44**

YOUR PRICE, LOTS OF 3, EACH. \$5.07

RADIO T I O N , CHICAGO, ILL.

Cable Address: ALRADIO
ALL PHONES:
HAYmarket 6800 E1



RADIO BEGINNERS' BOOKS

These new and valuable books are just what the beginner in radio has been looking for. They are written so that you can easily understand them. They contain the answers to many questions that you have been asking about radio, and they will show you how to build and operate Short Wave equipment.

E4601. Alternating Current for Beginners.

E4602. All About Aerials.

E4603. How To Build 4 Doerle Short Wave Sets.

E4604. How To Make the Most Popular All-Wave 1 and 2 Tube Receivers.

E4605. Beginners' Radio Dictionary.

E4606. How to Have Fun With Radio.

E4607. How to Read Radio Diagrams.

E4608. Radio for Beginners.

NET EACH.....10c
SET OF 4, NET.....35c
SET OF 8, NET.....65c



AERIAL FILTER

A highly successful aerial filter; absorbs and eliminates signals of interfering stations. Adds real selectivity and sensitivity to your set. Adjustable control for utmost selectivity; permits setting which produces best results with your particular antenna and radio. May be installed in radio cabinet.

E2602. List. \$1.50.
YOUR PRICE.....74c



AERIAL ELIMINATOR

To be engineers have developed this highly efficient aerial eliminator after thorough research. Will bring in broadcasts without noise and interference. Ideal for use in locations where outdoor antenna may not be installed. Small and well-made. May be put in the radio cabinet. Easily attached. No tools needed.

E8409. List. \$1.95.
NET.....59c



MULTI-RULE AND GAUGE

Includes a 4" quick-reading, 32nds and 64ths scale, a drill-point gauge, for correctly grinding 59° angles, a square, a bevel protractor for measuring and laying out angles, a center finder for quickly locating centers of shafts and round flat surfaces, a circle divider with up to 9 equal parts, etc. Stainless steel. A wonderful, versatile tool.

E7740. List. \$2.50.
YOUR PRICE.....95c



USALITE PENLITE

A handy vest-pocket flashlight that will throw a concentrated beam of light into any dark corner. Only 5 1/2" long, 1/2" diameter. Sturdy metal case is finished in polished chromium. Ideal for the Serviceman. Complete with bulb and battery.

E8916. List. \$1.25.
EACH.....35c
3 FOR.....98c
E8915. Extra 2 cell battery.
NET EACH.....7c

HOW SHALL WE SHIP

Express
Freight
Parcel Post

On Parcel Post Shipments Be Sure to Include Enough for Postage; Any Excess Will Be Promptly Refunded.

ENTER AMOUNT REMITTED HERE

Paid in Full \$.....
Part Paid \$.....
C. O. D. \$.....

If You Send Currency, Be Sure to Register Your Letter

SEE PAGE 158 FOR "HOW TO ORDER"

	Price Each	Extend Here and Add This Column	Do Not Use This Column

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AMOUNT FOR PARCEL POST (We Refund Every Penny Not Used)	
AMOUNT FOR PREPAID FREIGHT OR EXPRESS	
TOTAL AMOUNT ENCLOSED If currency, be sure to send by Registered Mail.	

Famous the World Over!

R.C.A.-Radiotron tubes are always the standard for dependable performance and superb operating efficiency. They are the most widely accepted and demanded radio tubes sold today. Known everywhere - bought everywhere!

R.C.A.-Radiotron tubes represent a good, steady source of profit for dealers who stock them. You can depend on ALLIED to supply you—we carry all R.C.A. types in stock at all times to assure prompt deliveries.

EXTRA QUANTITY DISCOUNTS

You can earn bigger profits by buying RCA tubes in quantities. We give you a special 50% discount from the LIST PRICES shown below, when you order 25 or more RCA-Radiotron tubes on one order. For example, if the list price of your tube order amounts to \$20, your net cost will be 50% less, or \$10. RCA tubes are always in demand. You can easily select 25 fast-moving tubes from our listing below for bigger discounts and profits.

STANDARD GLASS TYPE TUBES

Type	No.	List	NET	Type	No.	List	NET	Type	No.	List	NET
00A	E100	2.25	1.22	12Z3	E187	1.50	.81	50	E135	2.50	1.35
01A	F101	.80	.43	15	E108	2.25	1.22	53	E138	2.00	1.08
1A4	E160	1.75	.95	19	E109	1.50	.81	55	E139	1.50	.81
1A6	E161	1.75	.95	20	E110	2.25	1.22	56	E140	.80	.43
1B4	E162	2.25	1.22	22	E111	2.00	1.08	57	E141	1.25	.68
1B5	E163	1.25	.68	24A	E112	1.25	.68	58	E142	1.25	.68
1C6	E164	1.75	.95	25Z5	E188	1.25	.68	59	E143	2.00	1.08
1F4	E165	1.50	.81	26	E113	.80	.43	71A	E144	1.00	.54
1F6	E166	2.25	1.22	27	E114	.80	.43	75	E145	1.25	.68
1V	E103	1.25	.68	30	E115	1.00	.54	76	E146	.80	.43
2A3	E167	2.50	1.35	31	E116	1.00	.54	77	E147	1.50	.81
2A5	E168	1.25	.68	32	E117	1.75	.95	78	E148	1.25	.68
2A6	E169	1.25	.68	33	E118	1.50	.81	79	E149	1.50	.81
2A7	E170	1.50	.81	34	E119	1.75	.95	80	E150	.80	.43
2B7	E171	1.75	.95	35	E120	1.25	.68	81	E151	2.25	1.22
5Z3	E172	1.25	.68	36	E121	1.25	.68	82	E152	1.50	.81
6A4 LA	E174	1.50	.81	37	E122	1.00	.54	83	E153	1.75	.95
6A6	E175	1.75	.95	38	E123	1.25	.68	83V	E154	2.25	1.22
6A7	E176	1.50	.81	39/44	E124	1.25	.68	84 6Z4	E155	1.75	.95
6B7	E178	1.50	.81	40	E125	1.00	.54	85	E156	1.25	.68
6C6	E179	1.25	.68	41	E126	1.25	.68	89	E157	1.50	.81
6D6	E180	1.25	.68	42	E127	1.25	.68	V99	E158	1.50	.81
6F5	E181	1.50	.81	43	E128	1.50	.81	X99	E159	1.50	.81
6F7	E183	2.00	1.08	44	E129	1.50	.81	112A	E107	1.00	.54
6G5	E184	1.50	.81	45	E130	1.00	.54	WD11	E105	2.25	1.22
6N5	E191	1.75	.95	46	E131	1.50	.81	WX12	E106	2.25	1.22
6U5	E185	1.50	.81	47	E132	1.50	.81	B74	E193	4.50	2.43
10	E104	2.75	1.49	48	E133	4.00	2.16	876	E194	6.50	3.51
12A7	E186	2.25	1.22	49	E134	1.25	.68	886	E195	8.00	4.32

ALL-METAL TYPE TUBES

Type	No.	List	NET	Type	No.	List	NET	Type	No.	List	NET
5T4	E261	2.50	1.35	6H6	E269	1.25	.68	6Q7	E275	1.50	.81
5W4	E262	1.00	.54	6J5	E277	1.50	.81	6R7	E276	1.50	.81
5Z4	E263	2.00	1.08	6K7	E270	1.50	.81	6S7	E284	2.25	1.22
6A8	E264	1.50	.81	6J7	E271	1.50	.81	6V6	E282	1.75	.95
6B8	E265	1.75	.95	6K8	E273	1.75	.95	6X5	E278	1.50	.81
6C5	E266	1.25	.68	6L6	E272	2.25	1.22	25A6	E279	1.50	.81
6F5	E267	1.25	.68	6L7	E273	1.75	.95	25L6	E280	2.25	1.22
6F6	E268	1.50	.81	6N7	E274	1.75	.95	25Z6	E281	1.50	.81

OCTAL BASE GLASS TUBES

Type	No.	List	NET	Type	No.	List	NET	Type	No.	List	NET
0A4G	E200	2.25	1.22	6A8G	E221	1.50	.81	6L6G	E237	2.50	1.35
1C7G	E201	2.25	1.22	6AC5G	E220	1.25	.68	6L7G	E238	1.75	.95
1D5G	E202	2.25	1.22	6B8G	E224	1.75	.95	6N7G	E241	1.75	.95
1D7G	E203	1.75	.95	6C5G	E225	1.25	.68	6Q7G	E243	1.50	.81
1E5G	E204	2.25	1.22	6C8G	E226	1.50	.81	6R7G	E244	1.50	.81
1E7G	E205	2.75	1.49	6D8G	E227	2.25	1.22	6S7G	E245	2.25	1.22
1F5G	E206	2.25	1.22	6F5G	E228	1.25	.68	6T7G	E246	2.25	1.22
1F7GV	E207	2.25	1.22	6F6G	E229	1.50	.81	6U7G	E242	1.50	.81
1G5G	E211	2.00	1.08	6F8G	E239	1.50	.81	6V6G	E248	1.75	.95
1H4G	E209	1.00	.54	6G6G	E240	2.25	1.22	6X5G	E251	1.75	.95
1H6G	E210	1.75	.95	6H6G	E230	1.25	.68	6Y6G	E249	2.25	1.22
1J6G	E212	1.50	.81	6J5G	E231	1.50	.81	6Z7C	E222	1.75	.95
5U4G	E213	1.50	.81	6J7G	E232	1.50	.81	6ZY5G	E223	1.50	.81
5V4G	E214	2.50	1.35	6K5G	E233	1.50	.81	25A6G	E255	1.50	.81
5X4G	E216	1.50	.81	6K6G	E234	1.50	.81	25A7G	E247	2.25	1.22
5Y3G	E217	1.00	.54	6K7G	E235	1.50	.81	25B6G	E257	1.75	.95
5Y4G	E218	1.00	.54	6L5G	E236	2.25	1.22	25L6G	E258	2.25	1.22
								25Z6G	E259	1.50	.81

TUBE TEST STICKERS

A roll of 2,000 perforated gummed labels, 1 1/2" x 1 1/2". Imprinted with your name, address and city; has space to mark date and tube condition. FREE with order for 30 R.C.A. tubes. **E390. NET \$1.00**

R. C. A. TUBE MANUAL

E395. Complete technical specs for all R.C.A. receiving type tubes. FREE with order for 15 R.C.A. tubes, or sold for .20c.
E398. Metal Tube Manual. Net .5c

R. C. A. PINDEX

E396. Pocket slide rule which gives essential information about tubes, pins, etc. FREE with order for 15 R.C.A. tubes, or 15c

FREE TUBE SALES AIDS

E391. DUMMY CARTONS. 25 R.C.A. display tube cartons free with tube order.
E392. DECALCOMANIA. 3 color window sign free with order for R.C.A. tubes.
E393. PRICE CARDS. Shows list prices for all R.C.A. tubes. Free with tube order.
E394. O. K. TAGS. For completed repair jobs; 10 free with order for R.C.A. tubes.



RADIO TUBES



RAYTHEON

RAYTHEON shows you the way to bigger tube profits. Handle this money-making line which offers you amazingly **BIG DISCOUNTS** and a powerful sales appeal. RAYTHEON tubes are noted for quality and have an outstanding reputation for long life, silent operation and brilliant tonal reproduction. For better results and for sure customer satisfaction and good-will, use RAYTHEON tubes for replacements in all radio sets.

You will find listed on this and on the next page the complete line of RAYTHEON tube products, including Resistance and Panel type bulbs. (Transmitting types are listed on page 113.) There is a RAYTHEON tube for every radio requirement. Stock this popular line. **WE CARRY THE COMPLETE LINE OF RAYTHEON TUBES IN STOCK AT ALL TIMES. DEPEND ON ALLIED TO GIVE YOU QUICK, COMPLETE SERVICE.**

SPECIAL QUANTITY DISCOUNTS

Buy Raytheon tubes in quantities for added profits. In lots of 25 or more, we give you a special added discount of 10% from the net prices shown. For example, if the net total price of your tube order amounts to \$15.00, your net price at this special discount is \$13.50. Build your order to 25 or more tubes and earn extra profits! Round out your stock and increase your profit on every tube sale.

ALL STANDARD GLASS TYPE TUBES

Type	No.	List	NET	Type	No.	List	NET	Type	No.	List	NET	Type	No.	List	NET
00A	E400	2.25	1.15	6D6	E480	1.25	.64	34	E419	1.75	.90	75	E445	1.25	.64
01A	E401	.80	.41	6E5	E481	1.50	.77	35/51	E420	1.25	.64	76	E446	.80	.41
1A4P	E489	1.75	.90	6E6	E482	2.00	1.03	36	E421	1.25	.64	77	E447	1.50	.77
1A4T	E493	1.75	.90	6F7	E483	2.00	1.03	37	E422	1.00	.51	78	E448	1.25	.64
1A6	E461	1.75	.90	6G5	E484	1.50	.77	38	E423	1.25	.64	79	E449	1.50	.77
1B4	E462	2.25	1.15	6N5	E491	1.75	.90	39/44	E424	1.25	.64	80	E450	.80	.41
1B5	E463	1.25	.64	6T5	E496	1.50	.77					81	E451	2.25	1.15
1C6	E464	1.75	.90	6U5	E497	1.50	.77					82	E452	1.50	.77
1F4	E465	1.50	.77	6Z4	E455	1.75	.90	40	E425	1.00	.51	83	E453	1.75	.90
1F6	E466	2.25	1.15					41	E426	1.25	.64	83V	E454	2.25	1.15
1V	E403	1.25	.64					42	E427	1.25	.64	84	E455	1.75	.90
				12A5	E485	2.25	1.15	43	E428	1.50	.77	85	E456	1.25	.64
2A3	E467	2.50	1.28	12A7	E486	2.25	1.15	45	E430	1.00	.51	89	E457	1.50	.77
2A5	E468	1.25	.64	12Z3	E487	1.50	.77	46	E431	1.50	.77				
2A6	E469	1.25	.64	25Z5	E488	1.25	.64	47	E432	1.50	.77	V99	E458	1.50	.77
2A7	E470	1.50	.77	10	E404	2.75	1.42	48	E433	4.00	2.05	X99	E455	1.50	.77
2B7	E471	1.75	.90	12A	E407	1.00	.51	49	E434	1.25	.64	182B	E624	2.00	1.03
2E5	E490	1.50	.77	15	E408	2.25	1.15					183	E625	2.00	1.03
				19	E409	1.50	.77	50	E435	2.50	1.28	485	E626	2.00	1.03
5Z3	E472	1.25	.64	20	E410	2.25	1.15	52	E437	2.00	1.03	950	E491	2.25	1.15
6A3	E473	2.00	1.03	22	E411	2.00	1.03	53	E438	2.00	1.03	951	E462	2.25	1.15
6A4	E474	1.50	.77	24A	E412	1.25	.64	55	E439	1.50	.77				
6AB5	E192	1.75	.90	26	E413	.80	.41	56	E440	.80	.41	WD11	E405	2.25	1.15
6A6	E175	1.75	.90	27	E414	.80	.41	57	E441	1.25	.64	WX12	E406	2.25	1.15
6A7	E476	1.50	.77	30	E415	1.00	.51	58	E442	1.25	.64	BA	E620	7.50	4.50
6B5	E477	2.25	1.15	31	E416	1.00	.51	59	E443	2.00	1.03	BH	E621	4.75	2.79
6B7	E478	1.50	.77	32	E417	1.75	.90	71A	E444	1.00	.51	BR	E622	2.75	1.65
6C6	E479	1.25	.64	33	E418	1.50	.77					LA	E474	1.50	.77

MERCHANDISING AIDS TO INCREASE YOUR TUBE PROFITS

Use these Raytheon sales stimulants and watch your tube profits grow! Make use of these fine sales aids—be sure to ask ALLIED for them with your next tube orders.

With your next tube order, ask for the free copy of the complete Raytheon Sales Aids Catalog. Shows you what materials are available and how to secure them. Ask for Raytheon Sales Aids Catalog under number E699.



DUMMY CARTONS

For display purposes only. Exact replicas of the standard Raytheon tube cartons. These attractive cartons can be used for an arresting, sales stimulating display. We offer 12 dummy cartons free with your order for Raytheon tubes.

E694. FREE.

TECHNICAL DATA



TECHNICAL DATA CHART

Latest edition, invaluable to every dealer and serviceman; contains complete, up-to-the-minute technical data on all Raytheon receiving tubes; new base design diagrams, and complete tube characteristics. We offer this chart free with your order for Raytheon tubes.

E693. FREE.

RAYTHEON DATABOOK

COVERS ALL RECEIVING TUBES

An education in all receiving type tubes. Covers maximum ratings and essential characteristics. Also gives operating curves for all active tubes. Includes data on resistance tubes and on panel lamps. Have all the information on hand when you need it. 200 pages.

E688. NET

25c



WINDOW DISPLAY

A real Bull's-eye of a display! Unusually attractive 3-color card for window use. 16 1/2" diameter. A great "attention-getter" that will really attract tube customers. Ask for this fine display the next time you order Raytheon tubes.

E687. With tube order, given FREE.



GUARANTEE BLANKS

Consists of a "90 Day Radio Repair and Service Guarantee." Has space for complete description of services performed; condition of tubes, transformers, condensers, connections, wiring, etc.; and charges for parts and labor.

E692. 25 Blanks with tube order. FREE.

DECAL WINDOW STICKER

Identifies you as authorized Raytheon Tube Dealer. Gummed on front; can be used on window or tacked on wall. Size, 7 1/4" x 8 1/4".

E685. With tube order, given FREE.

NEW RAYTHEON TUBE STICKERS

The new Raytheon tube stickers for glass tubes, have spaces for noting "Date Sold," "Date Tested," condition of tube, "Satisfactory" or "Unsatisfactory"—and space for your name. A pad of 100 is given free with your order for Raytheon tubes. (Available in pads of 2000 with your name imprinted at \$1.00.)

E689. Pad of 100 with tube order. FREE.



METAL TUBE STICKERS

Attractive Raytheon stickers as above but for metal tubes. 100 are given free with order for Raytheon tubes. 2000 are available imprinted at \$1.00 per pad.

E690. Pad of 100 with tube order. FREE.

REPAIR TICKETS

Consists of combination repair ticket and receipt. Contains space for name, address, phone number, make and model of receiver. Perforated; one end is attached to set or chassis taken in for repairs, and detachable end is customer's receipt.

E691. 25 Tickets with tube order. FREE.

DEALER PRICE CARDS

Latest handy reference dealer price list card for all Raytheon tubes. Shows interchangeable tube types. Indicates popular replacement types.

E698. Request on next order. FREE.

RADIO TUBES

ALL-METAL TYPE TUBES

Type	No.	List	NET	Type	No.	List	NET	Type	No.	List	NET
0Z4	E560	1.50	.77	6F6	E568	1.50	.77	6Q7	E575	1.50	.77
5T4	E561	2.50	1.28	6H6	E569	1.25	.64	6R7	E576	1.50	.77
5W4	E562	1.00	.51	6J5	E582	1.50	.77	6S7	E584	2.25	1.15
5Z4	E563	2.00	1.03	6J7	E570	1.50	.77	6V6	E577	1.75	.90
				6K7	E571	1.50	.77	6X5	E578	1.50	.77
6A8	E564	1.50	.77	6K8	E583	1.75	.90	25A6	E579	1.50	.77
6B8	E565	1.75	.90	6L6	E572	2.25	1.15	25L6	E580	2.25	1.15
6C5	E566	1.25	.64	6L7	E573	1.75	.90	25Z6	E581	1.50	.77
6F5	E567	1.25	.64	6N7	E574	1.75	.90				

OCTAL GLASS TUBES

Type	No.	List	NET	Type	No.	List	NET	Type	No.	List	NET
0A4G	E628	2.25	1.15	6A8G	E521	1.50	.77	6N6MG	E540	2.50	1.28
0Z4G	E500	1.50	.77	6AC5G	E585	1.25	.64	6N7G	E541	1.75	.90
1C7G	E501	2.25	1.15	6B4G	E522	2.00	1.03	6P5G	E619	1.25	.64
1D5GPE	E617	2.25	1.15	6B6G	E523	1.50	.77	6P7G	E542	2.25	1.15
1D5GTE	E618	2.25	1.15	6B8G	E524	1.75	.90	6Q6G	E546	2.25	1.15
1D7G	E503	1.75	.90	6C5G	E525	1.25	.64	6Q7G	E543	1.50	.77
1E5G	E504	2.25	1.15	6C8G	E526	1.50	.77	6R7G	E544	1.50	.77
1E7G	E505	2.75	1.42	6D8G	E527	2.25	1.15	6S7G	E545	2.25	1.15
1F5G	E506	2.25	1.15	6F5G	E528	1.25	.64	6T7G	E546	2.25	1.15
1F7G	E507	2.25	1.15	6F6G	E529	1.50	.77	6U7G	E547	1.50	.77
1G5G	E508	2.00	1.03	6F8G	E586	1.50	.77	6V6G	E548	1.50	.77
1H4G	E509	1.00	.51					6V7G	E549	1.50	.77
1H6G	E510	1.75	.90	6G6G	E587	2.25	1.15	6W5G	E550	1.50	.77
1J5G	E511	2.25	1.15	6H6G	E530	1.25	.64	6W7G	E616	2.25	1.15
1J6G	E512	1.50	.77	6J5G	E531	1.50	.77	6X5G	E551	1.50	.77
				6J7G	E532	1.50	.77	6Y6G	E589	2.25	1.15
4A6G	E629	2.25	1.15	6J8G	E588	2.25	1.15	6Y7G	E552	1.50	.77
5U4G	E513	1.50	.77	6K5G	E533	1.50	.77	6Z5G	E553	1.50	.77
5V4G	E514	2.50	1.28	6K6G	E534	1.50	.77	6Z7G	E554	1.75	.90
5W4G	E515	1.00	.51	6K7G	E535	1.50	.77	25A6GE	E555	1.50	.77
5X4G	E516	1.50	.77	6K8G	E630	1.75	.90	25A7GE	E556	2.25	1.15
5Y3G	E517	1.00	.51	6L5G	E536	2.25	1.15	25B6GE	E557	1.75	.90
5Y4G	E518	1.00	.51	6L6G	E537	2.50	1.28	25L6GE	E558	2.25	1.15
5Z4MG	E519	2.00	1.03	6L7G	E538	1.75	.90	25Z6GE	E559	1.50	.77
6A5G	E520	2.00	1.03	6N6G	E539	2.25	1.15				

SPECIAL MAJESTIC SHIELDED TUBES

Type	No.	List	NET	Type	No.	List	NET
24S	E590	1.50	.77	2A7S	E602	2.50	1.28
27S	E591	1.25	.64	2B7S	E603	2.50	1.28
35S	E592	1.50	.77	6A7S	E604	2.50	1.28
55S	E593	1.75	.90	6B7S	E605	2.50	1.28
56AS	E594	1.50	.77	6C7	E606	2.00	1.03
56S	E595	1.50	.77	6D7	E607	2.00	1.03
57S	E596	1.75	.90	6E7	E608	2.00	1.03
57AS	E597	1.75	.90	6F7S	E609	2.00	1.03
58S	E598	1.75	.90	6Y5	E610	2.00	1.03
58AS	E599	1.75	.90	25-4S	E611	2.75	1.42
75S	E600	1.75	.90	22ZG84	E612	2.00	1.03
85AS	E601	1.75	.90	6Z5	E613	2.00	1.03

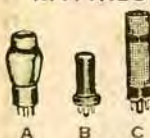
NEW 1.4 VOLT TUBES

Just released—the newly developed 1.4 volt series of tubes which give amazing battery radio economy. Designed for low filament drain; can be operated from 1.5 volt dry cells. Octal base glass tubes. Used in many of the new 1939 farm radio receivers.

Type	No.	List	NET
1A5G	E635	2.25	1.15
1A7G	E636	2.25	1.15
1C5G	E637	2.25	1.15
1H5G	E638	2.25	1.15
1N5G	E639	2.25	1.15

RAYTHEON RESISTANCE TUBES

A complete line of highest quality resistance tubes available in a variety of styles to meet practically every AC-DC receiver requirement. Built with typical Raytheon skill and quality, these tubes are designed to give exceptionally dependable performance and long life. Types below will cover practically any AC-DC set replacement need.



GLASS BULB TYPES—FIG. A

Type	No.	Type	No.	Type	No.
1A1	E2815*	165R4	E2823	NB2	E2829
1B1	E2816*	165R8	E2824	NB3	E2830
60R30G	E2817	185R	E2825	NB4	E2831
140R	E2818	185R4	E2826	NB5	E2832
140R4	E2819	185R8	E2827	NB6	E2833
140R8	E2820	878R18	E2828	NB7	E2834
165L4	E2821	NB1	E2828	NB8	E2835
165R	E2822				

List Price, \$1.00 NET EACH. 51c
*These two types list at \$1.50 NET EACH. 77c

SMALL METAL SHELL TYPE—FIG. B

Type	No.	Type	No.	Type	No.
L36B	E2836	L42D	E2844	L19D	E2852
42A	E2837	49A	E2845	K55B	E2853
K42B	E2838	K49B	E2846	K55C	E2854
K42C	E2839	K49C	E2847	K55D	E2855
K42D	E2840	K49CB	E2848	L55B	E2856
L42E	E2841	K49D	E2849	L55C	E2857
L42B	E2842	L49B	E2850	L55D	E2858
L42C	E2843	L49C	E2851		

LARGE PERFORATED METAL SHELL TYPE—FIG. C

Type	No.	Type	No.	Type	No.
42N1	E2859	49A1	E2862	55A1	E2865
42A2	E2860	49A2	E2863	55A2	E2866
42B2	E2861	49B2	E2864	55B2	E2867

List Price, \$1.00 NET EACH. 51c
YOUR PRICE EACH.

RAYTHEON PANEL BULBS

Typical Raytheon quality is built into these high-grade pilot light bulbs. These dependable miniature lamps are famous for their long life and efficiency and at our low prices are cheaper in the long run than inferior foreign-made bulbs. Buy these genuine Raytheon pilot light bulbs in lots of ten and save more money at the attractively low quantity price.



REGULAR PANEL TYPES

No.	Type	Volts	Amps	EACH	PER 10
E2267	R40	6-8	.15	9c	\$0.53
E2268	R40A*	6-8	.15	12c	.71
E2269	R41	2.5	.50	9c	.53
E2270	R42	3.2	.50	12c	.71
E2271	R43	2.5	.50	10c	.59
E2272	R44*	6-8	.25	9c	.53
E2273	R45	3.2	.50	12c	.71
E2274	R46	6-8	.25	9c	.53
E2275	R48	2.0	.06	20c	1.18
E2276	R49*	2.0	.06	22c	1.29
E2277	R19A	2.1	.12	22c	1.29
E2278	R50†	6-8	.20	10c	.59
E2279	R292	2.9	.17	10c	.59
E2280	R292A*	2.9	.17	14c	.82

AUTOMOTIVE TYPES

E2281	R51†	6-8	.20	7c	.41
E2282	R55†	6-8	.40	7c	.41

*Miniature bayonet base; all others screw base. †Small round bulb.

KELLOGG TUBES

TYPE 401.	Original Kellogg detector-amplifier tube.	
E1010.	NET	\$2.33
TYPE 403.	For use in last audio stage.	
E1011.	NET	\$2.94

KNIGHT



RADIO TUBES

The popular KNIGHT line of radio tubes has been greatly enlarged to include a complete selection of standard glass type tubes as well as octal-base and metal types. You can undersell all competition with this popular line of superior quality tubes. Precision construction, attractive factory-sealed packaging, and dependable performance will give you big volume-building sales. Put in a stock of popular KNIGHT types and watch your profits soar!

SPECIAL QUANTITY DISCOUNT

In lots of 25 or more, we offer KNIGHT Tubes at a special discount of 10% from the NET PRICES shown below. You can easily select 25 fast-moving types from our complete listing.

KNIGHT Tubes are priced to bring you 10% to 15% BIGGER PROFITS. Put in a stock of fast-moving, popular types and build real profits in your tube-replacement business. All KNIGHT Tubes are packed in factory-sealed cartons, assuring you of perfect merchandise. We carry the complete line of KNIGHT Tubes—including all glass and metal types—in our regular stock at all times. You can depend on ALLIED for real service and bigger profits!

ALL STANDARD GLASS TYPE TUBES

Type	No.	List	NET
01A	E901	.80	.32
1A4	E960	1.75	.71
1A6	E961	1.75	.71
1B4	E962	2.25	.91
1B5	E963	1.25	.51
1C6	E964	1.75	.71
1F4	E965	1.50	.61
1F6	E966	2.25	.91
1V	E903	1.25	.51

2A3	E967	2.50	1.01
2A5	E968	1.25	.51
2A6	E969	1.25	.51
2A7	E970	1.50	.61
2B6	E989	2.50	1.01
2B7	E917	1.75	.71

5Z3	E972	1.25	.51
6A4/LA	E974	1.50	.61
6A6	E975	1.75	.71
6A7	E976	1.50	.61
6B5	E977	2.25	.91
6B7	E978	1.50	.61

Type	No.	List	NET
6C6	E979	1.25	.51
6D6	E980	1.25	.51
6E5	E981	1.50	.61
6F7	E983	2.00	.81
6G5	E984	1.50	.61
6T5	E990	1.50	.61
6U5	E991	1.50	.61

10	E904	2.75	1.11
12A	E907	1.00	.40
12A7	E986	2.25	.91
12Z3	E987	1.50	.61
19	E909	1.50	.61

22	E911	2.00	.81
24A	E912	1.25	.51
25B5	E992	2.25	.91
25Z5	E988	1.25	.51
26	E913	.80	.32
27	E914	.80	.32

30	E915	1.00	.40
31	E916	1.00	.40

Type	No.	List	NET
32	E917	1.75	.71
33	E918	1.50	.61
34	E919	1.75	.71
35/51	E920	1.25	.51
36	E921	1.25	.51
37	E922	1.00	.40
38	E923	1.25	.51
39/44	E924	1.25	.51

41	E926	1.25	.51
42	E927	1.25	.51
43	E928	1.50	.61
45	E930	1.00	.40
46	E931	1.50	.61
47	E932	1.50	.61
48	E933	4.00	1.62
49	E934	1.25	.51

50	E935	2.50	1.01
53	E938	2.00	.81
55	E939	1.50	.61

Type	No.	List	NET
56	E940	.80	.32
57	E941	1.25	.51
58	E942	1.25	.51
59	E943	2.00	.81

71A	E944	1.00	.40
75	E945	1.25	.51
76	E946	.80	.32
77	E947	1.50	.61
78	E948	1.25	.51
79	E949	1.50	.61

80	E950	.80	.32
81	E951	2.25	.91
82	E952	1.50	.61
83	E953	1.75	.71
83V	E954	2.25	.91
84/6Z4	E955	1.75	.71
85	E956	1.25	.51
89	E957	1.50	.61
V99	E958	1.50	.61
X99	E959	1.50	.61

OCTAL BASE GLASS TUBES

Type	No.	List	NET
1C7G	E750	2.25	.91
1D5G	E751	2.25	.91
1D7G	E752	1.75	.71
1E5G	E753	2.25	.91
1E7G	E754	2.75	1.11
1F5G	E755	2.25	.91
1F7G	E756	2.25	.91
1G5G	E757	2.00	.81
1H4G	E758	1.00	.40
1H6G	E759	1.75	.71
1J6G	E760	1.50	.61

5U4G	E761	1.50	.61
5V4G	E762	2.50	1.01
5X4G	E763	1.50	.61
5Y3G	E764	1.00	.40
5Y4G	E765	1.00	.40

6A8G	E766	1.50	.61
6AC5G	E767	1.25	.51
6B8G	E768	1.75	.71
6C5G	E769	1.25	.51
6C8G	E770	1.50	.61
6D8G	E771	1.25	.51
6F5G	E772	1.25	.51
6F6G	E773	1.50	.61
6F8G	E774	1.50	.61
6G6G	E775	2.25	.91
6H6G	E776	1.25	.51

Type	No.	List	NET
6J5G	E777	1.50	.61
6J7G	E778	1.50	.61
6K5G	E779	1.50	.61
6K6G	E780	1.50	.61
6K7G	E781	1.50	.61
6K8G	E782	1.75	.71

6L5G	E783	2.25	.91
6L6G	E784	2.50	1.01
6L7G	E785	1.75	.71
6N6G	E786	2.25	.91
6N7G	E787	1.75	.71
6Q7G	E788	1.50	.61
6R7G	E789	1.50	.61
6S7G	E790	2.25	.91

6T7G	E791	2.25	.91
6U7G	E792	1.50	.61
6V6G	E793	1.50	.61
6X5G	E794	1.50	.61
6Y6G	E795	2.25	.91
6Z7G	E796	1.75	.71
6ZY5G	E797	1.50	.61
25A6G	E798	1.50	.61
25A7G	E799	2.25	.91
25B6G	E800	1.75	.71
25L6G	E801	2.25	.91
25Z6G	E802	1.50	.61

ALL-METAL TYPE TUBES

Type	No.	List	NET
5T4	E1061	2.50	1.01
5W4	E1062	1.00	.40
5Z4	E1063	2.00	.81
6A8	E1064	1.50	.61
6B8	E1065	1.75	.71

6C5	E1066	1.25	.51
6F5	E1067	1.25	.51
6F6	E1068	1.50	.61
6H6	E1069	1.25	.51
6J7	E1070	1.50	.61
6K7	E1071	1.50	.61

Type	No.	List	NET
6L6	E1072	2.25	.91
6L7	E1073	1.75	.71
6N7	E1074	1.75	.71
6Q7	E1075	1.50	.61
6R7	E1076	1.50	.61

6V6	E1077	1.75	.71
6X5	E1078	1.50	.61
25A6	E1079	1.50	.61
25L6	E1080	2.25	.91
25Z6	E1081	1.50	.61

NEW HYTRON BANTAM TUBES



These new tubes represent one of the latest developments in radio tube manufacture. With "T" Bulb and Octal Base, they measure only 1 1/4" in diameter and range from 2 1/2" to 3 1/2". In overall bright, unique electronic design and mechanical structure assure excellent characteristics and rugged dependability. Hytron "Bantams" are now being used as original equipment by manufacturers of many compact receivers. Put in as supply to take care of replacement needs.

Type	No.	List	NET
6AC5GT	E850	1.25	.61
6A8GT	E851	1.50	.73
6C5GT	E852	1.25	.61
6F5GT	E853	1.25	.61

6H6GT	E854	1.25	.61
6J5GT	E855	1.50	.73
6J7GT	E856	1.50	.73
6K5GT	E857	1.50	.73
6K6GT	E858	1.50	.73
6K7GT	E859	1.50	.73

Type	No.	List	NET
6K8GT	E860	1.75	.86
6P5GT	E861	1.25	.61
6Q5GT	E862	1.25	.61
6Q7GT	E863	1.50	.73

6X5GT	E864	1.75	.86
25A6GT	E865	1.50	.73
25A7GT	E866	2.25	1.10
25L6GT	E867	2.25	1.10
25Z6GT	E868	1.50	.73
6RS GT	E869	1.50	.73

BALLAST TUBES BULBS • NEON LAMPS



QUALITY KNIGHT BALLAST TUBES

New metal-shell ballast tubes for replacement in A.C.-D.C. sets. Identically the same in electrical characteristics and base connections as originals. Require no rewiring; simply remove old defective ballast tube and replace with the proper Knight ballast tube. Sturdily built for long life. Will give superior performance.

No.	Type	Replaces
1018	K 201	HK 201B
1019	K 301	HK 301B
1020	K 121	HK 121C, 30K12
1021	K 12D	HK 12D
1022	K 121	HK 121C
1041	L 421	L 401, 69, 2037
1023	M 421	BM 421B
1024	KZ 191	50112, 501231G
1025	K 191	HK 191, 1V-41537, 135K1
1026	KZ 19C	50A 2MG
1033	K 19C	HK 19C
1027	K 19D	HK 19D, 2054A
1042	L 191	L 191224, 60, 2033
1028	L 19C	L 19, 55C
1046	L 19D	HK 19-241
1029	M 191	8091, BM 191B
1050	M 55A	K 55A
1051	K 55B	BK 55B, 3015, 55K1B
1052	K 55C	K 55C
1053	K 55D	K 55D
1035	K 551	HK 551, 72, 5011
1043	L 551	L 551, 215, 5503
1044	L 55C	L 55, 55C
1045	L 55B1	L 55B1
1047	L 55B2	L 55B2
1048	L 55B3	L 55B3
1055	M 551	BM 551B
1036	K 71B	HK 71B
1048	K 71C	HK 71C
1047	K 801	HK 791, K 75B
1038	K 871	K 901B
1039	K 921	K 951B
1049	K 105A	K 105A

List 80c. YOUR PRICE EACH

25c

AC-DC ADJUSTABLE BALLASTS

A revolutionary new idea in ballast tube replacements. And 2 bulbs will replace over 100 R.M.A. type ballast tubes. Will also remove many special ballasts. Simple instructions show exactly what adjustments to make on base of tube. Send for FREE replacement chart.

2 TYPES WILL REPLACE 100 TYPES

Special design enables you to use these two ballasts for more than 100 replacements simply by making adjustments on gaskets and jumper at base of tubes. Remove defective ballasts quickly at low cost. Stock up with both types.

E 1058. Ballast A. } List, \$1.00
E 1059. Ballast B. } NET EACH **49c**



AC-DC REPLACEMENTS

The units below will replace 70% of the ballast tubes used in A.C.-D.C. sets. They are designed to use only 5A through 10A ballasts which keeps them 5% with line voltages varying from 85 to 140 volts. Prevents damage to tubes, pilot lights, etc. 1 or 2 15A or 25A pilot lights may be used with any Amperite. If pilot light burns out see what will still fit.

ALL TYPES BELOW SELL AT 59c NET

Cat. No.	Amper-ite No.	Starting With Letter	With No. From	Ending With Letter
E1184	K145	K, L, M	or BK 106 to 67	A, B, C, or D
E1185	K175		67 to 105	
E1186	K150S2		40 to 100	S2

Except E150B and E150B, use Amperite E65B.

E 1187. Amperite No. 4P-45. 1 Prong base. Replaces the following types: 6B

140R4 165R8 181R4 300R4 1X42D 1KX35A 140R8 16514 181R8 320R4 1KX40B 1KX55B 140R44 16514 181R44 1KX421 1KX40C 1KX55D 14014 16518 18114 1KX42C 1KX39D 1KX55D 14014 16514 18114 1KX42D 1KX40B 1KX55B 14014 16514 18114 1KX42B 1KX40C 1KX55C 60X3T 40B2 40B2 1KX42C 1KX40D 1KX55D

E 1188. Amperite No. 3-40. 4 Prong base. Replaces the following types: 5B 50X1 1613C 1KX42A 1KX55A 50 10014 1813C 1KX40A 14133

GENUINE EVEREADY MAZDA BULBS



Genueve Eveready Mazda pilot light bulbs. Famous the world over for their quality, dependability and long life. Cheaper than foreign-made bulbs in the long run. Take advantage of the attractive quantity prices and buy them in lots of ten.

RADIO PILOT LIGHT BULBS

No.	Type	Volts	Amps.	EACH	PER 10
E1250	41*	2.5	.50	\$0.09	\$0.54
E1252	43*	2.5	.53	.10	.59
E1251	42	3.2	.37	.12	.71
E1253	40	6.8	.45	.09	.54
E1257	50*	6.8	.20	.10	.55
E1258	51*	6.8	1.0	.07	.41
E1260	55*	6.8	.40	.07	.41
E1254	48	2.0	.08	.20	1.15
E1259	49*	2.0	.06	.22	1.25
E1255	41*	6.8	.25	.09	.54
E1256	46	6.8	.25	.09	.54

* Indicates miniature bayonet base. Indicates small round bulb.

MAZDA FLASHLIGHT BULBS

Stock No.	Lamp No.	Cell Volts	Amp.	Price Each	Box of 10	
E1262	223	2	2.2	0.25	\$0.09	54c
E1263	233	2	2.3	0.27	.09	54c
E1264	13	3	3.8	0.30	.09	54c
E1265	14	2	2.5	0.30	.09	54c
E1266	31	5	6.2	0.30	.11	65c
E1267	136	1	1.3	0.60	.10	59c
E1268	218	2	2.4	0.80	.11	65c

KENRAD 6, 12 & 32 VOLT LIGHT BULBS



G.E. licensed bulbs of superior construction providing maximum efficiency and economy. Designed for storage battery lighting systems. Ideal for taxies, campers, trailers, etc. Provide excellent light with maximum efficiency and economy.

6 VOLT LAMPS

No.	Watts	Drum	EACH
E890	15	2.5 Amp.	25c
E891	25	4.2 Amp.	35c
E892	50	3.5 Amp.	35c

12 VOLT LAMPS

No.	Watts	Drum	EACH
E893	15	2.5 Amp.	30c
E894	25	2.1 Amp.	40c
E895	50	4.5 Amp.	40c

32 VOLT LAMPS

No.	Watts	Drum	EACH
E897	15	4.5 Amp.	23c
E898	25	7.8 Amp.	23c
E899	50	1.6 Amp.	25c

WRITE FOR QUANTITY PRICES. See pages 45-47 for a complete listing of 6 Volt Light Plants and associated equipment.

GENERAL ELECTRIC NEON GLOW LAMPS



Genueve G. E. neon glow lamps. Useful in many test instruments such as Weston and Yale, etc. Can be used to build short and leakage testers. Will fill many other purposes such as light source for microscopes, night lights, etc. Long life.

controls glow on A.C.; only negative glows on D.C. For 105 to 120 volt operation.

E6454. MIDGET 1/4 WATT. Candelabra Base. Pear shape clear bulb for tube testers. 1/2" diam. Split cone electrode. **36c**

NET

E6457. MIDGET 1/4 WATT. Bayonet Base. Will exactly replace bulb in Tube Neon Condenser Tester. Tubular clear bulb. **41c**

NET

E6452. MEDIUM 1/2 WATT. Edison Base. 1/2" C.P., 1/2" Amp. Round 1 1/4" dia. For A.C. only. Split cylinder electrode. **36c**

NET

E6451. MEDIUM 1 WATT. Edison Base. 1/2" C.P., 1/2" Amp. Round 1 1/4" dia. Spiral electrode. See right hand cut above. **36c**

NET

E6450. MEDIUM 2 WATT. Edison Base. 1/2" C.P., 1/2" Amp. Pear shape. 1 3/4" dia. Split-disk electrode. **45c**

NET

E6453. MEDIUM 3 WATT. Edison Base. Round electrode. An ideal night light. Excellent for test panel. **54c**

NET

PORCELAIN SOCKETS



Designed for neon lamps. Highest quality porcelain construction. Handy screw terminals for easy connection.

E6459. Edison Base. Clear mounting. NET EACH **10c**

E6460. Edison Base. Sub-panel mounting. NET EACH **16c**

E6461. Candelabra Base. Sub-panel mounting. NET EACH **28c**

GENUINE G.E. TUNGAR BULBS



The well-known, highly efficient G.E. Tungar bulbs. Used in many standard circuits. Will replace Heilmann bulbs of the same rating.

No. Type Fig. NET EACH

E6440 2 Amp. A

E6441 2 Amp. B

E6442 6 Amp. C

List. Each, \$4.00.

E6443 5 Amp. D

E6444 5 Amp. D

List. Each, \$6.00.

E6445 15 Amp. D

List, Each, \$12.00.

MALLORY BIAS CELL

Designed to furnish initial bias for R.F. IF and AVC tubes. Size, with 1 1/2" x 1 1/2". Stainless; non-corrosive at audio frequencies. Provides a no-current potential of 1 or 1 1/2 Volts. 10% may be used to serve for higher bias voltages. Eliminates distortion caused by conventional bias arrangements.

E11939. 1 Volt Type. **18c**

E11871. 1 1/2 Volt Type.

BIAS CELL HOLDERS

E11946. For one cell. NET **6c**
E11947. For two cells. NET **12c**
E11948. For three cells. NET **15c**
E11949. For four cells. NET **21c**

Everything for the RADIO SERVICEMAN

In the following pages ALLIED brings you the most extensive selection of service instruments and replacement parts ever offered in a single catalog. Whether you are setting up a new shop or adding to your present equipment, you can make your entire selection here—quickly and economically. Let ALLIED help you to save and to earn more.

Easy time payments on TEST EQUIPMENT

Get the test equipment you want NOW and let it earn for you as you pay! Most of the instruments listed in this section are available on easy Time Payment Terms through ALLIED. Write for application blank, specifying the models you want. Then watch your new equipment pay for itself through increased business and bigger profits.

NEW SUPREME "Speed" TEST INSTRUMENTS



COMPLETE LABORATORY

The four new Supreme "Speed" test instruments are also available housed in a Service Laboratory Rack. The complete unit consists of the models 592 Set Tester, 593 Analyzer, 594 Tube Tester, and 596 Substitution Box. No other service instruments offer so many features, so many new improvements, such great convenience at such a low cost. The rack is beautifully finished in baked enamel with chrome trim. It occupies less than one square foot of bench space. Has a large, handy drawer at bottom. Rack measures 25 1/2" high, 9" wide, 11" deep at bottom and 6" at top. Shpg. wt., 35 lbs.

- E10976. Complete Lab. \$89.42 NET**
E10976. Lab. Rack Only. NET. \$9.80
E10977. Blank Panel, 5 1/2" x 1 1/2". NET. \$3.40
E10978. Blank Panel, 2 1/2" x 3 1/2". NET. \$4.90
E10979. Set of 5 Converters. For use with Model 594 Tube Tester. NET. \$2.94

CASES AND TRAYS ONLY

- E10988. Portable open oak tray for Model 593 or Model 596. NET. \$2.11**
E10989. Portable oak carrying case for Model 593 or Model 596. NET. \$3.43
E10990. Portable oak case for 1-592 or 594 and 1-593 or 596. NET. \$5.39
E10991. Portable oak case for 592 and 594 and 1-593 or 596. NET. \$6.96



MODEL 592 SET TESTER

This model features an exclusive, new push-button switching circuit of advanced design. The 14 push-buttons control a total of 47 ranges which are available through two pin jacks. Ranges are as follows: 0-3.5-7-35-140-350-700-1,400 volts D.C., either at 1,000 or 25,000 ohms per volt; 0-0.7-7-7.35-140-350 mils D.C.; 1-4-14 amps D.C.; 0-500-5,000-50,000-500,000 ohms; 0-5-50 megohms; 0-3.5-7-35-140-350-700-1,400 volts A.C.; and -10 to +46 D.B. in 5 ranges. A push-button permits using A.C. voltage scales as an output meter. Case size, 9" x 7 1/2" x 2 1/4". Shpg. wt., 11 lbs.

- E10980. In Case. \$40.18 NET CASH PRICE**
E10981. Less Case. \$36.75 NET CASH PRICE



MODEL 594 TUBE TESTER

The Model 594 uses only one octal socket; but is so designed that you can test all tubes by means of your own analyzer plug and cable or the Model 593 Analyzer. Any one millivoltmeter may be used with the 594. The instrument gives a positive 8-way check on all receiving tubes for (1) opens, (2) shorts, (3) leakage, and (4) quality, with special tests for rectifiers and multi-element tubes. The 594 comes complete with full instructions and a chart listing over 600 tube tests. Size of case, 9" x 7 1/2" x 2 1/4". For 100-130 volts 60 cycles Shpg. wt., 12 lbs.

- E10982. In Case. \$25.48 NET CASH PRICE**
E10983. Less Case. \$22.05 NET CASH PRICE



MODEL 593 ANALYZER

For the first time there is now available an all-push-button-controlled analyzer. It is no longer necessary to waste valuable time using connectors and twin jacks. Simply connect your multimeter to the two pin jacks on the 593, place analyzer plug in the set's socket, place the set's tube in the 593 and you can quickly and easily make voltage or resistance measurements between any two tube elements or current measurements in any tube element. Two push-buttons are pressed to obtain any readings. No special instructions are necessary. It's as easy to operate as ringing a door bell. Case size, 9" x 4 1/2" x 1 1/2". Shpg. wt., 7 lbs.

- E10984. In Case. \$14.36 NET CASH PRICE**
E10985. Less Case. \$12.25 NET CASH PRICE



596 SUBSTITUTION BOX

The Model 596 Substitution Box is an extremely handy service instrument used to determine accurately the proper values of resistance and capacity for replacement work. Unit contains five fixed resistors having values of 25,000, 100,000, 250,000 ohms, 1 megohm, and 5 megohms; and a variable 25,000 ohm resistor. All of these resistors are available by means of push-buttons. Condenser values of .1, .5, and 3 MFD are also obtained through three push-buttons. All ranges are brought out to tip jacks and both resistance and capacity can be used at the same time. Case measures 9" x 1 1/2" x 3 1/2". Shpg. wt., 5 lbs.

- E10986. With Case. \$10.68 NET CASH PRICE**
E10987. Less Case. \$8.57 NET CASH PRICE

TIME PAYMENT TERMS FOR ABOVE INSTRUMENTS

- E10975. Complete Speed-Service Laboratory. \$8.30 down, \$8.36 monthly for 11 months.**
E10980. Model 592 Set Tester in Portable Case. 4.51 down, 4.51 monthly for 9 months.
E10981. Model 592 Set Tester less case. 4.12 down, 4.12 monthly for 9 months.
E10982. Model 594 Tube Tester in Portable Case. 4.09 down, 4.09 monthly for 6 months.
E10983. Model 594 Tube Tester less case. 4.12 down, 4.12 monthly for 5 months.
Combination Models 592 and 593 in one Portable Case—
NET CASH PRICE, \$54.39. TIME PAYMENT TERMS: 5.09 down, 5.09 monthly for 11 months.
Combination Models 592, 593, and 594 in one Portable Case—
NET CASH PRICE, \$78.01. TIME PAYMENT TERMS: 7.30 down, 7.30 monthly for 11 months.

New SUPREME Test Equipment

SUPREME "ZEPHYR" PUSH-BUTTON TUBE TESTERS



The "Zephyr" Push-Button tube tester is one of the outstanding achievements in test equipment for 1939. Modern and up-to-the-minute in every respect, it offers advantages not found in other tube testers. Easy and rapid operation is assured by means of the push-button selector switches. Engineer and novice alike can obtain the same accurate and dependable results with this instrument. Each row of push-buttons controls a separate function. The first row permits compensation for line voltage fluctuations. A single button permits checking of the line voltage. The second row of buttons selects the proper tube filament voltage, while the next two rows permit application of this voltage to the correct tube terminals. The fifth row connects the proper test voltages and circuits to the tube, while the next three rows determine the standard setting for a good tube. By pressing each button, one by one, in the last row, shorts and leakage between any two tube elements are quickly and accurately detected on a large neon bulb. The "quality" test is obtained by pressing one or two buttons. Tube testing data is quickly located on a rotating chart. Customer confidence is assured by means of the large English-reading "Good-?-Bad" meter scale. The new "Zephyr" will not only speed up your tube checking work, but will soon pay for itself through increased tube sales.



MODEL 506 COUNTER MODEL

This Model has been designed particularly for counter use. Because of the extreme simplicity of its operation, anyone can use it. The large illuminated double-scale dial is easily read from both sides of the counter. Your customers will get a thrill from being able to test their own radio tubes. The beautifully finished case measures 12 $\frac{1}{2}$ " x 6 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ ". For 110 V. 60 cycles. Shpg. wt., 30 lbs. **\$58³¹**
NET CASH PRICE.

MODEL 506 PORTABLE TYPE

The Model 506 Portable is exactly the same as the Counter Model except that the flat panel is mounted in a sturdy, attractive quartered-oak carrying case with a leather handle. While designed primarily for portable service work, the removable cover permits its use on the counter. The meter utilizes a single scale dial. Case measures 13" x 16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ ". For 110 V. 60 cycles. Shpg. wt., 24 lbs. **\$58³¹**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$5.46 down, \$5.46 monthly for 11 months.

S.I.C. TIME PAYMENTS: \$5.46 down, \$5.46 monthly for 11 months.

MODEL 501 TUBE TESTER



The 501 is an improved, compact, light weight, portable tube checker of exceptional accuracy. Five possible tests are available with this instrument: (1) inter-element leakage between any two tube elements, (2) open element test in each tube element, (3) short check between any two elements, (4) quality test of complete tube elements, and (5) separate checks for rectifiers and diodes. The 501 is protected from obsolescence by its "Floating Filament" selector which can apply filament voltage to any two pin terminals. Tubes such as the 6P7, 6A5, 5X4, 5Y4, etc., are used. The large over size transformer prevents secondary voltage changes when tubes of different filament ratings are being tested. The bronze panel and golden oak carrying case produces a professional appearance. Full instructions and a complete chart listing over 600 tubes are included. Size of case is 9 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ ". Weight, 22 pounds. For 100-130 volts, 60 cycles A.C. Special voltages and frequencies at slightly higher prices. Write for quotations. Shpg. wt., 15 lbs. **\$36²¹**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$4.07 down, \$4.07 monthly for 9 months.

MODEL 502 RADIO TESTER



Two complete instruments in one—a radio set tester and a tube checker. The 502 permits five possible tube tests: (1) leakage between any two elements, (2) open in any element, (3) short check between any two elements, (4) quality test of complete tube elements, and (5) separate tests for diodes and rectifiers. All quality tests are made at full rated load for highest accuracy. The obsolescence-proof "Floating Filament" feature permits testing such tubes as the 5X1, 5Y4, etc., without extra adapters. The 502 tests all M, G, M-G, octal, non-octal, gas rectifiers and magic-eye tubes. Readings are on a large, highly accurate "Good-?-Bad" scale. Sensitivity of meter is 1,000 ohms per volt. Ranges are: 0-7-140-350-1400 volts A.C. and D.C.; 0-200-2000-20,000 ohms; 0-2-20 megohms and four output ranges. Leakage of electrolytic condensers is read directly on the "Good-?-Bad" scale. A sensitive Neon bulb is used for testing paper and mica condensers. The low ohm meter range reads 3.5 ohms center scale. First division is 0.1 ohm. The 502 is housed in a white oak case, 10 $\frac{1}{2}$ " x 14 $\frac{1}{2}$ " x 5". and weighs only 16 pounds. The panel is finished in bronze giving the instrument a truly professional appearance. Complete with all accessories and full instructions. For 100-150 volts, 60 cycles A.C. Shpg. wt., 20 lbs. **\$48⁹⁵**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$5.50 down, \$5.50 monthly for 9 months.

MODEL 502-S. Similar to the 502 described above but with a 25,000 ohm per volt supersensitive meter using a Cobalt magnet. Ideal for testing A.V.C., A.F.C., and similar circuits where current drain is an important factor. **\$53.85**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$6.05 down, \$6.05 monthly for 9 months.

542 POCKET MULTIMETER



The new Model 542 Multimeter is a compact, yet highly versatile instrument. Conveniently located nine-taps provide the following ranges: 0-3-0-30-150 M.A. D.C.; 0-6-150-300-1,500 volts D.C.; 0-0-30-150-300 volts A.C. and output: 0-2,000-20,000-200,000 ohms and 0-2 megohms; —4 to +50 D.B. in 4 ranges. The accurate 3" square meter is provided with a knife-edge pointer for easy readings. Sensitivity of meter is 5,000 ohms per volt. The 3 $\frac{1}{2}$ " x 6" x 2 $\frac{1}{2}$ " molded bakelite case is small enough to slip into a coat pocket. All ohmmeter ranges operate from self-contained batteries. Shpg. wt., 4 lbs. **\$15⁹⁷**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$4.73 down, \$4.73 monthly for 3 months.

551 ANALYZER



The new Model 551 analyzer permits fast and accurate checking of all radio circuits through the use of Supreme's exclusive "Free Reference Point System of Analysis." All resistance, voltage, and current measurements may be taken between any two tube elements or between any tube element and chassis. All multimeter ranges are read directly on the new type square flush-panel meter. Meter ranges are 0-7-140-350-1400 volts D.C. (at 1000 ohms per volt); 0-7-140-350-1400 volts A.C.; 0-1-7-35-140 mils D.C.; 0-7-140-350-1400 ohms; 0-200-2000-20,000 ohms; 0-2-20 megohms. For use on 110-125 volts, 60 cycles only. Housed in an oak carrying case. Complete with all leads, cables, adapters and full operating data. Shpg. wt., 15 lbs. **\$38¹⁷**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$4.29 down, \$4.29 monthly for 9 months.

MODEL 551S. The 551S is identical to the 551 except that it is equipped with an ultra-sensitive 25,000 ohm per volt meter. Features a 40 microampers D.C. range instead of the 1 mill range. **\$43.07**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$4.84 down, \$4.84 monthly for 9 months.

541 MULTIMETER



The 541 is one of the most efficient Set Testers available. An indexed rotary switch selects the 21 ranges as follows: 0-7-140-350-1400 volts A.C. and D.C. at 1000 ohms per volt; 0-1-7-35-140 mils D.C.; 4 output meter ranges; 0-200-2000-20,000 ohms and 0-2-20 megohms. The megohm scales are operated from a self-contained power supply. Low ohms range reads 3.5 ohms at center scale. Quartered oak case, 7 $\frac{1}{2}$ " x 10 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ ". Complete with all accessories. For 110-125 volts, 60 cycles A.C. Shpg. wt., 12 lbs. **\$26⁴¹**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$3.70 down, \$3.70 monthly for 7 months.

MODEL 541S. The 541S is identical to the 541 except that it is equipped with an ultra-sensitive 25,000 ohm per volt meter. Features a 40 microampers D.C. range instead of the 1 mill range. **\$31.31**
NET CASH PRICE.

S.I.C. TIME PAYMENTS: \$3.90 down, \$3.90 monthly for 8 months.

New SUPREME Test Equipment



585 DE LUXE DIAGNOMETER

- A Complete Portable Laboratory.
- Double-view Illuminated Meters.
- Full Analysis of Every Circuit.
- Tube Tests on "Good-Bad" Scale.
- Forty-two Multimeter Ranges.
- 5 Decibel Ranges -10 to +46 DB.

A truly advanced professional service test instrument. Makes quick and accurate checks of all circuits and components; also tests every type of metal or glass tube. All measurements of resistance, voltage, current, capacity, power level, etc., as well as tube and component tests, are read directly from 2 sensitive D.A. optical meters and multiple scales. Tube and condenser leakage checked by direct-reading "Good-Bad" scales.

FORTY-TWO FUNCTIONS AND RANGES

Meters are accurately calibrated to read: 0-7-35-140-370-700-1400 A.C. or D.C. volts, or D.C. M.A.; 0-14 D.C. amperes; 0-200-2,000-20,000-200,000 ohms, and 0-2-20 megohms; 0-0.7-35-14-3.5-7-14 mil.; -10 to +2, 0 to +10, +10 to +20, +20 to +30, +30 to +46 D.B. A.C. and capacity ranges are read from newly spaced scales for accuracy. The Model 585 incorporates Supreme's exclusive Free Reference Point Analysis system that checks every circuit and tests all tubes for opens, leakage and shorts. Oak-finished case, 21" x 16" x 7". With all charts, accessories, etc. For 110-125 volts, 60 cycles A.C. Shpg. wt., 40 lbs.

E10250. NET CASH PRICE **\$9500**
S.I.C. TIME PAYMENTS: \$8.89 down, \$8.89 monthly for 11 months.



570 SIGNAL GENERATOR

Covers from 125 K.C. to 60 M.C. in 8 bands. Fundamentals cover 90 K.C. to 15 M.C.; harmonics cover 15 M.C. to 60 M.C. Has directly calibrated airplane dial. Unusual stability is afforded by use of electron-coupled oscillator and complete circuit shielding; not affected by varying load or line voltage. Provides modulated or unmodulated signal; lip-jacks furnish 40 C.P.S. audio. With tubes, accessories, etc. Size, 10 1/2" x 8 1/2" x 5 1/2". For

110-125 volts, 60 cycles A.C. Shpg. wt., 20 lbs. **\$3130**
E10256. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$3.90 down, \$3.90 monthly for 8 months.



520 UNIVERSAL A.C. BRIDGE

Here is a sensitive, accurate Universal Bridge that will speed up your work and solve many of those difficult repair jobs. The 520 provides the following ranges: 1 MΩ to 10 Ω in 4 ranges; 100 Ω to 100 Ω in 6 ranges; 1 Ω to 10 megohms in 7 ranges and 0 to 100% for measuring power factor. A sensitive neon bulb checks condenser leakage. The 675 radial target eye is used as a null indicator. Golden oak case measures 8 1/2" x 11 1/2" x 5 1/2". Panel is beautiful antique bronze. For 110 V. 60 cycles. Other frequencies at slight ad

ditional cost. Shpg. wt. 13 lbs. **\$3817**
E10229. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$4.29 down, \$4.29 monthly for 9 months.



512 METER KIT

The meter used in this kit has a sensitivity of 25,000 ohms per volt. Ideal for measurements in A.V.C., A.F.C., and other circuits where current drain is an important factor. The precision Weston house meter features accurately ground pivots, genuine sapphire bearings and heavy, solid forged magnets.

THIRTY RANGES

The ranges of this kit are as follows: 0-7-35-140-370-700-1400 V.A.C. and D.C.; 0-7-35-140-370-700-1400 mls. D.C.; 0 A.C. output meter ranges; 0-200-2,000-20,000 ohms; 0-2-20 megohms and 0-40 microamperes D.C. The five output ranges are obtained through one 45 volt battery. The low 200 ohm range has 0.1 ohms as first indication and 3.5 ohms center scale. Complete with instructions. Wt., 12 lbs. **\$1955**

E10225. NET

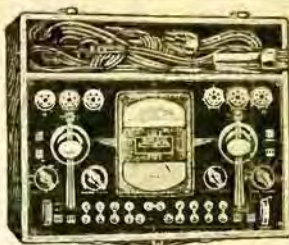
MODEL 511 FOUNDATION KIT

One mill meter with long, easily read scales: 0-7-35-140-370-700-1400 volts A.C. and D.C.; 0-7-35-140-370-700-1400 mls.; 5 output ranges up to 140 volts A.C.; 0-2,000-20,000-200,000 ohms and 2 meg. Kit includes resistors, switches, rectifier, condensers, knobs, and complete instructions with diagrams. Shpg. wt., 12 lbs. **\$14.65**

E10257. NET
TIME PAYMENT APPLICATION BLANKS AND DESCRIPTIVE LITERATURE SUPPLIED ON REQUEST

550 DE LUXE RADIO TESTER

- Free Reference Point Analyzer.
- Tests All Metal and Glass Tubes.
- Twenty-nine Multimeter Ranges.
- Completely Tests All Circuits.
- Indirectly Illuminated Meter.
- Tests All Condensers.



This new Supreme test instrument is a combination set analyzer and point-to-point tester. Provides complete circuit analysis of resistance, voltage and current as well as tube tests directly from tube sockets in set. All meter ranges are obtained through the analyzer cable making it unnecessary to reset the circuit from the cabinet. Meter ranges are: 0-7-35-140-370-700-1400 V. A.C. and D.C. at 1000 ohms per volt; 0-1-7-35-140-370-700-1400 M.A. D.C.; 0-14 Amperes (external only); 0-2,000-20,000-200,000 ohms and 0-2-20 megohms; -10 to +2, 0 to +10, +10 to +20, +20 to +30 and +30 to +46 D.B.; 6 output ranges; electrostatic capacity meter 0.07-35-14-3.5-7-14 mil.; electrolytic capacity meter 0-2.5-7-14 mil. Leakage of electrolytic condensers read directly on meter dial; makes electrostatic leakage test; all electrolytic condensers can be tested at rated working voltage. Size, 12 1/2" x 18 3/4". Complete with test leads, cable and plugs, adapters, charts and complete instructions. For 110-125 volts, 60 cycles A.C. Shpg. wt., 20 lbs. **\$5483**

E10254. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$6.16 down, \$6.16 monthly for 9 months.

MODEL 546 3-INCH OSCILLOSCOPE

This instrument is a real necessity in every up-to-date service shop and laboratory. It is indispensable for servicing modern receivers. Its use will permit you to turn out the highest quality work in the shortest possible time. Customers will be glad to pay extra for this service. Intermittent operation of a set, hum, sensitivity, overload, waveform, distortion, etc., are quickly and easily checked with the 546. A complete set of dialing marked controls is conveniently mounted on the front panel. Both amplifiers are flat up to 90,000 cycles. The sweep oscillator is linear from 15 to 20,000 cycles. A special synchronizing control holds image absolutely stationary on the screen. Sensitivity of vertical plates 32 volts per inch, horizontal plates .48 volts per inch. An exclusive feature of the 546 is the return-beam eliminator. The instrument is housed in a finely finished oak case with a beautiful bronze panel. Complete with 5 tubes, accessories, calibrated screen, and instructions. For 110-125 volts, 60 cycles A.C. Shpg. wt., 25 lbs. **\$5875**

E10258. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$5.50 down, \$5.50 monthly for 11 months.

582A PUSH-BUTTON SIGNAL GENERATOR

The 582A frequency modulated signal generator is the first on the market to offer push-button tuning. Five popular I.F. and four broadcast frequencies are instantly available at the touch of a button. This greatly simplifies and speeds up alignment work. The stabilized electron-coupled oscillator circuit covers from 85 K.C. to 15 M.C. on fundamentals and up to 10 M.C. on harmonics in 5 bands. The dial has an effective scale of 8 feet. A hair-line shadow indicator eliminates parallax. An illuminated dial shows only the band and frequency to which generator is tuned. Permanently-tuned frequency indicators and air-tuned trimmers assure maximum stability and accuracy. Four outputs are available: unmodulated I.F.; frequency-modulated I.F.; amplitude-modulated I.F.; and a 400 cycle audio tone. Special shielding prevents attenuation down to 25 db. The attenuator is marked for microvolt output so that gain per stage measurements can be made. Measures 15 1/2" x 8 1/2" x 12 1/2". For 110 V. 60 cycles. Shpg. wt., 34 lbs. **\$6560**

E10213. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$6.14 down, \$6.14 monthly for 11 months.

MODEL 582 SIGNAL GENERATOR

Incorporates all the features of the Model 582A described above, but does not include the push-button control. Size 15 1/2" x 8 1/2" x 12 1/2". Shpg. wt., 37 lbs. **\$58.75**

E10214. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$5.50 down, \$5.50 monthly for 11 months.

SPECIAL COMBINATION PRICES

Model 582A Signal Generator and Model 546 Oscilloscope. **\$124.35**
E10238. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$11.63 down, \$11.63 monthly for 11 months.

Model 582 Signal Generator and Model 546 Oscilloscope. **\$117.50**
E10239. NET CASH PRICE
S.I.C. TIME PAYMENTS: \$11.00 down, \$11.00 monthly for 11 months.

Modern TEST EQUIPMENT

NEW AEROVOX CAPACITY AND RESISTANCE BRIDGE



Regardless of what other test equipment you may have, here is an instrument you cannot do without. It has not only proved its superiority as a condenser and resistance bridge, but in addition, it is a universal instrument of many functions. Its components are utilized for other measurements and tests. The essential properties of condensers such as capacity, leakage, power factor, etc., are measured under actual operating conditions. The polarizing voltage which is applied to the condenser under test is read directly on the voltmeter.

WIDE CHOICE OF RANGES

Six ranges from 100 MMF to 100 MF are provided. The resistance bridge will accurately and quickly measure values from 10 ohms to 1 megohm. Insulation resistance of condensers, wires, etc., can be measured up to 10,000 megohms on the directly-calibrated meter scale. The instrument also includes a vacuum-tube voltmeter with an amplifier stage and a detector. Extremely useful in measuring voltages in circuits where current drain is an important factor. Other meter ranges are: 0-60-300-600 volts D.C. at 1,000 ohms per volt; 0-6-60 mills D.C., and 0-60 millivolts. A continuously variable power supply from 15 to 600 volts D.C. is available for testing condensers or for external use. The 270° linear capacity dial spreads calibrations for easy readings. Instrument is housed in a natural finish, solid gumwood case with a slip-blinded cover. Has rubber bumpers on side and bottom. Complete with tubes. Size: 10 1/2" x 7 1/2" x 3 1/2". For 110 V. 60 cycles. Shpg. wt., 11 lbs. **\$35.03** NET

THE REVOLUTIONARY RIDER "CHANALYST"

THE GREATEST ADVANCE IN THE HISTORY OF SERVICE INSTRUMENTS

Due to the fundamental design of this instrument, it is now possible for the first time to test receivers under theoretically ideal conditions. You can now localize troubles in a particular stage or part of a receiver or amplifier with greater speed and more efficiency than ever before. This is true no matter how complicated the circuit may be and regardless of the number or types of tubes used. Locating defects in a set is much more difficult and time-consuming than repairing them. By actual tests, the Chanalyst cuts down the time necessary to analyze radio trouble to an unbelievably low minimum. You can check the signal at any point in the circuit without disturbing operation of set. All testing is done without the use of any plugs or adapters.



CHANALYST FEATURES

- Traces signal through entire set showing when it exists, dies, weakens, or distorts.
- Checks actual operating voltages at any point in the set without loading the circuit.
- Checks control voltages without interfering with the set's normal operation.
- Accurately checks frequency output of the oscillator section in a superhet.
- Quickly and easily locates troubles in intermittent receivers.

The test channels which are available in the Chanalyst provide a means of separating a complete receiver into 6 basic sections. Each of these sections has its own indicator. When a breakdown or intermittent condition develops, the indicators show the presence or absence of the signal in the various sections and also the change in wattage consumption and operating voltages. By interpreting the indications, you can quickly and easily localize the trouble.

WRITE FOR DESCRIPTIVE BOOKLET.

HAS 5 SEPARATE CHANNELS

The instrument has 5 separate and independent channels: R.F., F., A.C., oscillator, and operating voltage channels. Also includes wattmeter and a very high resistance input voltmeter. Zero position of voltmeter needle is at center of scale. Ranges are: -3 to +5, -25 to +25, -100 to +100 and -500 to +500 at 2 megohms per volt. This meter permits measuring actual bias voltage at the control grid of a tube without upsetting normal operation of the receiver. The meter is also suitable for measuring D.C. operating voltages as well as D.C. control voltages developed by the signal, such as AFC, AVC, etc. These voltages can all be taken without breaking into the circuit. Another important feature of this instrument is its ability to locate intermittent reception in a set. The Chanalyst shows up this type of trouble definitely the first time there is no guess-work. The beautifully finished case measures 14" x 9" x 9 1/2". For 110 volts 60 cycles. Shpg. wt., 30 lbs. **\$107.50** NET CASH PRICE.....

TIME PAYMENTS: \$10.75 DOWN, \$13.30 MONTHLY FOR 8 MONTHS.

NEW DEPENDABLE TEST INSTRUMENTS

800 TUBE & SET TESTER

Here is the answer to the serviceman's demand for a versatile instrument at a price he can afford to pay. The 800 square, bakelite case meter has a sensitivity of 1,900 ohms per volt and 2% accuracy. An B.M.A.-approved tube-testing circuit checks all types of tubes, including gas rectifiers and ballasts. A sensitive neon bulb indicates leakage between any two tube elements while the tube is hot. Line voltage control is continuously variable. The multitester circuit has 25 ranges as follows: 0.5-50-100-100-1,000 M.A. D.C., 0-100-500-1,000 ohms; -12 to +55 D.B. and 4 output voltage ranges, same as A.C. scales. Ohmmeter ranges have self-contained power supply and a polarity reversing switch. Condenser leakage is easily checked. The variable fused line offers ample protection. Portable case with blinced-meter measures 12 1/2" x 10 1/2" x 2 1/2". For 110 V. 50-60 cycles. **\$27.39**

E10161. NET

MODEL 307 TUBE TESTER

The Model 307 is one of the finest, low-priced tube testers on the market today. All tubes are tested under voltages and loads as recommended by the R.M.A. and all the leading tube manufacturers. Tests all metal, glass, metal-glass, spray-shield, cold-cathode rectifiers, and ballast tubes. A separate ballast tube chart is supplied with the instrument. The negative beam accurately indicates shorts and leakage between individual elements while the tube is hot. Separate tests of each section of full-wave rectifiers, duo-diodes, and multi-purpose tubes are readily made. The accuracy of calibration has been carefully checked against a laboratory standard mutual conductance instrument. The 2" square full-arc meter has an accuracy of 2%. A direct-reading "Good-Bad" calibrated scale is used to permit the matching of power tubes. Model 307C measures 9 1/2" x 7 1/2" x 5". Shpg. wt., 8 lbs. Model 307P measures 11 1/2" x 12" x 7". Shpg. wt., 10 lbs. For 105-135 V. 50-60 cycles. (220 V. 50-60 cycles, \$1.00 extra). **\$16.61**

E10164. MODEL 307C. COUNTER MODEL. NET **\$18.57**
E10165. MODEL 307P. COMBINATION COUNTER AND PORTABLE MODEL. NET

SIGNAL GENERATOR MODEL 701

The Model 701 is continuously variable from 125 K.C. to 15 M.C. on fundamentals and to 60 M.C. on harmonics. The 4 1/2" full-vision dial is direct-reading. No charts or tables are required. Output can be modulated 50% at 400 cycles. This 400 cycle supply is also available for external use at a maximum output of 6 volts. Special lead-coated steel case and perfect shielding of parts eliminate all leakage. Automatic shorting of coils not in use prevents dead spots. Attenuator is calibrated from 1 micro-

\$25.43

volt to 1/2 volt. 8" x 11 1/2" x 5"
For 110 V. 50-60 cycles.
E10162. NET

AC-DC MULTITESTER

MODEL 444

The 444 gives you 22 complete instruments in one compact case. A large 3 1/2" D'Arsonval meter has the following ranges: 0-50-500-1,000 volts A.C.; 0-100-500-1,000-5,000 ohms; 0-50-500-1,000 volts D.C. at 1,000 ohms per volt; 0-1-10-100 mills D.C.; -12 to +54 D.B. in 4 ranges and 4 output ranges same as A.C. volts. The 3 ohm-meter ranges can be zero-adjusted without using test leads. Size: 8 1/2" x 7 1/2" x 4 1/2". Complete with self-contained batteries. Shpg. wt., 4 lbs. **\$9.75**

E10166. NET

MODEL 409 MULTITESTER

The sensitive, 2000 ohms per volt 5" fan-type meter has an accuracy to within 2%. Ranges are as follows: 0.5-50-500-1,000 volts A.C. and D.C.; 0-500 microamps; D.C.; 0.5-50-500 D.C. output amperes; 0.5 D.C. amperes; 0-1,000-7,500-75,000 ohms; 0-7.5 megohms; -10 to 40 db in 4 ranges and 0-50-500-1,000 output voltage ranges. The low range ohmmeter reads 2 ohms at center of scale permitting measurements as low as a few hundredths of an ohm to be made. The exclusive system of A.C. measurement is as accurate at 20,000 cycles as at 60 cycles. Shpg. wt., 4 lbs. **\$17.59**

E10163. NET

432 TROUBLE SHOOTER

Here is an instrument that is priced lower than any other type of D'Arsonval volt-ohm-milliammeter. The 432 has the following ranges: 0.5-50-500-1,000 volts D.C. at 1,000 ohms per volt; 0-500-50,000-500,000 ohms with self-contained batteries; and 0-1-10 mills D.C. Center scale reading of low-range ohmmeter circuit is 10 ohms. Not necessary to use test leads for zero-adjusting the 3 ohm-meter range. Has an attractive etched panel and a welded steel case with porcelain finish. Size: 5 1/4" x 3 1/2" x 4 1/2". Shpg. wt., 3 lbs. **\$5.83**

E10167. NET

Readrite

TEST EQUIPMENT

NEW MODEL 432 TUBE TESTER

The Readrite Model 432 is a brand new tube tester incorporating many desirable features. It uses a square 2" Triplett meter with a 3-color "Good-Bad" direct-reading scale. A accurate shadow-type A.C. meter provides accurate line voltage adjustments. An emission type circuit is used for its reliability and ease of operation. The proper voltage and load values, as specified by the I.M.A. and the tube manufacturers, are applied to the tube under test. This assures that the final reading will show definitely the true condition of the tube.

TESTS ALL TUBES AND BALLASTS FEATURES A NEON SHORT TEST

The Model 432 quickly and accurately checks metal, glass, spot-on-glass, gas, rectifier, and ballast tubes. Separate plate tests can be made on diodes and rectifiers. A sensitive neon bulb determines the slightest inter-element leakage and shorts. Testing procedure is extremely simple as there are only 5 operations. These are: A.C. line voltage adjustment, filament voltage for tube, circuit selector, tube selector, and about control. Tip-to-date, revised tube charts are furnished free of charge to all registered owners as new tube types appear on the market. The attractive quartered oak case is provided with a handle and a removable cover which makes it suitable for either counter or portable work. Size of case is 9" x 8 1/2" x 7". The dial plate is etched in silver and black. For 110 V., 60 cycle A.C. operation. Shug. wt. 18 lbs.

E9909
List, \$36.00. YOUR PRICE..... **\$21¹⁷**



431 TUBE TESTER

The Model 431 is an inexpensive direct-reading tube checker. It quickly and accurately tests all metal and glass tubes with the exception of ballast tubes. An improved emission type circuit is used which applies actual load values to the tube under test. The scale of the Readrite meter is plainly marked "Good-Bad". The meter is fully protected against overload. An additional shadow-graph type meter is used for line voltage adjustments. The 431 will positively indicate the slightest leakage and all faults. The 431 is housed in a beautiful quartered-oak case with removable cover and has a carrying panel etched in silver and black. Complete with coil, plug, and full instructions. Size, 9" x 8 1/2" x 7". For 110 V., 60 cycle A.C. operation. Shug. wt. 18 lbs. One of the finest low-cost tube testers on the market today.

E9916
List, \$25.00. YOUR PRICE..... **\$15⁵⁸**



READRITE POINT-TO-POINT ANALYZER MODEL 720-A

Designed to test all parts of all radio circuits including modern metal as well as glass tube types. Measures voltages and currents accurately in any tube circuit. Resistance, capacitance, and inductance are also quickly measured. Break-in jacks in all tube circuits provide a means of obtaining all current and voltage measurements. Equipped with 8-conductor radio test plug with necessary adapters for ubiquitous into any type tube socket. Has separate A.C. and D.C. meters which permit easier readings. Meters are accurate and exceptionally well-built to give long, dependable service.

TESTS METAL AND GLASS TUBE CIRCUITS

All meter ranges are available through a single pair of jacks. Selector switch quickly chooses proper scale on AC or DC meters. DC scales are: 0-15-150-300-600 Volts, 0-15-150 M.A.; AC scales are: 0-10-25-150-750 Volts. Complete analysis may be made without removing the receiver chassis from the cabinet. In leatherette case 11 1/2" x 8 1/2" x 7". Wt., 10 lbs.

E9900. Complete with adapters, charts, and instructions. List, \$25.00.

YOUR PRICE..... **\$14⁷⁰**



FLEXIBLE OPERATION

Will make complete point-to-point tests between all tube socket terminals by means of break-in jacks. Permits complete circuit checking as well as standard tests of voltages, current, and resistance. Easy to operate; extremely portable. A truly versatile instrument at a remarkably low price that will give exceptional service.

E9901. MODEL 730-A. Similar to the Readrite 720-A described above. Has precision Triplett DC voltmeter with 1000 ohms per volt sensitivity. Complete with all instructions. **\$18.23**
YOUR NET PRICE.....

READRITE ANALYZER MODEL 710-A



A new Readrite Standard Analyzer which completely and accurately tests all parts of all metal and glass tube receiver circuits. Meters may be connected into various parts of the circuit for testing plate, filament, grid, screen and line voltages and currents. A 4 1/2 volt battery is required for testing continuity and resistance of all resistors, capacitors, transformers, etc., without removing the radio chassis from the cabinet. Charts are provided for use in testing condensers and for measuring resistances up to 100,000 ohms. Meters are accurate to within 5%. A reliable low-priced test instrument for the small service shop. Will check voltage, current, capacity and resistance in any set and for any of the tubes in the set, whether A.C. or battery type. All switches and jacks are conveniently located on the front panel and are instantly accessible. A special built-in compartment is provided for housing the analyzer plug, cable, and adapters.

FOR ALL OCTAL AND GLASS TUBE CIRCUITS

Four sockets are provided to accommodate all metal and glass tubes. The analyzer cable is equipped with a small-size latch-type plug and adapters to fit all sets. The three meters provide the following readings: 0-20-60-100-150 Volts DC; 0-10-150-750 Volts AC; 0-15-150 M.A. DC. External jacks are provided for using these nine scales separately. 12 position selector switch connects the meters into various parts of circuit under test. Housed in a sturdy attractive leatherette case, 11" x 8 1/2" x 7". Shug. wt. 10 lbs. An excellent value in an accurate, quality-built, low-priced analyzer.

E9902. Complete with plug, cable, and instructions. List, \$27.50.

YOUR PRICE..... **\$16¹⁷**

MODEL 712-A

Same as 710-A described above, but with 1000 ohms per volt Triplett d'Arsonval DC meter. Voltmeter reads: 0-15-60-300-600 Volts. In leatherette case. Shipping wt., 11 lbs.

E9903. Complete with plug, cable, adapters and instructions. List, \$37.00.

YOUR PRICE..... **\$21⁷⁶**

READRITE-RANGER SIGNAL GENERATOR MODEL 557

The new completely shielded All-Wave Readrite-Ranger Oscillator. Improved plug-in coils are employed to give complete laboratory accuracy in each of the five ranges. Plug-in coil feature was adopted to eliminate all possibility of losses due to hand-selector switches. Designed to meet all present or future requirements, it will only be necessary to add new coils. Unit is tube-modulated and completely operated by self-contained battery. All controls are on the front panel. Simple and easy to use. The small, compact size of this instrument makes it ideally suited for portable work away from the shop.

5 BANDS: 110-20,000 K.C.

Covers a range of 110 KC. to 20,000 KC. continuously variable over entire frequency range. Translucent dial pointer provides accurate settings at all frequencies. Additional coil may be added to increase range from 20,000 to 20,000 KC. Individual coils allow each range to be spread over the dial for accurate settings. Individual coil ranges are as follows: 110 to 295 KC.; 275 to 830 KC.; 830 to 2000 KC.; 2000 to 8300 KC.; 8300 to 20,000 KC. Features complete shielding against static and magnetic fields; effective attenuation and stability; strong signal strength, etc. Has on-off switch and jacks for minimum and maximum attenuation and ground. Accuracy 1% from 110 to 2000 KC., 2% for higher frequencies. Mounted in durable black leatherette covered case, 12" x 8 1/2" x 5 1/2".

E9905. Complete with coils, tubes and batteries. Shug. wt., 12 lbs.

YOUR PRICE..... **\$18⁵²**



MODEL 554-A ALL-WAVE OSCILLATOR

This All-Wave Signal Generator is similar to the Model 557 at right but less direct-reading dial. Calibration charts are supplied for each of the five bands. Housed in a sturdy leatherette carrying case with removable hinged cover. Case measures 12 x 8 1/2 x 5 1/2". Shipped complete, ready to operate, with all necessary coils, tubes and batteries. Full operating instructions are included. Shug. wt., 12 lbs.

E9904. List, \$24.00. **NET, \$14.11**

**Readrite
RANGER**

TEST EQUIPMENT TRIPLETT

READRITE RANGER VOLT-OHM-MILLIAMMETERS

TRIPLETT METERS



**AC-DC POCKET
MODEL 736**

The 736 is a brand new instrument at a remarkably low price. It is built around a highly accurate Triplett meter. Ranges are: 0-1-1.5-15-150 volts D.C.; 0-15-150-750 volts A.C. at 400 ohms per volt; 0-15-150-750 volts D.C. at 1,000 ohms per volt and 0-1,000-100,000 ohms. External batteries may be used for higher resistance measurements. The sturdy, molded case measures 3 1/4" x 5 1/2" x 2 1/4". Panel is attractively finished in silver and black. All accessories including test leads, alligator clips, and complete instructions are supplied. Shpg. wt., 5 lbs.

\$11.76
E9910. List, \$20.00. NET.

CARRYING CASE

An attractive leather case with strap handle. For all above Testers. Ample space for tester and accessories.
\$3.53
E9920. NET

**DC POCKET
MODEL 735**

A complete, handy Volt-Ohm-Milliammeter of convenient small size; may be easily carried in a coat pocket or in the tool kit. Meter is a Triplett D'Arsonval type instrument with 2% accuracy, with scales for reading 0-15-150-750 Volts D.C.; 0-1.5-15-150 V.A.; 5-1000-100,000 ohms. Housed in a sturdy case, measuring only 3 1/4" x 5 1/2" x 2 1/4". Has black and silver panel. Supplied with battery, leads and test clips. Molded case. Shpg. wt., 4 lbs.

\$10.58
E9919. List, \$18.00. NET

DC MODEL 737

Same as Model 735 but less selector switch. Ranges are obtained through jacks.

\$9.11
E10011. List, \$15.50. NET



**VOLT-OHM-MILLIAMMETER
MODEL 666**

A new and improved service instrument built around a sensitive Micromammeter movement. Will accurately indicate values of Volts, Ohms and Milliampere. Compensated copper-oxide rectifier provides measurement of A.C. Voltages. Meter scale reads: 0-10-50-250-500-1000 Volts D.C.; 0-10-50-250-500-1000 Volts A.C.; 0-1-10-50-250 M.A.; D.C.; 0-500-250,000 ohms.



Higher resistance readings may be obtained with external battery. Meter sensitivity for both D.C. and A.C. voltages is 1000 Ohms per Volt. Panel carries three controls: A.C.-D.C. toggle switch, rotary meter-range switch, and zero ohms adjuster. Complete with battery, leads, alligator clips and instructions. Size 3 1/2" x 5 1/2" x 2 1/4". Wt., 1 lb.

\$14.70
E9928. List, \$22.50. NET

E9929. Model 669 Carrying Case. **\$3.59** NET

READRITE-RANGER PORTABLE INSTRUMENTS



**MODEL 442
TUBE TESTER**

The new Readrite Ranger Model 442 speedsily and accurately checks all types of vacuum tube types, including ballasts. A standard emission type circuit is used which applies the correct load values to the tube under test. The plates of diodes and rectifier tubes are checked separately. A positive neon short test indicates all interelement shorts and leakages. The 4 flash-type sockets accommodate all tubes. A combination 5-6 prong socket is utilized to conserve panel space. The illuminated shadow-graph type A.C. meter is used for line voltage adjustments. It also serves to indicate that the tester is connected to the A.C. line. The 3 color Triplett meter scale is marked "Good-Bad" for easy reading. Case is finished in black wrinkle and measures 5 1/2" x 7 1/2" x 3 1/2". For 110 V. 60 cycle operation.

\$18.52
E10012. List, \$31.50. NET

**540 SIGNAL
GENERATOR**

Supplies signals on 5 frequency bands from 110 to 20,000 kilocycles, all fundamentals. Plug-in coils are accurately calibrated. Guaranteed accuracy is better than 1% from 110 to 3,000 KC and better than 2% on short waves. The 12" vernier dial has a direct-reading scale marked in KC. Provides either modulated or unmodulated signal. The 400 cycle audio signal is available separately. Stability of operation is assured by rigid mechanical construction and carefully designed static or magnetic fields. One of the outstanding features of this instrument is the perfect attention. Equipped with necessary tubes, batteries and accessories. Fully-shielded; mounted in metal case 4 1/2" x 7 1/2" x 5 1/2". Shpg. wt. 11 lbs.

\$19.11
E9914. List, \$32.50. NET



MODEL 1200-A VOLT-OHM-MILLIAMMETER KIT

2000 OHMS PER VOLT

A complete kit of parts for Service Engineers who wish to "build-their-own" Triplett 1200-A Universal A.C.-D.C. Volt-Ohm Milliammeter. Kit includes: new Twin meter with separate A.C. and D.C. movements of 2% accuracy, marked panel plate, all necessary series and shunt resistors, switches, and ohmmeter rheostats. The exclusive "sliding meter" feature permits adjustment of main instrument to angles in direct alignment with user's line of vision. Meter reads: 0-10-50-250-500 volts A.C. and D.C. at 2000 ohms per volt on D.C.; 0-1-10-50-250 M.A.; 5-500 ohms on "back-up" scale, 1500 ohms-1.5-3 megohms. Dual meter measures 4 1/2-22 1/2-1 1/2% range is 3% x 5%. A truly ideal outfit for servicemen. With complete instructions, blue prints and test leads. A complete kit, even to hook-up wire and hardware, ready for assembly. Shpg. wt., 10 lbs.



\$17.96
E9930. List, \$27.50. NET



**640 FREE-POINT
TESTER**

This Free-Point Tester when used with the 730 Multi-Meter makes a complete circuit analyzer. Permits rapid analysis of circuits without disturbing circuit wiring. Has 5 sockets with standard R.M.A. markings for servicing all sets with new or old type of tubes. whether glass, oetal or metal. 8 automatic and 10 standard jacks bring all circuits to the panel. Extra connections may be added later if necessary. In sturdy black metal case, measuring 4 1/2" x 7 1/2" x 5 1/2". Has convenient handle, and compartment for accessories. Complete with instructions, latch type adapters, guarantee and registration cards. Shpg. wt., 6 lbs.

\$10.14
E9912. List, \$17.25. NET

740 VOLT-OHM-MILLIAMMETER

A new precision Volt-Ohm-Milliammeter. Uses Triplett Model 735 3 1/2" square precision meter with accuracy of 2% on D.C. and 5% on A.C. Readings are: 0-10-50-250-500-1000 Volts A.C. and D.C. at 1000 ohms per volt; 0-1-10-50-250 M.A. Milliamperes; 0-500-250,000 ohms with "back-up" scale for low range having mid-scale reading of 25 ohms. Ohmmeter scale can be made to read up to 2.5 megohms in 25 megohm steps. Extremely low ohmmeter current drain assures long battery life. Case has compartment for test leads, tools, etc. Size, 5 1/2" x 7 1/2" x 3 1/2". Complete with test leads, batteries, and instructions. Shpg. wt., 9 lbs.

\$19.11
E9911. List, \$32.50. NET



MODEL 1200-C

Similar to Model 1200-A but with a sensitivity of 5,000 ohms per volt. Also reads 7 1/2 megohms and 250 microamperes.
\$20.90
E9931. NET

**VOLT-OHM-MILLIAMMETER
MODEL 1209-D**

An ideal unit for the service bench. The 5" meter has extra long scales, making it easy to read even at a considerable distance. An aluminum needle type pointer allows extreme accuracy of readings. The following ranges are available: 0-10-50-250-500-1000 volts D.C. at 1000 ohms per volt; 0-1-10-50-250 M.A. and 0-500-1000-1,000,000 ohms (latter with external batteries). In metal case with panel enclosed in red and silver on black background. Wt., 9 lbs. Complete with leads.
\$19.60
E9974. List, \$30.00. NET



1209-A AC VOLT METER

An extremely useful unit for all-around radio service or experimental work. Will check all AC voltages usually encountered. The five ranges are: 0-10-50-250-500-1000 volts. The 5 inch meter has an unusually large scale with large numerals. Has same type case and panel as Model 1209-D. Complete with leads. Shpg. wt., 9 lbs.
\$15.68
E9975. NET

**COMBINATION RANGER
TEST INSTRUMENTS**

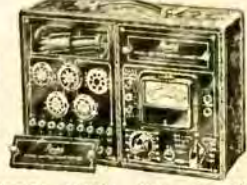
The Readrite-Ranger Series "40" testers described above are also available in various combinations which have been selected to give you the instruments most necessary for general servicing needs. Their compact size makes them ideally suited for portable laboratory work on outside service calls. By purchasing the combinations listed below, you can realize a substantial saving in cost per instrument. At the same time you receive, without extra cost, the attractive metal carrying case. These cases measure 11 1/4" x 7 1/2" x 3 1/2" and are provided with convenient leather handle. Finish is black enamel.

\$27.78
E9916. MODEL 640-740. Shpg. wt., 10 lbs. List, \$47.25. NET

\$36.16
E10013. MODEL 442-740. Shpg. wt., 20 lbs. List, \$61.50. NET

\$36.16
E10014. MODEL 442-540. Shpg. wt., 21 lbs. List, \$61.50. NET

\$36.75
E9918. MODEL 540-740. Shpg. wt., 19 lbs. List, \$62.50. NET



TRIPLETT

"UNIVERSAL" & "SIMPLIFIED"

TEST EQUIPMENT

ROBOT MULTIPURPOSE TESTERS

1611 PUSH-BUTTON TUBE TESTER AND V.O.M.



The Model 1611 incorporates the newest development in servicing equipment — push-button control. You simply rotate chart to required section, press button shown below each row, and readings appear on the large luminous dial. The tube testing circuit is the emission type built to R.M.A. load requirements. Checks all receiving tubes, plus ballast types. A sensitive neon circuit indicates leakages and shorts. Has shadow-type meter for fine voltage adjustments. Meter ranges are: 0-10-50-250-500-1,000 volts D.C. at 1,000 ohms per volt; 0-1-10-50-250 mils D.C.; 0-500-300,000 ohms; 0-1.5-3 megohms and 0-10-50-250-500-1,000 volts A.C. at 400 ohms per volt. A plus-in copper-oxide rectifier is used. The luminous satin finish metal case measures 15 1/2" x 11 1/2" x 9 1/2".

500-1,000 volts A.C. at 400 ohms per volt. A plus-in copper-oxide rectifier is used. The luminous satin finish metal case measures 15 1/2" x 11 1/2" x 9 1/2".
E9969. NET CASH PRICE **\$48.51**
TIME PAYMENTS: \$4.85 down, \$6.01 monthly for 8 months.

MODEL 1610 TUBE TESTER ONLY

Same as Model 1611 but without V.O.M. feature.
E9970. NET CASH PRICE **\$38.22**
TIME PAYMENTS: \$3.82 down, \$4.86 monthly for 8 months.

FINAL ANALYSIS TESTERS

1616 DYNAMIC TUBE TESTER AND V.O.M.

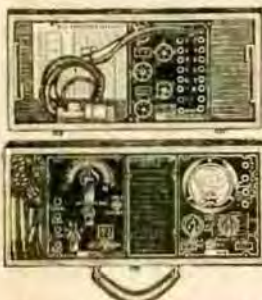


The Model 1616 is the first dynamic mutual conductance tube tester and V.O.M. with simplified push-button control. All tubes are tested under actual operating conditions. Separate test for ballast tubes. A gas test and a conclusive neon short and leakage test are provided. The spare socket and versatile push-button controls make the Model 1616 absolutely foolproof. The "Good-Bad" meter scale is illuminated. Ranges are: 0-10-50-250-500-1,000 volts D.C. at 1,000 ohms per volt; 0-10-50-250 mils D.C.; 0-500-300,000 ohms; 0-1.5-3 megohms and 0-10-50-250-500-1,000 volts A.C. at 400 ohms per volt. Also measures up to 42 D.E. Removable cover makes instrument suitable for counter and portable work. Metal case is 16 1/2" x 11 1/2" x 9 1/2". For 110 V. 60 cycles.

E9980. NET CASH PRICE **\$71.87**
TIME PAYMENTS: \$7.19 down, \$8.90 monthly for 8 months.

MODEL 1615 TUBE TESTER ONLY

Same as the Model 1616, but less the V.O.M. feature.
E9981. NET CASH PRICE **\$62.07**
TIME PAYMENTS: \$6.21 down, \$7.69 monthly for 8 months.



1181-E PORTABLE LABORATORY TESTER

An absolutely modern tester which combines three instruments in one case for complete circuit analysis. Includes: (1) the precision Model 1151 All-Wave Oscillator for aligning and balancing all radio sets; (2) the Model 1125-A Universal Volt-Ohm-Milliammeter for point-to-point analysis and as output meter; (3) the Model 1166-A Free-Point Auxiliary Set Tester for free-point and standard analysis tests. The 1181-E Tester is ultra-modern; it will handle all metal tubes as well as glass tube circuits. Meter scales read as follows: 0-15-75-150-750 Volts A.C. or D.C. at 1,000 ohms per volt; 0-1.5-15-75-150 M.A.; A.C.; 0-1-500-1.5 meg.-3 megohms. Oscillator has four ranges from 110 K.C. to 18 M.C. Auxiliary set tester has 1, 5, 0, 7 prong and 3 prong octal sockets with jacks for all analyses. The 1181-E Tester constitutes a compact, complete radio service test laboratory. Size, 16 1/2" x 14 1/2" x 7 1/2". Complete with batteries, adapters, accessories, and instructions. Ship. wt., 17 lbs.

E9932. NET CASH PRICE **\$40.99**
TIME PAYMENTS: \$4.10 down, \$5.08 monthly for 8 months.

1511 TUBE TESTER AND V.O.M.

Same as the Model 1616 but with selector switches instead of the push-button control. The rotating chart speeds up testing of tubes. Circuit is the dynamic mutual conductance type. The illuminated meter has a gold dial. Oak case measures 15 1/2" x 11 1/2" x 9 1/2". For 110 V. 60 cycles. Ship. wt., 30 lbs.

E9982. NET CASH PRICE **\$58.48**
TIME PAYMENTS: \$5.85 down, \$7.23 monthly for 8 months.

UNIVERSAL SELECTING ANALYZER MODEL 1167-E

This instrument is ideal for making complete receiver analyses by either point-to-point or standard analysis method. Consists of Model 1166-A Auxiliary Set Tester and Model 1125-A Universal Volt-Ohm-Milliammeter in a single oak case. Scales read as follows: 0-15-75-150-750 volts, A.C. or D.C. at 1,000 ohms per volt; 0-1.5-15-150 D.C. M.A.; 0-15-150 A.C. M.A.; 0-150 ohms; 0-1.5-3 megohms. Charts are supplied for capacity measurements. With etched metal panel.

TESTS ALL METAL AND GLASS TUBE SETS

A plug-in cable brings all set circuits to the 5 sockets on the panel; tin jacks permit external use of meter terminals for complete point-to-point analysis. In oak case, 16 1/2" x 14 1/2" x 7 1/2". Complete with all accessories, leads and instructions. Ship. wt., 17 lbs.

E9934. List, \$41.25. **\$26.95**
YOUR NET PRICE



1125-A UNIVERSAL AC-DC VOLT-OHM-MILLIAMMETER

Designed to measure both A.C. and D.C. voltages, currents, and resistance. Sensitive D'Arsonval meter. Has selector switch for choosing ranges. Reads: 0-15-75-150-750 V.A.C. and D.C.; 0-1.5-15-150 M.A. D.C.; 0-15-150 M.A. A.C.; 0-1500 ohms, 1.5 meg., 3 meg. Voltmeter resistance

is 1000 ohms per volt for all ranges. Has chart for accurate capacity measurements. Ideal for use with Model 1166-A Auxiliary Set Tester to make a complete free-point analyzer. Supplied complete with test leads, probes, batteries and instructions. Etched metal panel. Size, 11 1/2" x 4 1/2" x 1 1/2". Ship. wt., 12 lbs.

E9933. List, \$33.00. NET. **\$21.56**

FREE-POINT SET TESTER MODEL 1166-A

For use with Model 1125-A Volt-Ohm-Milliammeter. Panel contains 4, 5, 6, 7 and 8 prong sockets; all circuits are brought out to jacks on face of panel. Makes tests without removing chassis. Complete with adapters and instructions. Less case. Etched panel.

E9940. Wt., 8 lbs. **\$107.8**
List, \$116.50. NET

MODEL 1166-A IN CASE

The Model 1166-A Free-Point Auxiliary Set Tester as described above but in sturdy attractive oak carrying case with handle. Makes a handy instrument. Etched metal panel. Ship. wt., 10 lbs.

E9924. List, \$20.25. NET. **\$13.23**

PERPETUAL TESTER MODEL 1180-E

A professional instrument designed to meet precision service standards. Combines a Model 1151 shielded All-Wave Oscillator with large calibration graphs and a Model 1125-A Universal Volt-Ohm-Milliammeter in a single oak carrying case. The oscillator generates a modulated or unmodulated signal for complete alignment of all receivers.

Universal Meter reads: 0-15-75-150-750 Volts A.C. or D.C.; 0-1.5-15-150 M.A. D.C.; 0-15-150 M.A. A.C.; 0-1,500 ohm-1.5-3 megohms. Selector switch on panel chooses range quickly. A zero adjustment knob for the ohmmeter, an A.C.-D.C. switch and four tin jacks are also provided. The All-Wave Oscillator has four bands covering: 110-500 K.C.; 500-2,000 K.C.; 2,000-6,000 K.C. and 6,000-18,000 K.C. Completely operated from self-contained 2 1/2 V. battery and 2-1 1/2 V. flashlight cells. Supplied with test probes, leads and instructions. Ship. wt., 17 lbs. Panels are etched metal.

E9938. List, \$49.50. NET. **\$32.34**

TRIPLET

MASTER TEST EQUIPMENT

MODEL 1212 DYNAMIC TUBE TESTER



The Model 1212 tests all vacuum tubes, including ballast tubes, reliably and accurately. The cushion-type circuit used has been greatly improved. Direct readings are made on the "Good-Bad" scale of a 2 inch precision meter. The slightest inter-plate leakage, and all shorts are easily detected on the separate neon light. Has separate plate tests for diodes and triodes. Uses a shadow meter for line voltage adjustments. Up-to-date tube charts are regularly supplied to owners as new tubes appear on the market. Sturdy metal case in black wrinkle-finish measures 7 1/2" x 9 1/2" x 4 1/2".

Enamel panel is silver and red on black. Slip wt., 12 lbs.
E9921. List, \$33.00. NET

\$21.56

1252 VACUUM TUBE VOLTMETER



The Model 1252 permits voltage measurements to be made with zero current drain. It incorporates Triplet's new, exclusive self-balancing feature. The tube-in-use or scale at least readings to be made of high frequencies without upsetting circuit constants. Ranges are: 0-2-15-75-300 volts. The sliding meter has two movements; one for bridge balance and the other for peak A.C. and D.C. volts. Metal case measures 7 1/2" x 9 1/2" x 4 1/2". Enamel panel is silver and red on black. For 110 V. 60 cycles. Slip wt., 18 lbs.

E9922. CASH PRICE
T.I.P. TIME PAYMENTS: \$7.25 down, \$5.90 monthly for 8 months.

\$47.36

MODEL 1250

Similar to Model 1252 but ranges are 0-2.5-10-50 volts. Tube is mounted inside case.

E9935. NET CASH PRICE

\$35.94

T.I.P. TIME PAYMENTS: \$5.50 down, \$4.50 monthly for 8 months.

FREE-POINT TESTER MODEL 1220-A



For use with the Model 1200 Master Volt-Ohm-Milliammeter or other similar instruments. Makes proper voltage tests between any tube elements, current tests in sockets with any tube element, and resistance tests between any tube element or socket contacts. Panel contains 4 1/2" combination 7 prong, and 8 metal sockets which are marked according to recommended I.M.A. specifications. Eighteen jacks permit insertion of meter leads, test leads. With 7 prong test plug and 5 adapters. In new metal case. Slip wt., 8 lbs.

E9946. List, \$16.50. NET

\$10.78

CONDENSER TESTER MODEL 1241



A precision instrument for the service engineer. Tests for shorts, opens and high resistance (leakage) capacities of condensers as determined by sensitive microammeter. Shadow-trap meter is used to obtain exact line voltage adjustments. Makes breakdown and leakage tests for electrolytic and paper condensers at a standard working voltage. Checks all paper, mica, oil, and electrolytic condensers in 4 ranges: 0.001 to .01, .01 to .1, .1 to 1, 1 to 100 microfarads. Has "GOOD-BAD" scale for electrolytic 110 volt, 60 cycle, A.C. Slip wt., 10 lbs.

E9937. List, \$41.25. NET

\$26.95

COMBINATION MASTER UNIT TEST SETS

A professional, completely portable laboratory consisting of four accurate Triplet instruments. Each instrument is described in detail above. Set of four is housed in compact leatherette case as illustrated.

MODEL 1205-A

Includes Models 1200-A, 1212, 1220-A, and 1230 in a 17x17 1/2 x 5 1/2" case. Slip wt., 37 lbs.

E9951. CASH PRICE

\$78.08

TIME: \$7.81 down, \$9.67 monthly for 8 months.

MODEL 1207

Includes Models 1200-A, 1212, 1220-A, and 1232 in a 17x17 1/2 x 5 1/2" case. Slip wt., 37 lbs.

E9953. CASH PRICE

\$88.52

TIME: \$8.85 down, \$10.96 monthly for 8 months.

MODEL 1206

Includes Models 1200-A, 1212, 1220-A, and 1231 in a 17x17 1/2 x 5 1/2" case. Slip wt., 37 lbs.

E9952. CASH PRICE

\$86.73

TIME: \$8.67 down, \$10.74 monthly for 8 months.

MODEL 1208

Includes Models 1200-E, 1212, 1220-A, and 1231 in a 17x17 1/2 x 5 1/2" case. Slip wt., 37 lbs.

E9923. CASH PRICE

\$93.92

TIME: \$9.39 down, \$11.63 monthly for 8 months.

CASES ONLY FOR MASTER UNITS

Variable case. Leatherette covered; cloth-lined. Extra compartments for test leads, adapters, etc.

E9954. Case for one Master Unit. \$3.92

E9956. Case for three Master Units. \$5.22

E9955. Case for two Master Units. \$4.58

E9957. Case for four Master Units. \$5.88

1200-A VOLT-OHM-MILLIAMMETER 2000 OHMS PER VOLT



A compact universal A.C. D.C. Volt-Ohm-Milliammeter with many new features. Twin meters in slide case have separate A.C. and D.C. movements. D.C. meter reads: 0-10-50-250-500-1000 volts at 2000 ohms per volt; 0-1-10-50-250 M.A.; 0-1000 ohms-1.5 meg.-2 meg. Has additional "Backup" low-ohm scale of 0-500 ohms with 45 ohm center-scale reading. A.C. meter reads: 0-10-50-250-500-1000 volts. Meter may be fitted and used at any angle; all voltage scales are direct-reading; ohmmeter scales have individual adjustments with scale selector switch for rapid operation. Switch contact error is less than 1/2%. Metal case, 7 1/2" x 9 1/2" x 4 1/2". With leads, probe, battery. E9941. List, \$35.75. NET

\$23.35

MODEL 1200-B-2000 OHMS PER VOLT

Similar to 1200-A above, but with DC movement and copper oxide rectifier for AC voltage scales of 2-10-50-250-500-1000 at 1000 ohms per volt. Complete with batteries. Slip wt., 10 lbs.

E9942. List, \$44.00. NET

\$28.74

MODEL 1200-C-5000 OHMS PER VOLT

Same as the Model 1200-A except that meter has sensitivity of 5000 ohms per volt on DC voltage. Suitable for checking air circuitry, including XMI. Also has 250 microampere scale, and additional ohmmeter scale of 75 microamps. Slip wt., 10 lbs.

E9943. List, \$40.25. NET

\$26.29

MODEL 1200-E-25000 OHMS PER VOLT

Similar in appearance and design to Model 1200-A, but the D.C. meter has a circuit resistance of 25,000 ohms per volt, a greater sensitivity than was ever available before. Reads 0-1000-10,000 ohms-1-10 megohms. Also has 0-90 microampere scale. Slip wt., 10 lbs.

E9944. List, \$46.75. NET

\$30.55

ALL-WAVE SIGNAL GENERATORS

MODEL 1232

A stable, accurate, direct-reading All-Wave Signal Generator of new design and sturdy construction. Large 12 inch center dial-scale permits extremely fine and accurate readings on each of the six fundamental frequency bands graduated from 120 to 30,000 K.C. Amplitude maintained at 100 V.P.S. by self-contained auto nullifier. The coils are all individually shielded and placed to require the shortest possible leads. All grid leads are carefully shielded. The graduated attenuator is sensitive enough and designed for use with A.C. circuits requiring a low signal level. Has modulation "ON-OFF" switch, 100 cycle audio signal is available for external tests. Metal case measures 7 1/2" x 9 1/2" x 4 1/2". Complete with shielded leads. For 110 volt 60 cycle A.C. Slip wt., 10 lbs.

E9949. List, \$41.25. YOUR NET PRICE

\$26.95

MODEL 1231 SIGNAL GENERATOR

Similar to Model 1232 except that it is designed for battery operation. Batteries are self-contained. Slip wt., 12 lbs.

E9948. List, \$38.50. NET

\$25.16

MODEL 1230 SIGNAL GENERATOR

The Model 1230 is designed to furnish a continuously variable signal from 100 KC to 18,000 KC. These frequencies are covered by six bands. Batteries, tubes, and six individually calibrated graph charts are supplied with the instrument. Appearance as above.

E9947. List, \$25.25. NET

\$16.49



TRIPLET**De Luxe****TEST EQUIPMENT****MULTI-PURPOSE SET TESTER****MODEL 1601****25000 OHMS PER VOLT**

A modern, high quality tester for the up-to-date serviceman. Provides accurate, rapid analysis of every circuit, with minimum operations and time required. Measures 10-50-250-500-1000-2000 volts, A.C. and D.C. D.C. sensitivity is 26000 ohms per volt; A.C. is 1000 ohms per volt. D.C. current: 0-50 microamperes; 0-1-10-50-250-500 M.A.; 0-1-2-20 amp. Resistance: 0-500-20,000-200,000 ohms and 0-2-20 megohms. All meter scale ranges are available for external circuit measurements by tester check capacitors from .001 to .005 microfarads.

means of panel tip-jacks. Condenser 30 mfd.; gives leakage tests for electrolytics. Calibration is easily checked by line voltage control and separate shadowgraph meter. All ranges are easily read on large illuminated dial scale. Free-Point Tester checks all metal and glass tube circuits. Panel has silver finish with etched black lettering. Housed in sturdy black metal wrinkle-finished case with removable cover. Size, 14 1/2" x 7 1/2" x 4 1/2". Complete with all adapters, accessories and instructions. Shpg. wt., 26 lbs.

E9962. NET CASH PRICE \$44.42

TIME PAYMENTS: \$4.42 down, \$5.48 monthly for 8 months.

E9961. Model 1601 housed in beautiful black leatherette case (illustrated). Shpg. wt., 28 lbs. CASH \$48.34

TIME PAYMENTS: \$4.83 down, \$5.99 monthly for 8 months.

2" OSCILLOSCOPE**MODEL 1690**

Meets every requirement of the Service or Communications engineer for the visual study and adjustment of all radio circuit problems. The oscilloscope incorporates separately controlled resistance-controlled horizontal and vertical amplifiers. Has self-contained linear sweep from 15 to 20,000 cycles. Either internal, external, or 60 cycle sweep may be used. All controls are on the panel; absolutely no interference of controls. The new "2" tube used has an effective screen area four times that of the one inch tube usually used. Turret-type mounting allows adjustment of screen to direct alignment with user's line of vision. Extremely brilliant pattern may be read in broad daylight by using the adjustable shield. Provides accurate visual analysis of R.F., J.F., and Audio systems, thereby permitting peak alignment for maximum sensitivity, selectivity and tone quality. The tubes used are: 25Z5, 6J7, 6C6, 885, 24-XB. Silver and black etched panel. In black wrinkle-finished metal case with leather handle. Size, 14 1/2" x 7 1/2" x 4 1/2". For use on 110 Volts, 60 cycle A.C. Complete with tubes and instructions. Shpg. wt., 24 lbs.

times that of the one inch tube usually used. Turret-type mounting allows adjustment of screen to direct alignment with user's line of vision. Extremely brilliant pattern may be read in broad daylight by using the adjustable shield. Provides accurate visual analysis of R.F., J.F., and Audio systems, thereby permitting peak alignment for maximum sensitivity, selectivity and tone quality. The tubes used are: 25Z5, 6J7, 6C6, 885, 24-XB. Silver and black etched panel. In black wrinkle-finished metal case with leather handle. Size, 14 1/2" x 7 1/2" x 4 1/2". For use on 110 Volts, 60 cycle A.C. Complete with tubes and instructions. Shpg. wt., 24 lbs.

E9964. NET CASH PRICE \$46.06

TIME PAYMENTS: \$4.61 down, \$5.70 monthly for 8 months.

E9963. Model 1690, housed in a beautiful black leatherette case (illustrated). Shpg. wt., 25 lbs. NET \$49.98

TIME PAYMENTS: \$5.00 down, \$6.19 monthly for 8 months.

E9960. Model 1691 3" OSCILLOSCOPE. Same as above but has 3 inch screen. In metal case. NET \$61.25

TIME PAYMENTS: \$6.13 down, \$7.58 monthly for 8 months.

TRIPLE-SHIELDED OSCILLATOR MODEL 1630

An outstanding signal generator for extreme accuracy. Covers 100 KC to 30 MC in six ranges. Answers every requirement of a wide frequency range oscillator. Accuracy of calibration is 1/2 of 1%. Unusually large direct-reading calibrated dial has total scale length of 53". Each coil is individually calibrated and tracked for linearity over the entire range. This generator has zero leakage with triple shielding when necessary to eliminate all possibility of even the slightest leak. A continuously variable pad type attenuator controls the output from zero to maximum. Ruggedly built to withstand the wear and tear of constant service. Internal construction is as rigid as possible to eliminate any changes in calibration. Furnished in case similar to that of Model 1601. Panel is etched in black on silver. For use on 110 volts, 60 cycles, A.C. With tubes. Wt., 30 lbs.

when necessary to eliminate all possibility of even the slightest leak. A continuously variable pad type attenuator controls the output from zero to maximum. Ruggedly built to withstand the wear and tear of constant service. Internal construction is as rigid as possible to eliminate any changes in calibration. Furnished in case similar to that of Model 1601. Panel is etched in black on silver. For use on 110 volts, 60 cycles, A.C. With tubes. Wt., 30 lbs.

E9965. NET CASH PRICE \$48.02

TIME PAYMENTS: \$4.80 down, \$5.95 monthly for 8 months.

E9966. Model 1630 in black wrinkle-finished metal case with leather handle. Wt., 28 lbs. NET \$44.10

TIME PAYMENTS: \$4.41 down, \$5.46 monthly for 8 months.

MODEL 1631

Same as Model 1630 described above, but with electronic frequency modulation. Frequency modulation is continuously variable from 5 KC to 40 KC. Supplies 400 C.P.S. modulated or unmodulated signal, as well as pure CW signal with provisions for external modulation. In leatherette case. Complete with tubes. Wt., 35 lbs.

E9967. NET CASH PRICE \$57.82

TIME PAYMENTS: \$5.78 down, \$7.16 monthly for 8 months.

E9968. Model 1631 in black wrinkle-finished metal case with leather handle. Wt., 33 lbs. NET \$53.90

TIME PAYMENTS: \$5.39 down, \$6.67 monthly for 8 months.

NEW VOLT-OHM-MILLIAMMETERS**MODEL 1602****25000 OHMS PER VOLT**

The Model 1602 De Luxe Set Tester has a D.C. sensitivity of 25,000 ohms per volt. Ideally suited for measurements where current drain is an important factor. Ranges are as follows: 6-10-50-250-500-1,000-2,000 volts A.C. at 1,000 ohms per volt; 0-10-50-250-500-1,000-2,000 volts D.C. at 25,000 ohms per volt; 0-50 microamperes; 0-1-10-50-250-500 mls D.C.; 0-1-2-20 amperes D.C.; 0-500-2,000-500,000 ohms; and 0-2-20 megohms. A special shunt permits decibel readings against volts from -20 to +55. An exclusive development allows resistance measurements to be made without batteries. A plug-in rectifier simplifies replacement in case of damage. The extra large dial has easily readable scales which are illuminated. A shadow-graph type meter is used for line voltage control. The durable metal case measures 14 1/2" x 7 1/2" x 4 1/2". For 110 V. 60 cycles. Shpg. wt., 26 lbs.



\$34.30

E10015. IN METAL CASE. NET CASH PRICE \$34.30

TIME PAYMENTS: \$4.43 down, \$4.25 monthly for 8 months.

E10016. MODEL 1602 IN LEATHERETTE CASE \$38.22

(Illustrated). NET CASH PRICE \$38.22

TIME PAYMENTS: \$4.82 down, \$4.73 monthly for 8 months.

CONDENSER BRIDGE**MODEL 1640**

The 1640 is a true bridge-type condenser checker that balances against highly accurate capacity standards. It provides the most conclusive tests possible for shorts, opens, leakage, and capacity. Six ranges from .0001 MF to 100 MF. Bias provision for power factor measurements. All condensers are tested for breakdown and leakage at their rated voltages. The ohmmeter is protected against damage from shorted condensers. Scale is direct-reading. Has built-in power supply from 25 to 575 volts. Black wrinkle-finished metal case measures 14 1/2" x 7 1/2" x 4 1/2". For 110 V. 60 cycles. Shpg. wt., 24 lbs.



E10017. IN METAL CASE \$41.16

TIME PAYMENTS: \$4.12 down, \$5.10 monthly for 8 months.

E10018. MODEL 1640 IN LEATHERETTE CASE \$45.08

(Illustrated). NET CASH PRICE \$45.08

TIME PAYMENTS: \$4.51 down, \$5.58 monthly for 8 months.

VIBRATOR TESTER**MODEL 1670**

This new vibrator tester checks all automotive and home battery radio receiver vibrators under actual performance conditions. An essential precision-built test instrument. Test made under a 5000 ohm load as recommended by vibrator engineers. Three scale meter: 0-10 volt scale shows input voltage to vibrator; "GOOD-BAD" scale is used for output; scale marked 0-100 shows percent of output voltage reflected by change in input voltage. Black metal case. 14 1/2" x 7 1/2" x 4 1/2". Shpg. wt., 18 lbs.



E9939. IN METAL CASE. NET \$23.52

TIME PAYMENTS: \$3.35 down, \$2.82 monthly for 8 months.

E10009. MODEL 1670 IN LEATHERETTE CASE \$27.44

NET CASH PRICE \$27.44

TIME PAYMENTS: \$3.74 down, \$3.40 monthly for 8 months.

TEST BENCH RACKS

These compact and convenient Test Bench Racks, available in three styles, offer facilities for a complete service laboratory. They are designed to house any metal-cased Triplet De Luxe or Master tester. Dials and controls on testers are in full view and are easily accessible at all times. Special suction-lifting tubular built-in hold each tester firmly and rigidly in place. This type of installation permits instant removal of any unit for portable use. Cabinets are of sturdy metal construction with an attractive black wrinkle finish. Red border with white pin strip around each panel opening. Cabinets may be bolted together to form one continuous unit. Each is equipped with a recessed drawer at bottom for holding accessories. Height 22 1/2", width 16", depth 7 1/2" at bottom, 5" at top. Lamp is extra. Wt., 40 lbs. each.

**MODEL 1402**

Designed to accommodate any two metal-cased De Luxe units.

E9976. NET \$9.80

MODEL 1404

Designed to accommodate any four Master units.

E9978. NET \$9.80

MODEL 1403

Designed to accommodate one De Luxe and two Master metal-cased units.

E9977. NET \$9.80

CLAMP-ON LAMP

Lights panel completely. Black metal with wrinkle finish.

E9979. NET \$4.25

SERVICE Instruments

MILLION TEST EQUIPMENT

MODEL MO PUSH-BUTTON TUBE TESTER



Here is a tube tester with push-button control at a remarkably low price. It has been designed with the following requirements of the serviceman in mind: (1) to provide a quick, accurate test for all tubes; (2) to indicate open filaments; (3) to test for leakage with the tube hot. All readings are shown on a large "Good-Bad" scale. Push-button control greatly simplifies and speeds up your work. Correct readings are assured throughout life of instrument since relay switches are not used. Perfect engineering has produced an instrument so rugged in construction that it will maintain its accuracy and dependability indefinitely. The emergency force and drive mechanism in portable service work will not affect the performance of this instrument. It is fused for protection against line voltage surges. Unit measures 10" x 12 1/2" x 5". For 110-120 V. 60 cycles. Shpg. wt. 1 1/2 lbs.

EIO150. MODEL MO. COUNTER TYPE. NET... **\$18.95**
EIO151. MODEL MOP. PORTABLE TYPE, WITH COVER. YOUR NET PRICE... **\$19.95**

MILLION TUBE AND CONDENSER TESTER



MODEL CP. This new emission type tube tester tests all tubes including the newest metal and glass metal base types. The exact condition of the tube under test is clearly indicated on the flashlight-reading "GOOD-BAD" scale of the original D'Arsenal meter. Neon tube shows shorts and leakages up to 2 megohms. This same leakage test can be used through external jacks for the measurement of resistance and for checking bypass and electrolytic condensers. For 110 Volts, 60 cycles, A.C. Shpg. wt., 3 lbs.

EIO152. NET... **\$13.95**
EIO153. MODEL CN. Same as above, but neon built performs functions of meter used in Model CP. Jaws are provided for testing resistance, condenser leakage, etc. NET... **\$9.95**

MODEL TV TUBE TESTER AND MULTIMETER



Combines tube tester features together with an analyzer. Accurately tests the emission of all types of tubes. Neon built shows all shorts and leaks up to 2 megohms with tube "hot." All tube quality tests are made on a large 2 1/2 square D'Arsenal meter with illuminated dial. Has the following multimeter ranges: 0-20,000 volts D.C., 0-500 ohms per volt; 0-200 microamperes; 0-20-200-100 milliamperes D.C.; 0-0 amperes D.C.; 0-1.5 volts; 0-10,000 ohms; and 0-15 megohms. For 110 Volts, 60 cycle, A.C. Shpg. wt., 1 1/2 lbs. EIO154. NET... **\$27.95**

MODEL TM TUBE TESTER

A tube tester designed to test all tubes including metal, metal-glass and glass tubes. Large flashlight-reading "GOOD-BAD" scale indicates the exact condition of the tube under test. Contains all of the features of the Model TV above except the voltage, current and resistance features. For 110 V. 60 cycles A.C. Wt., 3 lbs. EIO155. NET... **\$16.95**

ALL-WAVE OSCILLATOR MODEL OD



Direct reading with over 407 of scale. Covers 100 to 25,000 K.C. in 70 bands. Individual coils and trimmers assure 100% accuracy. Output can be modulated thru keyer. This audio signal is also available separately for checking amplifiers. Line filters and complete shielding keep leakage down to a minimum. For 110 volts A.C. or D.C. Shpg. wt., 7 lbs. EIO156. NET... **\$19.95**

POCKET VOLT-OHM-MILLIAMMETERS



MODEL S. 2" square D'Arsenal meter. Reads: 0-5-50-500-1,000 volts D.C. at 1,000 ohms per volt; 0-1 mill D.C. and 0-1,000-500,000 ohms. Zero adjuster has some setting for both scales. Metal case, 3 1/2" x 2 1/2" x 2". Wt., 3 lbs. EIO157. NET... **\$7.95**



MODEL SS. 2" square meter. Reads: 0-5-50-500-1,000 volts D.C. at 1,000 ohms per volt; 0-1.5-50-500 mills D.C. and 0-1,000-500,000 ohms. Size, 3 1/2" x 2 1/2". Wt., 3 lbs. EIO158. NET... **\$9.95**

MODEL SA. 2" square meter. Reads: 0-5-50-250-750 volts D.C. at 1,000 ohms per volt; 0-50-750 volts A.C.; 0-1-50-500 mills D.C. and 0-1,000-500,000 ohms. Size, 3 1/2" x 2 1/2". Wt., 3 lbs. EIO159. NET... **\$12.95**

SOLAR CAPACITY ANALYZERS

A sensational new instrument for quickly and accurately determining the worth and capacity of any condenser between 0.001 and 700 nfd. A 0-25 tube is used as a bridge-balancing indicator; capacity of condenser under test is shown directly on an accurately calibrated color-coded scale. Also measures power factor, and detects defective condensers. Two large resistance scales give readings in up to 2 megohms, for checking insulation resistance on 10 measuring resistors. Checks all types of condensers. No lead-phones, meters, etc. are required; completely built in sturdy, attractive cabinet, with handle for carrying. Measures 0.5% 7.9634" Requires 1-1V and 1-025 (not supplied). An extremely engineered instrument that is needed on every service bench. Shpg. wt., 3 lbs.



EIO186. Model CB-1-60. For 110 V. 60 cycle. **\$18.82** NET
EIO187. Model CB-2-U. For 110-220 V. 25-60 cycle. **\$23.52** NET

MODEL CC CAPACITY ANALYZER

The Model CC Capacity Analyzer and Bridge is similar in the CC Models described above, but has the advantage of extended capacity and resistance ranges. It will quickly and accurately measure resistance from 50 to 2,000,000 ohms; capacity from 0.0010 to 800 MF; power factor of condensers up to 50% and insulation resistance to 1,000 megohms. Test voltages are available in 60 volt D.C. Requires 1-80 and 1-025 which are not supplied. Shpg. wt., 10 lbs.

EIO183. MODEL CC-1-60. For 110 V. 60 cycle. **\$24.40** NET PRICE
EIO184. MODEL CC-2-U. For 110-220 V. 25 to 60 cycle. NET PRICE... **\$29.40**

STARK RURAL METER TUBE TESTER AND ANALYZER



The Stark Rural Meter is a sensational new instrument incorporating many new features. Especially suited for the servicemen who specialize in battery operated receivers. It combines a modern analyzer with a tube tester built to R.M.A. standards, both operated from a self-contained power supply. It is no longer necessary to bring battery and auto sets with you to the shop for testing. The Stark Rural Meter works right on the spot. No external electrical connections are required.

HAS SELF-CONTAINED POWER SUPPLY

The Rural Meter is supplied with a built-in battery power supply. Condition of batteries can be checked by throwing a switch. Large four-gauge meter has "Good-Bad" scale. Ranges are: 0-10-100-500 volts D.C.; 0-100-100,000 ohms; and 0-1 megohm. Has sensitive leakage test. Checks all battery and auto radio tubes plus many A.C. types. The leatherette case measures 10 1/2" x 9 1/2" x 4 1/2". With test leads and batteries. Wt., 3 lbs. EIO195. NET... **\$39.15**

PORTABLE STANDARD VOLT-OHMMETER



A practical and convenient pocket-size Volt-Ohmmeter. Scale calibrated 0-10,000 ohms, and 0-300 volts D.C. Mounted in sturdy metal case 3 inches in diameter, 1 1/2 inches deep. Equipped with 24 inch test leads. Includes self-contained flash-light cells. Switch is provided for rapid changeover from volts to ohms or vice versa. E2894. YOUR PRICE... **\$2.48**

PORTABLE SIMPLEX VOLT-OHMMETER



An exceptionally compact, pocket-size test unit. Scale marked 0-5, 0-50, 0-500 volts D.C. and 0-10,000 ohms. Attractive black finished 6-bottle case measures 1 1/2" x 2 1/2" x 3 1/2". Has pin jacks for quick selection of desired scale. Self-contained batteries included. Supplied with 20 inch polarized test-leads, and instructions. E2892. YOUR PRICE... **\$3.23**

PORTABLE PRECISION VOLT-OHMMETER



Pocket meter in black halatone case 1 1/2" x 2 1/2" x 3 1/2". Ranges: 0-5-50-500 volts D.C. at 1,000 ohms per volt; 0-500,000 ohms with zero adjuster. 30" test leads. E2893. NET... **\$7.75**

363 UNIVERSAL AC-DC V. O. M.

Universal A.C.-D.C. Volt Ohm Milliammeter. Ranges: 0-15-150-450 volts and 0-15 ma. A.C. and D.C.; 0-20-0.00-100,000 ohms; 0-1-20-0.00 with built-in power supply for 100 volts A.C. or D.C. Bakelite case measures: 1 1/2" x 2 1/2" x 3 1/2". With leads and instructions. A high-quality precision instrument at low cost. E2891. NET... **\$7.92**

Modern TEST EQUIPMENT

HICKOK TEST INSTRUMENTS

DYNAMIC TUBE TESTERS MODEL T-53-P



The Model T-53-P permits you to test tubes in accordance with the manufacturers' standards. It uses the Dynamic Mutual Conductance type of circuit, the most accurate known today. Readings are on a large 1" square meter with illuminated dial. This dial is calibrated directly in microhms and also has a "Good-1-Replace" scale. Checks max content of tubes. Each element of tube is tested separately. Shorts and leakage tests are made with tube either hot or cold. The roll-type chart is easy to use and replace. Sturdily-built case measures 14 1/2" x 16". For 110 V., 60 cycles. Ship. wt., 22 lbs. **\$48.80**

E10320. CASH PRICE.

TIME PAYMENTS: \$10.78 down, \$4.50 monthly for 10 months.

MODEL AC-51X DYNAMIC TUBE TESTER

Similar to the model AC-51 but has a large square meter with a scale 3 3/4" long. Also includes following ranges: 0-20-200-500-1000 V. A.C.; 0-20-200 31 A. D.C.; 1 ohm to 25 megohms in 3 ranges; 0-100 to 24 MF. Checks manufacture of tubes. Output and decibel readings can be made. For 110 V., 50-60 cycles. 14 1/2" x 16". **\$58.21**

E10302. NET CASH PRICE.

TIME PAYMENTS: \$10.53 down, \$5.60 monthly for 10 months.

RADIO SET TESTERS MODEL 4900S



This instrument draws absolutely no current from the circuit under test. Meter has an infinite ohms per volt sensitivity on the D.C. scales. Covers the following ranges: 0-10-50-250 V. D.C.; 0-2.5-10-50-250-500-2500 V. A.C. D.C. at 1000 ohms per volt; 0-1-5-50-500 M.A. A.C. or D.C.; 0-500 D.C. microamperes; .05 ohm to 10 megohms in 5 ranges; 100-1000 MF to 20 MF in 5 ranges and 5 output ranges. Also measures inductance, decibels and impedance. Size, 12 1/2" x 10 1/2". For 100-130 V., 60 cycles A.C. Ship. wt., 14 lbs. **\$48.22**

E10304. CASH PRICE.

TIME PAYMENTS: \$10.10 down, \$5.00 monthly for 9 months.

MODEL 4800S RADIO SET TESTER

Similar to Model 4900S but with built-in Multi-Selector for complete socket analysis. Supplied with all adapters, plugs, cables, etc. Size, 8 1/2" x 12 1/2". For 110 V., 60 cycles. Ship. wt., 17 lbs. **\$58.51**

E10321. CASH PRICE.

TIME PAYMENTS: \$12.54 down, \$5.40 monthly for 10 months.

MODEL RFO-4 3 INCH OSCILLOGRAPH

One of the finest 3" jobs available. Built-in demodulator permits connecting vertical plates to any R.F. or I.F. stage for visual analysis. Variable from 0 to 30 K.C. Size, 11 1/2" x 15 1/2". For 110 V., 60 cycles. (Add \$1.50 for 25 cycle operation.) Ship. wt., 40 lbs. **\$97.02**

E10303. NET CASH PRICE.

TIME PAYMENTS: \$15.88 down, \$9.50 monthly for 10 months.

MODEL 18 UNIVERSAL SIGNAL GENERATOR

This instrument covers from 100 K.C. to 30 MC. in 6 bands at an accuracy better than 1%. Five outputs are available: (1) amplitude modulated R.F.; (2) frequency modulated R.F.; (3) unmodulated R.F.; (4) 100 to 10,000 variable audio; and (5) 400 cycle fixed audio. Sensitivity D.B. meter reads -20 to +38. Size, 13 1/2" x 10 1/2". For 110 V., 60 cycles. Wt., 21 lbs. **\$52.92**

E10322. NET CASH PRICE.

TIME PAYMENTS: \$10.48 down, \$5.00 monthly for 10 months.

MODEL 17 SIGNAL GENERATOR

Same as Model 18 above but less D.B. meter. **\$44.10**

E10323. NET CASH PRICE.

TIME PAYMENTS: \$10.40 down, \$4.00 monthly for 10 months.

Write for complete literature covering any Hickok instrument.

NEW 33 ELECTRONIC DYNAMIC TUBE TESTER



Here is an accurate, modern, and rapid dynamic tube tester with many outstanding features. The illuminated meter and roll-type tube chart permit tubes to be tested in the shortest light. The rotating chart lists over 350 receiving tubes and over 150 ballast types. Obsolescence-proof as tested charts are available as soon as new tubes appear on the market. The dynamic type of circuit used provides for accurate testing of each element of a tube.

SPEEDS UP TUBE TESTING

The on-ordination of roll chart and illuminated dial under one esutcheon provides rapid, easy settings which save you time. New 23 position switch with logarithmic tapered magnetron resistors. Has sensitive neon test for locating shorts and leakage.

The attractive walnut case with lead cord compartment measures 9 1/2" x 13 1/2" x 6". Panel is finished in chrome. Complete with receiving tube. For 110 V., 60 cycles. Ship. wt., 13 lbs. **\$31.85**

E10115.

NET

WESTON TEST INSTRUMENTS

SUPER-SENSITIVE ANALYZER MODEL 773-20000 OHMS PER VOLT

Has 4 1/2" multi-scale meter with 100 division scale and sensitive D'Arsonval movement; knife-edge pointer. Ideal for checking all types of radio sets and transmitters; has high sensitivity for analysis of television circuits. Incorporates the following ranges: 0-2.5-10-50-250-1000 volts, D.C. at 20,000 ohms per volt, and A.C. at 1000 ohms per volt; 0-100 micro-amperes D.C.; and 0-1-10-50-250 D.C. M.A.; 0-1-10 Amms. D.C.; 0-3000-30,000 ohms; 0-3-30 meg.; -14 to +54 Db. Ohmmeter used for condenser leakage tests. Housed in sturdy hardwood carrying case, 15 1/2" x 8 1/2". Attractive etched black panel trimmed in red and chrome. **\$52.13**

E10350. NET.

MODEL 666 TYPE 1B SOCKET SELECTOR

Recognized as the most efficient method of hooking into a receiver circuit for measurements. Can be used with any analyzer. Complete with plug, cable, selector, block, and all adapters. **\$15.83**

E10363. NET.

776 AC OSCILLATOR

The coverage of this instrument is 50 KC. to 33 MC. in six bands. Accuracy on I.C. bands is 1/2 of 0 and on A.B. bands 1%. The 6 foot scale of direct reading dial is hand calibrated. Output is held constant at all frequencies—an exclusive Weston feature. Leaks, strays, and drift have been minimized by perfect shielding. Output may be modulated 50% at 400 cycles. Size, 10 1/2" x 8 1/2". For 110-130 V., 50-60 cycles. Wt., 10 lbs. **\$65.25**

E10364. NET.

MODEL 773 TUBE CHECKERS

These models incorporate Weston's famous point-to-point method of double-checking tubes. Will slip up your tube scales.

E10355. MODEL 773-1. PORTABLE TYPE. Size, 15 1/2" x 8 1/2" x 5 1/2". For 110 V., 60 cycles. Wt., 12 lbs. **\$53.81**

NET

E10352. MODEL 773-2. COUNTER TYPE. Size, 14 1/2" x 10 1/2" x 7". For 110 V., 60 cycles. Wt., 16 lbs. **\$58.13**

NET

WESTON CHECKMASTER MODEL 771-2

A complete tube and circuit analyzer. Checks all receiver tubes; measures receiver circuit voltages; locates condenser leakage, and makes resistance analysis. Provides separate tests for diode 100 tube; checks for shorts under actual operating conditions. Quick reading, easily understandable scale reads "Good" for tube tests, also reads 0-10-100-1000 volts D.C.; and 0-2 megohms. In attractive carrying case. Wt., 17 lbs. For 110 volt, 60 cycle, A.C. **\$55.13**

E10354. NET.

WRITE FOR DETAILS OF OUR TIME PAYMENT PLAN.

PRECISION TEST INSTRUMENTS

NEW MODEL 900 DYNAMIC ELECTRONOMETER

The Model 900 is a modern "push-button" operated dynamic mutual conductance tube tester combined with a complete analyzer. Tests every type of receiving tube on the market today including ballasts. Its flexibility insures ability to accommodate future tube releases. New tube charts are furnished from time to time without charge. Meter ranges are: 0-10-50-250-1,000 volts A.C. and D.C. at 1,000 ohms per volt; 0-1-10-50-250 mils D.C.; 0-10 amps. D.C.; 0-400-100,000 ohms; 0-1-10 megohms; -10 to +55 D.B.; and 4 output ranges. The 4 1/2" square D'Arsonval meter has accuracy of 2%. Hardwood case, 12 1/2" x 11 1/2" x 6". Wt., 15 lbs. **\$48.95**

E10132. NET.

MODEL 842P VOLT-OHM-DECIBEL-MILLIAMMETER

Ideally suited for servicing radio receivers, transmitters and P.A. systems. The D'Arsonval meter is 4 1/2" square and has an accuracy to within 2%. Ranges are: 0-10-30-250-1000-2500 V. A.C. or D.C. at 1,000 ohms per volt; 0-1-10-50-250 M.A. D.C.; 0-400-100,000 ohms; 0-1-10 megohms; -10 to +63 Db in 5 ranges; 0-1-10 amps. D.C.; and 5 output ranges. The 4 1/2" and 4 1/2" volt batteries for ohmmeter circuit are not furnished. Space within instrument for batteries. In attractive walnut finished wood case, 9 1/2" x 10 1/2" x 7 1/2". Ship. wt., 7 lbs. **\$23.47**

E10130. NET.

E10131. MODEL 842L. Same specifications as the Model 842P, but less detachable cover and compartment. Wood case, 8 1/2" x 11 1/2" x 7 1/2". Wt. 6 lbs. NET. **\$21.51**

We can promptly supply any Precision test instrument. Write us.

Modern TEST EQUIPMENT

Clough-Bregle Instruments GRAPHOSCOPES



Showdowns pass! A skillful display of impressively test equipment tells louder than words that you are up-to-date and an expert in your work. The C-B Instruments listed below will improve your professional standing, gain customer confidence and respect, and build up trade at better profit.

MODEL 105-1 INCH

This instrument offers every performance characteristic of many costly oscillographs. Retards signal frequencies sharply and accurately. Size 8 1/2" x 10 1/2". For 110 V., 60 cycles. Wt., 20 lbs.

E10392. NET. **\$29.50**

E10393. MODEL 105-2 INCH. Same as Model 105-1, except it uses new 3" tube. Wt., 20 lbs. NET. **\$43.61**

E10394. MODEL 126-3 INCH. Same as Model 105-1, except tube is used. Wt., 27 lbs. NET. **\$63.21**

E10395. MODEL 127-3 INCH. Same as Model 126-3, with frequency modulator. Wt., 29 lbs. NET. **\$91.63**

SIGNAL GENERATORS



These signal generators are highly accurate, precision instruments built to laboratory standards. Especially suited for use with the oscillographs described above.

MODEL OCK

The Model OCK covers from 100 KC to 20 MC on fundamentals. Accuracy is within 1%. Has fine micro-variable dial. Panel is radiated with 92 frequencies. For 110 V., 60 cycles. 22 lbs.

E10367. NET. **\$33.81**

E10373. MODEL OMA. Has built-in frequency modulator. 100 KC to 50 MC. For 110 V., 60 cycles. Wt., 20 lbs. NET. **\$63.21**

E10374. MODEL 110. A highly accurate 100 KC to 50 MC generator. For 110 V., 60 cycles. Wt., 26 lbs. NET. **\$48.51**

E10368. MODEL 111. A frequency modulator for use with any signal generator and scope. Wt., 20 lbs. NET. **\$38.70**

MODEL 79C AUDIO OSCILLATOR

E10365. Accurate to 2% from 40-1000 cycles. Has high stability. Output of 120 milliwatts across either 500 or 3,000 ohms. For 110 V., 60 cycles. Wt., 20 lbs. NET. **\$58.31**

MODEL 125 TUBE CHECKER

E10366. Checks all types of tubes for mutual conductance (mu) and gain. Has "Good Ball" scale and sensitive neon shorts test. Size 11 1/2" x 5 1/2" x 5 1/2". For 100-150 V., 60 cycles. Wt., 15 lbs. NET. **\$33.80**

MODEL 120 SUPER ANALYZER

E10369. Ranges are: 0-25, 0-75, 0-100, 0-150 volts A.C. and D.C. at 20,000 ohms per volt D.C.; 0-0.7, 1-2.5, 5-25 milli D.C. at 100 ohms per V. at 10 and -11 to +11 D.B. Wt., 23 lbs. NET. **\$42.63**

TRIUMPH TEST INSTRUMENTS

MODEL 77 OSCILLOSCOPE AND WOBBLER



Here is one of the finest low cost 2 inch Oscilloscope-Wobbler combinations ever offered in the Radio Service man. Absolutely essential for flat-topping I.F. F., locating lines, distortion, oscillation, faults, etc. It produces an easily understood single trace curve. With tubes. Size 12 1/2" x 10 1/2" x 5 1/2". For 110 V., 60 cycles. Wt., 16 lbs.

E10124. NET. **\$58.75**

120A SIGNAL GENERATOR



The Model 120A indicates the performance of higher-priced instruments in frequency calibration, attenuation, modulation, waveform, and absence of stray leakage. The loop, modulation dial is directly calibrated from 100 KC to 25 MC on fundamentals and to 75 MC on harmonics. External, 60 cycle, and R.F. are available. Size, 9 1/2" x 6 1/2" x 5 1/2". For 110 V., 60 cycles. Wt., 16 lbs.

E10120. NET. **\$29.35**

PUSH-BUTTON TUBE TESTER



Here is one of the fastest operating tube testers on the market. Makes the standard R.M.A. tests of electronic conductance, shorts, open circuits, and balance on all types of tubes. The red neon tube chart is on a roller index. Leak tests are made with new 100% R.M.A. type of meter has "Amplified" scale, 75 x 10⁴ V. For 100-125 V., 60 cycles. Shing. wt. 12 lbs. EACH

E10121. Portable Model. **\$33.80**

E10122. Counter Model. **\$33.80**

NEW RCA TEST EQUIPMENT

MODEL 151 OSCILLOGRAPH

Uses type 912 one-inch cathode-ray tube. The separate horizontal and vertical oscillators each have a gain of 50 and are flat from 30-10,000 cycles. This oscillograph will aid in aligning receivers, especially clock distribution, gain and tone. Size, 13 1/2" x 14 1/2" x 5 1/2". For 110 volts, 60 cycles. A.C. Complete with tubes. Shing. wt., 15 lbs. NET. **\$39.95**



MODEL 151 2-INCH OSCILLOGRAPH

E10331. Similar to the model described above but uses the new 900-37 cathode-ray tube. The sensitivity of this tube has been increased, permitting maximum deflection with minimum deflecting voltage. Complete with tubes. Wt., 20 lbs. NET. **\$49.95**

MODEL 155 3-INCH OSCILLOGRAPH

E10332. The Model 155 retains the fine qualities of previous models, plus many new features, all at a new low price. For the finest work, a 3-inch Oscillograph is always preferable because of the extra wide image. Size, 17 1/2" x 14 1/2" x 5 1/2". For 110 V., 60 cycles. Shing. wt., 28 lbs. NET. **\$63.95**

AC TEST OSCILLATOR

MODEL 153

Here is one of the finest oscillators available and at a remarkably low price. Six bands cover from 100 to 50,000 KC on fundamentals at an accuracy of 2%. The large 6" dial, easy to read, includes a variable R.F. output variable from 2 microvolts to 1 volt maximum. A 400 cycle 8 volt output is also available. With tubes. Size, 12 1/2" x 10 1/2" x 5 1/2". For 110 V., 60 cycles. Shing. wt., 15 lbs.

E10333. NET. **\$29.95**

MODEL 958 FREQUENCY MODULATOR

Designed to modulate the R.F. frequency of any oscillator over a range sufficient for visual alignment with an oscillograph. It sweeps the R.F. voltage over the resonant frequency of the circuit under test and at the same time generates an AC synchronizing voltage. Size, 10 1/2" x 10 1/2" x 5 1/2". For 110 V., 60 cycles. Shing. wt., 7 lbs.

E10334. NET. **\$27.50**

MODEL 4317 OUTPUT INDICATOR

For use with an oscillator in alignment work. Neon glow lamp accuracy indicator. Resonance. Indicated by neon. Tube output: 1, 1.5 and 3 ohms. Mailed baseline name, 5% x 2 1/2" x 2 1/2".

E10336. NET. **\$4.00**

NEW 156A TUBE TESTER

This new model RCA Tube Tester has many distinctive, valuable features. It is an easily operated test instrument, is unambiguous. The roll type chart has large, easily read figures which indicate the proper buttons to be pressed. Both 4 pinning and metal base ballast tubes are tested for tube leaks and opens. Checks for grid-leaks and filament tubes. All tests include warning to R.M.A. standards. In structure, it is a completely enclosed cabinet with sloping panel. Size, 17 1/2" x 14 1/2" x 5 1/2". For 100-125 V., 60 cycles. Shing. wt., 20 lbs.

E10335. COUNTER MODEL. NET. **\$37.95**

E10324. PORTABLE MODEL. Same as Model 156A, but with rugged power and screw-on handle. NET. **\$39.95**

We can supply all R.C.A. test equipment. Write for particulars.

NEW BERNARD METERETTES

DELUXE MODEL

A sensitive, multi-reading instrument of a remarkably low price. Ranges are: 0-100, 0-200, 0-500 volts A.C. at 2,000 ohms per volt; 0-100-1,000 volts A.C. at 1,000 ohms per volt; 0-2,000 ohms; 0-2 nonlinear; 0-200 microamps; D.C. and 0-10-100-1,000 mils D.C. The 2" square meter has an accuracy of 2%. All A.C. ranges are marked in red on meter scale while D.C. ranges are in black. An exclusive feature is the combined A.C./D.C. switch and ohms adjuster housed in solid mechanism case with polished metal panel and removable cover. Supplied with test leads.

E10231. NET. **\$13.90**

STANDARD MODEL

Same as De Luxe except meter is 0-1 M.A., 1000 ohms per volt. Less cover, wt., 3 lbs. NET. **\$8.90**

NEW BERNARD ECONOMETER

An economical V-O-M with a sensitivity of 1,000 ohms per volt. Ranges are: 0-10-100-500 volts A.C. and D.C.; 0-100-200,000 ohms and 0-1-10-100-1,000 mils D.C. Has accuracy 2% round meter with 2-reading extended scales. Ohms adjuster and A.C./D.C. switch are combined. In 2 1/2" x 2 1/2" instrument finished wood case. Wt., 8 lbs. NET. **\$7.90**

E10233. NET. **\$7.90**

READRITE METERS SHUNTS • RECTIFIERS

READRITE PANEL METERS

MODEL 55 D.C.

The popular and economical Readrite line used extensively in radio and electrical work where an efficient low-priced meter is required. Accuracy assured within 5%. D.C. meters are polarized rane, solenoid type. Require 2 3/4" mounting hole. Have easy-reading white dial, black lettering and full nickel-finish metal shell. Clamp included to hold meter tight against panel. Screw connections with binding nuts on rear. 2 3/4" diameter. Convertible for outside range mounting with use of No. 65A Flange ring.

MODEL 95

Here is a brand new addition to the famous line of Readrite meters. Model 95 is modernizable and up-to-date in every respect. The beautiful black lacquer-finished square case measures 2 1/2" x 2 3/4". Wrinkle, nickel, and chrome finishes are also available on special order. Meters require a 2 1/2" hole for mounting. Ideal modern low-cost meters for all radio work.



Standard Type

Zero Adjustment

Less Zero Adjustment

D. C. VOLTMETERS

Volts	Resist. Ohms	MODEL 55				MODEL 95	
		Without Zero Adjustment		With Zero Adjustment		Without Zero Adjustment	
No.	NET Each	No.	NET Each	No.	NET Each	No.	NET Each
0-1	30	E7350		E7375		E7250	
0-3	175	E7351	59c	E7376	73c	E7251	79c
0-3	550	E7352		E7377		E7252	
0-6	410	E7353		E7378		E7253	
0-6	850	E7354		E7379		E7254	
0-8	850	E7355	59c	E7380	73c	E7255	79c
0-10	1475	E7356		E7381		E7256	
0-15	2014	E7357		E7382		E7257	
0-25	1025	E7358		E7383		E7258	
0-25	7720	E7359	\$1.62	E7384	\$1.76	E7259	\$1.82
0-50	3250	E7360	.59	E7385	.73	E7260	.79
0-50	15440	E7361	1.91	E7386	2.06	E7261	2.12
0-100	6500	E7362	.88	E7387	1.03	E7262	1.09
0-100	30888	E7363	1.91	E7388	2.06	E7263	2.12
0-150	9750	E7364	1.03	E7389	1.18	E7264	1.23
0-150	48320	E7365	1.91	E7390	2.06	E7265	2.12
0-300	92040	E7366	1.91	E7391	2.06	E7266	2.12
0-300	154400	E7367	2.65	E7392	2.79	E7267	2.85
0-750	251600	E7368	3.23	E7393	3.38	E7268	3.44
0-8-100	10290	E7369	1.32	E7394	1.47	E7269	1.53
0-60-300	92040	E7370	2.65	E7395	2.79	E7270	2.85
0-20-60	180000	E7371	1.23	E7396	1.38	E7271	1.44

D. C. MILLIAMMETERS

M. A.	Resist. Ohms	MODEL 55				MODEL 95	
		Less Zero Adj.		With Zero Adj.		Less Zero Adj.	
No.	NET Each	No.	NET Each	No.	NET Each	No.	NET Each
0-5	2160	E7400	\$1.32	E7414	\$1.47	E7291	\$1.53
0-10	700	E7401	1.18	E7415	1.32	E7292	1.38
0-15	295	E7402	.59	E7416	.73	E7293	.79
0-25	85	E7403	.59	E7417	.73	E7294	.79
0-50	20	E7404		E7418		E7295	
0-100	5 5/8	E7405	59c	E7419	73c	E7296	79c
0-150	3 3/8	E7406		E7420		E7297	
0-200	1 9/16	E7407		E7421		E7298	
0-300	.8	E7408	\$0.59	E7422	\$0.73	E7299	.79
0-400	.5	E7409	.59	E7423	.73	E7300	.79
0-20-100	175-30	E7410	1.18	E7424	1.32	E7301	1.38
0-15-150	305-24	E7411	1.18	E7425	1.32	E7302	1.38

A. C. VOLTMETERS*

Volts	MODEL 55		MODEL 95	
	No.	Each	No.	Each
0-6	E7450	\$1.62	E7305	\$1.62
0-4	E7451	1.62	E7307	1.82
0-10	E7452	1.62	E7308	1.82
0-15	E7453	1.62	E7309	1.82
0-150	E7454	2.65	E7310	2.85
0-300	E7455	3.23	E7311	3.44
0-600	E7456	3.82	E7312	4.03
0-750	E7457	4.56	E7313	4.76
0-10-140	E7458	2.65	E7314	2.85

A. C. MILLIAMMETERS*

M.A.	MODEL 55		MODEL 95	
	No.	Each	No.	Each
0-25	E7462		E7324	
0-50	E7463		E7325	
0-100	E7464	\$1.62	E7326	\$1.82
0-250	E7465		E7327	
0-300	E7466		E7328	

PLUG-IN LINE TYPE

0-150	E7459	\$2.65	E7315	2.85
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A. C. AMMETERS*

Amps.	MODEL 55		MODEL 95	
	No.	Each	No.	Each
0-1	E7468		E7317	
0-3	E7469	\$1.62	E7318	\$1.82
0-5	E7470		E7319	
0-10	E7471		E7320	
0-50	E7472	\$2.20	E7321	\$2.41

65A FLANGE RING

Converts any Readrite Model 55 or 95 for flange mounting. E7473. NET **9c**



INDUCTION AMMETER

Indicates automobile starting current. Reads 400-4,000 amp. D.C. E7499. **\$1.76**



D. C. AMMETERS

Amps.	Type	MODEL 55				MODEL 95	
		No.	NET Each	No.	NET Each	No.	NET Each
0-1	350	E7428		E7438		E7275	
0-3	330	E7429	59c	E7439	73c	E7276	79c
0-5	351	E7430		E7440		E7277	
0-10	338	E7431		E7441		E7278	
0-25	382	E7427	\$0.88	E7447	\$1.03	E7279	\$1.09
0-50	383	E7426	1.47	E7449	1.62	E7280	1.68
1-0-1	101	E7432		E7442		E7281	
3-0-3	303	E7433	59c	E7443	73c	E7282	79c
6-0-6	606	E7434		E7444		E7283	
10-0-10	110	E7435		E7445		E7284	
20-0-20	220	E7436		E7446		E7285	
30-0-30	330	E7448	\$1.18	E7447	\$1.32	E7286	1.38
60-0-60	550	E7481	1.32	E7460	1.47	E7287	1.53

RESISTANCE METER

MODEL 501

Direct reading: 0-10,000 ohms. 0-4 1/2 volts. Measures resistance and checks continuity in radio and electrical circuits. Uses 3 small flashlight cells. An inexpensive but reliable meter. E7341. NET **88c**

RESISTORS

No. 503 Resistor. 1150 ohms resistance to increase No. 501 ohmmeter reading to 60,000 ohms when used with a 2 1/2" Volt battery. E7343. List, \$1.00. NET **59c**

No. 504 Resistor. 2,300 ohms, center-tapped, for use with 4 1/2" "B" to increase reading of No. 501 ohmmeter to 100,000 ohms. E7344. With tip jacks. **\$1.32**

List, \$2.25. NET **\$1.32**

OUTPUT METER

MODEL 575

Indicates output voltages for correct alignment of RF and IF stages. Range: 0-5, 0-50 volts. Has copper-oxide rectifier. In 4 1/2" high rectangular metal case. Has tip-jacks for leads. E7348. NET **\$4.85**

MODEL 515 OUTPUT METER

Same as Model 575 above but with Triplett meter. Has range of 2.5-5 volts. 750 ohms resistance per volt. E7349. List, \$16.50. NET **\$9.70**

CONTINENTAL CARBON SEMI-PRECISION RESISTORS



A high quality line of triple ceramic-molded semi-precision carbon resistors. Accuracy within 5%. Ideal meter range multipliers; 1 watt size.

Ohms	Volts at 1 M.A.	Ohms	Volts at 1 M.A.	Ohms	Volts at 1 M.A.
100	.1	8500	8.5	100000	100
200	.2	9950	9.95	150000	150
400	.4	9950	10	200000	200
500	.5	10000	10	240000	240
1000	1	13500	13.5	250000	250
*1450	1.5	15000	15	300000	300
2000	2	20000	20	400000	400
*2950	3	25000	25	450000	450
3500	3.5	30000	30	490000	490
4000	4	40000	40	500000	500
*4450	4.5	50000	50	600000	600
*4950	5	60000	60	750000	750
5000	5	75000	75	800000	800
*5950	6	85000	85	900000	900
8000	8	90000	90	1000000	1000
*7450	7.5				

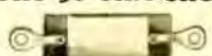
*These units allow for the 50 ohms internal resistance of the milliammeter.

E5899. Specify Values When Ordering. NET EACH **18c**

COPPER OXIDE RECTIFIER

Especially small full-wave rectifier for converting D.C. meters for A.C. use. Inset 10 volts RMS; output 20 M.A. E2503. NET EACH **\$2.06**

KNIGHT 50 OHM SHUNTS



Individually calibrated to an accuracy of 1/2% or 1%. Ideal for increasing the range of 5-1 mill meters. Wire is hand drawn maximum with negligible temperature coefficient.

No.	M.A.	No.	M.A.
E2369	5	E2373	100
E2370	10	E2374	250
E2371	25	E2375	500
E2372	50	NET EACH 49c	

KNIGHT COMBINATION SHUNTS

No.	Milliamp.	NET EACH
E2377	10-50-100	\$1.29
E2378	50-100-250	
E2379	50-250-500	

COPPER-OXIDE RECTIFIERS

Signature type. Converts D.C. meters drawing less than 5 M.A. to A.C. instruments. 7/16" square. E2500. NET **\$2.15**

20 M.A. CAPACITY

3/8" round, 3/4" long. Converts D.C. meters drawing not over 20 M.A. to A.C. types. E2501. NET **\$1.88**

50 M.A. CAPACITY

3/8" dia.; 1 1/4" long. Heavy-duty type for use in circuits where current does not exceed 50 M.A. E2502. NET **\$1.75**

Quality METERS TRIPLETT · BEEDE

ILLUMINATED DIALS

These attachments represent the very latest and by far the most outstanding dial-lighting developments of the season. Light is spread evenly and without glare over the entire dial scale. Two models available. With socket and 6.3 V. bulb.

FRONT LIGHTING ATTACHMENT
Modernistic design. For use with models 321 and 327 meters. Easily attached. Lamps can be replaced without opening instrument.

E9071. NET 98c

REAR LIGHTING ATTACHMENT
Simplified only with meters. Add pieces below to rest of meter.

E9072. For Models 221, 231. NET 39c

E9073. For Models 321, 331. NET 46c



TRIPLETT FOUNDATION INSTRUMENT KITS 1000 OHMS PER VOLT

These high-quality, precision-built Triplett meters, with the shunts and multipliers described below, afford the opportunity to build an extremely accurate, multi-scale volt-ohm-milliammeter at low cost. The four meters incorporate a basic 0-1 mV movement with an internal resistance of 100 ohms and a sensitivity of 1,000 ohms per volt. Ranges are as follows: 0-10-50-250-500-1,000 volts D.C.; 0-500-100,000 ohms; and 0-1-10-50-250 mV D.C. Readings as low as 0.2 ohms can readily be made. All meters are equipped with zero adjustments and have knife-edge pointers which simplify readings. Each instrument is supplied with a wiring diagram.

MODEL 321
E8946. Flange 3/4" diameter, flush mounting. Scale length, 2 3/8". Molded bakelite case. **\$4.90**

MODEL 326
E8941. Flange 3/4" x 2 1/2" flush mounting. Scale length, 2 3/8". Molded bakelite case. **\$4.90**

MODEL 421
E8945. Flange measures 3 3/4" x 4 1/2" flush mounting. Scale length, 2 3/8". Molded bakelite case. **\$6.20**

MODEL 521
E8949. Flange measures 5 1/4" diameter, flush mounting. Scale length, 2 3/8". Molded bakelite case. 1 1/2" diameter body. 1 3/4" deep. NET **\$6.86**

RESISTORS & SHUNTS
E8942. Resistors mounted on bakelite to obtain following ranges: 0-10-50-250-500-1,000 volts D.C. NET **\$7.18**

E8943. Shunts mounted on bakelite for 0-1-10-50-250 mV D.C. shunt for low ohms, and current limiting resistors for low and high ohms. NET **\$2.28**

E8778. Zero adjuster for ohms. NET **66c**

E9779. Selector switch with knob. NET **\$1.64**

E8944. Current limiting resistors for the 100,000 ohmmeter range. NET **66c**

TRIPLETT PRECISION METERS

These accurate, dependable meters are available in a variety of styles, sizes, and ranges. Incorporate a rugged D'Arsonval movement which assures an accuracy within 2%. The genuine polished sapphire-jeweled bearings are set in adjustable screws. All instruments have zero adjustments and balanced aluminum knife-type pointers. Metal dials are luminously finished in white enamel with large, easily-read scales. The A.C. meters are the movable iron-repulsion type, are air-damped, and have light moving parts. Front lighting attachments are available for the Model 321, 331, 421, and 521 meters. Rear lighting attachments are available for the Model 221, 231, 321, and 331 meters. These illuminating attachments are fully described at left. Average shipping weight of each meter is 3 lbs. You can buy these modern Triplett instruments with confidence in their quality.

METER DIMENSIONS

Model	Flange	Mtg.	Scale	Case
221	2 3/4"	Flush	1 3/4"	Bakelite
227	2 3/8" x 2 3/8"	Flush	1 3/4"	Bakelite
231	2 3/4"	Flush	1 3/4"	Bakelite
237	2 3/8" x 2 3/8"	Flush	1 3/4"	Bakelite
321	3 1/4"	Flush	2 3/8"	Bakelite
327	3 3/8"	Flush	2 3/8"	Bakelite
331	3 1/4"	Flush	2 3/8"	Bakelite
337	3 3/8"	Flush	2 3/8"	Bakelite



227-327 D. C.
237-337 A. C.



321-221 D. C.
331-231 A. C.

PORTABLE FRAME

This portable frame is especially designed to house Triplett Model 321 and 331 meters. Substantially built of metal with attractive black wrinkle finish. Closed sides. Includes two insulated binding posts for making necessary connections. Tilted panel of frame provides easy, legible reading of meter face. **E9074. Frame only. NET 98c**



D. C. MILLIAMMETERS

Model	Flange	NET	M.A.	Model	Flange	NET
321	327	NET	M.A.	221	227	NET
E8650	E8664	\$4.57	0-1	E8736	E8796	\$3.75
E8651	E8665		0-1.5	E8737	E8787	
E8652	E8666	3.75	0-5	E8738	E8788	2.94
E8653	E8667		0-10	E8739	E8789	
E8654	E8668		0-15	E8740	E8790	
E8655	E8669		0-25	E8741	E8791	
E8656	E8670	3.75	0-50	E8742	E8792	2.94
E8657	E8671		0-100	E8743	E8793	
E8658	E8672		0-150	E8744	E8794	
E8658	E8673		0-200	E8745	E8795	
E8663	E8674		0-250	E8746	E8796	
E8659	E8675	3.75	0-300	E8747	E8797	2.94
E8660	E8676		0-500	E8748	E8798	
E8662	E8677		0-750	E8749	E8799	

D. C. VOLTMETERS

Model	Flange	NET	Volts	Model	Flange	NET	
321	327	NET <th>Volts</th> <td>221</td> <td>227</td> <td>NET</td>	Volts	221	227	NET	
E8722	E8678		0-5	E8853	E9050		
E8723	E8679		0-10	E8854	E9051		
E8724	E8680	\$5.39	0-25	E8855	E9052	\$4.24	
E8725	E8681		0-50	E8856	E9053		
E8726	E8682		5 7.1	0-100	E8857	E9054	5 07
E8727	E8683		5 7.1	0-150	E8858	E9055	5 07
E8728	E8684		6 5.3	0-300	E8859	E9056	5 7.1
E8729	E8685		7 1.8	0-500	E8860	E9057	6 5.3
E8730	E8686		15 0.2	0-750	E8861	E9058	13 8.9
E8731	E8687		16 4.9	0-1000	E8862	E9059	15 3.6
E8732	E8688		7 1.8	0-150	E8863	E9060	6 5.3
E8733	E8689		10 2.9	0-15-60-300-600	E8864	E9061	9 1.4

D. C. AMMETERS

Model	Flange	NET	Amps.	Model	Flange	NET
321	327	NET <th>Amps.</th> <td>221</td> <td>227</td> <td>NET</td>	Amps.	221	227	NET
E8752	E8872		0-1	E8878	E8884	
E8753	E8873	\$3.75	0-5	E8879	E8885	
E8754	E8874		0-10	E8880	E8886	\$2.94
E8755	E8875		0-25	E8881	E8887	
E8759	E8876	\$3.75	30-0-20-30	E8882	E8888	\$2.94
E8760	E8877			E8883	E8889	

A. C. AMMETERS

Model	Flange	NET	Amps.	Model	Flange	NET
331	337	NET <th>Amps.</th> <td>231</td> <td>237</td> <td>NET</td>	Amps.	231	237	NET
E8866	E8763		0-1	E8771	E8821	
E8867	E8764		0-2	E8772	E8822	
E8868	E8765	\$3.75	0-3	E8773	E8823	\$2.94
E8869	E8766		0-5	E8774	E8824	
E8870	E8767		0-10	E8775	E8825	
E8871	E8768		4 5.7	E8776	E8826	3 7.5
E8872	E8769		5 8.6	E8777	E8827	5 07
E8873	E8770		8 1.8			

A. C. MILLIAMMETERS

Model	Flange	NET	M.A.	Model	Flange	NET
331	337	NET <th>M.A.</th> <td>231</td> <td>237</td> <td>NET</td>	M.A.	231	237	NET
E8805	E8812	\$4.41	0-10	E8841	E9062	\$3.60
E8806	E8813		0-15	E8842	E9063	
E8807	E8814	\$3.75	0-25	E8843	E9064	\$2.94
E8808	E8815		0-50	E8844	E9065	
E8809	E8816		0-100	E8845	E9066	
E8810	E8817	\$3.75	0-250	E8846	E9067	\$2.94
E8811	E8818		0-500	E8847	E9068	

TRIPLETT UNIVERSAL AC-DC METER

E9070. A versatile instrument reading both A.C. and D.C. Ranges are as follows: 0-15-75-150-750 volts A.C. and D.C. at 1,000 ohms per volt 0-1.5-15-150 mV D.C.; 0-15-150 mV A.C.; 0-1,500 ohms; and 0-1.5-3 megohms. Model 321 meter, 3" diameter. With copper-oxide rectifier and switch. **\$9.80**

E9069. Kit of resistors and shunts for above ranges. Selector switch, rheostat, jacks, panel, bar knobs, batteries, wire, etc. Complete less meter. NET **\$14.38**

MODEL 701 BEEDE TEST PANEL METERS

D. C. MILLIAMMETERS

Highly accurate D'Arsonval type meters. Moving coil design. Accuracy within 2%. Have zero adjustment, sapphire bearings, aluminum pointers. Flush mounting, 3/4" diameter, metal case.

No.	M. A.	List	NET
E22300	0-1	\$6.00	\$3.53
E22301	0-10	4.75	2.79
E22302	0-100	4.75	2.79
E22303	0-200	4.75	2.79
E22305	0-500	4.75	2.79
E22304	1-0-1	6.00	3.53

VOLT-OHM-MILLIAMMETERS

Build your own point-to-point analyzer or test panel using one of these meters as the Volt-ohm-milliammeter. Scale ranges provided are those most generally used in service and test instruments.

E2315. MODEL 701. Meter only. Reads 0-1 mV D.C., 0-50,000 ohms, 0-15-30-300 volts D.C. NET **\$3.53**

E2317. MODEL 701. Meter only. Reads 0-1 mV D.C., 0-2,000 ohms, 0-5-250-750 volts D.C. NET **\$3.53**

We can supply all Beede meters. Write for descriptive literature and prices.

Precision FOUNDATION & PANEL METERS

KNIGHT-BEEDE FOUNDATION METERS



These new BeeDe Foundation Meter Kits are ideal for building an efficient Volt-Ohm-Milliammeter at an attractively low price. An invaluable instrument for the Serviceman, Amateur or Experimenter. The black bakelite face-type case is 4 3/8" long and 2 1/2" high and mounts in a 2 1/2" diameter round hole. The large figures on the lone 3" scale are indicated by a special knife-edge pointer. The 2% accuracy D'Arsonval movement is carried on sapphire jewel bearings.



1000 OHMS PER VOLT

You can build an efficient Volt-Ohm-Milliammeter around this high quality BeeDe Foundation Meter. It employs a sensitive 0-1 MA movement, 50 ohms internal resistance. Scales are: 0-10-25-50-100-200-500 volts D.C.; 0-1,000 ohms-1 megohm; and 0-10-100 milliamperes D.C. These scales provide quick and accurate testing. (See multiplier resistor kit and shunt resistors below.)

\$4.41

E2330, NET

MULTIPLIER RESISTOR KIT

Consists of high quality semi-precision resistors for use with the above meter to secure the indicated scale readings. Resistors are accurate to within 5%. With diagram.

E2331, Resistor Kit, NET **\$1.59**

SHUNT RESISTORS

E2370, To obtain reading of 0-10 M.A. on above meter.

E2373, To obtain reading of 0-100 M.A. on above meter. NET, EACH **49c**

20,000 OHMS PER VOLT

Now you can build a really sensitive voltmeter at an extremely low price. Uses a 50 microampere basic movement that will give you a sensitivity of 20,000 ohms per volt when used as a multi-range D.C. voltmeter. Internal resistance is 1575 ohms. Scales are: 0-10-50-100-500-1,000 volts D.C.; 0-1,000-100,000 ohms, 0-1-2 megohms, and 0-10-100 M.A. D.C. These ranges are obtained when the meter is used with the resistors and shunts listed at the right. With diagram.

E2333, NET **\$10.58**



RESISTANCE RANGE EXTENDER KIT

Here is a brand-new kit which, when used with a low-range ohmmeter, will enable you to measure resistors up to 10 megohms. It is designed for use with any meter having a 1 mill D.C. movement and a reversed resistance scale. This type of meter is generally used with a 4 1/2 volt battery. Every serviceman, amateur and experimenter will find this range extender a valuable aid in his work. Kit consists of all parts, including a punched and formed chassis base, power transformer, triode tube, etc. Easy to build. For 110 volt 60 cycle operation. Slang. Wt., 6 lbs.

E2334, NET **\$2.85**

METER REPAIR SERVICE



Whether your meter is burned out or damaged mechanically, our meter service will put it back into good condition. Repairs are made by trained technicians and are calibrated against standards of the highest accuracy. Here is a fine service that amateurs, servicemen and experimental laboratories need. For prices on services not shown, send meter prepaid for inspection.

SERVICE A: For 3 1/2" meters with burned-out or worn armatures. We dismantle the entire moving element, rewind or replace armature, re-plate and slipen the pivots, and polish the jewels. If the armature has been burnt, new hair-springs are installed. The moving element is then reassembled and balanced, and the meter calibrated at three points. Metal cases if badly scratched, are carefully refinished.

YOUR COST **\$3.75**

SERVICE B: For sluggish or erratic meters. Same as Service A except that armature and hair-springs are not replaced.

YOUR COST **\$2.95**

SERVICE C: If glass is cracked, scratched or broken, we will replace it for an additional charge of **90c**.

TUNING METERS



High resistance milliammeters for visual tuning of A. V. C. sets. Indicate exact tuning resonance. Model 121 is shadow image type. Other models use needle as indicator.

M.A.	TM-103	TM-102	TM-108	TM-121
0-5	E 7475	E 7480	E 7485	E 7490
0-7	E 7476	E 7481	E 7486	E 7491
0-10	E 7477	E 7482	E 7487	E 7492
0-15	E 7478	E 7483	E 7488	E 7493

Choice of any type above, less post-charge. List, \$1.50. NET EACH **88c**

ESCAPTOCHONS

E 7495, For TM-108, 121, }
E 7496, For TM-102, 103, } EACH **18c**

SIMPSON D. C. MILLIAMMETERS



TYPE 27S. These meters are the most accurate, rugged, lowest cost instruments ever built. They have white enameled metal dials with black scales and lights. The scale length is 2 1/2" rectangular bakelite case.

No.	M.A.	NET	No.	M.A.	NET
E2336	0-1	\$5.07	E2340	0-100	\$4.15
E2337	0-1.5	5.07	E2341	0-200	
E2338	0-10	4.15	E2342	0-300	
E2339	0-50	4.15	E2343	0-500	

We can supply all Simpson meters. Write for quotations, or order with deposit.

WESTON 301 PANEL METERS



These panel instruments are distinguished for their low cost, ruggedness and dependable performance. They have well-damped D'Arsonval movements with an accuracy within 2%. Contained in 2 1/2" round bakelite cases of the flush-mounting type. The A.C. meters use a full-wave copper-oxide rectifier.

D. C. MILLIAMMETERS

No.	M.A.	NET	No.	M.A.	NET
E1420	0-1	\$7.35	E1424	0-100	\$6.61
E1421	0-1.5	7.35	E1425	0-200	
E1422	0-10	6.61	E1426	0-300	
E1423	0-25	6.61	E1427	0-500	

D. C. VOLT METERS

(1000 Ohms Per Volt)

No.	Volts	NET	No.	Volts	NET
E1428	0-5	\$8.82	E1430	0-25	58.82
E1429	0-10		E1431	0-150	9.74

D. C. AMMETERS

No.	Amps.	NET	No.	Amps.	NET
E1432	0-1	\$6.61	E1434	0-20	\$6.61
E1433	0-5		E1435	30-30	

MODEL 476 A. C. VOLT METERS

No.	Volts	NET	No.	Volts	NET
E1436	0-25	\$6.61	E1438	0-150	\$8.27
E1437	0-100	7.35	E1439	0-300	12.12

MODEL 476 A. C. AMMETERS

No.	Amps.	NET	No.	Amps.	NET
E1440	0-2	\$6.61	E1443	0-10	\$6.61
E1441	0-3		E1444	0-20	
E1442	0-5		E1445	0-50	

Available in rectangular cases at same prices listed above. Order with deposit.

PORTABLE METER BASE

These bases offer a convenient and practical method of mounting your Weston panel meters. All bases are supplied with black scratchie finish.

E1446, With 2 binding posts.	\$1.47	
E1447, With 3 binding posts.	\$1.83	
E1448, With four binding posts.	\$2.02	

PANEL LIGHT

Excellent for lighting panel-type meters. Requires standard mounting hole. Accommodates miniature base bulb.

E9133, NET **29c**

AUDIO BEAT FREQUENCY OSCILLATOR KIT

True wave form, essentially flat from 50 to 15,000 cycles. Essential kit contains coils, variable condenser, filter unit, dial, and hardware parts. Write for full literature.

E5691, NET **\$6.29**
E5692, Complete Parts Kit, Punched chassis, resistors, conductive paint, tubes, etc. Wt. 12 lbs. NET **\$20.80**

MODERNIZER ADAPTERS • TESTERS

SPEAKER-HEADPHONE MIKE & PHONO ADAPTERS



For speaker and headphone switching. Connects headphones to radio set; built-in switch cuts on speaker so that other persons in room will not be disturbed. Adapters supplied in under power tubes. Very easily installed.

SINGLE PUSH-PULL

E5537. 4 Prong. For self-biased tube.	E5541. 4 Prong.	NET EACH	\$1.45
E5538. 5 Prong.	E5542. 5 Prong.	NET EACH	\$1.63
E5539. 6 Prong.	E5543. 6 Prong.		
E5540. 8 Prong.	E5544. 8 Prong.		

FOR EXTRA SPEAKERS

E5291. For push-pull 4 prong tubes.	25c
E5292. For push-pull 5 prong tubes.	30c
E5293. For single 5 prong tube.	28c

FOR MIKE & PHONO

E5505. 5 Prong.	NET EACH	
E5506. 6 Prong.		54c
E5508. 7 Prong.		
E5509. 8 Prong.		

FOR EARPHONES

To connect headphones to any set. Ideal for DX and hard-of-hearing use. May also be used as extra speaker adapter in sets having one power tube.

E5294. 5 Prong.
E5295. 6 Prong.
NET EACH 44c

UNIVERSAL ADAPTER

All tube terminals are brought out for quick easy connection.

E5510. 4 prong.	EACH	
E5511. 5 prong.		12c
E5512. 6 prong.		
E5513. 7S prong.		
E5514. 8 prong.		16c

GRID CAP PHONO ADAPTER

Connects phonograph pick-up to grid cap of tube. Has 2 contacts into which the pick-up's phone tips are connected. Ideal for magnetic or crystal pick-ups.

E5546. For Glass Tubes.
E5547. For Metal Tubes.
YOUR PRICE EACH 26c

GRID CAP ADAPTERS

E1672. Double clip for metal and glass tubes. Installed in molded housing.	12c
YOUR PRICE	
E1673. Plugs into standard grid cap. Other end fits small metal tube cap.	9c
YOUR PRICE	
E1684. Dual stud for control grid lead of analyzer plug. Metal and glass.	6c
YOUR PRICE	
E1685. Octal screw type. Replaces 1 of the large studs on plugs having 2.	6c
YOUR PRICE	

UNIVERSAL OUTPUT-METER ADAPTER

For making connections to meters, controls, etc., for test purposes. Pull out tube. Slip adapter over proper prong, and replace the tube. 50" lead.

E1678.
NET 18c

UNIVERSAL ADAPTER KIT

Can be used to make up any adapter required for test purposes. Contains one each: 4, 5, 6, 7, and 8 octal prong water separators and 12 contacts. In use, the separator needed is selected; then the correct number of contacts are inserted according to element of tube or circuit under test. Parts may be used over and over again. Complete in leatherette case. Shng. wt. 1 lb.

E1679. NET 44c

ADAPTERS FOR MODERNIZING AND TUBE TESTING

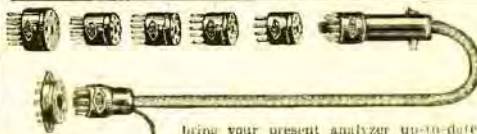
Cast in on set-modernization. Use these adapters to replace tube types listed below. The new glass and metal tubes now available will increase sensitivity, selectivity power and stability. No longer necessary to change sockets. These adapters may also be used to modernize old style testing equipment. The wiring of your present tube tester or analyzer need not be disturbed.



No.	Test or Replace	In Socket	No.	Test or Replace	In Socket
E1728	25Z6	75 (Triode)	E1739	57, 58, 77	24, 35/51, 37
E1735	6F5	75 (Triode)			39, 44
E1737	6X5	81, 6Z4	E1740	47	40
E1730	6J7	77, 6C6	E1742	82	80
	6K7	78, 6D6	E1743	59	45
	6F6, 6L6	41, 42	E1747	27	Kellogg 401
	6K6	41, 42	E1748	56	Kellogg 401
E1686	25A6	43	E1749	2A5	Kellogg 403
E1687	6BE*	75, 85	E1744	2A5	45
E1682	6BE*	75, 85	E1746	2A5	47
E1677	6C5	37, 76	E1745	59	47
E1680	5Z4, 5W4, 5Y3	80	E1755	UX201A	UV201A
	6K7, 6J7, 6E6	78, 77, 42	E1741	UX199	UV199
	6L6, 6Q7, 6R7	42, 75, 85			
	25A6, 6B5	43, 6N6			

YOUR CHOICE OF ANY ABOVE ADAPTERS

NET EACH 44c



BUD ANALYZER PLUG AND ADAPTERS

ANALYZER KIT
This molded bakelite analyzer plug with its small-base adapter kit makes it possible for you to Convert or: 8 prong plug; cable bring your present analyzer up-to-date plug and socket; 8 wire cable; dual grid stud; and 5 adapters.

E1650. Analyzer plug only. Small 8 prong octal base plug which plugs into adapters. Has dual grid studs for small and large grid clips. Positive adapter locking device. Small size of plug permits its use in the new receivers with metal tubes. NET \$1.03

E1651. Analyzer plug, as described above, with 5 feet of 9 wire cable attached and an 8 prong panel plug with grid lead attached. Ideal for building a shop test panel. Use this plug, cable and adapters to modernize your old test equipment. NET \$2.94

ADAPTERS ONLY

Will handle all tubes. Have 8 hole octal tops to take 8 prong plug such as listed above. Adapters use RMA numbering system for point-to-point analysis.

No.	PRONGS	NET EACH
E1653	8 to 4	
E1654	8 to 5	
E1655	8 to 6	
E1656	8 to 7	
E1657	8 to 8	58c

TEST ADAPTER FORMS

A brand new type of adapter with many outstanding features. The top consists of a standard bakelite socket. Any top and any bottom together with E1715 adapter shell will make the adapter you need. The adapter shell is brass, finished in black. It is 1 1/2" long. Both the top socket and bottom plug may be firmly snapped into the shell adapter after wiring.

SOCKET (Top)

E4532. 4 Holes	NET EACH	
E4533. 5 Holes		61c
E4534. 6 Holes		8c
E4535. 7S		
E4538. 8 Octal		

PLUG (Bottom)

E1710. 4 Prong	NET EACH	
E1711. 5 Prong		61c
E1712. 6 Prong		8c
E1713. 7S		
E1714. 8 Octal		
E1715. Adapter Shell		9c

ANALYZER ADAPTERS FOR METAL TUBES

Modernize your equipment. These adapters are for use in remodeling old analyzers which were not originally designed to test metal tube circuits. For use with analyzers using the 7S type of latch plug.

E1669. For all metal tube sockets except 5Z4, 7S latch-lock top, octal base. YOUR PRICE 59c

E1622. For testing in socket of 5Z1, 5Y3, or 5W4, 7S latch-lock plug, octal base. YOUR PRICE 59c

FOR OCTAL TUBES

E1676. For all octal base tubes except 5Z4, 5Y3 and 5W4. 8 hole octal top. YOUR PRICE 59c

E1677. For testing 5Z4, 5Y3 or 5W4 metal tube circuits. 8 hole octal top, 8 prong base. YOUR PRICE 44c

ALDEN TUBE LEAKAGE AND SHORT TESTER

Model 93C
For 4, 5, 6 and 7 prong tubes. Will indicate leakage as high as 1 megohm. Operates directly from A.C. line. Contains jacks for using as a continuity tester. Complete with neon lamp, grid lead, cord and plug. Wt., 2 lbs.

E1675. NET \$2.06



ALDEN METAL TUBE TEST ADAPTER

Checks all tube types. For use with any tube checker. Plugs into 36 socket. 5 octal sockets on adapter accommodate all metal tube types. 2 toggle switches are provided for thorough tests including both plates of double-plate tubes. Grooved instruction plate on face. Wt., 2 lbs.

E1674. NET \$3.82



ALDEN MULTI-DAPTER

TYPE 950XYLA. Tests over 120 types of tubes with your present tester. No leads, wires, or jacks. Single toggle switch makes all tests. Has 4 sockets for all tubes and 5 prong plug at bottom to fit tester. NET \$2.94

E1757. TYPE 954SGL. This associate adapter must be used on the bottom of the 950XYLA adapter if your tube tester has no filament voltage switch. Wt., 1 lb. NET 44c



NEUTRALIZING TOOLS • TEST LEADS

ALIGNING AND NEUTRALIZING TOOLS



4-IN-1 SERVICE ALIGNMENT TOOL

Combined in one fountain pen size tool are four essential tools: 1. A nut wrench, 2. A miniature blade screwdriver, and 3. A key slot screwdriver, 4. Insulated handle with pocket clip.

E5523. Shlg. wt., 3 oz. **28c**
YOUR PRICE
E5524. Cradle attachment.
E5525. Aesthetic attachment, EA... **10c**



NEUTRALIZING AND ALIGNING TOOL KITS

DE LUXE MODEL

A tool for every type of receiver. It separate parts cover multiple functions. These units telescope into each other forming 6 separate tools. They come in a handy leatherette case and the kit includes: screwdriver with flexible shaft for hard-to-reach spots; "muscle" alignment tool; alligator side wrench; 6" insulated screwdriver with metal nib; 5/16" and 3/8" nut wrench; 3/8" insulated square nut wrench; 3/8" hex metal side wrench; 2 1/2" insulated screwdriver with metal nib; 3/8" hex slotted insulated screwdriver; 5/16" hex insulated nut wrench; 5" and 8" insulated screwdrivers. With case.

E5529. NET... **\$2.94**



STANDARD MODEL KIT

A real servicing necessity for every type of receiver. Similar to the "De Luxe" set above but less the flexible screwdriver and "muscle" aligning tool. With hand case.

E5532. Net... **\$2.30**

FLEXIBLE SHAFT TUNING WAND

Excellent for checking alignment of radio sets without disturbing the adjustment of the trimmers. Shaft is of flexible cast-iron brass cylinder at one end, fine iron core at other.

E5534. YOUR PRICE... **59c**

SOLID SHAFT TUNING WAND

For quick, accurate adjustment of trimmer condensers. Especially valuable for setting alignment of All-Wave sets without upsetting trimmer capacity adjustments. Shaft is of bakelite with brass cylinder at one end and finely divided iron-core at other.

E5573. NET... **53c**

INSULATED ADJUSTABLE NEUTRALIZING TOOLS

Handy tools of unbreakable, non-metallic Penolite for peaking I.F. Transformers. Has telescoping screwdriver at one end; other end has hexed socket for neutralizing condensers and coils.

E5580. Extends 6 to 11". NET... **34c**
E5581. Extends 10 to 18". NET... **49c**

NARROW SHAFT ALIGNMENT TOOL

An ideal tool for working in crowded quarters. Consists of combination socket wrench and screwdriver on bakelite shaft which is only 5/32" in diameter.

E5584. NET... **29c**

BAKELITE SCREWDRIVERS

Non-metallic screwdrivers made entirely of 5/16" bakelite rod with sturdy blade. For neutralizing and adjusting condensers, etc., where metal screwdriver may not be used.

E5483. NET... **26c**
E5484. DOUBLE-EDGED SCREWDRIVER. Made of 3/8" bakelite tool and machined with blades at both ends. NET... **21c**

5-IN-1 ALIGNMENT TOOL

A handy alignment tool bit that will serve innumerable uses. Consists of 5/16" and 3/8" nut wrenches, miniature blade screwdriver, and a full-size screwdriver with pocket clips.

E5527. YOUR PRICE... **59c**

INSULATED NEUTRALIZING SCREWDRIVER

This handy tool has a pro-life handle with pocket clip. Completely insulated. Ideal for neutralizing and alignment work. A useful tool for servicemen. Colorful insuloid construction, 5 1/2" long. Narrow 5/16" diameter permits use in tight places.

E5503. YOUR PRICE... **18c**

BALANCING ATTACHMENT

Neutralize any set without removing chassis. May be screwed into 4 in 1 above left. 2 1/2" long. Ideal for working in close quarters. On-set 1/4" hex. socket; steel neutralizing screwdriver.

E5526. YOUR PRICE... **23c**

SET TRIMMERS FOR PHILCO, ZENITH, RCA, ETC.

A specially designed tool required for precision alignment of the small-space coil and trimmer assemblies used on the new All-Wave sets such as Philco, Zenith, RCA, etc. Screwdriver is turned down to a diameter of 7/64" so that it will easily pass through a 3/16" hole. Other end has socket head for 5/16" hex nut and has external metal reinforcing band. Every serviceman needs this efficient, time-saving tool.

E5535. 6" Trimmer. **44c**
E5536. 10" Trimmer. **59c**

ALIGNMENT WRENCH FOR RCA, PHILCO, ETC.

A new tuning tool for efficiently neutralizing and adjusting the air trimmers of all 1936-37-38 RCA Victor, Philco, and similar sets. Consists of a 3/8" dia. Fenolite rod, 8 1/2" long. Has hollow shaft hexagon wrench at one end and specially shaped hook at other end.

E5502. **73c**

NEUTRALIZING WRENCH

Hex broaching rim entire length. End may be cut off when worn. Fibre rod. Fits 1/4" nut.

E5473. **12c** | **E5474.** **15c**
 5 1/2" INCH. | 8" INCH.

METAL NIB NEUTRALIZING TOOL

Two valuable tools. One is a 6" x 3/8" tube on each end of which are heavy brass nickel plated socket wrenches for 5/16" and 3/8" hex-nuts. The other tool fits into the tube tool. Has a strong screwdriver blade at one end with the other end of special magnetic steel.

E5528. YOUR PRICE... **65c**

ALLIGATOR NEUTRALIZING WRENCH & SCREWDRIVER

An important tool with many uses. The wrench opens 3/8" and is fastened securely to extra-strong high insulation rod. Size, 3 1/4". Has hardened steel screwdriver blade.

E5531. YOUR PRICE... **24c**

TEST LEADS AND KITS

HEAVY-DUTY LAB MODEL PRODS

All-purpose leads for test work. Flexible, rubber-covered knickless wire fitted into heavy 3/16" handles, one red and one black. Handles 5 1/2" long. Leads are fitted into heavy 3/8" inch diameter handles, 4 inches long. Leads are 50 inches long. Popular high-quality test leads that are used by leading servicemen.

E5490. Phone Tips... **12c** PER
E5491. Spade Tips... (PAIR) **42c**
E5492. Alligator Terminals, PER PAIR... **48c**

SERVICE TEST LEADS

Very popular low-priced test leads having a wide variety of service uses. Knickless wire leads with solderless phone tips are fitted into heavy 3/8" inch diameter handles, 4 inches long. Leads are 50 inches long. Prod. wire is securely tightened by knurled nut.

E5493. Phone Tips... PER **25c**
E5494. Spade Tips... (PAIR) **25c**
E5495. Alligator Terminals, PER PAIR... **35c**

NEEDLE-POINT LEADS

High-quality test leads equipped with needle points for making good contact through insulation or pitch. 4" handles. 3/8" thick. With 50" knickless wire leads.

E5496. Phone Tips... **29c**
E5497. Spade Tips... PER PAIR... **29c**
E5498. Alligator Terminals, PER PAIR... **36c**

SOLDERLESS TEST PRODS

Needle-point test prod with insulated handle. Completely solderless. Wire clamps tightly in prod. 5 1/2" long.

E5471. Red... **15c**
E5472. Black, Each... **15c**

PENCIL TYPE TEST PRODS

High-grade leads for all test equipment. 5" handles of insulating material, with flexible rubber wire. Sharp-pointed tip is threaded and screws into handle. Moulded grips with phone tips have set screws for ease removal of wire. Combined length of leads and handles is 65". Properly soldered connections and good quality throughout.

E5530. YOUR NET PRICE... **71c**

PENCIL PROD TEST KIT

An unusually serviceable kit that meets every testing need. Heavy-duty handles are 6 inches long with 60-inch test leads attached to banana type plugs. Each kit contains 2 alligator clips, 2 needle-point tips, and 2 small lug tips, all of which fit securely on banana tips of test leads. Interchangeable tips make this kit exceptionally versatile and suitable for all types of testing. It's a real necessity for every serviceman.

E2106. List, \$1.50. NET... **72c**

ALL-PURPOSE TEST KIT

This all-purpose test lead kit contains one pair of test leads 60 inches long. One red and one black, of knickless live rubber wire. One end has insulated phone tips and the other end is equipped with insulated banana prod-type handles. The extra fittings supplied are all of the plug-on type making the test leads universal in application. Also included in the kit are: 1 pair insulated alligator clips—one red and one black; 1 pair insulated spade plugs—one red and one black, and 1 pair insulated needle points—one red and one black. Neatly fitted into handy compartment case.

E5505. YOUR NET PRICE... **\$1.32**



BOOKS for Every Service Need

GERNSBACK MANUALS VOLUME 7



Latest edition. Over 1800 pages and 3000 illustrations. Complete data on more than 1000 different 1938 models. Gives complete diagrams, socket voltages, I.F. frequencies and alignment procedure. Supplied with a 74 page master index covering all seven volumes.

E6287. POSTPAID \$9.80
IN U. S. A.

VOLUME 6. More than 1200 pages and 3500 illustrations cover all sets built during 1935, 1936, and early 1937. Complete with index.

E6286. POSTPAID IN U. S. A. \$6.86

VOLUME 5. Over 1000 pages and 2000 illustrations. Complete service data for 1934-35 sets; data on P.A. and test instruments. Includes circuit diagrams, data on alignment, etc.

E6285. POSTPAID IN U. S. A. \$6.50

VOLUME 4. 1934 edition. Over 400 pages with 2000 diagrams and charts. Includes parts specifications, schematics, voltages and trouble-shooting. Covers 1933-34 receivers.

E6284. POSTPAID IN U. S. A. \$3.00

VOLUME 3. 1933 edition. Complete service data on practically all 1932-1933 sets. Over 700 pages, more than 2000 illustrations. Valuable S.W. data.

E6283. POSTPAID IN U. S. A. \$4.00

VOLUME 2. A complete directory of 1931-1932 receivers. 1000 pages; over 2000 diagrams, charts and illustrations. Valuable standard set data includes full discussions.

E6282. POSTPAID IN U. S. A. \$4.00

VOLUME 1. The first of the Radio Service Manuals. Covers all receivers made between 1925-1931. Over 1000 diagrams and illustrations. More than 650 pages.

E6281. POSTPAID IN U. S. A. \$4.41

CONSOLIDATED VOLS. 1, 2, 3, 4
Volumes 1, 2, 3 and 4 combined in a single 2700 page indexed loose-leaf volume. Cover standard receiver circuits from 1923-1934. Shpg. wt. 16 lbs.

E6280. YOUR PRICE \$16.98



RADIO SERVICE HANDBOOK

Every Serviceman needs a copy of this great book, 1000 pages of practical circuit theory and analysis. Covers short cuts of trouble-shooting, repairing, modernization, and installation. Size, 6 1/2 inches. 750 illustrations. Cloth-bound.

E6290. POSTPAID IN U. S. A. \$3.92

AUTO RADIO MANUALS

Complete service data on practically all standard auto radio circuits. Vol. 1 has 200 pages and 500 illustrations, with service notes for sets up to 1934. Vol. 2 has 240 pages and 500 illustrations, covering 1934-1935 sets. Complete data on trouble-shooting, noise suppression, installation, etc. Invaluable books for every radio serviceman; attractively priced.

E6288. VOLUME 1. \$2.00

E6289. VOLUME 2. \$2.00

YOUR PRICE, EACH \$2.00

REFRIGERATION MANUALS VOLUME 1

E6291. Explains and illustrates the servicing of standard type refrigerators. Contains diagrams, description, trouble-shooting, refrigerants, automatic equipment, valves, etc. Explains the use of every part and tool. Clearly-written. 450 pages, 1200 illustrations. 8 1/2" x 12". Shpg. wt. 4 lbs.

VOLUME 2
E6292. Contains data on many new and different methods of trouble-shooting and repairs and shows the proper tools required. Does not duplicate Vol. 1. Size, 8 1/2" x 12". 362 pages, 1200 diagrams. Shpg. wt. 4 lbs.

YOUR PRICE EACH VOLUME \$4.00

POPULAR GHIRARDI RADIO BOOKS "RADIO PHYSICS COURSE"

The latest enlarged and revised edition of radio's leading school and home-study text book. A remarkably complete course in radio, television, and sound. Explains in an easy-to-understand way all the essential and practical facts about radio, from simple fundamentals to the most intricate applications. Includes variable and complete information on radio servicing and experimentation. May be used by ambitious radio-minded men as a home-study course in radio. Endorsed and used by leading technical schools. Invaluable to the radio beginner, student, Serviceman, Set-Builders, Experimenters, and Amateur. Handy appendices explain symbols, formulae, wire sizes, etc. Almost 1000 pages; 508 illustrations. Size, 9 1/2" x 7". Attractively printed; cloth-bound. A book everyone interested in radio should own.

E7077. "RADIO PHYSICS COURSE" (2nd Edition).

YOUR SPECIAL PRICE POSTPAID IN U. S. A. \$4.00

SCHOOLS and COLLEGES—Write for Special Quantity Prices.



FIELD SERVICE DATA BOOK

A complete compilation of case histories and remedies for over 1500 popular sets—including the latest 1937 models. Packed with data; shows intermediate frequencies for 500 super-heterodyne circuits, auto-radio data, complete tube charts, color codes, wire tables and 25 other charts. 436 pages.

E7067. \$2.50

POSTPAID IN U. S. A.



MODERN RADIO SERVICING

Newest edition. Discusses all the latest test equipment, the newest trouble-shooting and servicing methods for all types of sets, data on noise and interference elimination and antenna systems, auto radio, Cathode-ray aligning, all-wave, high fidelity, etc. 1300 pages. 700 illustrations.

E7070. \$4.00

POSTPAID IN U. S. A.

SPECIAL COMBINATION OFFER

E7068. Save time, money and "servicing headaches" by purchasing MODERN RADIO SERVICING and FIELD SERVICE DATA BOOK together. Use one for quick reference on the job, the other for thorough study of servicing data. **NET POSTPAID \$6.00**

NEW POCKET TROUBLE SHOOTERS



Time-saving, accurate and easy to use, these handy new Ghirardi lightning trouble finders tell you where to find the defect in a circuit by the trouble shooting method. A set of a set card of a set card, was a set of cards—one for Home Radio, one for Auto Radio. Just a flip of the card gives you an instant, exact summary of any of the most common trouble symptoms, such as "hum," "weak," "noisy," "dead," etc. Invaluable for spotting trouble in Power Units, Receiver Circuits, Speakers, Tubes, etc.

E5233. For Home Receivers. \$50c

E5234. For Auto Radio Receivers. NET EACH \$50c

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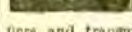
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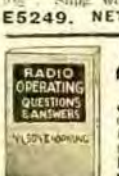
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E8925. YOUR PRICE. **21c**

KNIGHT "HOT SHOT" TYPE

Newly developed compact 6 volt batteries providing the full electrical equivalent of No. 6 cells in less than half the space. Built for efficient, long-life service and supplied in moisture-resistant metal cases. Size: 10 1/2x2 1/2x2 1/2". Shpg. wt., 7 lbs.

E8940. NET. **\$1.21**



GENERAL MIDGET PORTABLE "A" & "B" BATTERIES

Extremely small, light-weight portable batteries for use in portable radio receivers and transmitters, transceivers, monitors, hearing aids, weather balloons, pocket radio sets, etc. The approximate rating of E8935 is 100 MA hours, E8936 is 100 MA hours; E8937 is 1000 MA hours; E8938 is 8 ampere hours; E8939 is 15 ampere hours. E8938 and E8937 are tapped at 2 1/2 volts. All others are untapped.

NO.	Volts	Len.	Width	Ht.	Wt.	List	NET
E8935	45	3"	x1 1/4"	x3/4"	11 oz.	\$3.00	\$2.00
E8936	45	3 1/2"	x2 1/2"	x3/4"	22 oz.	1.85	1.23
E8937	45	4 1/2"	x2 1/2"	x3/4"	50 oz.	1.50	1.05
E8938	2	2 1/2"	x1 1/2"	x1 1/2"	20 oz.	.60	.40
E8939	2	2 1/2"	x1 1/2"	x1 1/2"	16 oz.	.60	.40

BATTERIES • BATTERY CHARGERS



NEW EVEREADY AIR CELL "A" BATTERY

Especially designed and intended only for use with 2 volt "Air-cell" battery sets. Operates on a new principle using air as a desolvent to maintain constant voltage and to give long life.

ECONOMICAL—CONVENIENT

Costs less to operate than any other "A" battery. Now offered at a reduced price. Both Air Cell batteries listed below are rated at 600 ampere hours and have a useful life of approximately 1000 hours. The A-600 type is for sets with a maximum current drain of 600 M.A. The SA-850 is for sets having a maximum drain of 750 M.A. In leak-proof cases, 10 3/4 x 2 3/4 x 3 3/4", Wt. 2 1/2 lbs. (Not mailable.)

E10025. No. A-600. NET \$4.62. Less 2% **\$4.51**

E10026. SA-850. Heavy-duty (750 M.A.) for multi-tube sets. Wt. 2 1/2 lbs. NET \$5.51. Less 2% **\$5.40**

BURGESS 3 VOLT DRY "A" PACKS TYPE 40F2



A 100% dry "A" battery for 2 volt battery sets. Provides 400 hours' service at 1/2 amp discharge 3 hours daily. 31mg terminals. 11% x 4 3/8".

E10020. Wt., 1 1/2 lbs. NET... **\$2.35**

TYPE 40F2

This heavy-duty 3 volt Burgess dry "A" battery is built to give at least 600 hours of service at 1/2 ampere drain 6 hours daily. Shpg. wt., 30 lbs.

E10019. NET **\$4.76**

NOTE: Reducing resistor is necessary with both of the above batteries when used with 2 volt set having no voltage regulating device.

E8933. Tapped Reducing Resistor... 25c

"A", "B" & AIR CELL BATTERY TESTERS

Inexpensive, portable type battery testers. Will test "B" Batteries, Dry Cells, Storage Batteries, etc. Air Cell Tester indicates condition of Air Cell Batteries as "Good" or "Bad"; also aids in determining future life of battery. Unusual values.

E6260. STORAGE BATTERY TESTER. Tells condition of battery. **59c**

YOUR NET PRICE **59c**

E6261. 0-35 Amps. For testing dry cells. YOUR PRICE **45c**

E6262. 0-50 Volts. For "B" Batteries. YOUR PRICE **45c**

E6263. Combination 0-40 Amp. and 0-50 Volts. NET **68c**

E7340. Air Cell Battery Tester. YOUR NET PRICE **\$1.61**

LEADER HYDROMETER

Accurate, well-made hydrometer for testing storage batteries. Has headed float. Bulb is of live, resilient rubber. Shpg. wt., 1 lb.

E3971. NET **28c**



KING COLE CHARGING RESISTOR

Resistance unit for charging any 6 volt radio or auto storage battery from 32 volt lighting systems. Maintains uniform charging rate and does not injure batteries. Saves time and expense of hauling batteries to town.

E2266. List. \$2.50. NET **\$1.47**

FOR GREATER POWER! FOR EXTRA VALUE! KNIGHT LONG-LIFE STORAGE BATTERIES

FOR EVERY RADIO AND LIGHTING PURPOSE KNIGHT 2 VOLT

A 2 volt 21 plate Heavy Duty battery giving 300 operating hours at 1/2 ampere without recharging, at intermittent rate. Rated at 150 ampere hours at radio rate. Employ's famous interlocking grid construction. Mounted in genuine Rhok case. The 21 plates are husky, heavy-duty type. Size, 4 3/4 x 7 1/2 x 3 1/4". For sets using 1 1/2 or 2 volt tubes.

E10456. 21 PLATE. Not mailable. Shipped express or by freight. Shpg. wt., 16 lbs. NET **\$3.29**

E10455. 13 PLATE. Light-duty type. 100 amp. hours. 115 hours intermittent rate. Size, 3 1/2 x 7 1/2 x 3 1/4". Not mailable. Shipped by express or freight. Shpg. wt., 16 lbs. NET **\$2.55**

E10457. 13 PLATE. 95 Ampere Hours. Size, 9 1/2 x 7 x 3 1/4". Wt., 40 lbs. NET **\$4.75**

E10458. 15 PLATE. 121 Ampere Hours. Size, 9 1/2 x 7 x 3 1/4". Wt., 42 lbs. NET **\$5.95**

E10459. 19 PLATE. 155 Ampere hours. Size, 11 1/2 x 7 x 3 1/4". Shpg. wt., 53 lbs. Brute-force, heavy-duty type. NET **\$7.49**

These batteries may be had with auto terminals at prices quoted above. Send cash with order, and specify "with Auto Terminals."

6 VOLT HEAVY-DUTY

Husky, giant-size 6 volt storage batteries for use with radio or for farm lighting plants. Are the batteries you need for lighting your home, barn, henhouse, etc. Radio terminals.

E10460. 21 PLATE. Rated at 150 ampere hours. (172 Amp. hr. intermittent rate.) Size, 13" x 7" x 3 1/4". Will operate 5-15 watt lamps or 2-25 and 2-15 watt lamps, intermittently for approximately 11 hours before requiring re-charge. Shpg. wt., 58 lbs. NET **\$8.45**

E10461. 25 PLATE. Rated at 180 ampere hours. (207 Amp. hour intermittent rate.) Size, 14 1/2" x 7" x 3 1/4". Will operate same number of bulbs as above for 14 hours. Shpg. wt., 70 lbs. NET **\$11.85**

E10462. NET **\$20.59**

Packed for Export... **\$23.75**

FOR EVERY RADIO AND LIGHTING PURPOSE KNIGHT 6 VOLT

Heavy-duty, solidly constructed, leak-proof batteries that deliver maximum power. Thick plates, carefully sealed cells. Built for long life, trouble-free service. With radio terminals. Not mailable. Shipped by express or freight. The finest 6 Volt Batteries you can buy. With bale handles.

E10457. 13 PLATE. 95 Ampere Hours. Size, 9 1/2 x 7 x 3 1/4". Wt., 40 lbs. NET **\$4.75**

E10458. 15 PLATE. 121 Ampere Hours. Size, 9 1/2 x 7 x 3 1/4". Wt., 42 lbs. NET **\$5.95**

E10459. 19 PLATE. 155 Ampere hours. Size, 11 1/2 x 7 x 3 1/4". Shpg. wt., 53 lbs. Brute-force, heavy-duty type. NET **\$7.49**

These batteries may be had with auto terminals at prices quoted above. Send cash with order, and specify "with Auto Terminals."

HEAVY-DUTY 6 VOLT GLASS BATTERY

A de luxe glass case battery for heavy-duty use. 13 heavy-duty, thick plates per cell. Convenient plug handle, a large indicator. Glazed porcelain cover. Ideal for providing radio or lighting service. Size, 27 1/2" x 11" x 16 1/2". Shpg. wt., 165 lbs. Rated 187 amp. hrs. (215 hrs. intermittent rate.) Shipped express or by freight. NET **\$20.59**

E10462. NET **\$20.59**

Packed for Export... **\$23.75**

HOMCHARGER BATTERY CHARGERS

5-3 AMP. BOOSTER

A 5 to 3 amp. tapering battery charger for auto or home use. Has steering post connector for mounting on car. No radio interference. For 110 V. 50-60 cycles. Shpg. wt., 8 lbs. NET **\$4.41**

E10040. NET **\$4.41**

HI-RATE CHARGER

Designed especially to provide a fast, high-rate charge. Automatic tapering feature assures safety at 10 amp. fast charge. Current drain is no more than that of a 110 volt charger. Comes with ammeter, 10 ft. cables, and dash receptacle. For 110 Volt, 60 cycle A.C. Shpg. wt., 15 lbs. NET **\$11.47**

E10037. NET **\$11.47**

6 AMP. CHARGER

Vibrator-type. For 6 volt storage batteries. Self-polarizing; entirely automatic in operation. Works from 110 V. 60 cycles A.C. With cord, plug, car clamp, and cables. 8 1/2" x 6" x 4 1/2". 11 lbs. A dependable unit. NET **\$7.35**

E10041. NET **\$7.35**

ADD-A-CHARGER

One of these units will handle 2 to 3 batteries with 24 hour period; additional units may be easily added if greater capacity is desired. No radio interference; self-polarizing — no "reverse" charging. For 110 Volt, 60 cycle A.C. Complete with line cord, cables, clips, etc. NET **\$12.49**

E10038. NET **\$12.49**

GENUINE G. E. 5 AMP. TUNGAR CHARGER

High-grade 5 amp. unit for charging any 6 volt storage battery from 110 V. 50-60 cycles A.C. line. Famous General Electric quality construction. Delivers full 5 ampere charge to keep battery fully charged; automatic tapering feature prevents overcharging. Assures long battery life and freedom from run-down battery troubles. Supplied with steering post attachment, A.C. cord, charger cord, tungar bulb, and full instructions. For 110 Volts, 50/60 cycles A.C. Shpg. wt., 12 lbs. One of the finest chargers made. NET **\$10.88**

E10043. NET **\$10.88**

RADIART PAK FOR ELECTRIC SHAVERS

Double the utility of your Electric Shaver! With this new Shaver-Pak you can operate your 110 Volt Shaver from any 6 volt or 32 volt source. For use in cars, trailers, boats, trains, or rural areas. Shpg. wt., 5 lbs. NET **\$4.09**

E1158. Type S-6a. Portable for 6 volts. With 2 1/2 ft. cord and plug. NET **\$4.09**

E1159. Type S-6b. For 6 volts. With permanent mounting bracket and 2 1/2 ft. cord. NET **\$4.09**

E1160. Type S-32a. Portable. For 32 volts. With 5 ft. cord and plug. NET **\$4.09**

GENEMOTORS • CONVERTERS

CARTER GENEMOTOR POWER PLANTS NEW HEAVY-DUTY HIGH-POWER GENEMOTORS



These units are especially well-suited for two-way Police Radio, Hi-Power Amplifiers, Aircraft Radio, etc. The new brush construction eliminates all traces of ripple, flash, sparking, and radiation. This results in a constant D.C. voltage output which is easily filtered. Brushes can be removed without taking anything apart. The bearings require no oiling, adjustment, or replacement. These are the smallest and lightest weight dynamotors made. Average shpg. wt., 11 lbs.

CAT. No.	6 VOLT MODELS		AMP. DRAIN	NET EACH
	OUTPUT VOLTS	M.A.		
10100	350	100	10	\$17.64
10101	350	150	15	19.99
10102	400	100	13	21.76
10103	300	200	19	22.34
10104	350	300	22	22.93
10105	400	150	20	23.52
10106	400	200	26	23.52

CAT. No.	5.5 VOLT MODELS		AMP. DRAIN	NET EACH
	OUTPUT VOLTS	M.A.		
10107	400	200	20	24.70
10108	500	200	36	27.64

CAT. No.	12 VOLT MODELS		AMP. DRAIN	NET EACH
	OUTPUT VOLTS	M.A.		
10109	300	200	9	23.52
10110	350	200	11	24.11
10111	400	150	10	25.70
10112	400	200	12	25.70
10113	400	225	15	25.87
10114	400	250	23	27.64
10116	500	200	15	25.28

NOTE: Any of the above models can be supplied with an efficient filter for \$7.06 extra.



NEW MALLORY VIBRAPACKS PORTABLE POWER FOR ALL RADIO & P. A. REQUIREMENTS

A new, inexpensive, dependable source of power for all portable radio receivers and transmitters, P. A. amplifiers, etc. Vibrator type units; operate completely from 6 volt storage battery. Will supply up to 100 M.A. of easily filtered pulsating D.C. Output voltage is variable in four 25 volt steps by selector switch. Models 551 and 552 are self-rectifying; tube rectifier is supplied with models 553 and 554. Shpg. wt., 10 lbs.

EI 1996. Type VP-551. Self-rectifying. Output voltage: 125-150-175-200. With vibrator but no filter supplied. \$8.82
EI 1997. Type VP-552. Self-rectifying. Output voltage: 225-250-275-300. With vibrator but no filter supplied. \$10.88
EI 1998. Type VP-553. Tube rectifier. Output voltage: 125-150-175-200. With vibrator and tube; no filter. \$9.70
EI 1999. Type VP-554. Tube rectifier. Output voltage: 225-250-275-300. With vibrator and tube; no filter. \$11.76
EI 2000. Type VP-G556. Self-rectifying. Same as VP-552 except for 12 volt operation. With vibrator but less filter. \$11.76



NEW ATR DC-AC INVERTERS

It is now possible to obtain 110 volt 60 cycle A.C. from 6 volt batteries, 32 volt farm plants, or 110 volt D.C. systems. These units are designed especially for operating electric radios, P. A. systems, fans, small motors, etc. The improved plug-in vibrator has eight 3/4" diameter contacts which assure long life and reliable service. Inverters are available with an efficient filter for \$1.75 extra. Specify with or without filter when ordering. Weight, 19 lbs.

EI0488. TYPE 32. Output, 110 volts 60 cycle A.C. Input, 32 volts D.C. Maximum output, 100 watts. Less filter. \$12.35	EI0489. TYPE 110. Output, 110 volts 60 cycle A.C. Input, 110 volts D.C. Maximum output, 200 watts. Less filter. \$12.35
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CARTER COMPACT GENEMOTORS



The smallest complete auto "B" eliminator made. Completely shielded. Has built-in filter. Ball bearings eliminate oiling and adjustment. Easily installed; will deliver full efficiency from a 6 volt battery. Measures 2 1/2 x 3 1/2". Wt., 6 1/2 lbs.

EI0235. 135 VOLT MODEL. Operates from 6 volt battery and delivers 135 volts at 30 M.A. tapped at 67 1/2 volts. Draws 2.2 amps. \$9.70
EI0236. 180 VOLT MODEL. Operates from 6 volt battery and delivers 180 volts at 30 M.A. tapped at 90 volts. Draws 2.6 amps.
EI0237. 200 VOLT MODEL. Operates from 6 volt battery and delivers 200 volts at 30 M.A. tapped at 90 volts. Draws 3.5 amps. List, Each, \$16.50. \$9.70

HEAVY-DUTY POLICE TYPE GENEMOTOR

Ideally suited for use where reliable, trouble-free service is essential. Fully guaranteed for one year against mechanical and electrical defects. Perfect filtering produces a ripple-free, pure D.C. output. The dynamically balanced armature assures quiet, smooth running. Input, 6 volts at 4.5 amps. Output, 250 volts at 20 M.A. Wt., 31 lbs.



EI0234. NET. **\$20.58**

STANCOR POWER PACKS



The ideal power pack for auto and battery radio sales demonstration and for service use. Eliminates need for storage batteries. Delivers filtered, metered direct current output from 110 Volt 60 cycle A.C.

EI0145. JUNIOR MODEL. Delivers 5 amps. 5-7 1/2 volts D.C. to operate average auto or battery radio. Complete with meter, circuit breaker, etc. Shpg. wt., 25 lbs. \$16.61
EI0146. STANDARD MODEL. Delivers 1 1/2 amps. at 2-7 1/2 volts D.C. With meter, circuit breaker, etc. Shpg. wt., 30 lbs. NET. \$19.55
EI0147. DE LUXE MODEL. Delivers 15 amps. at 2-8 volts D.C. Has Hi-Low switch and variable voltage control. Shpg. wt., 31 lbs. NET. \$25.97
EI0148. 6 VOLT MODEL. For Philco, R.C.A., Audioola, Zenith, and Edla 6 volt farm sets. Makes selling and servicing of 6 volt sets easier. Shpg. wt., 9 lbs. \$14.70
EI0149. For 32 VOLT FARM SETS. A real asset to 32 volt sales and service. NET. \$38.95

FAMOUS JANETTE ROTARY CONVERTERS



CONVERTS D.C. TO A.C.

Permits the operation of A.C. radio sets, point-to-point systems, and other devices and appliances from 32 volt light plants or 110 volt D.C. lines. Compact, dynamically balanced, ruggedly designed, and built for long life. The armature employs the superior dynamotor type of dependable construction. The field frames are of high strength rolled steel and the field poles are laminated for the very highest efficiency. Removable grid covers protect commutator rings and brushes.

WITH BUILT-IN FILTER

The Janette Rotary Converters listed below are equipped with special All-Wave interference filters, for all types of radio receivers. Assure exceptionally quiet reception results on all bands from 300 to 30,000 K.C. (600 to 10 meters).

CAT. No.	110-115 VOLTS D.C. TO 110 VOLTS 60 CYCLE A.C.		Mfrs. Type	PRICE
	Stock Output Watts	Input Amps.		
EI0206	110	1.0	CA-18-F	\$31.30
EI0207	150	2.4	CA-18-F	34.64
EI0210	225	3.0	CA-16-F	40.30
EI0208	300	4.0	C-13-F	48.71
EI0209	500	6.4	CE-12-F	54.14
EI0211	750	8.5	CE-12-F	55.53
EI0197	1000	15.0	CE-10-F	118.51

CAT. No.	32 VOLTS D.C. TO 110 VOLTS 60 CYCLE A.C.		Mfrs. Type	PRICE
	Stock Output Watts	Input Amps.		
EI0201	110	6.5	CA-18-F	\$31.30
EI0202	150	8.5	CA-18-F	34.64
EI0199	225	11.5	CA-16-F	40.30
EI0203	300	15.0	C-13-F	48.71
EI0204	500	18.0	CE-12-F	54.14
EI0198	650	27.0	CE-12-F	55.53

We can supply all other types of Janette converters, motor or gas-engine driven generators, etc., at lowest prices. Write describing your needs, for prompt quotation.

KNIGHT HIGH-QUALITY ROTARY CONVERTERS

A complete new line of Rotary Converters at remarkably low prices. These units provide the most dependable means for converting D.C. to A.C. Particularly well-adapted for operating radio receivers, P. A. systems, neon signs, A.C. motors, etc. They incorporate many new features such as ball-bearing motors which require no oiling, speed output voltage regulation and more operation. Each converter is supplied complete with an efficient filter which prevents noise from reaching the radio set or P. A. amplifier. They are designed to give trouble-free performance under all operating conditions. Approx. shpg. wts., 25 to 34 lbs.

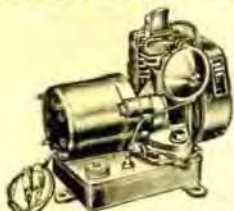


Cat. No.	110 VOLTS D.C. TO 110 VOLTS A.C.		NET EACH
	Output Watts	Input Amps.	
EI0490	110	7.8	\$23.95
EI0491	150	23	27.20
EI0492	300	2.85	37.57

We can supply Rotary Converters with different output ratings than those listed above at lowest prices. Write our Engineering Department for prompt quotations on your specific needs.

GAS ENGINE GENERATORS & PLANTS

PIONEER GAS-ENGINE BATTERY CHARGERS



Efficient, low-cost gas-engine-driven battery chargers. Built with the precision of an automobile engine. Developed to furnish power needed in districts not served by power companies. Also for use on boats, trailers, camps, industrial work, construction jobs, etc. Desirable features as follows: Sturm-wound 2-pole self-excited generator; shaft-mounted armature; automatic cutout relay and ammeter; 4 cycle air-cooled 1/2 H.P. Briggs and Stratton Engine, operating at 2200 R.P.M. The two-quart built-in tank will hold sufficient fuel for 2 hours' operation. Equipped with built-in cutout for noise reduction. Employs magnets for push-button starting with a storage battery. Also equipped with auxiliary rope-pull starter. Overall dimensions, 15 1/2" L. 18 1/2" H. 11 1/4" W. Ship. wt. for all units, 60 lbs. each.

FOR 6 VOLT BATTERIES

E10950. Model S-6. 175 Watts capacity. For charging 6 volt storage batteries for radios, farm lighting, automobiles, etc. NET **\$37.40**

FOR 12 VOLT BATTERIES

E10951. Model S-12. 175 Watts capacity. Charges 12 V. storage batteries. NET **\$37.40**

FOR 32 VOLT BATTERIES

E10952. Model S-32. 200 Watts capacity. For charging wet cell farm batteries of 32 volt ratings. NET **\$41.20**

KNIGHT LOW-COST POWER PACKS



MODEL XPC

E9190. For Short Wave receivers and a 11 transmitters using 2-45 tubes. Delivers 300 volts pure D.C. at 65 M.A., tapped at 65 M.A., and 2 1/2 Volts A.C. at 3 amps. For filaments. Requires type 80 tube. For 115 volt, 60 cycle A.C. **\$510**

E9187. Same as above, except has filament winding for 6.3 volt tubes, at 1.5 amps. Weight, 10 lbs. **YOUR PRICE, EACH**

E9191. MODEL XC. A power supply for low-power X-mitters or crystal or buffer stages. Delivers 300 Volts pure D.C., untapped, at 65 M.A., and 2 1/2 Volts A.C. center-tapped at 4 amps. for filaments. Built on steel chassis. For 115 Volts, 60 cycles. Requires type 80 tube. **\$425**

E9188. Same as above, except has filament winding for 6.3 volt tubes, at 1.5 amps. Weight, 10 lbs. **YOUR PRICE, EACH**

MODEL O-I. A power supply for X-mitters using 3 or 4-210 tubes. 450 V. D.C. at 150 M.A. and 2 1/2 V. C.T. at 5 A. Steel chassis, black crackle finish. Operates on 115 V. 60 cycles. Requires type 82 tube. **\$795**

E9196. **YOUR PRICE**

MODEL OO-I. For Class "B" Modulators or X-mitters using 4-46 or similar tubes. 450 V. D.C. at 150 M.A., and 2 1/2 V. C.T. at 6 A. For 115 V. 60 cycles. Requires type 82 tube. Weight, 15 lbs. **\$795**

E9197. **YOUR PRICE**

B9198. MODEL J. For Short Wave Receiver. Iron-free. Substantially and nearly built. Delivers 250 Volts D.C. at 40 M.A., tapped at 2 1/2 and 90 volts; 2 1/2 Volts C.T. at 5 amps. for filaments. Chassis size, 7 1/2 x 11 1/4 inches. Weight 7 lbs. Requires one 80 tube. **\$495**

E9189. Same as above, except has filament winding for 6.3 volt tubes, at 2 amps. **YOUR PRICE, EACH**

NEW PIONEER "BLUE-DIAMOND" GAS-ELECTRIC PLANTS

PROVIDE 110 VOLTS A.C.

Super-efficient, dual-purpose Electric Power Plants for supplying A.C. and battery-charging D.C. The A.C. plants deliver 110 volts for flickerless lighting, the same as supplied by power companies. Engine is 4 cycle, air-cooled 1/2 H.P. type with built-in governor to maintain constant engine speed. All have self-starting features. All plants except 600 and 1000 watt sizes hold enough fuel to last 12 to 16 hours. Size of all plants except 600 and 1000 watt models: 10 1/2" x 11 1/4".

FOR BATTERY CHARGING

All plants listed, except DD32, provide battery-charging D.C. in addition to A.C. These A.C.-D.C. plants answer your power and lighting problems with a minimum of expense.

300WATT A.C.—200 WATT D.C.

E10953. Type BD6. Supplies both 300 Watts A.C. and 200 Watts D.C., sufficient to charge any 6 volt wet-cell battery. Less filter. (See filter listing below.) Built-in tank holds gallon of fuel to run plant for 12 to 16 hrs. Wt., 116 lbs. NET. **\$59.90**

E10954. Type BDR6. Same specifications as BD6 above but with remote-control push-button starting and stopping. Ship. wt., 120 lbs. NET. **\$78.70**

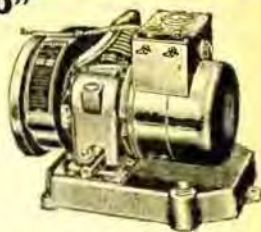
600 WATT A.C. MODEL

E10955. Model BA-60. A straight A.C. medium-duty generator. Supplies 110 Volts at 600 Watts maximum capacity. Engine delivers 1 1/2 H.P. to generator. Tank holds 1 gallon. Self-starting. 30% "x18 1/2" x 20". Ship. wt., 155 lbs. NET. **\$134.60**

1000 WATT A.C. MODEL

E10956. Model BA-100. Heavy-duty straight A.C. power generator. Develops 1000 Watts at 110 V. A.C. For use in electrifying farms, resorts, camps, boats, etc. Air-cooled, push-button starting motor. Engine delivers 2 H.P. to generator. 1 gallon will run plant 4 hrs. 185 lbs. NET. **\$194.60**

* Requires 12 volt battery, not supplied. Standard equipment includes rope-pull starter.



300WATT A.C.—325WATT D.C.

E10958. Model BD32. A gas-engine generator supplying 110 V. A.C. or D.C. for charging 32 volt batteries. Delivers 325 Watts D.C. to handle requirements of even the largest 32 volt farm plants. Also supplies 110 V. A.C. at 300 watts. Ship. wt., 116 lbs. **\$68.90**

E10959. Model BDR32. Has same specifications as BD32 above but with remote control push-button feature built into the plant. Ship. wt., 125 lbs. **\$87.70**

32 VOLTS D.C.—250 WATTS

E10961. Model DD32. A straight D.C. power plant providing 32 Volts D.C. at 350 Watts. Push-button starting (with battery). Fully enclosed high tension magnet facilitates starting at all times with use of auxiliary rope-pull starter (included). Do away with your old, bulky, costly equipment. Install a DD32 for full efficiency. Size: 10 1/2" x 11 1/4" x 14". Ship. wt., 118 lbs. NET. **\$52.40**

We can supply PIONEER gas engine generators and electric power plant units for 6, 12, 32, and 110 volts, and up to 5000 watts, both air-cooled and water-cooled in the larger sizes. Let us help you with your lighting or battery-charging problems. Send us your requirements and we shall quote on a suitable system.

RADIO FILTERS FOR ABOVE GAS-ELECTRIC PLANTS

E10957. Radio Filter. Designed to prevent generator noises from entering the output leads. These effective filters are for use with 600 watt and 1000 watt models above. **\$11.25**

E10960. Radio Filter. Recommended for use with all generators listed above except 600 and 1000 watt units. Will prevent disturbing noises from entering into the power lines. **\$4.50**

KATOLIGHT A.C. POWER PLANTS



JUNIOR MODEL JRA3

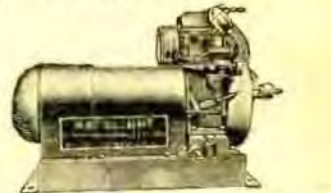
These plants furnish a constant source of standard 110 volt cycle A.C. current for light and power in small summer homes, coast-guard camp buildings, trailers, sound trucks, etc. Just set plant on floor or pedestal, connect wires and **PLANT IS READY TO GO.** Fuel consumption is 10 hours to one gallon of gasoline at 300 watts. Oil consumption, 2 oz. for each 10 hours operation. 3/4 h.p. air-cooled, single vertical cylinder engine with "L" head, 4-cycle true speed 3600 R.P.M. Flyball-type governor, splash-type lubrication. Ball bearings on crankshaft. Armature connected to engine shaft; self-excited; high-speed ball bearings. JRA3 will charge 6 volt battery up to 10 amps. With convenient terminal, control filter condenser, shielded ignition cable, suppressor, carrying handle, V-belt pulley, muffler and instruction manual. Peak rating, 350 watts. Ship. wt., **\$67.20**

E10125. **YOUR PRICE**

JUNIOR MODEL JR35

As above, but with self-crank feature; charges 6 volt batteries up to 20 amps. Use a standard 6 volt battery for self-starting. 300 Watts at 110 V. A.C. Ship. wt., 60 lbs. **\$73.50**

E10126. NET



1000 WATT LIGHTING PLANT

A 1000 watt, constant heavy-duty, 110 volt, 60 cycle A.C. light plant. Ideal for use where the regular high-line service is not available. Uses an air-cooled, magnetron ignition, single cylinder engine. Accurate mechanical governor assures minimum voltage variation between "no load" and "full load." Engine and generators are mounted on common base. Connection between engine and generator is direct. This assures steady, non-fluctuating light. Speed, 1800 R.P.M. Designed especially for applications where economy is the most important factor. Supplied less filter, shielding, generator terminal panel, air-cleaner, muffler, etc. There are no fancy gadgets built into this power plant. Just a plain economy model which will supply dependable, money-saving service. Accessories which include filters, terminal board, muffler, etc., may be added later if found necessary. (Write for prices.) Shipping weight, 260 lbs. F.O.B. Factory, Manokato, Minnesota. **\$171.00**

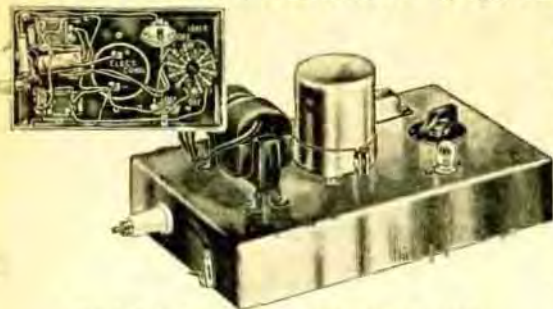
E10127. **YOUR PRICE**

1000 WATT LIGHTING PLANT

We can supply all KATO generators. Power plants to supply 6, 12, 32, and 110 Volts. Rotary Converters, battery chargers, can all be supplied by ALLIED without the slightest delay. Send us your requirements for our low quotations.

FARM LIGHTING - ELECTRIC FENCE

"POPULAR MECHANICS" R257 ELECTRIC FENCE CONTROLLER KIT



EASY TO BUILD AND OPERATE

Featured in Popular Mechanics for September, 1935. A proved Fence Controller that can be built by anyone who can handle a screwdriver, soldering iron, and a pair of pliers. Laid out on an open bottom chassis base for ease of mounting. All parts except transformer, condenser, and neon built in underneath chassis base. All holes are already drilled in the metal chassis base to match mounting holes of component parts in a few minutes' time and with a minimum of effort anyone can build this efficient fence controller. When you get your kit of parts, simply screw components to chassis with hardware supplied and solder wires where necessary; then connect dry cells, and fence controller is ready to operate. Designed with simplicity of assembly as the main aim. When properly assembled and installed, the fence controller will work for years without any trouble. Start building your controller today. Illustrations show simplicity of this effective Fence Controller. Anyone can build it quickly and properly for effective operation and long service.

RELAY TYPE INTERRUPTER DEVICE

The economical low-current consumption of the R257 controller is made possible by double-relay action. Controller produces 40 short-duration sparks per minute. When horses, cattle, hogs or sheep come in contact with the wire, they receive an effective but harmless "sting" which drives them away. Livestock soon learn to keep away from these wires and controller can be shut out for long periods of time, thus effecting more economy of operation. The relays are the only moving parts in the entire assembly. These Guardian Relays are sturdily built to give trouble-free operation for many years. Assembly is designed so that relays are mounted under chassis for protection from dust, etc.

- CUTS LABOR AND FENCING COSTS 50%.
- ONE-WIRE FENCE HOLDS IN LIVESTOCK
- ABSOLUTELY HARMLESS TO MAN OR BEAST
- EASILY INSTALLED BY ANYONE
- OPERATING COST ONLY 10c TO 12c PER MONTH
- HAS LATEST ELECTRIC FENCE FEATURES
- WILL GIVE YEARS OF FINE SERVICE
- INEXPENSIVE - EFFICIENT



REQUIRES ONLY FOUR DRY CELLS

The R257 Popular Mechanics controller is by far the most economical type "Electric Fence" available. With only four dry cells, you can control up to 5 miles of fence in wet or dry weather. While this controller was originally designed to work with four dry cells for economy, any 4 Volt D.C. source will operate unit satisfactorily. You may use storage batteries, "Hot-Shot" batteries, or dry cells with practically the same results. Suitable "Hot-Shot" type batteries can be found on pages 42 and 47. Storage batteries are listed on page 43. Equipped with many new features including indicating neon glow lamp, safety fuse, wet-dry switch, etc. Neon glow lamp will glow when fence is operating correctly. There will be no glow when fence is shunted. The controller is recommended for installation in barn, hen-house, or any similar building where some protection from the elements can be had. However, if unit must be installed out of doors, cabinets fast on page 134 (if properly sealed with gaskets) may be used. Chassis on which controller is built measures 8x6x4 1/2".

- E9568. COMPLETE KIT, NET. **\$7.95**
- E14100. INSULATOR KIT. 50 Fence and 4 Corner Insulators with leather washers. NET. **79c**
- E8911. DRY CELLS. 4 required for above Controller. EACH. **33c**
- KIT OF 4, NET. **\$1.20**

FOR ADDITIONAL LISTINGS of fence controllers and accessories see page 47 for factory-built controllers in both standard and de luxe units. See page 47 for "Hot-Shot" batteries; page 43 for storage batteries; page 115 for ground rods (very essential when making a successful and effective fence controller installation).

NEW KNIGHT "FREE POWER" WINDCHARGERS

HY-TOWER CHARGER



Get FREE POWER from the wind with this new de luxe Hy-Tower Charger. Costs nothing to operate; saves on battery-charging expenses. Puts the wind to work for you to deliver up to 16-20 amperes of direct 6 volt current. Charges 6 volt storage batteries to supply current for radios, lighting service, etc. Has latest valuable features: weatherproofed, balanced propeller; automatic tilt-back regulator for any wind velocity; heavy-duty generator which cuts in at 37.5 R.P.M.; automatic turntable brake to keep propeller faced into wind; throw-out collar for easy starting or stopping; self-adjusting non-arcng collector ring, etc. Supplied with 10-foot all-steel tower, all necessary accessories, and full instructions. Shng. wt., 75 lbs.

E10610. Complete Hy-Tower Wind-Charger. Fig. A. List Price, **\$29.50**

YOUR NET PRICE. **\$19.75**

WINDMILL SIDE-TOWER CHARGER

For the farmer who has a windmill tower close to the house, the new Windmill Side-Tower Charger makes a splendid installation. Windcharger unit includes all features as described above; automatic tilt-back regulator; heavy-duty generator; automatic turntable brake; throw-out collar; self-adjusting collector ring, etc. Supplied with special mounting equipment for mounting on side of any windmill tower. Shng. wt., 75 lbs.

E10611. Fig. B. **\$19.75**

YOUR NET PRICE. **\$19.75**

SKY-SCRAPER CHARGER

"The higher the tower, the greater the power." This new Sky-Scraper Charger offers the very finest performance obtainable from any Windcharger on the market today. Includes same charger head as described above, but is supplied complete with a full 42 1/2 foot all-steel Sky-Scraper tower. Captures every gust of wind even in areas of low wind velocity to offer exceptionally reliable battery-charging. Develops sufficient power to enable you to charge several 6 volt batteries in an unusually short time. (For offering of tower only see below.) Shng. wt., 215 lbs. F.O.B. CLARINDA, IOWA.

E10612. Fig. C. List Price, **\$47.00**

YOUR NET PRICE. **\$33.75**

SKY-SCRAPER TOWER ONLY

The 42 1/2 foot all-steel Sky-Scraper tower is offered separately for Windcharger installations. Also ideal for use as antenna mast for Amateur station. Complete with guy wires. Shng. wt., 154 lbs. F.O.B. CLARINDA, IOWA. Shipped un assembled; with hardware.

E10613. List, **\$22.50** NET PRICE **\$17.50**

6 VOLT LIGHTING SYSTEM AND ACCESSORIES

A complete kit of essential equipment for wiring the rural home. A 6 volt battery charged by means of Windchargers shown at left or gas-engine (see page 45) will provide plenty of current for modern electric lighting at low cost. Complete kit includes: 1—porcelain entrance switch and fuse block; 2—50 amp. plug fuses; 100-foot roll No. 8 weatherproof wire; 35-foot roll twisted drop-cord 3—25 watt and 2—15 watt 6 volt light bulbs; 6—pull chain sockets; 6—porcelain cleats; 6—porcelain nail knots; 2—6" porcelain tubes; 1—4 oz. roll friction tape; 1—4 oz. roll rubber tape; and full instructions.

E3487. NET. **\$8.45**

6 VOLT LIGHTING BULBS

These high-grade G. E. incandescent light bulbs give maximum light from a 6 volt storage battery. Ideal for farm-lighting or use in lawns, lodges, house-trailers, etc. Made by KEN-RAD; famous for high quality. Have frosted inside surface and standard Edison base. (Also available in 12 volt type; see page 21.)

No.	Watts	Drain	EACH
E890	15	2.5 Amp.	25c
E891	25	4.2 Amp.	35c
E892	30	5 Amp.	35c

WRITE FOR ATTRACTIVE QUANTITY PRICES

E5469. PULL-CHAIN SOCKET. Pendant type, standard Edison socket. Threaded to hold screw-on type reflector. With 6" pull-chain. NET EACH **15c**

LIGHT PLANT WIRE

Weatherproof single conductor wire for Wind-charger or gas engine plants. For specific uses of each size, see listing on page 117.

No.	Size	00 Ft.	Per Foot
E2490	6	\$5.25	5 1/2c
E2491	8	4.50	5c
E2492	10	3.10	3 1/2c
E2493	12	2.65	3c
E2496	14	1.25	1 1/2c

ELECTRIC FENCES & ACCESSORIES

KNIGHT 6 VOLT ELECTRIC FENCE CONTROL



- COMPLETE FOR INSTANT INSTALLATION
- BUILT-IN BATTERY COMPARTMENT
- WILL NOT HARM HUMANS OR ANIMALS

- NEGLIGIBLE OPERATING COST
- FOR USE WITH ALL LIVESTOCK
- SAVES ON FENCE WIRING COSTS

ALLIED brings you the finest commercially-built Electric Fence Control device available today. By installing a Knight Electric Fence, tremendous savings can be effected. Save on wire: With this new Electric Fence only one wire—instead of two or three—is required to hold in livestock. Save on posts: With the Knight Fence, short light stakes placed 50 feet apart will serve for any length of fence. Gate-latch listed below makes a gate out of any section of wire. Save on labor: One man can easily fence 20 acres a day. Because the current is not on at all times, and because controller makes a current-drawing contact only 40 times a minute, further saving is effected. This is true of both D.C. and A.C. types. The A.C. type draws no more than 10 watts. A "Hot-Shot" type dry cell battery (see below) will operate the D.C. controller for about 4 months, or even longer if used intermittently. For use with all fences. Will hold horses, cows, sheep, pigs, etc. with the same effectiveness. The Knight Electric Fence Controller employs a unique system of current control on the fence. The current cannot

increase beyond a safe limit, no matter what the weather condition. The shock is therefore SAFE even though it gives a considerable jolt to any animal touching fence. However, the time limit of the shock is less than .0015 seconds in duration. In effect, the shock feels more like the lash of a whip than an electrical sensation. The fence voltage is high enough to be practical in all weather and under all conditions. Only the usual precautions of making a good ground connection must be followed. If this is done, the Knight Electric Fence Control will effectively handle 15 miles of wire, putting almost as much charge on the farthest length of wire as on the closest. The standard model 6 volt unit is equipped with a built-in battery compartment which will take either "Hot-Shot" battery or conventional dry cells. Mounting a battery or dry cells in this compartment makes the controller a self-contained unit. Standard model measures: 11"x12"x3 1/2". Shpg. wt., 12 lbs.

E10620. Complete 6 Volt Model. **\$9.65**
NET PRICE.....

32 VOLT AND 110 VOLT POWER CONVERTERS

E10621. 32 VOLT CONVERTER. By connecting this converter to battery leads of the Knight Electric Fence standard model above and then connecting converter to your regular 32 volt plant, you can instantly change the controller to a 32 volt unit. Converter is housed in attractive heavy-gauge steel box enamelled red to match above unit.
Shpg. wt., 6 lbs. NET..... **\$2.95**

E10622. 110 VOLT CONVERTER. Connects directly to standard 110 V. A.C. source. Converts 110 V. A.C. current to 6 V. D.C. for operating the Knight Electric Fence. Fully filtered. If you have 110 volts A.C., use this unit instead of batteries. Housed in heavy-gauge steel box. Equipped with approved A.C. cord. Shpg. wt., 9 lbs. **\$4.95**
NET.....

Some of the very desirable features of the Knight Electric Fence Control are as follows: The built-in, high-quality transformer will withstand 5000 volts. Switch frame is made of heavy-gauge cadmium-plated steel to resist rust. Contact points are made of fine-grain tungsten for long life. Cabinets are finished with red water-proof tippin paint.

ELECTRIC FENCE ACCESSORY EQUIPMENT

INSULATORS

Fig. A. Insulates electric wire from fence posts. **2c**
E14101. EACH.
Fig. B. Insulates electric wire at fence corners. **3c**
E14102. EACH.

INSULATOR KIT

This handy Electric Fence Insulator Kit consists of 50—Type A fence post insulators and 4—Type B corner post insulators. Necessary leather washers are also included in the kit. Shpg. wt. 5 1/2 lbs. **79c**
E14100. NET.

FENCE TESTER

An indispensable instrument which quickly determines whether fence is working properly, is partially grounded, or completely grounded. There are two leads from the meter—one terminating in a pointed rod and the other equipped with a bakelite insulated prod. To test a fence, the pointed rod is shoved into the ground and the prod. touched to fence wire. Needle of meter instantly shows condition of fence control. Shpg. wt., 4 lbs. **\$1.75**
E10625. NET.



KNIGHT "HOT-SHOT" TYPE

BATTERY

An efficient 6 volt dry cell battery particularly well-suited for operating fence controls. Internal connections are securely soldered. The sturdy metal case is water-proof, has insulated screw terminals. Size, 10 1/2"x2 1/2"x2 1/2". Shpg. wt., 7 lbs. **\$1.21**
E8940. NET.



KNIGHT DE LUXE MODEL ELECTRIC FENCE CONTROL

With built-in meter for testing purposes. Simply press button to see if fence line is grounded. Equipped with "on-off" switch for greater convenience. The bright red enamelled box is water-proofed. This will permit mounting unit out-of-doors on any convenient post. Offered in a choice of two popular models. The 6 volt model operates from dry cells, "Hot-Shot," or storage battery placed outside of Fence Control. The 110 V. A.C. model is self-contained; will work instantly when plugged in to regular utility power lines or other 110 V. A.C. source. Complete instructions for installing this control, and for getting all of the available voltage into your fence, are included. Technical specifications are otherwise the same as for standard model listed above. 7"x9"x4 1/2".



E10623. 6 Volt Model. **\$13.55**
Shpg. wt., 11 lbs. NET PRICE.....

E10624. 110 Volt Model. Has built-in transformer. Ready to plug in to regular 110 V. A.C. power line. Fully filtered. **\$17.85**
Shpg. wt., 20 lbs. NET.....



CONVENIENT KWIK-KLIPS

Fig. C. These clips provide an easy, quick method for fastening electric fence wire to insulators. Made of high-grade spring steel, cadmium-plated to prevent rust. **30c**
E14103. PER PACKAGE OF 50.

HANDY GATE LATCH

Fig. D. Consists of insulated handle with hook on one end and loop on other. Makes inexpensive gate out of any section of fence. **30c**
E14104. NET.

COMPLETE, EASY-TO-OPERATE ARC WELDERS

DYNAMIC SUPER-CHARGED WELDER



FOR METALLIC ARC AND CARBON ARC WELDING

Here is the low-cost answer to these innumerable welding jobs you have been putting aside. This handy arc-welder will weld cylinder, blocks, bumpers, fenders, tanks, and practically all metal farm implements. It is no longer necessary to discard perfectly usable machinery because some part has broken. Just plug the Dynamic Welder into a 110 volt 60 cycle A.C. socket, and in a few minutes time the broken part is repaired and useful again. Works on iron, steel, tin, brass, etc. Does both carbon arc and metallic arc welding. Will easily weld metals up to 1/2" thick. Convenient terminal board supplies outlets for Low, Medium, High, and Very High heat welding. Settings will, of course, depend on type of welding being done. Range of four settings is 30 to 75 amperes. Helmet supplied, so he won't get at all times to protect head and eyes. Fitted with scientifically correct lens. Each unit is shipped with assortment of rods for all types of welding. Complete Dynamic Arc-Welder includes ground clamp, ground cable, spring type electrode holder, and detailed instructions. Unit measures 7 1/2"x11 1/2". With convenient carrying handle and mounting feet. Shpg. wt., 35 lbs. **\$22.09**
E10598. Complete with helmet. NET.

SUPER INDUSTRIAL ARC-WELDER

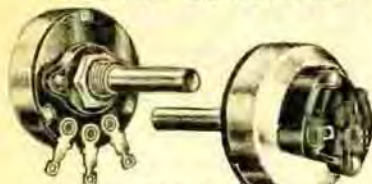
FOR ALL HEAVY-DUTY TYPES OF WELDING



A De Luxe Industrial type Arc-Welder. Heavy-duty type for all welding work, such as on cylinders, blocks, bumpers, fenders, tanks, wheels, tractors, plows, all other farm machinery, etc. Will weld all metals up to 1/2" thick. Has 33 heat ranges to apply to all types of welding requirements. Conveniently portable; weighs only 22 lbs. Economy of operation brings cost down to about five cents per hour. Welder is not limited as to type of work which can be done. Will weld both heavy and light jobs. An efficient cooling arrangement makes it possible to run the machine continuously over long periods of time. An unusually short time is required to strike an arc. Built very compactly; unit measures only 10 1/2"x9 1/2". Works with remarkable efficiency on all kinds of metal when brazing, soldering, or welding. Each unit is shipped complete with five pounds of assorted rod, ground cable and clamp, spring clamp electrode holder, headshield helmet, 2 special fuses, carbon, flux, solder, heat control plus, etc. Complete detailed instructions supplied are actually a course in welding. For operation from 110 volts, 50-60 cycles, A.C. 220 volts A.C. units also supplied at same price on special order. Shpg. wt., 22 lbs. **\$45.60**
E10599. Complete with helmet. NET.

Finest Quality VOLUME CONTROLS

KNIGHT UNIVERSAL VOLUME CONTROLS



A dependable line of efficient volume controls. Durable; very quiet in operation. Moisture-proof. Smooth contact action assures quiet operation. Rated at one watt. Case, 1 1/2" diameter; M shaft extends 1 1/2". Code: A—Antenna control. B—Antenna and "C" bias. W—"C" bias. P—Potentiometer. T—Tone control or audio shunt. These are dependable long-lived units.

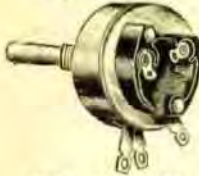
No.	Ohms	No.	Ohms
E5960	1000A	E5965	25000V
E5961	2000A	E5966	50000T
E5962	3000P	E5967	75000V
E5963	5000U	E5968	10000T
E5964	10000U	E5969	25000T
	15000P	E5970	50000T
	20000W	E5971	1 Meg. T

YOUR PRICE EACH LESS SWITCH..... **28c**

A. C. SWITCH

E5972. Standard AC switch for use with Knight Volume Controls listed above. Easily attachable. NET..... **12c**

UTAH-CARTER VOLUME CONTROLS



High quality volume controls. Insulated shaft type. C (Clockwise Turn); CC—Counter Clockwise; all others with uniform taper. 1 1/2" shafts may easily be cut to shorter lengths. "C" bushings. May be used with or without AC line switch.

SPECIFY VALUES WHEN ORDERING

Ohms	Ohms	Ohms
500	5000	200000
1000	10000C	50000C
2000	10000	75000C
3000	15000C	100000C
5000	20000C	1 Meg. C

LESS SWITCH WITH SWITCH
E6950. NET EACH..... **38c**
E6958. NET EACH..... **56c**

UTAH-CARTER MIDGETS



Extremely compact. Precision built wire wound units. Only 1 1/2" dia. and 3/4" deep back of panel. Dissipate one watt. Less knob. Single hole mounting type. May be used for all radio requirements. Ideal where space is at a premium. Large bias making soldering easy. Save money by using these dependable low-priced midget controls.

POTENTIOMETERS

No.	Ohms	No.	Ohms
E9020	6	E9025	100
E9021	10	E9026	500
E9022	15	E9027	1000
E9023	20	E9028	1500
E9024	30		

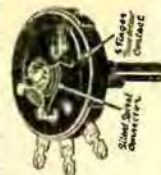
RHEOSTATS

No.	Ohms	No.	Ohms
E9030	1/2	E9037	20
E9031	1	E9038	25
E9032	2	E9039	30
E9033	3	E9040	40
E9034	4	E9041	50
E9035	10	E9042	75
E9036	15		

YOUR PRICE EACH..... **24c**

IRC STANDARD VOLUME CONTROLS

A new volume control with superior features. Operates quietly. Only 1 1/2" diam. in bakelite housing. Uses A—Potentiometer or rheostat with uniform valance change; C—Audio grid or antenna shunt; D—Antenna and "C" bias for one tube; F—Antenna and "C" bias for two tubes; H—Audio level control for automatic bias compensation. X—Special control for use as fader. These high-quality IRC Standard Volume Controls are renowned for long life and quiet dependable performance.



No.	Use	Ohms	No.	Use	Ohms
I 1900	A	1000	I 1918	C	5000
I 1901	A	2000	I 1919	D	7500*
I 1902	A	3000	I 1920	D	7500*
I 1903	A	3000	I 1921	A	10000
I 1904	A	4000	I 1922	C	10000
I 1905	A	5000	I 1923	A	20000
I 1906	C	5000	I 1924	D	20000*
I 1908	A	7500	I 1925	C	25000*
I 1909	F	10000*	I 1926	D	25000*
I 1908	A	10000*	I 1929	H	35000*
I 1909	D	10000*	I 1926	C	50000
I 1910	C	10000	I 1927	A	50000
I 1911	D	15000*	I 1929	C	1 Meg.
I 1912	F	15000*	I 1931	C	1 Meg.
I 1913	F	20000*	I 1932	C	3 Meg.
I 1914	A	25000	I 1935	A	5 Meg.
I 1916	F	25000	I 1937	C	7 Meg.
I 1917	A	50000	I 1936	A	10 Meg.

YOUR PRICE EACH LESS SWITCH..... **59c**

See Switch listing below. LESS SWITCH NET EACH **88c**

*These controls are supplied with 300 ohm 1/2 watt resistor. For replacing controls in grid bias circuits which require fixed minimum resistance.

ATTACHABLE SWITCHES
I 1325. S.P.S.T. Switch. NET..... 29c
I 1326. S.P.D.T. Switch. NET..... 35c
I 1327. D.P.S.T. Switch. NET..... 35c

SELECT THE PROPER IRC VOLUME CONTROL FROM THIS COMPLETE GUIDE

An invaluable aid for every serviceman. Shows the exact replacement volume control for hundreds of standard radios. This page lists the most popular volume controls shown in the IRC Control Guide; the others are available promptly on order through ALI, E. Get this guide with your next order. E1938. FREE ON REQUEST.



IRC SPECIAL REPLACEMENT VOLUME CONTROLS

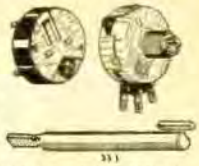
Consult IRC Guide for proper selection. For unlisted special controls, specify set and model No. and enclose 88c for single controls less switch, \$1.18 with switch, \$1.47 for shafts less switch, \$1.76 with switch. There is an IRC Volume Control for every replacement need. For the proper unit refer to IRC Guide or order unlisted units from us remitting as specified.

No.	Type	NET	No.	Type	NET
E13900	J-5	\$0.88	E13920	J-211	\$0.88
E13901	J-11	1.47	E13921	J-222	.88
E13902	J-15	.88	E13922	J-244	1.18
E13903	J-45	1.18	E13923	J-256	1.18
E13904	J-50	1.18	E13924	J-352	1.18
E13905	J-58	.88	E13925	J-268	.88
E13906	J-63	.88	E13926	J-272	1.47
E13907	J-74	.88	E13927	J-273	1.47
E13908	J-84	.88	E13928	J-280	.88
E13909	J-85	.88	E13929	J-295	1.47
E13910	J-100	1.47	E13930	J-296	1.47
E13911	J-106	1.47	E13931	J-352	1.18
E13912	J-107	1.47	E13932	J-408	1.18
E13913	J-110	1.47	E13933	J-560	1.18
E13914	J-127	1.47	E13934	J-628	1.18
E13915	J-136	1.76	E13935	J-693	.88
E13916	J-139	1.76	E13936	J-699	.88
E13917	J-143	1.47	E13937	J-807	1.18
E13918	J-170	.88	E13938	J-876	.88
E13919	J-175	.88	E13939	J-879	.88

MALLORY-YAXLEY UNIVERSAL MIDGETS

TYPE UM

These new midget volume controls, together with the Plug-In Shafts listed below, offer suitable replacements for over 952 radios. For proper selection consult your Mallory-Yaxley Encyclopedia; for complete explanation and switch selection refer to listing below. All controls on following page 49. NOTE: We can select for you the proper control and shaft for any set, on receipt of information giving name, model number and tube lineup of receiver. Please remit 88c for each unit (less switch) wanted.



Ohms	Type	Taper	Ohms	Type	Taper
5000	UM114	IV-A	10000	UM143*	I
10000	UM118	I	15000	UM144	I
10000	UM119	II	25000	UM147	I
10000	UM120	IV	25000	UM149	IV
15000	UM121	I	25000	UM150*	I
15000	UM122	II	35000	UM151	I
2000	UM123	I	50000	UM154	I
25000	UM128	II	50000	UM156	IV
25000	UM129	IV	50000	UM157*	I
50000	UM133	I	75000	UM158	I
50000	UM134	II	1 Meg.	UM161	I
50000	UM135	IV	1 Meg.	UM162*	I
75000	UM137	I	1 Meg.	UM163	I
75000	UM138	II	3 Meg.	UM165	I
100000	UM140	I	100000	UM180	Spec.
100000	UM141	I	2 Meg.	UM181	Spec.
100000	UM142	IV			

*Clutch type controls—no provision for attachable shaft.

†Right hand switch action. E13945. Specify values and Type Nos. when ordering. List Each, \$1.25. EACH, less shaft.. **73c**

TYPE SS—PLUG-IN SHAFTS

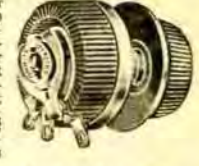
For use with type UM controls listed above. A complete set of Plug-In Shafts plus 66 "M" controls will cover 952 individual volume control replacements.

No.	Type	No.	Type	No.	Type
E13950	SS1	E13956	SS7	E13962	SS13
E13951	SS2	E13957	SS8	E13963	SS14
E13952	SS3	E13958	SS9	E13964	SS15
E13953	SS4	E13959	SS10	E13965	SS16
E13954	SS5	E13960	SS11	E13966	SS17
E13955	SS6	E13961	SS12		

List Each, 25c. YOUR PRICE EACH..... **15c**

OHMITE VITREOUS ENAMELED RHEOSTATS

High quality power rheostats for all radio and power control circuits. Conservative ratings are for open air use. Large contact shoe of metal-impregnated carbon graphite; shaft is insulated. Requires 3/8" mounting hole. Have 3 terminals; may be used as potentiometer.



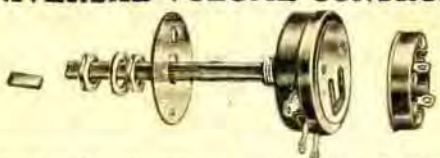
Model H-25 Watt			Model J-50 Watt		
No.	Ohms	Each	No.	Ohms	Each
E6600	1	\$2.65	E6622	5	
E6601	2		E6623	1	\$2.94
E6602	10		E6624	2	
E6603	15		E6625	4	
E6604	25		E6626	8	
E6607	25		E6627	12	
E6609	50	2.35	E6628	25	
E6611	100		E6630	50	2.65
E6612	175		E6631	80	
E6613	250		E6632	150	
E6615	500		E6633	225	
E6616	750		E6634	300	
E6617	1000		E6635	500	
E6618	1500	2.65	E6637	1000	
E6619	2500		E6639	2500	2.79
E6620	3500	2.79	E6641	5000	
E6621	5000	2.79	E6643	10000	2.94

MODEL K—100 WATTS

No.	Ohms	EACH	No.	Ohms	EACH
E6405	0.5		E6410	50	
E6406	2	\$4.41	E6411	100	\$4.12
E6407	3		E6412	500	
E6408	10	4.12	E6413	1000	4.41
E6409	25				

MALLORY-YAXLEY VOLUME CONTROLS

UNIVERSAL VOLUME CONTROLS



The listings on this page constitute practically all of the Yaxley Volume Controls. With a comparatively small stock, you can now meet the requirements of 10% of all repair jobs. Universal controls have adjustable bias feature and 3" shaft which can be shortened very easily where necessary. Universal controls come complete with knob, adapter and extension bushing. All of these controls are listed LESS SWITCHES. Where original control calls for a switch or where switch-type control is to be used, select proper switch cover from listing below, and order as separate unit. NOTE: All units will be shipped test switch unless switch is specified in your order and extra remittance made.

UNIVERSAL REPLACEMENT CONTROLS

No.	Ohms	Type	Taper	No.	Ohms	Type	Taper
5583	2	10	IV	618	15000	*H12	I
5584	6	R	IV	619	15000	*H12	II
5585	10	S	IV	620	15000	*H7	VII
5586	20	T	IV	621	20000	*A20MP	IV
5587	30	U	IV	622	20000	*Y	IV
5588	60	W	IV	623	25000	*Y25MP	IV
5590	100	W	IV	624	25000	*Y30MP	II
5591	200	X	IV	625	50000	*K12	II
5592	400	A400P	IV	626	50000	*K12	II
5593	500	A	I	627	75000	*Z12	II
5594	550	A550P	IV	628	75000	*Z12	II
5595	1000	A1MP	IV	629	75000	*Z	II
5596	1000	B	IV	630	100000	*Y100MP	IV
5597	1000	*UC500	II	631	100000	*Q	II
5598	2000	*GMP	IV	632	150000	*UC30	II
5599	2000	*C12	I	633	150000	*UC502	II
5600	3000	*C	II	634	200000	*Y200MP	IV
5601	3000	*A3MP	IV	635	250000	*Y250MP	IV
5602	3000	*D12	II	636	250000	M	I
5603	3000	*D7	VII	637	250000	*UC511	I
5604	5000	*AMP	IV	638	250000	*UC509	IV
5605	5000	*Y5MP	IV	639	500000	*Q	II
5606	5000	*E12	II	640	500000	N	I
5607	5000	*E	II	641	500000	*UC512	I
5608	5000	*E7	VII	642	500000	*UC515	II
5609	7500	*F12	II	643	500000	*UC513	II
5610	7500	*F	VII	644	750000	*UC503	IV
5611	7500	*F7	VII	645	1 Meg.	*Y1000MP	I
5612	10000	*A10MP	IV	646	1 Meg.	*Y1000MP	I
5613	10000	*Y10MP	IV	647	1 Meg.	*UC514	I
5614	10000	*G12	II	648	2 Meg.	P	I
5615	10000	*G	II	649	2 Meg.	*UC504	I
5616	10000	*UC501	II	650	4 Meg.	*UC505	I
5617	10000	*G7	VII	651	5 Meg.	*UC506	II
				652	5 Meg.	*UC507	II
				653	9 Meg.	*UC508	I

* Adjustable Bias.
† Slotted Shaft for auto sets.
‡ Low shaft for auto sets, etc.
‡ Wire-Wound. Rest are Carbon.

List. \$1.00. NET EACH. **59c**

ATTACHABLE VOLUME CONTROL SWITCHES

Volume controls listed on this page do not have switches. Select switch to fit your control requirements from listing below.

E9004. Type 6-9, Standard S.P.S.T. Special thin design. List. 60c. NET. **35c**

E9007. Type 13, (3PST) Shorting. List. 60c. NET. **35c**

E9008. Type 14, (4PST) Shorting. List. 60c. NET. **35c**

EXPLANATION OF YAXLEY TAPERS:

- TAPER I:** A modified log, left-hand taper in the carbon unit; semi-log in W.W. unit. For audio or aig. shunt circuits.
- TAPER II:** A right hand log. taper in the carbon unit; semi-log in the W.W. unit. For series circuits, such as cathode voltage control.
- TAPER III:** Combination right and left hand taper. For antenna and "C" bias control.
- TAPER IV:** Linear taper. Used where the voltage changes proportionally to the degree of rotation.
- TAPER VII:** A left hand taper found only in wire-wound controls. Useful in combined antenna and bias control circuits.

UNIVERSAL "TRP" TAPPED CONTROLS

For practically all sets using tapped volume controls. Less Switches.

Cat. No.	Mfg. No.	Res. Ohms	Tapped at Ohms	Cat. No.	Mfg. No.	Res. Ohms	Tapped at Ohms
E9200	TRP600	5M	2500	E9213	TRP613	2 Meg.	450M
E9201	TRP601	30M	6M	E9214	TRP614	3.5M	75M
E9202	TRP602	63M	3M	E9215	TRP615	3 Meg.	1 Meg.
E9203	TRP603	250M	125M	E9216	TRP616	500M	60M
E9204	TRP604	350M	25M	E9217	TRP617	60M	10M
E9205	TRP605	350M	75M	E9218	TRP618	2 Meg.	200M
E9206	TRP606	500M	100M	E9219	TRP619	500M	100-300M
E9207	TRP607	500M	250M	E9220	TRP620	2 Meg.	1 Meg.
E9208	TRP608	1 Meg.	200M	E9221	TRP621	4 Meg.	250-500M
E9209	TRP609	1 Meg.	500M	E9222	TRP622	4 Meg.	7-15M
E9210	TRP610	1 Meg.	20M	E9223	TRP623	250M	50M
E9211	TRP611	1 Meg.	170M	E9224	TRP624	1 Meg.	250-500M
E9212	TRP612	2 Meg.	25M				

YOUR NET PRICE EACH **88c**

IT'S EASY TO FIND THE RIGHT YAXLEY VOLUME CONTROL

Your volume control worries are over when you use the Mallory-Yaxley Encyclopedia. Sets are listed alphabetically according to manufacturers' names. All you need do is choose the control listed for any specific set and order from the complete listings on this page.



MALLORY-YAXLEY ENCYCLOPEDIA

Here, in one book—on one page—on one line, is the correct answer to every service problem. New, expanded second edition of the M-Y Encyclopedia eliminates guess-work from servicing; analyzes 17,000 radio sets, 330 pages, 3 1/4"x11", Slip, wt., 2 lbs. **E11865. YOUR NET PRICE..... \$1.91**

SPECIAL SINGLE "SRP" CONTROLS

These controls are especially made for receivers whose volume control requirements are so special that they cannot be met by the universal type controls. These controls have special electrical or mechanical features, which make them suitable for special replacement purposes. Consult your Mallory-Yaxley Encyclopedia for correct selections.

Mfg's. Type	Resis. Ohms	Mfg's. Type	Resis. Ohms	Mfg's. Type	Resis. Ohms
*SRP133	2M	*SRP245	32M	*SRP268	15
*SRP134	4500	*SRP249	20M	*SRP269	10M
*SRP138	450	*SRP251	250M	*SRP271	150
*SRP139	550	*SRP252	500M	*SRP272	300
*SRP141	1200	*SRP253	400	*SRP274	10M
*SRP142	3000	*SRP254	3500	*SRP275	500M
*SRP144	2M	*SRP255	15M	*SRP276	3M
*SRP145	2M	*SRP256	10M	*SRP277	2M
*SRP150	50M	*SRP257	3M	*SRP278	500M
*SRP152	60	*SRP258	15M	*SRP279	50M
*SRP153	13M	*SRP259	50M	*SRP280	500M
*SRP154	50M	*SRP260	1M	*SRP281	500M
*SRP160	2000	*SRP261	100M	*SRP282	350M
*SRP170	75M	*SRP262	15M	*SRP283	2500
*SRP179	125M	*SRP263	3200	*SRP900	20M
*SRP185	1500	*SRP264	650	*SRP901	10M
*SRP188	32M	*SRP265	200	*SRP902	800
*SRP213	250M	*SRP266	800	*SRP961	10M
*SRP210	500M	*SRP267	5M	*SRP962	250M
*SRP223	1M				

E9230. Specify Type Number and Value When Ordering. **88c**
List. \$1.50. NET EACH

E9226 SRP239. 450 Ohms. Vol. Strip EACH 29c
E9227 SRP241. 6000 Ohms. Vol. Strip 29c
E9228 SRP273. 500,000 Vol. Control with Switch. NET. \$1.18

** Volume Control. †† Phono Control. ††† Volume-Sens. Control.
* Hum Control. †††† Tone-Beam Control. †††† Phono-Vol. Control.
† Volume-Tone. ††††† Regeneration Control. **††††† Equalizer Control.

SPECIAL DUAL "DRP" CONTROLS

Consist of two separate resistance elements banded and controlled by one shaft. These dual units will service practically all sets employing this type of control. Consult your Mallory Encyclopedia for control you require and then order from this listing.

Type	Resistance Front	Resistance Rear	Type	Resistance Front	Resistance Rear	Type	Resistance Front	Resistance Rear
DRP114	250	5M	DPR241	5M	150M	DRP306	5M	10M
DRP115	3800	3800	DPR242	10M	500M	DRP307	3M	12M
DRP116	25700	10000	DPR243	3M	750M	DRP308	50M	50M
DRP117	500	2500	DPR244	25M	6M	DRP309	12M	65M
DRP119	3M	10M	DPR245	1 Meg.	3 Meg.	DRP310	25M	25M
DRP122	645	10M	DPR246	32M	50M	DRP311	150M	250M
DRP160	7500	10M	DPR250	50M	1M	DRP312	75M	60M
DRP221	10M	100M	DPR301	5M	250M	DRP313	1M	50M
DRP222	75M	32M	DPR302	100M	250M	DRP314	500M	2500
DRP223	3 Meg.	3 Meg.	DPR303	2500	100M	DRP315	2 Meg.	250M
DRP239	25M	25M	DPR304	1 Meg.	3 Meg.	DRP316	200M	1M
DRP240	250M	10M	DPR305	25M	25M	DRP317	500M	1M

*† Tapped at 180M ohms.
E9231. Specify Type Number and Value When Ordering. **\$1.47**
List. \$2.50. NET EACH

MIDGET "MR" CONTROLS-FIXED SHAFTS

A new series of midget replacement volume controls especially suited for applications where special shafts and couplings are unnecessary. Efficiently built, compact, long-lived. Designed with switch cover and cam to accommodate attachable switches wherever required.



Ohms	Type	Taper	Ohms	Type	Taper	Ohms	Type	Taper
5000	MR14	I-V-A	50000	MR33	I	250000	MR44	I
10000	MR18	I	50000	MR34	II	250000	MR45	II
10000	MR19	I	50000	MR35	IV	500000	MR46	IV
15000	MR20	IV	50000	MR36	I	500000	MR50	I
15000	MR21	I	75000	MR37	II	750000	MR51	II
15000	MR22	II	100000	MR39	I	1 Meg.	MR53	I
20000	MR24	I	100000	MR40	II	2 Meg.	MR55	II
25000	MR28	II	100000	MR41	IV	3 Meg.	MR57	I
25000	MR29	IV	150000	MR42	I			

E9264. Specify Type Number and Value When Ordering. **59c**
List. \$1.00. NET EACH

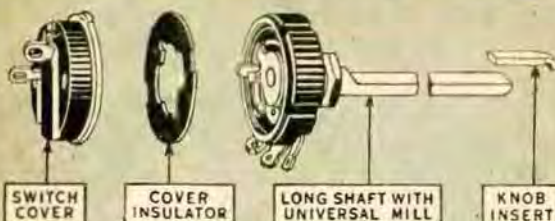
MIDGET SWITCHES

E9240. M26, S.P.S.T. 29c
E9241. M27, D.P.S.T. 35c
E9242. M28, S.P.D.T. 35c
E9243. M23, 3P.S.T. (Shorting) 35c
E9244. M24, 4P.S.T. (Shorting) 35c

KEY TO TAPERS

TAPERS: For explanation of tapers see table at left. Taper I-V-A is modification of regular linear taper No. IV.
FOR ADDITIONAL LISTING OF MALLORY-YAXLEY MIDGET CONTROLS. SEE PAGE 48.

CENTRALAB STANDARD RADIOHM



The famous small-size Girl Standard Control. The complete fitting below covers practically all volume control requirements. The size of these controls is only 1 3/8" diameter, 3/8" deep, less switch. Has 3/16" x 1/8" shaft which may be cut to fit. All units below are carbon type. See chart below for taper. Supplied with or without "snap-on" switch No. E2125 described below.

Less Switch No.	CRL No.	Max. Res. Ohms	Curve No.	With Switch No.	CRL No.
E3025	72-118	500	1	E3060	62-118
E3026	72-107	1000	1	E3061	62-107
E3027	72-101	2000	1	E3062	62-101
E3028	72-108	3000	1	E3063	62-108
E3029	72-109	4000	1	E3064	62-109
E3030	72-110	5000	1	E3065	62-110
E3031	70-204	5000	6	E3066	52-204
E3032	72-139	7500	1	E3067	62-139
E3033	72-114	10000	1	E3068	62-114
E3034	70-205	10000	4	E3069	52-205
E3035	72-100	10000	6	E3070	62-100
E3036	72-115	15000	3	E3071	62-115
E3037	79-006	15000	3	E3072	99-006
E3038	72-119	20000	3	E3073	62-119
E3039	72-111	25000	3	E3074	62-111
E3041	70-206	25000	4	E3076	52-206

LESS SWITCH. EACH **59c** WITH SWITCH. EACH **88c**
5 FOR \$2.65 5 FOR \$3.95

Less Switch No.	CRL No.	Max. Res. Ohms	Curve No.	With Switch No.	CRL No.
E3042	72-102	25000	3	E3077	62-102
E3043	72-103	50000	1	E3078	62-103
E3044	72-117	50000	6	E3079	62-117
E3045	72-123	75000	1	E3080	62-123
E3046	70-202	75000	4	E3081	52-202
E3047	72-104	100000	1	E3082	62-104
E3048	72-122	100000	6	E3083	62-122
E3049	72-126	150000	6	E3084	62-126
E3050	72-131	200000	4	E3085	62-131
E3051	72-121	250000	1	E3086	62-121
E3052	72-105	500000	6	E3088	62-105
E3053	72-106	500000	1	E3089	62-106
E3054	70-203	500000	4	E3090	52-203
E3055	72-140	750000	6	E3096	62-140
E3056	72-116	1 Meg.	6	E3097	62-116
E3057	72-117	2 Meg.	6	E3098	62-117
E3058	72-132	3 Meg.	6	E3091	62-132

LESS SWITCH. EACH **59c** WITH SWITCH. EACH **88c**
5 FOR \$2.65 5 FOR \$3.95

TAPPED RADIOHMS

E3059	72-138	250000	10	E3098	62-138
E3057	72-134	500000	10	E3092	62-134
E3058	72-135	1 Meg.	10	E3093	62-135
E3016	72-142	2 Meg.	10	E3009	62-142

LESS SWITCH. NET **88c** WITH SWITCH. NET **\$1.18**
EACH EACH

RADIOHM SWITCH COVERS

Underwriters' approved. Bakelite insulated switch mounted on snap-on type plate.

E2125	S.P.S.T. Standard	29c
E2126	S.P.D.T. 3 Term.	35c
E2127	D.P.S.T. 4 Term.	35c
E2128	S.P.D.T. Clockwise	35c
E2129	S.P.S.T. Dummy Lag.	35c
E2130	4 Point (for Battery Radio)	50c

TWIN VOLUME CONTROLS

Many troublesome sets with single controls may be improved with No. 74-001 if the original control is in the "C" bias circuit, or with No. 74-002 for the screen grid circuit. * Back case wired in like original control; section nearest shaft is shunted from ant. to grid. Other sections have same resistance in both sections. No. 6 taper. Case, 1 3/8" x 1 3/8" deep; shaft is 1/8" x 3/16".

Stock No.	CRL No.	Resistance Ohms	Front	Back
E2090*	74-601	10,000	10,000	25,000
E2091*	74-602	10,000	10,000	50,000
E2092*	4-010-804	500,000	500,000	500,000
E2093*	4-010-805	100,000	100,000	100,000
E2094*	4-010-807	250,000	250,000	250,000

NET **\$1.47**

EXTENSION SHAFTS B

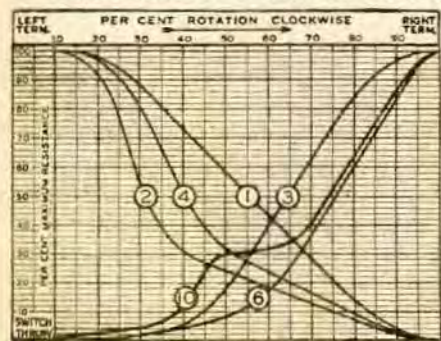
Fig. A. Intended for use with Centralab Volume Controls or switches where it becomes necessary to add to the length of the shafts. May be easily cut to any desired length.

No.	Size	EACH
E2722.	4 x 1/8 x 1/2" flat	18c
E2723.	4 x 5/8 x 1/2" flat	
E2724.	4 x 9/8 x 3/16" flat	

Fig. B. Shaft is 1/8" x 3/16" long, slotted 3/16" wide, full length. Hinged slot insert is pushed out of shaft and cut to required length. Guide funnel then fits over shaft.

E2721. No. K159. NET. **32c**

STANDARD CENTRALAB RESISTANCE CURVE CHART



The taper curves illustrated on the left will help you select the proper Centralab Volume Control for use in any type of radio circuit. The numbers shown on each curve correspond to the curve numbers given in the Standard and Midget listings above. Standard applications of each curve are as follows: (1) Voltage divider with uniform resistance change, (Pot.), (2) "C" bias rheostat (L.H.), (3) Antenna and "C" bias of one tube (R.H.), (4) Antenna and "C" bias of two tubes (L.H.), (5) Audio grid, antenna shunt, or tone control (R.H.), (6) Audio grid volume control with tone compensation tap. Minimum volume at the left and maximum volume at the right. The figures at the left of the curves indicate percentage of resistance change; figures at the top indicate percentage of clockwise rotation. Refer to this chart when ordering volume controls.

STANDARD MIDGET RADIOHM



Bakelite case, 1 1/4" dia. Aluminum shaft is 1/8" dia. x 1 1/2" long. Knob insert supplied. Can be used with either push-on or set-screw type knob. Shaft is easily cut.

Less Switch No.	CRL No.	Max. Res. Ohms	Curve No.	With Switch No.	CRL No.
E2100	NF105	5000	1	E2100	PF105
E2101	NF107	10000	1	E2101	PF107
E2102	NF100	10000	3	E2102	PF100
E2103	NF108	10000	4	E2103	PF108
E2104	N109	10000	6	E2104	P109
E2105	NF110	15000	3	E2105	PF110
E2106	NF111	15000	4	E2106	PF111
E2107	NF112	20000	3	E2107	PF112
E2108	NF113	25000	1	E2108	PF113
E2109	NF101	25000	3	E2109	PF101
E2110	N114	50000	1	E2110	P114
E2111	N115	50000	6	E2111	P115
E2112	N116	100000	1	E2112	P116
E2113	N117	100000	5	E2113	P117
E2114	N102	250000	6	E2114	P102
E2115	N118	500000	1	E2115	P118
E2116	N103	500000	6	E2116	P103
E2117	N104	1 Meg.	6	E2117	P104

NET EACH **59c** WITH SWITCH. NET EACH **88c**

TAPPED MIDGET RADIOHMS

E2031	NT119	250000	10	E2035	PT119
E2032	NT120	500000	10	E2036	PT120
E2033	NT121	1 Meg.	10	E2037	PT121
E2034	NT122	2 Meg.	10	E2038	PT122

Less Switch. NET EACH **88c** WITH SWITCH. NET EACH **\$1.18**

MIDGET SWITCH COVERS

Underwriters' approved. Bakelite midget switch cover. * For use with battery radio circuits.

No.	Type	NET
E2131	S.P.S.T. (Standard)	29c
E2132	S.P.D.T.	35c
E2133	D.P.S.T.	35c
E2134	S.P.S.T. (Dummy Lag)	35c
E2135	Four Point	50c

ADASHAFT MIDGET RADIOHMS



A revolutionary new idea in volume control replacements. Each control will take up one of five shafts listed below. You can make up your own exact duplicate control by ordering the right control and shaft to meet your needs.

Stock No.	CRL No.	Res. Ohms	Curve	Net
E2136	N126	10000	3	NET
E2137	N127	50000	6	EACH
E2138	N128	250000	5	73c
E2139	N129	500000	3	
E2140	N130	1 Meg.	6	
E2141	N131	2 Meg.	6	

TAPPED ADASHAFT CONTROLS

Tapped Adashaft controls for use in auto circuits where necessary.

E2117	NT132	250,000	10	NET
E2118	NT133	500,000	10	EACH
E2119	NT134	2 Meg.	10	73c
E2120	NT135	2 Meg.	10	

ADASHAFTS FOR ABOVE UNITS

May be used with any of the above "A-shaft" controls to make almost all standard replacements. Sizes cover most popular needs.

Stock No.	CRL No.	Description
E2142	K163	4" x 1/2" flat full length.
E2143	K164	4" x 3/8" flat full length.
E2144	K165	10" x 1/8" flat full length.
E2145	K166	3" Auto type with tunnel.
E2146	K167	6" Auto type with tunnel.

NET EACH **15c**

Centralab **VOLUME REPLACEMENT** Controls

CENTRAL RADIO  LABORATORIES

VOLUME CONTROL GUIDE



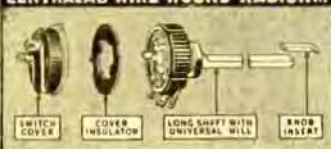
The new completely revised CRL Volume Control Guide. Larger than ever. Some of the features are: 10,000 different models; set in 481 numbers listed in numerical order; new tone and wiper-hand switch listing; new Budget Radiom list; new Economy P.A. controls; new ADASHIFT controls. Every Serviceman should have a copy of this valuable Guide. **E3099. FREE WITH ORDER FOR CRL CONTROLS.**

REPLACEMENT VOLUME CONTROLS

A very thorough listing of the latest line of Centralab Volume Controls. Controls marked (*) are EXACT Duplicates. Where original control is small in size, new Midget controls are supplied. Centralab Volume Controls have a universal reputation for long life and fine performance.

Manufacturer and Model		Cat. No.	NET	Manufacturer and Model		Cat. No.	NET
Allied Radio (See Knight)				Grunow (General Household Util.)			
Atwater Kent				500E3090 \$0.88			
4690, 5580, 424, 531.....E3052 \$0.59				501.....E3087 .88			
37, 38, 40, 42, 52, 41, 43, 44.....E3106* .88				1101.....E3055 .59			
45, 53, 47.....E3106* .88				Chassis, 6A, 6C, 6R.....E3146* 1.18			
55, 55C, 55F, 55PC, 60, 60H (Late).....E3101* 1.76				4-B, 4-B*, 4-C, Chassis.....E3024 .59			
55, 55C, 55F, 55PC, 60, 60H (Early), 61, 61DC.....E3102* 1.76				51, 61 Chassis, 580, 811, 640.....E3144* 1.18			
60, 60C, 70 (D & L Chassis), 74 (D & L Chassis), 87D (8 Chas-581).....E3105* 1.76				64, 680, 681.....E3144* 1.18			
H2 Series, 72, 111 Series.....E3107* 1.47				6D, SD Chassis.....E3093 1.18			
70 & 76 (Q Chassis).....E3108* 1.47				11-C, 12A, Chassis, 117L, 1241.....E3123* .88			
80, 83, 90.....E3122* 1.18				6-114, T-DB Chassis; 620, 621, 720, 721.....E3124* 1.18			
165, 217, 240, 275, 310, 667, 448, 555, 708, 82D, 188, 228, 260, 467, 269, 612, 627, 808, 812, 89F, 92.....E3087 .88				Howard Radio			
67, 67C.....E3047 .59				SG-A, SG-CE3148* 1.47			
67, 67C.....E3057 .88				SGH, H-O, 35AC, 40E3034 .59			
567, 567F.....E3073 .88				N2, N3, N8, 24E3087 .88			
944.....E3079 .88				Kennedy, Colin B., Corp.			
Brunswick				Royal 60, 80,E3052 .59			
10 MidgetE3112* 1.18				128G, 10, 20, 22,E3152* 1.47			
14, 21, 31 PatronsE3076 .88				34, 40, 50, 52, 56,E3032 .59			
Crosley Radio				26, 526, 526, 30, 35, 40,E3129* 1.47			
60, 61, 62N, 74, 50,E3043 .59				Knight (Allied Radio Corp.)			
41A, 42, 61, 602, 608, 610, 609,E3113* .88				6-7, 8-9, 9 Tube SuperE3028 .59			
704, 705 and 706,E3113* .88				8-8BE3076 .88			
ACT, Buddy, Chum,E3025 .59				8-8BE3154* 1.76			
408, 418, 428 (Early Models),E3114* 1.47				8-8BE3155* 1.18			
408, 418, 428 (Later Models),E3109* 1.47				AC5E3046 .59			
55, 120, 600, 5000,E3110* .88				9 Tube Super (108)E3069 .88			
21, 22 Batt.,E3046 .59				9 Tube Super (114)E3087 .88			
28, 30, 31, 33, 34, 315,E3115* .59				7 Tube Super, (108) 9 Tube Super (114), (Tone Cont.)E3044 .59			
127, 126-1,E3051 .59				Koister Radio (Columbia Phono)			
53, 54, 57, 58, 605, 015,E3039 .59				K21, 23, 24,E3044 .59			
900, 410, 420,E3026 .59				K21 to 32, B10, L15, B10, 002,E3042 .59			
55, 91, 92 Auto,E3047 .59				61, 901E3042 .59			
77, 90E3037 .59				Cl. C2, C4, C5, C6, C7, 40E3055 .59			
129 Super SnapperE3027 .59				60-7K, 902, 930E3055 .59			
154E3070 .88				K42, K43, K44, K45E3157* 1.47			
124, 125E3215* 1.18				930 Phono Comb.E3154* 1.76			
95, 96, 98, 99 Auto Sets,E3091 .88				100 Series, 31-35,E3065 .88			
133E3036 .59				70, 80, 90 SeriesE3071 .88			
143, 147, 155, 163, 186, 176, 145,E3065 .88				82-84E3069 .88			
182, 167, M5-3,E3087 .88				Majestic (Grigsby-Grunow)			
134, 134-1, 175,E3052 .59				70, 70R, 71, 72E3131* .88			
146, 157, 158, 164, 170, 171,E3056 .59				180, 181E3132* 1.47			
168-1)E3068 .88				80E3035 .59			
160, 169, 172, 174, 176E3137* .88				50, 51, 52E3133* 1.47			
894E3137* .88				55, 56, 57, 58, 150E3104 1.18			
Edison, Inc., and Splitdorf				60 Series, 31-35,E3105 .88			
C1, C2, R1, R2, S1A, S2, S3, S4,E3117* .88				30, 31, 220A,E3136* 1.76			
C1, C2, R1, R2, S1A, S2, S3, S4,E3118* .88				138A, 139, 131, 132,E3138* .88			
04, 05, C4, R12, Albee J,E3119* 1.47				35, 145F, 251, 252, 254,E3139* 1.18			
06, 37E3120* .88				60, 80F, 160,E3142* .88			
Eveready (National Carbon)				130, 121E3141* 1.47			
1, 2, 3,E3116* .88				210, 211, 214, 215E3142* .88			
50 SeriesE3159* 1.47				254, 251B, 2531, 2541, 35, 35A, 35C,E3143* .88			
Fada (F.A.D. Andrea)				111 Auto 1st TypeE3226* 1.18			
122-KEE3039 .59				60 AutoE3232 1.18			
41, 42, 44, 40, 47, 81, 84,E3055 .59				118 Ford AutoE3233 .88			
48, 49-KWE3087 .88				20, 21, 22, 23,E3234* 1.18			
45, 51, 53, 57,E3067 .88				300, 201, 203, 204E3235* .88			
General Electric				220, 221, 223,E3236* .88			
T41E3125* 1.47				290, 500, 310, 320 Series, 77E3237* .88			
H31, H51, H71,E3029 .59				370, 371, 372E3239* 1.18			
E-61, 8-62, E-68, E-71, E-72E3145* 1.18				40AE3241* 1.18			
E-76, 8-81, E-86, E-91, E-95E3126* 1.47				460E3242* .88			
E-101, 8-105, E-108E3038 .59				Montgomery-Ward (Arlene)			
AS2, AR6, AR7E3038 .59				1522-62, 3035-37, 65-67, 811,E3037 .59			
G212E3043 .59				1711, 1611E3037 .59			
MDO2530E3043 .59				WG-24, 62-3, 62-6, 62-7, 62-8,E3072 .88			
General Motors Radio (Day-Fan)				62-9, 62-10AE3052 .88			
5065, 5065, 5057, 6DC, 110-5E3039 .59				62-20, 62-20, 62-21, Auto, 17,E3055 .59			
8A1, 5071, 5080,E3042 .59				63-30, 62-40, 62-50, 62-61, 62-93E3048 .59			
A5005, A5029, 210, 217, 219,E3043 .59				63-1, 62-2E3033 .59			
G212E3031 .59				13, 15, 16, 16X, 17, 18, 18XE3248* .88			
5008, 5004, 5019, 5001, 5018,E3035 .59				67AE3087 .88			
126A, 130, 140, 110, 18, 18A,E3216* 1.47				87, 62, 101, 101XE3249* .88			
211-S9A, N98, 8-28, 200, 201,E3078 .88				Motorola			
S-1A, 216, 217, 910, 250,E3130* 1.47				60, 70, 75, 70, 80 Golden VoiceE3206* 1.18			
1001, 1001E3130* .88				50E3150* 1.18			
S-11 B, 1005, 230,E3078 .88				57, 62E3151* 1.18			
226, 8-10-A, 10-10,E3071 .88				6-10E3153* .88			
S-2-B, 8-3-A, 8-3-B, 251-SE3067 .88							

CENTRALAB WIRE WOUND RADIOHM



Same size and shape as standard Radiomhm. Case of brown bakelite. Stamped less switch but any Radiomhm switch listed on page 50 may be added. Shaft 1/4", 3" long. Linear taper.

Stock No.	CRL No.	Res. Ohms	Stock No.	CRL No.	Res. Ohms
E2005	V100	2	E2018	V127	100
E2006	V102	4	E2019	V123	200
E2007	V104	6	E2020	V125	300
E2008	V106	8	E2021	V126	400
E2009	V108	10	E2022	V127	500
E2010	V109	15	E2023	V128	750
E2011	V110	20	E2024	VF129	1000
E2012	V111	25	E2025	VF131	2000
E2013	V112	30	E2026	VF133	3000
E2014	V114	40	E2027	VF134	4000
E2015	V116	50	E2028	VF135	5000
E2016	V117	60	E2029	VF136	7500
E2017	V118	75	E2030	VF137	10000

YOUR PRICE EACH CONTROL... 59c

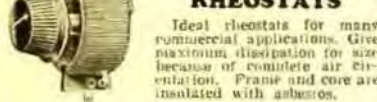
NEW UNIVERSAL AUTO REPLACEMENT CONTROL



All tone controls No. 10. All have slip clutches and tone compression type D.P.N.T. switch standard switch type. 1/2" slotted shaft 3" long. Easy cut to size. With slide funnel.

Resis. Type	"NA" Type No Sw.	"FA" Type With Sw.
No.	Net Each	No. Net Each
250000	123 E2043	E2047
500000	105 E2044	E2048 \$1.18
1 Meg.	124 E2045	E2049
2 Meg.	125 E2046	E2050

CRL POWER RHEOSTATS



Ideal rheostats for many commercial applications. Give maximum dissipation for size because of complete air circulation. Frame and core are insulated with asbestos.

25 WATT		75 WATT	
No.	Ohms	No.	Ohms
E3000	25	E3017	75
E3001	50	E3018	150
E3002	75	E3019	300
E3003	100	E3020	500
E3004	150	E3021	1000
NET EACH		YOUR PRICE EACH	
		\$1.47	\$1.76

*Exact Duplicate Control. CONTINUED ON NEXT PAGE . . .

Centralab REPLACEMENT Volume Controls

CENTRAL RADIO  LABORATORIES

REPLACEMENT VOLUME CONTROLS

Manufacturer and Model	Cat. No.	NET	Manufacturer and Model	Cat. No.	NET	Manufacturer and Model	Cat. No.	NET
Phileo			R.C.A. Victor (Continued)			U.S. Radio & Television (Apex) (Cont.)		
05	E3223*	\$0.88	100, 101	E3064	\$0.88	28 Series, 41, 42, 43, 44, 46,		
86, 87, 511	E3161*	.88	100	E3078	.88	47, 48	E3025	\$0.59
1	E3052	.59	M-101, M-104, M-108, M-109,	E3209	1.18	49, Midjet 32	E3036	.59
20, 21, 110C, 42DC, 70, 70A,	E3162*	1.47	M118, 242, 243, M220	E3202	.88	56R, 26-P, 20	E3033	.59
77, 90 (2-15's), 470	E3178*	1.18	9-K-1	E3203	1.18	8, 10 Series	E3055	.59
14, 7, 18, 49, 118			67-M	E3173*	.88	1010	E3087	.88
16 (Code 125, 126, 127), 17			67-M-1, 67-M-2, 67-M-3	E2043	.88			
16 (Code 122), 116B (Code 121),			85-T, 85-T-1, 80-N	E2045	.88			
116N (Code 122); 650, 655,				E3295	.88			
600, 605	E3179*	1.18	Sears Roebuck					
28AC-DC; 45AC-DC	E3160*	1.18	1390, 1400, 1402, 1404, 1406,					
37-10 & 11 (Code 121; 37-11);			1580, 1582, 1584, 1590, 1592	E3072	.88			
37-610; 37-620; 37-623; 37			1704, 7070-1-2-3-4, 1706, 7075-					
630; 37-640; 37-650; 37-655;			6-7-8, 7091-2-3-4	E3087	.88			
37-660; 37-670, and 37-675			1708-9, 1750	E3052	.59			
(Codes 121 & 122)	E3181*	.88	1715, 1721, 1721X, 1722, 1722X					
37-84 (Code 122), 84, 84H	E3182*	1.18	1726X, 1732, 1732X	E3156*	1.47			
111, 111A, 112, 112A, 30, 90	E3163*	.88	1705	E3158*	1.76			
51, 52, 48 DC, 51A	E3164*	.88						
71, 47DC	E3165*	.88	Simplex					
57, 58, 59	E3168	1.18	H-AC, J	E3063	.88			
95	E3166*	.88	K, H above serial 320001	E3069	.88			
70 Lax X	E3221*	1.76	P	E3087	.88			
60, 60, 201, 204, 205, 505	E3222*	1.18	P Light	E3032	.59			
78	E3224*	.88	U, V, (AC-DC)	E3082	.88			
35, 36 (Batt.)	E3169*	1.47						
ET-6 Ford Car Radio	E3225*	1.18	Spartan					
38, 38A Bart	E3214*	.88	61, 62, 71, 71H, 72, 78	E3086	.88			
80 with switch	E3183*	.88		E3054	.59			
81 with switch	E3196*	.88	83A, 111A, 564, 570, 574, 600,					
80 (Late)	E3197*	.88	610, 620, 737, 740, 870	E3217*	.88			
114	E3199*	.88	60, 579, 101, 109, 110AC, 301,					
90 (1-47), 490	E3200*	.88	580, 591, 593, 930, 931	E3218*	.88			
90 (2-47)	E3188*	1.18	31, 55	E3056	.59			
610	E3181*	.88	235, 285 DC	E3041	.59			
620, 625, 630, 635	E3186*	1.18	410, 420, 430 (Dual)	E3174*	1.76			
610, 611, 612, 615, 651			5 and 9	E3069	.88			
FT-9 Ford; 816; 817; 81481	E3187*	.88	Stewart-Warner Corp.					
37-62, 37-93, 38-12, 38-14, 38			600 Series	E3176*	.88			
15 (Codes 121 & 124)	E3212*	.88	1100 Series, 950, 935	E3177*	.88			
38-1, 38-2, 38-4, 38-5, 38-7, 38-	E3211*	.59	911	E3046	.59			
8, 38-9 (Codes 121, 121), 38-	E3213*	.88	970AC, 980	E3129	1.47			
21	E3214*	.88	305, 315, 320	E3025	.59			
38-10 (Code 121)	E3215*	.88	305	E3031	.59			
38-60, 38-80 (Code 125)	E3216*	.88	R-104-A, K, E, 106, 108, 108X,					
901, 902 Philphonone	E3228*	1.18	11AC and DC, 109 Series,					
14, 507			1111, 1116, 1110	E3087	.88			
623 (Batt.)	E3228*	1.18	110, A and K	E3087	.88			
11, AC-235 Strohbecker, 700, 800,			1120	E3052	.59			
H Hummobile, J Nash, P	E3230*	1.18	1401, 102-A-B-E	E3052	.59			
Nash, R Car Radio, R Hum-	E3231*	.88	105 Series	E3044	.59			
mobile	E3238*	.88	Temple					
80R Car Radio			Batt. Set	E3052	.59			
806 Car Radio			8-60, 8-80, 8-90	E3031	.59			
			8-61, 8-81, 8-91	E3185*	1.47			
			AC-80	E3034	.88			
			150, 110, 110	E3065	.88			
			170	E3061	.88			
			Transformer Corp. (Clarion)					
			51, 53, 55, 60, Jr.	E3074	.88			
			70, 62, 89	E3037	.59			
			48, 100, G102	E3112*	1.18			
			90 Series, 94, 25-94	E3060	.88			
			(1-120)	E3034	.59			
			G1340, 160, 25-160	E3061	.88			
			1241, 210, 25-240, 360, 269, 25					
			2260, AC-280, 25-280, 480	E3052	.59			
			84, 85	E3034	.59			
			AC-120, 450	E3087	.88			
			320	E3033	.59			
			422, 423, 425, 440	E3073	.88			
			United Motors Service, Inc. (Delco)					
			620, 642	E2044	.88			
			627, 628, 629, 630, 631, 632, 633,					
			634, 635, 644	E2045	.88			
			631-A, 640, 641, 643	E2043	.88			
			4036 (B.O.P.), 4037, 4038	E2048	1.18			
			980534, 980535 (Buick)	E2051*	1.18			
			982014, 982015 (Oldsmobile)					
			985266, 985267 (Pontiac)	E2052*	.88			
			U.S. Radio & Television (Apex)					
			Battery Models	E3054	.59			
			Cloniform 31 Series	E3069	.88			
			Parawave 70, Radiotone, Case					
			8-80, Heritage	E3035	.59			
			86, 37	E3031	.59			
			Midjet 27 Series	E3072	.88			

*Exact Duplicate Controls.

KNIGHT Carbon Resistors

RESISTOR ASSORTMENT AND CABINET



CONTAINS 100 POPULAR RESISTOR VALUES

A handy Basswood 6 drawer cabinet with a carefully selected assortment of 100 Knight 1 watt quality Carbon Resistors. Ideal also for condensers, washers, lug, small tools, etc. Each drawer has 3 removable partitions. Bottom drawer oversized for larger items. Varnished in natural wood finish. Will not warp and will stand hard usage. 8 3/4" x 10 3/4" x 5 3/4".

NOTE: Figure in bracket indicates quantity.

CONTAINS THE FOLLOWING RESISTOR VALUES

Ohms	Ohms	Ohms	Ohms
100(2)	200(4)	300(6)	1000(8)
400(4)	500(2)	2500(5)	20000(2)
600(4)	3000(2)	30000(2)	25000(8)
800(2)	5000(4)	40000(2)	500000(8)
1000(4)	10000(8)	50000(2)	1 meg. (4)
1500(2)	15000(4)	75000(2)	2 meg. (2)

E5141. The attractive Basswood 6 drawer cabinet, as illustrated, complete with 100 Knight 1 watt resistors, and handy celluloid color-code guide. **YOUR PRICE ONLY \$5.35**

E5140. Cabinet only. **YOUR PRICE \$1.65**

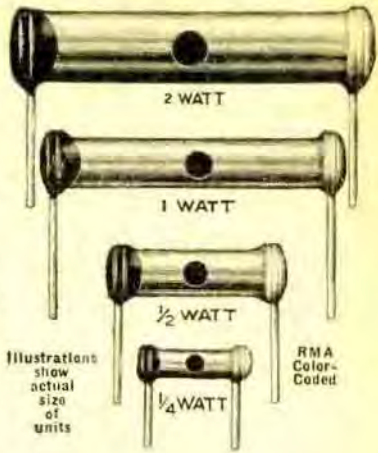
FREE! The above basswood cabinet will be given to you free with an order for any 200 Knight Carbon resistors you select.

HIGHEST STANDARD OF QUALITY

ASSURED ACCURACY

- SOLID MOLDED: PERMANENTLY BONDED.
- TOLERANCE AVERAGE CLOSE TO 5%.
- ABSOLUTELY QUIET IN OPERATION.
- COMPLETELY MOISTURE-PROOF.
- NON-INDUCTIVE—NO CAPACITY EFFECT.
- MAINTAIN RESISTANCE VALUES OVER WIDE TEMPERATURE RANGE.
- OXYGEN-WELDED TINNED LEADS.
- NO FINER CARBON RESISTORS MADE.

The finest carbon resistors you can buy at any price. Use these highest quality units with confidence in any R.F. or Audio circuit. No other resistor is so universally used. Knight Carbon Resistors are of solid molded construction, permanently bonded, with solid cross-section. Impervious to moisture, quiet in operation, non-inductive; have low temperature coefficient; are mechanically strong. They will carry 100% overload without being permanently affected. Each resistor is RMA Color Coded. The tolerance of each and every Knight Carbon Resistor is held within 10% (average close to 5%) by using automatic testing machines. Save and profit by using Knight highest standard Carbon Resistors—the resistor units with the outstanding features.



Illustrations show actual size of units

RMA Color-Coded

HANDY KNIGHT RESISTOR KITS

An asset in shop or on service calls. Each kit is an assortment of the most popular values of Knight quality carbon resistors. RMA color-coded. Mounted on convenient sturdy strip.

12 POPULAR VALUES IN EACH STRIP

12 Certified high quality Knight carbon resistors of the type most frequently required are included in the handy Resistor Kit assortment listed below. Replace resistors as you use them. Free RMA Color-Code chart is included with each kit.

STANDARD VALUES

Ohms	Ohms	Ohms	Ohms
200	3000	20000	75000
400	4000	25000	100000
500	5000	30000	250000
700	10000	40000	500000
1000	15000	50000	1 meg.
2000	15000	100000	2 meg.

1/2 WATT KITS
Consists of one each of the above from 200 to 15,000 ohms.

E5126. Consists of one each of the above from 20,000 ohms to 2 meg. **YOUR PRICE EITHER KIT 49c**

1 WATT KITS
E5127. Consists of one each of the above from 200 to 15,000 ohms.

E5128. Consists of one each of the above from 20,000 ohms to 2 meg. **YOUR CHOICE EITHER KIT 60c**

Resist. Ohms	1/4 WATT No.	1/2 WATT No.	1 WATT No.	2 WATT No.
100	E4850	E4950	E5050	E5150
150	E4851	E4951	E5051	E5151
200	E4852	E4952	E5052	E5152
250	E4853	E4953	E5053	E5153
300	E4854	E4954	E5054	E5154
350	E4855	E4955	E5055	E5155
400	E4856	E4956	E5056	E5156
450	E4857	E4957	E5057	E5157
500	E4858	E4958	E5058	E5158
600	E4859	E4959	E5059	E5159
700	E4860	E4960	E5060	E5160
800	E4861	E4961	E5061	E5161
900	E4862	E4962	E5062	E5162
1000	E4863	E4963	E5063	E5163
1250	E4864	E4964	E5064	E5164
1500	E4865	E4965	E5065	E5165
1750	E4866	E4966	E5066	E5166
2000	E4867	E4967	E5067	E5167
2250	E4868	E4968	E5068	E5168
2500	E4869	E4969	E5069	E5169
3000	E4870	E4970	E5070	E5170
3500	E4871	E4971	E5071	E5171
4000	E4872	E4972	E5072	E5172
4500	E4873	E4973	E5073	E5173
5000	E4874	E4974	E5074	E5174
6000	E4875	E4975	E5075	E5175
7000	E4876	E4976	E5076	E5176
8000	E4877	E4977	E5077	E5177
9000	E4878	E4978	E5078	E5178
10000	E4879	E4979	E5079	E5179
12500	E4880	E4980	E5080	E5180
15000	E4881	E4981	E5081	E5181

Resist. Ohms	1/4 WATT No.	1/2 WATT No.	1 WATT No.	2 WATT No.
17500	E4882	E4982	E5082	E5182
20000	E4883	E4983	E5083	E5183
22500	E4884	E4984	E5084	E5184
25000	E4885	E4985	E5085	E5185
30000	E4886	E4986	E5086	E5186
40000	E4887	E4987	E5087	E5187
50000	E4888	E4988	E5088	E5188
60000	E4889	E4989	E5089	E5189
75000	E4890	E4990	E5090	E5190
100000	E4891	E4991	E5091	E5191
150000	E4892	E4992	E5092	E5192
200000	E4893	E4993	E5093	E5193
250000	E4894	E4994	E5094	E5194
300000	E4895	E4995	E5095	E5195
400000	E4896	E4996	E5096	E5196
500000	E4897	E4997	E5097	E5197
600000	E4898	E4998	E5098	E5198
750000	E4899	E4999	E5099	E5199
900000	E4900	E5000	E5100	E5200
1 meg.	E4901	E5001	E5101	E5201
1.5 meg.	E4902	E5002	E5102	E5202
2 meg.	E4903	E5003	E5103	E5203
2.5 meg.	E4904	E5004	E5104	E5204
3 meg.	E4905	E5005	E5105	E5205
3.5 meg.	E4906	E5006	E5106	E5206
4 meg.	E4907	E5007	E5107	E5207
5 meg.	E4908	E5008	E5108	E5208
6 meg.	E4909	E5009	E5109	E5209
7 meg.	E4910	E5010	E5110	E5210
8 meg.	E4911	E5011	E5111	E5211
9 meg.	E4912	E5012	E5112	E5212
10 meg.	E4913	E5013	E5113	E5213

1/4 WATT Net Each 4c
Per Doz. 41c
Per 100 \$3.45

1/2 WATT Net Each 5c
Per Doz. 49c
Per 100 \$4.00

1 WATT Net Each 6c
Per Doz. 60c
Per 100 \$4.85

2 WATT Net Each 10c
Per Doz. 99c
Per 50 \$3.95

POPULAR KNIGHT CARBON RESISTOR KITS

EACH KIT CONTAINS 24 VALUES

Highest quality Knight Carbon Resistors. Packed in handy kits of 24 units of the most commonly used and needed values. Keep a kit on your work bench and a kit in your tool bag—you'll have the resistors you need when you want it. All resistors RMA color-coded. A handy celluloid Color-Code Guide is supplied FREE with each kit. Knight Resistors will save you time and money!

KITS CONTAIN THE FOLLOWING VALUES:

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
200	1000	6000	20000	50000	250000
400	2000	10000	25000	60000	500000
500	3000	12500	30000	75000	1 meg.
700	4000	15000	40000	100000	2 meg.

1 WATT KIT
Consists of one each of the above Knight Carbon Resistors in 1 watt size. **E5137. NET \$1.25**

1/2 WATT KIT
Consists of one each of the above Knight resistors in 1/2 watt size. **E5136. NET \$1.03**

1/4 WATT KIT
Consists of one each of the above Knight resistors in 1/4 watt size. **E5135. NET 87c**



RMA Color Coded

All Popular Values



RMA COLOR-CODE GUIDE
A handy pocket-size celluloid guide with rotary discs which show body, end and dot colors of resistors according to standard RMA color-code. Gives resistance value quickly. **E5130. YOUR PRICE 9c**
FREE with order for 24 resistors

Put in a stock of these high-grade money-saving kits. You can't beat them for quality, value and convenience. Order a supply now.

IRC RESISTORS

TYPE "BT" INSULATED METALLIZED RESISTORS



- Crack-proof, Trouble-free
- Completely Moisture-Sealed
- High Voltage Insulation

An improved new resistor design makes these units outstanding and desirable in every way. The high voltage insulating material absolutely eliminates danger of arcing. The quiet performance of these new type resistors renders them ideal for use in A.V.C. circuits, high gain amplifiers, etc. Each unit is color-coded and marked with resistance value. Accuracy is ± 10%. (Illustrations at left are actual size.)

STANDARD STOCK RANGES

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
0.5	30	350	2000	8000	25000	25000	1.5 meg.
1	40	400	2250	9000	30000	150000	2 meg.
2	50	450	2500	10000	35000	200000	3 meg.
3	75	500	3000	11000	40000	250000	4 meg.
5	100	600	3500	12000	50000	300000	5 meg.
7.5	120	750	4000	12500	60000	400000	6 meg.
10	150	800	5000	15000	65000	500000	7 meg.
15	200	1000	6000	17500	70000	600000	10 meg.
20	250	1250	7000	20000	75000	750000	20 meg.
25	300	1500	7500	22500	100000	1 meg.	

Type BT-1/2-1/2 Watt

E5705. Available in all ranges from 50 OHMS to 20 MEGOHMS. (Below 50 ohms use BW-1/2 resistors listed below.) $1\frac{1}{2}$ " long, $\frac{3}{16}$ " dia. Specify values when ordering. List, Each, 17c. NET EACH **10c**

Type BT-1-1 Watt

E5706. Available in all ranges from 150 OHMS to 20 MEGOHMS. (Below 150 ohms use BW-1 resistors listed below.) Size, $1\frac{3}{4}$ " x $\frac{3}{16}$ ". Specify values when ordering. List, Each, 20c. NET EACH **12c**

Type BT-2-2 Watt

E5707. Available in all ranges from 200 OHMS to 20 MEGOHMS. (Below 200 ohms use BW-2 resistors listed below.) Size, $1\frac{3}{4}$ " x $\frac{3}{16}$ ". Specify values when ordering. List, Each, 30c. NET EACH **18c**

TYPE "BW" INSULATED WIRE-WOUND RESISTORS



New type insulated, wire-wound resistors. Ideal for use with meters, as radio tube bias resistors or for air-cell battery use. May also be used as center-tapped resistors when hooked in series. Specify values when ordering.

Type BW-1/2-1/2 Watt

E5708. Available in all ranges from 0.5 to 750 ohms, in standard stock ranges shown above. Size, $\frac{1}{2}$ " x $\frac{3}{16}$ ". List, 17c. NET EACH **10c**

Type BW-1-1 Watt

E5709. Available in all ranges from 1 to 2500 ohms, in standard stock ranges shown above. Size, $1\frac{1}{2}$ " x $\frac{3}{16}$ ". List, 20c. NET EACH **12c**

Type BW-2-2 Watt

E5710. Available in all ranges from 1 to 7000 ohms, in standard stock ranges shown above. Size, $1\frac{3}{4}$ " x $\frac{3}{16}$ ". List, 30c. NET EACH **18c**



TYPE "F" METALLIZED RESISTORS

Quiet, metallized type resistors for use in critical circuits. Absolutely dependable famous IRC quality. Standard with leading manufacturers and radio servicemen. Order resistors desired from list of standard stock ranges above, specifying resistance and giving stock number shown under each type.

E5700. F-1/2-1/2 Watt

$1\frac{1}{2}$ " long. Available in all ranges from 50 OHMS to 10 MEG. List, 17c. NET EACH **10c**

E5701. F-1-1 Watt

$1\frac{3}{4}$ " long. Available in all ranges from 100 OHMS to 10 MEG. List, 20c. NET EACH **12c**

E5702. F-2-2 Watt

$1\frac{3}{4}$ " long. Available in all ranges from 200 OHMS to 10 MEG. List, 30c. NET EACH **18c**



POWER WIRE-WOUND RESISTORS

Finest resistance wire is evenly spaced on non-hygroscopic ceramic core. Durable cement coating provides protection against extreme heat and humidity. With timed wire leads. Actual tests prove these units superior for mechanical strength, load capacity, lower surface temperature, etc. Conform to N.E.M.A. standards and are accurate to within 5%. Ideal for All Service work.

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1	7.5	25	200	750	2000	5000	15000	30000
2	10	50	300	1000	2500	7500	20000	40000
3	15	75	400	1250	3000	10000	25000	50000
5	20	100	500	1500	4000			

TYPE AB-10 WATTS

E5750. Available in all ranges up to 50,000 ohms. Extremely popular among Servicemen and Experimenters for making up voltage divider networks. $1\frac{3}{4}$ " long, $\frac{3}{16}$ " diam. Heavy timed leads for easy connection. List, Each, 40c. NET EACH **24c**

TYPE DG-20 WATTS

Available in all ranges except 2, 3, 7.5, 15 and 20 ohms. $2\frac{1}{2}$ " long, $\frac{3}{16}$ " diam. For all types of installations. E5925. 1-15,000 Ohm Units. NET EACH **38c**
E5926. 20,000 to 50,000 Ohm Units. NET EACH **44c**

TYPE DG-20 WATTS

Available in all ranges except 2, 3, 7.5, 15 and 20 ohms. $2\frac{1}{2}$ " long, $\frac{3}{16}$ " diam. For all types of installations. E5925. 1-15,000 Ohm Units. NET EACH **38c**
E5926. 20,000 to 50,000 Ohm Units. NET EACH **44c**

BE SURE TO SPECIFY CORRECT VALUES WHEN ORDERING ABOVE RESISTORS

NEW IRC VOLUME CONTROL ANALYZER AND RESISTANCE INDICATOR



A new calibrated continuously variable Resistance Indicator. Fused to protect against overloads. Direct-reading rheostat scale covers entire range from zero to 1 Megohm. Four flexible leads permit it to be used as a voltage divider; for determining circuit values by substitution; for checking resistor units, potentiometers and volume controls. Housed in a sturdy molded bakelite case. Supplied complete with four color-coded leads, alligator clips, instructions. **\$485**

E5712. NET **\$485**
E5711. Extra $\frac{1}{2}$ amp. fuse. NET **12c**

NEW IRC ALL-METAL RESIST-O-CABINET



FREE-WITH PURCHASE OF 59 IRC RESISTORS

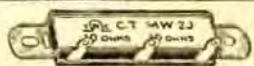
Sturdily built indestructible cabinet of heavy metal, handsomely finished in blue and silver. Has four metal drawers, each with stock labels on front, and seven permanently fastened metal partitions. Flange bottom permits stacking cabinets. Provides convenient storage for resistors or other small parts. Contains resistors as follows: BT- $\frac{1}{2}$ Watt, 1 each; 1000, 5000, 10000, 25000, and 50000 ohms, 2, 25, and 5 meas.; BT-1 Watt, 1 each; 4000 and 7500 ohms, 15 and 2 meas.; 2 each; 1000, 1500, 2000, 2500, 5000, 15000, and 25000 ohms, 10 and 2 meas.; 2 each; 10000 and 50000 ohms, 1, .25, and .5 meg.; AB 10 Watt, 1 each; 1000, 1500, 2500, and 5000 ohms; 2 each; 10000, 15000, and 25000 ohms; ABA 10 Watt adjustable, 1 each; 1000, 2500, 5000, and 10000 ohms. Overall size of cabinet, 11" long, 5 $\frac{1}{2}$ " high, 5 $\frac{1}{2}$ " deep. You pay only for the resistors at standard price; cabinet is supplied FREE. E5718. Cabinet complete with **\$8.91** above resistors. NET Cabineters are not sold separately.

IRC WIRE-WOUND PRECISION RESISTORS

Designed to meet the most exacting demands of accuracy and durability. Especially adapted for meter multipliers and shunts. Accuracy is within 1% of rated values. Units are non-inductively spaced wound on Isolairite forms. Resistance wire is enamel - insulated; windings are varnish - impregnated. Ideal for increasing the ranges of voltmeters and milliammeters, and for radars, radio control pads, etc. Sizes of values up to 500,000 ohms, $1\frac{1}{2}$ " long, $\frac{3}{16}$ " diameter. Solder lug terminals. Values from 0.6 meg to 2.5 meg, supplied with knurled nuts. Size, $2\frac{1}{8}$ " x $1\frac{3}{16}$ " dia. Available in odd sizes, not listed, on special order at cost equal to next higher value.



No.	Ohms	NET	No.	Ohms	NET
E4805	1		E4825	40000	\$0.79
E4807	10		E4826	50000	\$0.79
E4808	25		E4827	60000	.94
E4809	50		E4828	75000	.94
E4810	100	50c	E4829	100000	1.09
E4812	250		E4831	125000	1.23
E4806	250		E4832	150000	1.31
E4813	500		E4832	175000	1.28
E4814	1000		E4833	200000	1.38
E4845	1500		E4834	225000	1.53
E4846	2000	53c	E4835	250000	1.53
E4815	2500		E4836	300000	1.68
E4817	4000		E4837	400000	1.76
E4816	5000	59c	E4838	500000	2.00
E4817	7500		E4844	600000	2.50
E4818	10000		E4839	750000	2.65
E4819	12500		E4840	1 Meg.	3.09
E4820	15000		E4841	1.5 Meg.	4.41
E4821	20000		E4842	2 Meg.	5.88
E4822	25000		E4843	2.5 Meg.	7.35
E4823	30000	79c			



NEW IRC TYPE MW-2J CENTER-TAPPED RESISTORS

These units are the most completely protected wire-wound resistors available. Encased in a special phenolic compound impervious to moisture. Legs are clamped to element under high pressure. Mounting centers $2\frac{1}{2}$ ".

No.	Ohms	No.	Ohms
E5683	10	E5686	75
E5684	20	E5687	100
E5685	50	E5688	200

YOUR PRICE, EACH RESISTOR **21c**

Finest Quality RESISTORS

SPRAGUE "KOOLOHM" RESISTORS



Non-inductive wire-wound resistors accurate to 5%. Layer-wound and insulated with "Rubemote" which is non-moisture-absorbent and a rapid heat conductor. Encased in aluminum shell with firmly embedded terminals. Combine cooler operation with greater wattage capacity in minimum space.

Ohms	Ohms	Ohms	Ohms	Ohms
1	125	1000	5000	15000
2	150	1250	6000	17500
5	200	1500	7000	20000
10	250	1750	7500	25000
15	300	2000	8000	30000
20	400	2500	10000	40000
25	500	3000	11000	50000
50	600	3500	12000	60000
75	750	4000	12500	70000
100	800			

5 WATTS		10 WATTS	
E4430. 1 to 5,000 ohms.	EACH..... 18c	E4433. 1 to 25,000 ohms.	EACH..... 24c
E4431. 6,000 to 25,000 ohms.	EACH..... 21c	E4434. 30,000 to 30,000 ohms.	EACH..... 38c
E4432. 30,000 and 40,000 ohms.	EACH..... 24c	E4435. 60,000 and 70,000 ohms.	EACH..... 59c

SPECIFY VALUES WHEN ORDERING.

10 WATT "BUILD-YOUR-OWN" VOLTAGE DIVIDERS



Now you can have "tailor-made" voltage dividers for every detail requirement. Small, compact 10 watt units which can be quickly assembled on brass rod and mounting bracket to make up any desired value. Units are insulated with "Rubemote" same as Koolohm resistors above, providing rapid heat dissipation. E4440 hardware kit for building divider is furnished FREE with each purchase of two or more 10 Watt units.

Ohm	Ohms	Ohms	Ohms	Ohms
1	100	750	3500	15000
2	125	800	4000	17500
5	150	1000	5000	20000
10	200	1250	7000	25000
15	250	1500	7500	30000
20	300	1750	8000	35000
25	400	2000	10000	40000
50	500	2500	11000	50000
75	600	3000	12500	60000
				70000

E4436. 1 ohm to 25,000 ohms.		E4438. 40,000 ohms to 50,000 ohms.	
EACH.....	24c	EACH.....	41c
E4437. 30,000 ohms to 35,000 ohms.		E4439. 60,000 ohms to 70,000 ohms.	
EACH.....	35c	EACH.....	59c

Note: We can supply all Sprague Koolohm Resistors. Write for complete catalog.



WIRE-WOUND RESISTORS

Wire-wound on fibre strips. Low inductance.

No.	Ohms	No.	Ohms	No.	Ohms
E9075	1	E9080	8	E9085	30
E9076	2	E9081	10	E9086	40
E9077	3	E9082	15	E9087	50
E9078	4	E9083	20	E9088	100
E9079	5	E9084	25		

10 FOR 63c.		7c			
NET EACH.....					
E9088	200	E9092	600	E9094	900
E9090	400	E9093	700	E9095	1000
E9091	500				

10 FOR 73c.		8c			
NET EACH.....					
30000	41	E4302	39	E4769	39
40000	35	E4303	34	E4770	34
50000	25	E4304	30	E4771	30

NET EACH.....		83c		NET EA. \$1.00	
60000	20	E4305	28	E4772	28
80000	15	E4306			
100000	12	E4307			



EAGLE PLUNGER LEAK

Adjustable grid leak with a range from 0 to 50 megohms. Standard mounting.

E3974. YOUR PRICE.....	25c
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ADJUSTABLE WIRE-WOUND RESISTORS



KNIGHT

A husky resistor that will take a lot of punishment. Made to rigid specifications. Wound on ceramic tubes. Stock and use Knight resistors.

Two lines of quality wire-wound resistors. For use in power packs, as replacements, etc. Slot is provided for slider contact. Complete with one slider and mounting brackets. The very finest wire-wound resistors that can be bought today.



IRC

Wound on non-hygroscopic ceramic core for cool operation even at high overloads. Built to withstand intense heat, dampness and humidity.

10 WATT

Ohms	KNIGHT Size, 1 1/2" x 1/2"		IRC Size, 1 1/2" x 1/2"	
	M. A.	No.	M. A.	No.
1	3150	E4200	3150	E4460
2	2230	E4201	2210	E4461
3	1825	E4202	1830	E4463
5	1115	E4203	1420	E4464
7.5	1155	E4204	1150	E4465
10	1000	E4205	1000	E4466
15	815	E4206	820	E4467
20	707	E4207	720	E4468
25	630	E4208	640	E4469
50	447	E4209	440	E4471
75	365	E4210	360	E4472
100	315	E4211	315	E4473
150	258	E4212	260	E4492
200	223	E4213	220	E4474
250	200	E4214	200	E4493
300	182	E4215	175	E4475
400	158	E4216	157	E4476
500	141	E4217	140	E4477
600	129	E4218	125	E4494
750	115	E4219	115	E4495
1000	100	E4220	100	E4479
1250	89	E4221	80	E4480
1500	79	E4222	83	E4481
2000	69	E4223	71	E4482
2500	61	E4224	63	E4483
3000	56	E4225	57	E4484
3500	51	E4226	53	E4496
4000	47	E4227	50	E4485
5000	40	E4228	45	E4486
7500	32	E4229	36	E4487
8000	31	E4230	35	E4497
8500	30	E4231	34	E4498
9000	26	E4232	33	E4499
10000	24	E4233	31	E4488

NET EACH	29c	NET EACH	35c
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E4345. Extra Lug for Knight 10W Res.	5c
E4500. Extra Lug for IRC 10W Res.	6c

50 WATT

Ohms	KNIGHT Size, 4" x 1/2"		IRC Size, 4 1/2" x 1/2"	
	M. A.	No.	M. A.	No.
5	3160	E4275	3165	E4741
10	2240	E4276	2230	E4742
25	1420	E4277	1390	E4743
50	1000	E4278	1000	E4744
75	815	E4279	810	E4745
100	707	E4280	700	E4746
150	577	E4281	570	E4747
200	500	E4282	500	E4748
250	447	E4283	440	E4749
400	354	E4284	350	E4701
500	316	E4285	300	E4750
750	258	E4286	250	E4751
800	250	E4287	248	E4752
1000	224	E4288	215	E4753
1500	183	E4289	176	E4754
2000	158	E4290	155	E4755
2500	142	E4291	135	E4756
3000	129	E4292	120	E4757
4000	112	E4293	105	E4758
5000	100	E4294	95	E4759

NET EACH.....	66c	NET EACH.....	79c
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7500	81	E4295	77	E4761	77
8000	79	E4296	75	E4762	75
10000	70	E4297	66	E4764	66
12000	64	E4298	63	E4765	63
15000	57	E4299	56	E4766	56
20000	48	E4300	48	E4767	48
35000	43	E4301	43	E4768	43

NET EACH.....	73c	NET EACH.....	88c
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NET EACH.....	83c	NET EA. \$1.00	
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NET EACH.....	98c	NET EA. \$1.18	
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E4346. Extra Lug for Knight 50W Res.	5c
E4502. Extra Lug for IRC 50W Res.	6c

25 WATT

Ohms	KNIGHT Size, 2" x 1/2"		IRC Size, 2 1/2" x 1/2"	
	M. A.	No.	M. A.	No.
1	5000	E4240	6000	E4705
2	2850	E4241	2850	E4706
5	2240	E4242	2200	E4712
10	1580	E4243	1580	E4713
15	1290	E4244	1290	E4714
25	1000	E4245	1000	E4715
50	707	E4246	719	E4716
75	577	E4247	575	E4717
100	500	E4248	500	E4718
150	410	E4249	409	E4719
200	354	E4250	353	E4720
250	316	E4251	320	E4721
500	224	E4252	224	E4722
750	182	E4253	182	E4723
800	177	E4254	177	E4724
1000	158	E4255	158	E4725
1250	141	E4256	141	E4700
1500	129	E4257	129	E4726
2000	112	E4258	112	E4727
2500	100	E4259	100	E4728
3000	91	E4260	91	E4729
4000	84	E4261	84	E4730
4000	79	E4262	79	E4731
5000	70	E4263	71	E4732

NET EACH.....	42c	NET EACH.....	50c
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6000	64	E4264	64	E4733
7500	57	E4265	58	E4734
10000	50	E4266	50	E4735
12000	44	E4267	45	E4737
15000	34	E4268	41	E4738

NET EACH.....	46c	NET EACH.....	56c
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20000	28	E4269	35	E4739
25000	23	E4270	32	E4740

NET EACH.....	54c	NET EACH.....	65c
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E4346. Extra Lug for Knight 25W Res.	5c
E4501. Extra Lug for IRC 25W Res.	6c

80 WATT

Ohms	KNIGHT Size, 6" x 1/2"		IRC Size, 6 1/2" x 1/2"	
	M. A.	No.	M. A.	No.
5	3870	E4310	4000	E4802
10	2730	E4311	2730	E4773
15	2230	E4312	2230	E4774
25	1730	E4313	1730	E4775
50	1230	E4314	1230	E4776
100	865	E4315	865	E4777
250	545	E4316	545	E4778
300	500	E4317	500	E4779
500	387	E4318	387	E4780
750	316	E4319	316	E4781
1000	274	E4320	274	E4782
1500	223	E4321	223	E4783
2000	193	E4322	193	E4784
2500	173	E4323	173	E4785
3500	145	E4324	145	E4786
5000	122	E4325	122	E4787

NET EACH.....	85c	NET EA. \$1.03	
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7500	100	E4326	100	E4789
10000	88	E4327	86	E4790
15000	70	E4328	70	E4791
20000	61	E4329	61	E4792
25000	55	E4330	55	E4793

NET EACH.....	98c	NET EA. \$1.18	
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NET EA. \$1.10		NET EA. \$1.32	
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NET EA. \$1.22		NET EA. \$1.47	
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E4346. Extra Lug for Knight 80W Res.	5c
E4503. Extra Lug for IRC 80W Res.	6c

RESISTORS • BALLASTS

OHMITE WIRE-WOUND RESISTORS



"RED DEVIL"

For all radio requirements. Wire-wound on low-loss porcelain core; coated with refractory cement which protects wire even at red heat. Will not deteriorate or change value with age. Efficiency is 100% at rated voltage; will stand temporary overloads of up to 50 watts. Size, $1\frac{1}{2} \times \frac{3}{8}$ ". Firmly anchored $1\frac{1}{2}$ " tinned leads.



"BROWN DEVIL"

A high quality line of wire-wound resistors for all radio and industrial requirements. Accurately rated; wound on porcelain core. These resistors have a vitreous enamel coating for complete protection. Especially recommended where abnormal moisture is present. Size, $1\frac{1}{2} \times \frac{3}{8}$ "; with heavy tinned wire leads, $1\frac{1}{2}$ " long.

STANDARD STOCK RANGES

Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms	Ohms
1*	25	225*	750	1750	4000	11000*	20000	60000†
2*	30*	250	800	1850†	4500	12000*	22500*	65000†
3*	35*	300	850†	2000	5000	12500	25000	70000†
4*	40*	350	900*	2250	6000	13500*	30000	75000†
5	50	400	1000	2400†	7000	14300*	35000	80000†
7.5*	75	450*	1100*	2500	7500	15000	40000	85000†
10	100	500	1200	2750†	8000	16000*	45000	90000†
12*	125*	600*	1250	3000	8500*	17500*	50000	95000†
15*	150	650†	1500	3500	10000	18000*	55000†	100000†
20*	200	700						

"RED DEVIL"—10 WATTS

E8290. Available in all values from 1 to 25,000 ohms, except those marked †. Specify value desired when ordering.

NET EACH **24c**

"BROWN DEVIL"—10 WATTS

E8292. Available in all values from 1 to 50,000, except those marked †. Specify value desired when ordering.

NET EACH **24c**

Be sure to specify value desired when ordering "Red Devil" or "Brown Devil" Resistors.

"BROWN DEVIL"—20 WATTS

Available in all values listed above, except those marked *.

E8293. Values, 5 to 15,000 ohms. Size, $2\frac{1}{2} \times \frac{1}{2}$ ". Specify value desired.

NET EACH **38c**

E8294. Values, 20,000 to 50,000 ohms. Size, $2\frac{1}{2} \times \frac{1}{2}$ ". Specify value desired.

NET EACH **44c**

E8295. Values, 55,000 to 100,000 ohms. Size, $2\frac{1}{2} \times \frac{1}{2}$ ". Specify value desired.

NET EACH **59c**

MUTER WIRE-WOUND ZIPOHM RESISTORS



Flat, wire-wound resistors to replace overloaded carbon units. Each resistor is clearly marked with a tag. They are noiseless, thoroughly insulated, and accurate to within 5%.

Ohms	Ohms	Ohms	Ohms	Ohms
100	600	1500	4500	12500
125	700	1750	5000	13000
150	750	2000	6000	16000
200	800	2250	7000	17500
250	900	2500	7500	18000
300	1000	3000	8000	20000
350	1100	3500	9000	22500
400	1200	4000	10000	25000
500	1250			

E6748. 5 WATT. Size, $1\frac{1}{2} \times \frac{3}{8}$ ", except units rated 12500 to 25000 ohms which are $2\frac{1}{2} \times \frac{1}{2}$ ". With $1\frac{1}{2}$ " tinned leads.

NET EACH **15c**
Specify values desired when ordering.



CANDOHM RESISTORS

These resistors are exact duplicates of the originals listed below. To order units not listed, give all numbers on original part. Also give make, model and tube line-up of set. Please include deposit with your order.

No.	Fact. No.	Ohms	NET
Clarion (Trans. Corp.)			
E6551	1810	15100	.59
E6553	4289	19200	.68
E6593	4305	19600	.59
E6594	4512	19085	.59
Crosley			
E6529	20452B	4295	.68
E6530	20900	10000	.49
E6531	21955	6500	.49
E6532	21956	3160	.29
E6536	28471	33500	.39
Majestic			
E6543	10145	21702	.68
E6544	10252	10000	.29
U.S. Radio & Tel.			
E6556	1959	23500	1.56
E6557	2303	3840	.39
E6561	2811A	4450	.68
E6562	3111	6825	.78
E6563	3380	24300	.88
E6565	3621	3315	.78
E6566	3622	4300	.49
E6572	6749	17560	.38
E6573	2792	45	.21
Wells-Garden			
E6597	98002	39050	.71
E6598	98020	41000	.59
Zenith			
E6595	63-351	17035	.59

LINE CORDS AND VOLTAGE REGULATORS



AC-DC SET LINE CORDS

Line cord with built-in resistor which supplies proper filament voltage for the popular 3 amp. metal and glass tubes when they are connected in series. Shpg. wt., 1 lb.

No.	Ohms	Filament Drop	NET EACH
E7207	300	10.0 to 17.0 V.	
E7206	330	18.0 to 24.0 V.	
E7205	290	25.2 to 31.5 V.	
E7204	250	35.0 to 44.5 V.	
E7203	230	45.0 to 52.0 V.	
E7202	180	53.0 to 61.0 V.	29c
E7201	160	56.5 to 68.9 V.	
E7200	155	68.9 to 75.2 V.	

REPLACEMENT LINE BALLASTS

Exact duplicate line ballasts to replace original units in sets designed for their use. Made of quality parts to exact specifications of originals, both physically and electrically. These units maintain normal voltage in spite of line fluctuations from 90 to 135 volts, thus assuring better radio performance and preventing damage to other parts of set. Enclosed in air-cooling perforated metal cases. Shpg. wt., 1 lb. We can supply replacement ballasts for practically any set made. Send in original with deposit, stating make, model and tube line-up of set, and we shall supply promptly.

E3274.	For Brunswick receivers.
E3275.	For Majestic 70 series.
E3278.	For Majestic 186 series.
E3279.	For Majestic 90 series.
E3283.	For Stewart-Warner 900 series.
E3284.	For Stewart-Warner 950 series.
E3285.	For Stewart-Warner R100 series.

List, \$1.50. **YOUR PRICE EACH 88c**

UNIVERSAL RESISTOVOLT

Automatic voltage regulator. Maintains a constant potential of 110 Volts, preventing tube burnouts. Operates automatically. Shpg. wt., 1 lb. each.

E5500. Light Duty for sets up to 6 tubes.
E5501. Heavy Duty for sets over 6 tubes.
NET EACH **56c**

CLAROSTAT A.C. LINE VOLTAGE REGULATOR

Automatically adjusts line voltage for all 110 Volt A.C. radios using power as shown. Gives protection against fluctuating voltages, 1 lb. each.

No.	Type	Watts
E3260	O.	Up to 50
E3261	A.	60 to 100
E3262	B.	100 to 150
E3263	C.	150 to 200
E3264	D.	200 to 250

List, \$1.75. **NET EACH 49c**

VOLTAGE REDUCING RESISTOVOLT

Reduces 220 Volts A.C. to 110 Volts A.C. to permit the operation of any A.C. radio receiver without change in circuit of wiring. Easy to install. Simply plug Resistovolt into electric line socket, then plug radio set line cord into other end of Resistovolt. Will accommodate any set with power consumption of 60 watts or less. Built for efficient service. Wt., 1 lb.

E9145. List, \$1.50. **NET 59c**

PROTEX VOLTAGE REGULATOR

An air-cooled dependable voltage regulator. Fits any standard socket or outlet and will deliver correct voltage to any set. Small and inconspicuous. Extremely efficient. Will give lasting service. 1 lb. Lots of 10, \$2.85. **E9370. EACH 30c**

CANDOHMETER RESISTANCE INDICATOR

Accurately calibrated dual-range resistance indicator. Quickly and accurately determines the value necessary for replacing any burned-out or defective resistor. Sliding test prod. moves freely in exposed slot. With leads, prod. and clips.

E6599. 0-10,000; 0-100,000. **\$1.18**

E6596. 0-100; 0-1000 Ohms. **\$1.03**

Shpg. wt., 1 lb. NET

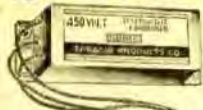
CENTER-TAPPED RESISTORS

May be used in any filament or hum balancing circuit. Wire-wound on flexible fibre strip.

No.	Ohms	No.	Ohms	No.	Ohms
E9096	6	E9099	20	E9102	100
E9097	10	E9100	40	E9103	200
E9098	15	E9101	60	E9104	400

10 FOR 71c. **NET EACH 8c**

450 V. ELECTROLYTICS



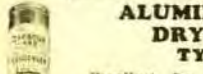
CARDBOARD TYPE LD
Exceptionally high quality dry electrolytic condensers. Compact, moisture-proof. Wkg. V. 450; Peak V., 525.

No.	Mfd.	Size	NET
E 1400	2	2 1/2 x 1 1/2 x 1 1/8	\$0.38
E 1401	4	4 1/2 x 1 1/2 x 3/8	.44
E 1402	6	4 1/2 x 1 1/2 x 1	.53
E 1403	8	4 1/2 x 1 1/2 x 1 1/4	.56
E 1411	10	4 1/2 x 1 1/2 x 1 3/8	.63
E 1404	12	4 1/2 x 1 1/2 x 1 1/2	.68
E 1405	16	4 1/2 x 1 1/2 x 1 3/4	.85
E 1406	4-4	4 1/2 x 1 1/2 x 1 1/4	.71
E 1407	4-8	4 1/2 x 1 1/2 x 1 1/2	.79
E 1408	8-8	4 1/2 x 1 1/2 x 1 3/4	.88
E 1409	8-8	(4 Leads)	.88
E 1410	8-8	4 1/2 x 1 1/2 x 2	1.29
E 1412	8-8	(6 Leads)	1.29



"TINY-MIKES" TYPE TM
Ideal for replacement work. Low power factor. Working Volts, 450 D.C.

No.	Mfd.	Size	NET
E 1413	1	1 3/4 x 1 1/2 x 2 1/2	\$0.32
E 1414	2	1 3/4 x 1 1/2 x 2 1/2	.38
E 1415	4	1 3/4 x 1 1/2 x 2 1/2	.44
E 1416	6	1 3/4 x 1 1/2 x 2 1/2	.53
E 1417	8	1 3/4 x 1 1/2 x 2 1/2	.56
E 1418	10	1 3/4 x 1 1/2 x 2 1/2	.68
E 1419	1-4	(4 Leads)	.71
E 1420	8-8	(4 Leads)	.88



ALUMINUM CAN DRY UNITS TYPE LS

Excellent for all filter uses. Extremely low power factor. Assure best results. Hermetically sealed against moisture; unaffected by heat. Supplied with insulated washers, solder lug terminal nut and lock washer. Wkg. V. 450. Maximum surge voltage, 525 volts. High quality compact units.

No.	Mfd.	Size	NET
E 1438	2	1 1/2 x 1 1/2	\$0.44
E 1439	4	1 1/2 x 1 1/2	.50
E 1440	8	1 1/2 x 1 1/2	.62
E 1441	12	1 1/2 x 1 1/2	.82
E 1442	16	1 1/2 x 1 1/2	.91
E 1443	8-8	1 1/2 x 1 1/2	.94
E 1444	8-8	(4 Leads)	.94



TUBULAR ELECTROLYTICS

Specially designed for compact use. Exceptionally heat-proof. With ample pig-tail leads or covered push-back.

No.	Mfd.	Wkg. V.	Size	NET
E 1480	1	450	5/8 x 2 1/2	\$0.32
E 1481	2	450	1 1/4 x 2 1/2	.38
E 1483	8	450	1 1/4 x 2 1/2	.56
E 1484	8-8	450	1 1/4 x 2 1/2	.88
E 1485	2	200	1 1/4 x 2 1/2	.32
E 1489	10	300	1 1/4 x 2 1/2	.62
E 1490	20	300	1 1/4 x 2 1/2	.73
E 1491	8-8	300	1 1/4 x 2 1/2	.73
E 1492	8-12	200	1 1/4 x 2 1/2	.82
E 1493	8-10	300	1 1/4 x 2 1/2	.85
E 1494	8-10	100	1 1/4 x 2 1/2	.29
E 1496	8	100	1 1/4 x 2 1/2	.35
E 1498	25	100	1 1/4 x 2 1/2	.66
E 1430	10	50	1 1/4 x 2 1/2	.38
E 1432	50	50	1 1/4 x 2 1/2	.71
E 1433	25	11 1/2 x 2 1/2	.29	
E 1434	10	25	1 1/4 x 2 1/2	.29
E 1436	70	25	1 1/4 x 2 1/2	.56
E 1437	10-10	25	1 1/4 x 2 1/2	.44

TYPE SW OIL-IMPREGNATED SHORT WAVE CONDENSERS



Compact, oil-impregnated, cartridge-type condensers. Ideal for a 1) HP work. Metal-rod; moisture-proof.

No.	Mfd.	Wkg. V.	Size	NET
E 1422	.002	1500	5/8 x 1 1/2	\$0.26
E 1423	.005	1500	5/8 x 1 1/2	.26
E 1424	.01	1500	1 1/4 x 1 1/2	.41
E 1427	.02	1500	5/8 x 1 1/2	.44
E 1425	.05	1000	5/8 x 2 1/4	.47
E 1426	.1	1000	5/8 x 2 1/4	.53



NEW SPRAGUE "ATOMS" MIDGET ELECTROLYTICS

Brand new "bite-size" dry electrolytic perfect for hundreds of replacements. Sized to fit in the smallest spaces, yet built for very low leakage, high voltage, and unusually long life. Contained in hermetically sealed aluminum tubes and protected against "blow-outs."

No.	Mfd.	Wkg. V.	Size	NET
E 13316	1	450	5/8 x 1 1/2	32c
E 13317	8	450	5/8 x 1 1/2	35c
E 13318	12	450	5/8 x 1 1/2	44c
E 13319	16	450	5/8 x 1 1/2	53c
E 13320	20	450	5/8 x 1 1/2	59c
E 13313	4	350	5/8 x 1 1/2	29c
E 13314	8	350	5/8 x 1 1/2	32c
E 13315	12	350	5/8 x 1 1/2	41c
E 13309	4	250	5/8 x 1 1/2	26c
E 13310	8	250	5/8 x 1 1/2	29c
E 13311	12	250	5/8 x 1 1/2	38c
E 13312	16	250	5/8 x 1 1/2	44c
E 13303	4	150	5/8 x 1 1/2	24c
E 13304	8	150	5/8 x 1 1/2	26c
E 13305	12	150	5/8 x 1 1/2	35c
E 13306	16	150	5/8 x 1 1/2	35c
E 13307	20	150	5/8 x 1 1/2	35c
E 13308	40	150	5/8 x 1 1/2	38c
E 13302	25	50	5/8 x 1 1/2	32c
E 13300	10	25	5/8 x 1 1/2	24c
E 13301	25	25	5/8 x 1 1/2	29c

DUAL CARDBOARD TUBULARS

No.	Mfd.	Wkg. V.	Size	NET
E 13328	8-8	200	1 1/2 x 2 1/2	59c
E 13327	8-16	200	1 1/2 x 2 1/2	59c
E 13326	12-12	200	1 1/2 x 2 1/2	56c
E 13329	16-16	200	1 1/2 x 2 1/2	62c
E 13325	10-10	50	1 1/2 x 2 1/2	38c

HANDY KITS OF "ATOMS"

KIT NO. 1 Contains six of the popular 8 Mfd. 450 V. Atoms. **\$1.99**
KIT NO. 2 Consists of twelve of the 8 Mfd. 450 V. Atoms. **\$3.89**



TUBULAR BY-PASS UNITS

Neat and compact tubular condensers. Non-inductively wound. Oil-impregnated for superior service. For all R.F. and Audio circuits.

TYPE TC—Test Volts 1200—Wkg. Volts 600

No.	Mfd.	Size	NET	
E 1360	.0001	7/8 x 3/4	EACH NET 9c	
E 1361	.0025	7/8 x 3/4		
E 1362	.004	7/8 x 3/4		
E 1363	.0005	7/8 x 3/4		
E 1364	.001	1 1/4 x 3/4		
E 1365	.002	1 1/4 x 3/4		
E 1366	.003	1 1/4 x 3/4		
E 1367	.004	1 1/4 x 3/4		
E 1368	.005	1 1/4 x 3/4		
E 1369	.006	1 1/4 x 3/4		
E 1370	.01	1 1/4 x 3/4		
E 1371	.02	1 1/4 x 3/4		
E 1378	.03	1 1/4 x 3/4		12c
E 1379	.04	1 1/4 x 3/4		12c
E 1372	.05	1 1/4 x 3/4	15c	
E 1373	.06	1 1/4 x 3/4	15c	
E 1374	.1	1 1/4 x 3/4	15c	
E 1375	.25	2 1/4 x 3/4	21c	
E 1376	.5	2 1/4 x 3/4	29c	
E 1377	1.0	2 1/4 x 3/4	47c	

HANDY KIT OF TYPE TC CONDENSERS

This kit provides a handy means of keeping in your tubular condenser stock. You will be sure of having all the capacitance you need—when you need them. Contains: 2—.01, 2—.02, 2—.05, 8—.1, 4—.25 and 4—.5 condensers. All 25 units are 600 Volts working. **E 1452. YOUR PRICE... \$3.75**

600 V. ELECTROLYTICS



ALUMINUM CAN TYPE

Extremely long-life filter condensers. Low power factor and low leakage give you better filtering at less cost. 600 Volts Peak, 475 Volts Working. Impervious to heat and moisture. Types A and B have mounting brackets.

UPRIGHT TYPE AC—FIG. A

No.	Mfd.	Size	List	NET
E 1330	2	1 1/2 x 2 1/2	\$1.10	\$0.88
E 1331	8	1 1/2 x 2 1/2	1.50	1.21
E 1332	12	1 1/2 x 2 1/2	2.05	1.21
E 1333	16	1 1/2 x 2 1/2	2.30	1.35

MULTIPLE UNITS—FIG. B

No.	Mfd.	Size	List	NET
E 1334	8-8	1 1/2 x 2 1/2	2.40	1.41
E 1335	8-8-8	3 x 2 1/2	4.00	2.35
E 1336	5-1	2 1/2 x 1 1/2	3.35	1.96
E 1337	9-0-18	3 x 1 1/2	5.80	3.41
E 1338	8-8-8-8	3 x 1 1/2	5.33	3.14
E 1340	18-18	2 1/2 x 2 1/2	4.90	2.88

INVERTED TYPE SC—FIG. C

Dry electrolytic in aluminum cans with screw thread mounting. With heat-shielding washers.

No.	Mfd.	Size	List	NET
E 1341	4	1 1/2 x 2 1/2	\$1.25	\$0.73
E 1342	8	1 1/2 x 2 1/2	1.50	.88
E 1345	12	1 1/2 x 2 1/2	1.80	1.06
E 1346	16	1 1/2 x 2 1/2	2.05	1.21
E 1347	10	1 1/2 x 2 1/2	2.30	1.35
E 1343	8-8	1 1/2 x 2 1/2	2.40	1.41
E 1344	8-8	(4 Leads)	2.40	1.41

"500" WET ELECTROLYTICS

Heavy-duty, self-healing condensers. Leak-proof. 500 Volts Peak, 400 Volts Working.

Type WC—Fig. D—500 Volts Peak

No.	Mfd.	Size	NET
E 1350	4	1 1/2 x 2 1/2	\$0.47
E 1351	8	1 1/2 x 2 1/2	.56
E 1359	8	1 1/2 x 2 1/2	.56
E 1352	10	1 1/2 x 2 1/2	.62
E 1353	12	1 1/2 x 2 1/2	.68
E 1354	16	1 1/2 x 2 1/2	.79
E 1355	18	1 1/2 x 2 1/2	.88
E 1356	25	1 1/2 x 2 1/2	.97

Peak Voltage—300 Volts

No.	Mfd.	Size	NET
E 1357	18	1 1/2 x 2 1/2	.68
E 1358	40	1 1/2 x 2 1/2	.79

600 V. CARDBOARD CASED



For use under high surge conditions. Low power factor. 600 Volts Peak, 475 Volts Working. With long push-back leads and handy mounting flanges.

TYPE DC—STANDARD UNITS

No.	Mfd.	Size	NET
E 1300	2	2 1/2 x 3 1/2	\$0.56
E 1301	4	4 1/2 x 3 1/2	.68
E 1302	8	4 1/2 x 3 1/2	.76
E 1303	8	4 1/2 x 3 1/2	.79
E 1304	4-4	4 1/2 x 3 1/2	1.06
E 1305	4-8	4 1/2 x 3 1/2	1.18
E 1306	8-8	4 1/2 x 3 1/2	1.29
E 1307	8-8	(4 Leads)	1.29

NEW FIXED MICAS

New Sprague fixed mica condensers. Impregnated against moisture. Very low power factor. Equipped with heavy, flexible wire leads. Ideal for replacement use or in new equipment. Working volts 600.

No.	Mfd.	NET	No.	Mfd.	NET
E 1315	.0005	9c	E 1320	.002	18c
E 1316	.001	9c	E 1321	.003	24c
E 1317	.0025	12c	E 1322	.004	26c
E 1318	.005	15c	E 1323	.005	29c
E 1319	.01	15c	E 1324	.008	35c

KNIGHT ELECTROLYTIC CONDENSERS



UNCONDITIONALLY GUARANTEED FOR ONE YEAR

Cross-section of a typical KNIGHT Electrolytic Condenser. Highest quality materials are used throughout, and are combined with skilled production to assure you of a finer condenser at a lower price.

CARDBOARD CASED DRY ELECTROLYTICS

These KNIGHT single and multiple section electrolytic condensers are adaptable to practically any filter and by-pass application. Flanges may be removed without injury to condenser. The 6" color-coded insulated leads allow the greatest possible flexibility in mounting. Conservatively rated at 525 D.C. surge volts, 450 D.C. working volts. Multiple units have separate sections. Whether used for replacement or construction work, these KNIGHT condensers will do the job efficiently and inexpensively.



525 Volts Surge—450 Volts Wkg. SINGLE SECTION

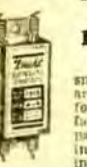
No.	Mfd.	Size	NET
E33823	2	4 1/2 x 1 1/2 x 3/8	23c
E33824	4	4 1/2 x 1 1/2 x 3/8	27c
E33825	6	4 1/2 x 1 1/2 x 3/8	32c
E33826	8	4 1/2 x 1 1/2 x 3/8	34c
E33827	10	4 1/2 x 1 1/2 x 3/8	41c
E33828	12	4 1/2 x 1 1/2 x 3/8	47c
E33811	16	4 1/2 x 1 1/2 x 3/8	52c

MULTIPLE SECTION

No.	Mfd.	Size	NET
E33830	4-4	4 1/2 x 1 1/2 x 3/8	43c
E33831	4-8	4 1/2 x 1 1/2 x 3/8	49c
E33832	6-6	4 1/2 x 1 1/2 x 3/8	49c
E33833	6-8	4 1/2 x 1 1/2 x 3/8	54c
E33834	4-4-4	4 1/2 x 1 1/2 x 3/8	65c
E33835	8-8-8	4 1/2 x 1 1/2 x 3/8	80c

BANTAM SIZE DRY ELECTROLYTICS

The latest perfected development in small electrolytics. Same as standard condenser along except that the foil has been treated to increase surface area, consequently increasing capacity and decreasing overall size. Six inch leads. With tabs for easy mounting. Hole centers 2 1/4".



525 Volts Surge—450 Volts Wkg.

No.	Mfd.	Size	NET
E33813	2	2 1/2 x 1 1/2 x 3/8	23c
E33814	4	2 1/2 x 1 1/2 x 3/8	27c
E33815	6	2 1/2 x 1 1/2 x 3/8	32c
E33816	8	2 1/2 x 1 1/2 x 3/8	34c
E33817	10	2 1/2 x 1 1/2 x 3/8	47c
E33818	12	2 1/2 x 1 1/2 x 3/8	43c
E33819	8-8	2 1/2 x 1 1/2 x 3/8	54c

VOLTAGE DOUBLING DUAL SECTIONS

Quality-built electrolytic condensers especially designed for filter use in A.C.-D.C. sets or for voltage-doubling circuits in 4.0" sets using 1.5 or 2525 or 2520 tubes. With 4 colored flexible 6 inch insulated wire leads—2 black and 2 red. Each cavity in a separate condenser section. Careful production assures long life.



300 Volts Surge—150 Volts Wkg.

No.	Mfd.	Size	NET
E3807	10-10	3x2x1	45c
E3808	12-12	3x2x1	49c
E3809	16-16	3x2x1	56c
E3810	20-20	3x2x1	63c

THE FINEST ELECTROLYTIC CONDENSERS YOU CAN BUY!

Quality materials, quality construction, and quality safeguards have earned for KNIGHT Condensers a national reputation for outstanding efficiency, long-life, and trouble-free service. Thousands of Servicemen, Amateurs, Radio Builders and Experimenters use KNIGHT Condensers exclusively because they have found these units to be absolutely the equivalent of the finest standard makes and yet priced much lower under the KNIGHT famous quality trade-mark.

TYPICAL CONSTRUCTION FEATURES:

1. Sturdy outside cardboard container.
2. Wax-impregnated, moisture-resisting inner liner.
3. Carton completely filled with pure, high-temperature wax.
4. Etched aluminum foil increasing capacity per square inch.
5. Superior grade cellulose separator.
6. Terminal lead securely and permanently riveted.
7. Flexible, insulated push-back leads.

Electrically and mechanically, KNIGHT Condensers are the best that can be made and are guaranteed unconditionally for a year. ALLIED will replace any KNIGHT Condenser that does not give one full year of satisfactory performance when operated at correct rated voltage. Simply return the condenser if it does not live up to this guarantee, and we will promptly send you a new one without charge.



NEW "TINY KNIGHTS" DRY ELECTROLYTICS

Newly developed dry electrolytics designed to fit the smallest spaces. Full capacity provided by special etched foil. Built for low leakage and to withstand high surges. Hermetically sealed.

No.	Mfd.	Wkg. V.	Size	NET
E4400	4	450	1 1/2 x 3/8 x 3/8	24c
E4401	8	450	1 1/2 x 3/8 x 3/8	27c
E4402	12	450	1 1/2 x 3/8 x 3/8	33c
E4403	16	450	1 1/2 x 3/8 x 3/8	40c
E4404	20	450	1 1/2 x 3/8 x 3/8	44c
E4405	4	350	1 1/2 x 3/8 x 3/8	22c
E4406	8	350	1 1/2 x 3/8 x 3/8	24c
E4407	12	350	1 1/2 x 3/8 x 3/8	31c
E4408	4	250	1 1/2 x 3/8 x 3/8	20c
E4409	8	250	1 1/2 x 3/8 x 3/8	22c
E4410	12	250	1 1/2 x 3/8 x 3/8	29c
E4411	16	250	1 1/2 x 3/8 x 3/8	33c
E4412	4	150	1 1/2 x 3/8 x 3/8	18c
E4413	8	150	1 1/2 x 3/8 x 3/8	20c
E4414	12	150	1 1/2 x 3/8 x 3/8	22c
E4415	16	150	1 1/2 x 3/8 x 3/8	24c
E4416	20	150	1 1/2 x 3/8 x 3/8	27c
E4417	40	150	1 1/2 x 3/8 x 3/8	29c
E4418	25	50	1 1/2 x 3/8 x 3/8	24c
E4419	10	25	1 1/2 x 3/8 x 3/8	18c
E4420	25	25	1 1/2 x 3/8 x 3/8	22c

DUAL CARDBOARD TUBULARS

No.	Mfd.	Wkg. V.	Size	NET
E4421	8-8	450	2 1/2 x 3/8 x 3/8	44c
E4422	8-16	200	2 1/2 x 3/8 x 3/8	42c
E4423	12-12	200	2 1/2 x 3/8 x 3/8	42c
E4424	16-16	200	2 1/2 x 3/8 x 3/8	42c
E4424	10-10	50	2 1/2 x 3/8 x 3/8	29c

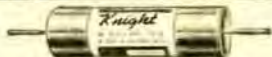
(Deduct 5% on Orders for 10 or More.)



WET ELECTROLYTICS

For heavy duty filter work. Self-healing properties and ability to withstand voltage overloads make these units dependable. 1 1/2" dia., 1 1/2" high.

No.	Mfd.	Peak Volts	NET
E22712	8	600	59c
E22713	8	500	59c
E22714	8	500	38c
E22715	10	500	43c
E22716	12	500	46c



CARTRIDGE TYPE DRY ELECTROLYTICS

Cardboard encased electrolytics with 2" bare wire leads. Completely wax-filled. They vary from 2 to 3" long; 5/8 to 1" diameter.

No.	Mfd.	D.C. Wkg.	Surge V.	NET
E3776	1	450	525	20c
E3777	2	450	525	24c
E3778	4	450	525	33c
E3779	8	290	250	37c
E3780	16	150	200	38c
E3781	5	50	75	22c
E3782	10	50	75	22c
E3790	5	25	40	16c
E3791	10	25	40	16c
E3792	25	25	40	18c
E3793	5-5	25	40	25c
E3794	10-10	25	40	28c
E3800	60	15	25	24c

(Deduct 10% on Orders for 10 or More.)

ALUMINUM CAN DRY ELECTROLYTICS

Popular, low-priced dry electrolytic condensers mounted in aluminum insulated containers. Have standard stud and nut mounting and insulated leads. Length, 3 1/2" for E3850-51; 3 1/2" for the others.

No.	Mfd.	Diz.	NET
E3850	2	1 1/2"	27c
E3851	4	1 1/2"	31c
E3852	6	1 1/2"	36c
E3853	8	1 1/2"	38c
E3854	10	1 1/2"	45c
E3855	12	1 1/2"	50c
E3856	4-4	1 1/2"	47c
E3857	6-6	1 1/2"	56c
E3858	8-8	1 1/2"	58c



MULTIPLE UPRIGHTS

In moisture-proof aluminum containers with each section separately wrapped and fully insulated from the others. Negative terminals grounded to cans; positive leads brought out to soldering lugs at top. Working voltage, 450; surge voltage, 525.

No.	Mfd.	Size	NET
E3860	8-8	4x2 1/2	\$0.65
E3861	4-4-4	4x2 1/2	.77
E3862	5-5-5	4x2 1/2	.83
E3863	8-8-8	4x3	.87
E3864	8-8-8-8	4x3	1.30
E3865	9-9-18	4x3	1.35
E3866	9-9-18-18	4x3	1.89

ALUMINUM-COATED CARDBOARD CONTAINERS

Popular replacements for A.C.-D.C. and midge A.C. receivers. Containers are of aluminum-coated cardboard. Spade lugs are provided for easy mounting. Flexible insulated wire leads. Ratings are conservative, assuring long life and efficient operation. Containers are 3 1/2" long; from 1 1/2" to 1 1/2" dia. Buy a stock of condensers of different values so that you will have a replacement for every service job on hand always.



No.	Mfd.	Peak Volts	NET
E2738	8-16	500	88c
E2739	4-8	500	54c
E2740	8-8	500	60c
E2741	16	500	54c
E2737	12-16	500	92c
E2738	4-4-4	500	75c
E2733	8-8-8	500	83c

LOW VOLTAGE ELECTROLYTICS

No.	Mfd.	Peak Volts	NET
E3734	8	200	34c
E3735	16	200	46c
E3736	8-8	200	50c
E3737	8-16	200	58c
E3738	8-20	200	63c
E3739	8-30	200	71c
E3740	8-40	200	86c
E3741	12-12	200	62c
E3742	12-16	200	67c
E3743	12-24	200	73c
E3744	8-8-8	200	70c
E3745	10-10-20	200	75c
E3746	8-14	200	85c
E3747	10-10	35	
E3748	8-20	200	87c
E3748	10-10	35	
E3748	12-16	200	90c
E3748	10-10	35	

KNIGHT BY-PASS AND REPLACEMENT CONDENSERS



KNIGHT MOLDED BAKELITE MICA CONDENSERS

Genuine bakelite molded units available in four convenient mounting styles. Highest quality mica dielectric and bakelite frame. Size: Insulated mounting type, 1 1/2 x 1 1/2. Pigtail and Lug Types, 5/8 x 3/4. Types B and C have metal terminals which may also be used for sub-mounting. Highest quality mica units available.

Cap. Mfd.	Pigtail Type (Fig. A)	Insul. Hole (Fig. B)	Lug Type (Fig. C)	Net Each
.000025	E7827	E7826	E7844	8c
.00004	E7828	E7809	E7845	
.00005	E7829	E7810	E7846	
.0001	E7830	E7811	E7847	
.00015	E7831	E7812	E7848	10 for
.0002	E7832	E7812	E7849	71c
.00025	E7833	E7813	E7850	12c
.0004	E7834	E7814	E7851	
.0005	E7835	E7815	E7852	
.0008	E7836	E7816	E7853	
.001	E7837	E7817	E7854	10 for
.0015	E7838	E7818	E7855	\$1.08
.002	E7839	E7819	E7856	
.0025	E7840	E7820	E7857	
.003	E7841	E7821	E7858	
.004	E7842	E7823	E7859	
.005	E7822			15c
.006	E7823			26c
.008	E7824			26c
.01	E7825			32c

KNIGHT UNCASED SECTIONS

Was designed for use in filter block mounting. Compact; high dielectric factor. 4" leads.

200 VOLTS		400 VOLTS	
Mfd.	Net	Mfd.	Net
.25	E7741 9c	E7746 16c	
1.0	E7742 11c	E7747 18c	
1.0	E7743 18c	E7748 28c	
2.0	E7744 29c	E7749 54c	
500 VOLTS		1000 VOLTS	
Mfd.	Net	Mfd.	Net
.25	E7750 24c	E7754 36c	
.5	E7751 26c	E7755 45c	
1.0	E7752 34c	E7756 73c	

Deduct 10% on orders for 10 or more of above sections. Buy them in quantities and save.

EXACT DUPLICATE BLOCKS

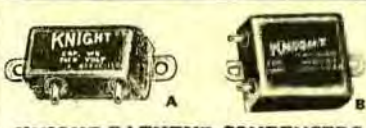
Same physical dimensions as the originals. We can supply condenser blocks as shown. Send in old block with deposit and information.

No.	Model	NET
E7105	37	\$2.94
E7106	Split filter (A.K. 14902)	.59
E7107	10, 25, 48, 52, 37, 38, 30 (1/2, 3/4, 1)	.59
E7128	(10, 52, Condensers only)	1.47
KNIGHT		
E7109	SGS	3.40
E7110	SGR (213)	.52
E7111	SGR (213)	.58
E7112	SGR (213)	.88
E7113	ACS (1.0)	.73
MAJESTIC		
E7115	70, 71, 72, 73	1.73
E7118	90, 91, 92 (with res.)	1.85
E7119	90 (1.5)	.34
E7120	180, 81, 6	2.95
E7122	50	2.20
RCA-VICTOR		
E7124	R32, 11E15, 52	4.20
SPARTON		
E7127	930	3.95
E7125	69, 79	4.25
E7135	89A	3.70

SPARTON TUBULAR

Exact duplicate 400 volt units for all 1928-1931 Sparton sets. With tapped hole and mounting lug.

No.	Mfd.	NET	\$	10 FOR
E7769	.25	29c	2.40	
E7770	.5	29c	2.40	
E7771	1.0	29c	2.60	



KNIGHT BATHTUB CONDENSERS

Non-inductive metal-cased units for all tube connections. Permanently sealed and moisture-proof. Type A: 1 1/2 x 1 1/2 x 3/4. Type B: Single, 1 1/2 x 2 1/2 x 3/4; multiple, 2 1/2 x 3/4 x 3/4.

By-Pass (Type A)				
No.	Mfd.	Volts	NET	10 FOR
E7773	.1	200	15c	\$1.35
E7774	.25	200	19c	1.70
E7775	.5	200	22c	1.99
E7777	.25	300	20c	1.80
E7778	.5	300	32c	2.85
E7781	.05	400	12c	1.05
E7782	1	400	15c	1.35
E7783	.25	400	19c	1.70
E7784	1-1	400	26c	2.30

Single Section (Type B)

No.	Mfd.	Volts	NET	10 FOR
E7785	1.0	200	30c	\$2.70
E7787	2.0	200	30c	4.10
E7789	1.0	300	31c	2.80
E7791	1.0	400	32c	2.85
E7792	.25	400	26c	2.30
E7793	.5	400	33c	2.95

Multiple Section (Type B)

No.	Mfd.	Volts	NET	10 FOR
E7794	1-1-1-1	200	52c	\$4.65
E7795	25-25	300	21c	2.80
E7796	1-1-1	300	38c	3.20
E7797	1-1-1	400	36c	3.20
E7798	25-25	400	32c	2.85
E7799	25-25	400	39c	3.50

VIBRATOR CONDENSERS

A new series of oil-impregnated condensers capable of withstanding heavy voltages in vibrator. Suitable as replacements in hundreds of units. Designed in specially designed, built-in chassis cans. Wdg. V. 1000 D.C. Units marked * have one lead.

No.	Fig.	Mfd.	Size	Each
E7860	A	.01	1 1/2 x 3/4 x 1/2	22c
E7861	A	.02	1 1/2 x 3/4 x 1/2	
E7862	A	.007	1 1/2 x 3/4 x 1/2	10 For
E7863	A	.01	1 1/2 x 3/4 x 1/2	
E7864	A*	.02	1 1/2 x 3/4 x 1/2	\$2.05
E7865	B	.01	Tubular	
E7866	B	.02	Tubular	



KNIGHT PERM-A-SEAL TUBULAR CONDENSERS

Specialty-treated tubulars with spun ends. Non-inductive wound with tinfoil. Leads soldered to sections. Built to highest standards.

400 VOLTS		600 VOLTS		
Mfd.	Net	No.	Net	
.001	E7915	Each	E7931	Each
.002	E7916	6c	E7932	7c
.003	E7917		E7933	
.004	E7918		E7934	
.005	E7919		E7935	
.01	E7921	E7936	E7937	
.02	E7922	E7938	E7939	
.03	E7923	E7940	E7941	
.04	E7924	E7942	E7943	
.05	E7925	E7944	E7945	
.1	E7926	8c	9c	
.25	E7927	10c	12c	
.5	E7928	15c	19c	
1.0	E7929	25c		

200 VOLTS DUAL UNITS

No.	Mfd.	Net	No.	Mfd.	V. Net
E7910	.1	7c	E7946	1-1	200 14c
E7911	.2	7c	E7947	25-25	200 16c
E7912	.25	13c	E7948	1-1	400 14c
E7913	.5	13c	E7949	1-1	600 24c
E7914	1.0	25c			

DEDUCT 10% ON ORDERS FOR 10 OR MORE KNIGHT PERM-A-SEAL UNITS.

KNIGHT CONDENSER ASSORTMENTS

Kits of 12 popular Knight tubular condensers on handy strips.

Mfd.	Volts	Mfd.	Volts
.001	400	.001	600
.003	400	.005	600
.002	400	.01	600
.001	600	.02	600
.002	600	.05	600
.002	600	.1	600

81c

Mfd.	Volts	Mfd.	Volts
.25	200	.05	400
.5	200	.1	400
1.0	200	.25	400
.01	400	.5	400
.01	400	1.0	400

\$1.34

HANDY KNIGHT CONDENSER KITS

WITH FREE METAL CABINETS

Take advantage of this remarkable offer. Order the condenser kits listed below, and receive absolutely free the handy metal cabinets. They measure 5 1/2 x 3 1/2 x 2 1/2. Sturdily constructed and finished in dark green. Provision is made for stacking several of these cabinets to form one compact, handy unit. Ideal for housing small parts. Buy quality condensers and get these cabinets FREE.

KIT No. 1 ASSORTMENT OF "TINY KNIGHTS"

Kit of new "TINY KNIGHT" Dry Tubular Condensers. The most popular and widely demanded values have been selected for your convenience. Kit consists of: 3-E4401 8 Mfd. 430 volt; 7-E4408 8 Mfd. 250 volt; and 3-E4411 1 Mfd. 250 volt condensers.

E7768. NET WITH CABINET. \$4.96

KIT No. 2 STANDARD DRY ELECTROLYTICS

Kit of KNIGHT Cardboard and Can Type Electrolytics. Following selection has been carefully chosen. Consists of: 3-E853 8 mfd. 625 volt; 3-E880 8 mfd. 525 volt; and 4-E7824 1 mfd. 525 volt condensers.

E7766. NET WITH CABINET. \$4.94



KIT No. 3 PERM-A-SEAL TUBULARS

Kit of KNIGHT PERM-A-SEAL Tubular Paper Condensers. Consists of: 2-.001, 2-.002, 4-.005, 7-.01, 5-.02, 3-.1 at 400 V.; 4-.05, 3-.1, 2-.25, 2-.5 at 600 V.; 5-.1, 3-.25, 1-.5 at 200 V. condensers.

E7767. NET WITH CABINET. \$4.33

MAKE UP YOUR OWN CONDENSER SELECTION—SAVE MONEY!

FREE! Select any assortment of KNIGHT Electrolytic Condensers (Perm-A-Seal and new TINY-KNIGHTS may be included) which totals \$5.00 net or over, and 1 metal cabinet will be included in your shipment FREE at cost to you. You are not only because of the low prices of KNIGHT Condensers, but because you can get a useful cabinet without extra charge. Start building your group of cabinets today. Use them for condensers, resistors, etc. They're handy; they're valuable. **E7762. Single Metal Cabinet unit when bought separately. NET 95c**

EXACT DUPLICATE & REPLACEMENT

Knight CONDENSERS AEROVOX

SPECIAL VALUE DRY ELECTROLYTICS



Aluminum can or cardboard container dry electrolytic condensers. Rated at 450 V. D.C. etc. 550 V. peak. Dual units have individual sections and leads. Excellent condensers for general repair and experimental purposes. Fully guaranteed. Popular with servicemen, builders and experimenters everywhere.

550 VOLTS DC PEAK

CARDBOARD		METAL CANS	
2 MFD.		8 MFD.	
1 1/2 x 3/4"		1 1/2 x 3/4"	
E3836	21c	E3842	30c
10 FOR	\$1.95	10 FOR	\$2.85
4 MFD.		4-4 MFD.	
1 1/2 x 3/4"		1 1/2 x 3/4"	
E3837	22c	E3843	42c
10 FOR	\$2.05	10 FOR	\$3.95
8 MFD.		8-8 MFD.	
1 1/2 x 3/4"		1 1/2 x 3/4"	
E3838	26c	E3844	53c
10 FOR	\$2.35	10 FOR	\$5.00
4-4 MFD.		8-8 MFD.	
1 1/2 x 3/4"		1 1/2 x 3/4"	
E3839	40c	E3845	88c
10 FOR	\$3.75	10 FOR	\$8.35
8-8 MFD.		5-15 MFD.	
1 1/2 x 3/4"		2 1/2 x 1"	
E3840	49c	E3846	72c
10 FOR	\$4.65	10 FOR	\$6.80
8-8 R MFD.			
2 1/2 x 1"			
E3841	77c		
10 FOR	\$6.90		

NEW KNIGHT "600" DRY ELECTROLYTICS



600 Volt Peak—475 V. D.C. Wkg.

A new line of high voltage, high safety factor condensers. Developed especially for U. S. use in amplifiers and for use in equipment where condenser failure must not occur. Will stand heavy surges and overloads. Mounting tabs may be cut off where necessary. Units of genuinely high quality which will stand up under all types of heavy-duty service.

No.	Mfd.	Size	NET	10 FOR
E3801	4	4 1/2 x 1 1/2 x 3/4"	\$0.56	\$5.35
E3802	8	4 1/2 x 1 1/2 x 3/4"	.85	6.15
E3803	4-4	4 1/2 x 1 1/2 x 3/4"	.87	8.25
E3804	4-8	4 1/2 x 1 1/2 x 3/4"	.96	9.10
E3805	8-8	4 1/2 x 1 1/2 x 3/4"	1.05	9.90

NEW TOBE "PLUGGIN" DRY ELECTROLYTICS

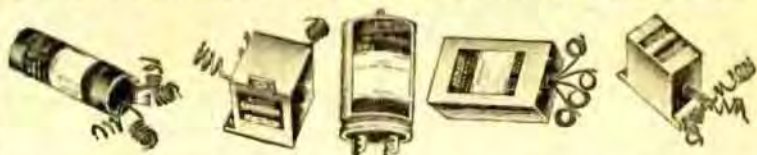
A radical departure from standard designs in condenser manufacture. Leads are brought out to a standard 4 prong tube base. Ideal for use by experimenters in building new equipment. Makes possible split-second replacement of any electrolytic condenser in a public address amplifier or in a receiver chassis. Mounted in moisture-proof, non-corrosive aluminum containers.

No.	Mfd.	Size	NET
E8410	8	1 1/2 x 3/4"	\$1.03
E8411	8-8	1 1/2 x 3/4"	1.56
E8412	10	1 1/2 x 3/4"	1.56

75 VOLT PEAK—50 VOLT D.C. WORKING

No.	Mfd.	Size	NET
E8413	50	1 1/2 x 3/4"	\$0.94

AEROVOX EXACT DUPLICATE ELECTROLYTICS



ALIED brings you the most comprehensive exact duplicate filter condenser listing available today. The listing below constitutes the most popular replacements. We also have on hand, in our vast condenser stocks, many condensers which are not so constantly in demand. If the unit you need does not appear below, send in your order with complete information and exact deposit, and we will supply correct condenser promptly. You will find these condensers exact duplicates in every detail. Mounting holes will be identical with condenser you are replacing. Leads are all color-coded. Fast and accurate replacement work. Aerovox standard quality is built into each unit.

Cat. No.	Part No.	Model	Cap. Mfd.	NET
ATWATER KENT				
E13970	24602	155 (1 & 2)	8-8-8	\$0.97
E13973	27592	376	4-8-10	1.12
BOSCH				
E13974	CE-9520	04	12-12x5-5	1.15
E13975	105772	350, 500-2-2	4-12-8x4	1.26
E14074	CE-0510	Early 139	4-4	.73
E14075	CE-0510	Late 139	4-4	.73
BELMONT				
E14046	C-525B	545	5-25-5	.94
E14047	A11003-3	425	5-25-5	1.15
E14072	C623C	650	5-25	.82
E14073	110-24B	505A Series	5-25	.53
COLONIAL				
E14076	R-10073	11850 S1, 621	6-6x25 1	.94
CROSLY				
E14048	W23801	122, 152	6-8	.85
E14049	W25857B	95, 163	8-8	.59
E14050	W26870	96, 150, 155,	8	.29
EMERSON				
E14051	W27486A	163	8-8	.56
E14052	W29097B	164, 170, 171	8-8-8	1.26
E14053	W29150B	169	6-7-8	1.06
E14054	W29264A	166, 172	16-16-8	1.18
E14055	W30062	182	8-25	.85
E14056	W27677A	147	8-8	.44
E14057	W28468	160	8-12	1.22
E14058	W29804A	171	8-16-16	1.33
E14059	B30017	129, 134, 135,	4-8	.85
DETROLA				
E14060	W30059A	137	8-8-8	1.29
E14061	W30124	173, 173-5	16-16-8	1.26
E14062	W30419	103	8-8	.64
E14063	1460		4-8-20	1.06
EMERSON				
E14064	GCC-137	32	8-16x5-5	1.21
E14065	KCC-143	19	12-8	.71
E14066	UUC-179	3185	12-8x5-5	1.15
E14067	ZCC-192A		4-8-10	1.12
E14068	ZCC-194		8-16	.85
E14069	ZDC-203	108, 110	8-16	.79
E14070	ZCC-222	106	12-12	1.03
E14071	GCC-125C	35	8-8-16	1.38
E14072	ZWC-230	409, 410, 411	8-5-5	.85
E14073	ECC-129	45	8-8-4	.97
E14074	ZLC-224	107	16-4-8	1.09
E14075	ZLC-225	965	6-10	.88
E14076	ZDC-345	BA-1395	16-16	.82
E14077	TC-89	175, Ch W5	4x12x16	1.12
E14078	TTC-150	RC	6-8-12	1.32
G. E.—RCA VICTOR				
E14025	66140-2	K40, R27	5-5	.44
E14026	66140	K40A, R27	4-4	.59
E14027	66155	M60, R37	4-4-10.4	1.21
E14028	66140-4	B52, M34	3-6-1	.47
E14029	66160-2	L50, R22	8-4-10	.79
E14030	66185-2	C30, K43, R20	8-8-5-5	1.29
E14031	66180-2	M66, Z20	8-4-4-4	1.21
E14032	66189-1	K64, Z21, Z22	8-4	.97
E14033	66171-1	L53, 114	8x8x10x8	2.12
E14034	K1216	F63-F65	12-8	.91
E14035	K12111	F70-F75	12-8-8-10	1.29
E14036	66143	M52, R28	4-4	.62
GRUNOW				
E14037	27151	501, 550, 58	4-8-20-4	1.29
E14038	30091-1	670, 671, 6D	8-8x12-	1.88
E14039	34119-6	625	5-5x10-10	1.41
E14079	30328		8-8-12	1.18
INTERNATIONAL (KADETTE)				
E14043	A421	40, 41, 42, 46	3.5-3.5-5.5	.76
E14044	A424	A & B, C30,	4-10-10	.97
E14045	A427	428		
E13994	A422		3.5-3.5-5.5	.70
E13995	A430		8-20	.97
E13996	A468	A-424, A428	4-10-10	.68
E13997		1019	8-8x8-8	1.15
LEWOL				
E13997		LW-4	25-10	.97
MAJESTIC				
E13998	9661	411, 413	8-10-16	1.06
E13999	9979	66X, 116A	8-8	.82
E14000	0360	118	8-8	.82
E14001	10630	40, 194, 440	10-4-6	1.00
E14002	10827	55, 75, 500	10-8-8	1.09
MAJESTIC (Cont'd)				
E14003	4713	211, 214, 251B	8	\$0.56
E14004	7824	311, 314, 315	8-16	.97
E14005	8385	15, 153-4-5-6	8-8	.94
E14006	8755	381	4-8	.76
MONTGOMERY WARD				
E13986	80944A	62-96, 98	4-12-16	1.09
E13987	80944E	62-96, 98	4-12-16	1.09
MOTOROLA (GALVIN)				
E14010	1468	75 (Late)	6-4x8	.82
E14011	2185	60, 98	8-8x25	1.15
E14012	34	34	3-6-10	.42
E14013	8123	44	8-12	.79
E14014	1424	57 (Early)	2-4	.65
E14015	1540	57 (Late)	3-5x6	.79
E14016	8825	Dual 6 and 8	8-8-25	1.09
E14017	14-E37275	9-A, 6-2, 8-1	16-2-2-25	1.15
E14080	8426	34	4-8x5	1.09
SIMPLEX				
E14018		V	4-20	.82
E14019		4Z	15-8x5-5	1.15
STEWART WARNER				
E13976	81959	R115, R116	4-10-7	.97
E13977	R3111	R112	8-8-5-3	1.15
E14081	83062		10-5	.79
SPARTAN				
E13978	A9550		5-25-5	1.18
E13979	A11093-1		5-5-25	1.15
UNITED MOTORS (DELCO)				
E13980	6508		8-8-4	1.21
E13981	A443341	4052	8-25	.85
E13982	121051-4	OLD 6-36	8-8-12	1.06
E13983	1210385	BUICK-16	8-8-12x5	1.26
E13984	1209285	626, 627	12x8-8	1.15
CHEV.				
E13985	1209047	'34, '35	12x8-6	1.09
B.O.P.				
WELLS GARDNER				
E13986	80044A	05A, 05BA	4-12-16	1.09
E13987	80044E	05AA	4-12-16	1.09
ZENITH				
E13988	22-484F	7D 126	4-16-8-4	1.59
E13989	22-407B	Chas.-5401	3-4-8	1.15
E13990	22-416F	Chas.-5704	8-8-2	1.18
E13991	22-412C	Chas.-5903	2-4-18	1.47
E13992	22-481F	Chas.-5633	4-8-18	1.08
E13993	22-560	5639, 6D-219	35-16-10	.88

AEROVOX UNIVERSAL REPLACEMENT CONDENSERS



These electrolytics are identical to the units originally used in a wide variety of standard sets. Each unit has color-coded wire leads "m" tone. Cardboard units have mounting flanges.

TUBULAR TYPE				
No.	Mfd.	Wkg. Volts	Size	NET
E14085	8-8	450	1 1/2 x 3/4"	\$0.88
E14086	12-16	200	1 1/2 x 3/4"	.91
E14087	8-16	450	1 1/2 x 3/4"	1.12
E14088	14-8-10-10	150x25	1 1/2 x 3/4"	1.21
E14089	16-8-10-10	200x25	1 1/2 x 3/4"	1.21
E14090	16-12x10-10	300x25	1 1/2 x 3/4"	1.26
RECTANGULAR TYPE				
E14092	8-8-8x5-5	200x25	1 1/2 x 3/4"	1.47
E14094	8-8-20	200	1 1/2 x 3/4"	1.21
E14091	12-12x5-5	200x25	1 1/2 x 3/4"	1.15
E14093	16-16-8x5-5	150x25	1 1/2 x 3/4"	1.44

*Two negatives. All other cardboard units have common negative.

MALLORY CONDENSERS

TUBULAR BY-PASS UNITS

TYPE TP



Non inductive by-pass condensers of superior quality. Thoroughly impregnated against moisture. Wire leads are anchored to metal disc.

600 VOLTS DC				400 VOLTS DC				
No.	Mfd.	NET	No.	Mfd.	NET			
E11750	.0001		E11765	.01				
E11751	.00025		E11766	.02				
E11752	.0005		E13067	.03	9c			
E11753	.001		E13068	.04				
E11754	.002		E13069	.05				
E13000	.003	9c	E13069	.06				
E13001	.004		E11768	1	12c			
E11755	.005		E13010	2	15c			
E11756	.006		E11769	25	15c			
E11757	.01		E11770	5	21c			
E11758	.02		E13011	10	35c			
E11759	.03		E13012	01-01	21c			
E13002	.04	12c	E13013	05-05	24c			
E11760	.05		E13014	1-1	29c			
E11761	.06		200 VOLTS DC					
E11762	1	15c	E11771	.05	9c			
E13003	15	18c	E11772	1	9c			
E13004	2	21c	E11773	25	15c			
E11763	25	21c	E11774	5	21c			
E11764	5	29c	E11775	10	29c			
E13005	10	47c	E13016	25-25	29c			

"SPECIAL UNIVERSAL" DRY ELECTROLYTICS



Special units to meet requirements not covered by standard Mallory units. Electrically and physically these are exact duplicates of original condensers.

You can easily select the proper condenser for a specific receiver by consulting the appropriate listing in the Mallory-Yaxley Radio Encyclopedia.

We can also supply promptly other "Special" units not listed below. Write for quotations.

E13410.	Type UR180.	8-8 Mfd.	250-300 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.76c
E13411.	Type UR181.	3-2-1-1 Mfd.	300 Volts.	1 1/2 x 2 1/4".	NET \$1.23
E13412.	Type UR182.	5-25-10 Mfd.	150 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.15
E13413.	Type UR183.	4-4-4 Mfd.	150 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.79c
E13414.	Type UR188.	8-8-8-5 Mfd.	200-25 Volts.	1 1/2 x 2 1/4".	NET \$1.47
E13415.	Type UR189.	8-8-8-5 Mfd.	200-25 Volts.	1 1/2 x 1 1/2 x 2 1/4".	NET \$1.47
E13416.	Type UR190.	8-8-8-8 Mfd.	250 Volts.	1 1/2 x 1 1/2 x 2 1/4".	NET \$1.53
E13417.	Type UR191.	8-8-8-8 Mfd.	150 Volts.	1 1/2 x 1 1/2 x 2 1/4".	NET \$1.73
E13418.	Type UR192.	20-20 Mfd.	150 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.97c
E13419.	Type UR193.	5-8-16 Mfd.	150 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.06
E13420.	Type SR601.	8-12 Mfd.	300 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.91c
E13421.	Type SR603.	8-8-6 Mfd.	300-300 12 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.88c
E13422.	Type SR605.	8-8 Mfd.	350 Volts.	1 1/2 x 2 1/2".	NET \$1.91c
E13423.	Type SR609.	8-8-25 Mfd.	400-100-25 Volts.	1 1/2 x 2 1/2".	NET \$1.23
E13424.	Type SR610.	8-8-25 Mfd.	400-100-25 Volts.	1 1/2 x 1 1/2 x 2 1/2".	NET \$1.12

TUBULAR DRY ELECTROLYTICS



Especially designed for by-pass use. Low power factor. High leakage resistance. With 2" tinmed leads.

TS—SINGLE SECTION				TN DUAL COMMON NEGATIVE							
No.	Mfd.	Wtg. V.	Type	Size	NET	No.	Mfd.	Wtg. V.	Type	Size	NET
E11737	25	25	TS 103	2 1/2 x 3 1/2"	38c	E11745	5-5	25	TN 110	1 1/2 x 2 1/2"	44c
E11738	50	25	TS 104	2 1/2 x 3 1/2"	56c	E11746	10-10	25	TN 111	2 1/2 x 3 1/2"	Each
E11739	5	50	TS 105	1 1/2 x 3 1/2"	29c	E11747	5-5	35	TN 112	1 1/2 x 3 1/2"	Each
E11740	10	50	TS 106	2 1/2 x 3 1/2"	38c	E11748	5-5	50	TN 113	2 1/2 x 3 1/2"	Each
E11741	25	50	TS 107	2 1/2 x 3 1/2"	47c						
E11742	50	50	TS 108	3 1/2 x 3 1/2"	70c						

COMPLETE SERVICE DATA ON 17,000 RADIOS

MALLORY-YAXLEY 1939 ENCYCLOPEDIA

Completely new—the enlarged second edition of the most useful book ever published for the serviceman! Analyzes over 17,000 receivers with data on volume controls, resistors, condensers, vibrators, filter circuits. New material on audio degeneration, A.C. automatic tuning, time limits, etc. Everything a serviceman wants to know—in one book—or one page—or one line! 328 pages; cloth-bound; 8 1/2" x 11". Shipping wt., 2 lbs.



E11865. NET \$1.91

DRY ELECTROLYTIC CONDENSERS IN METAL CONTAINERS



Small and compact replacement condensers. Inert metal seal prevents damage from excess heat or humidity. With mounting flanges. All units have 2" electrolytic leads.

A new series of compact metal-cased tubular replacement electrolytic condensers. Contain new 2 1/2" plate anode material which allows increased capacity in smaller spaces. Aluminum anode tabs and thorough wetting insure longer life. Special separator material provides higher safety factor.

CS—SINGLE SECTION

525 V. Peak, 450 V. D.C. Working

No.	Mfd.	Type	Size	NET
E11700	2	CS 130	1 1/2 x 1 1/2 x 2 1/2"	\$0.37
E11701	4	CS 131	1 1/2 x 1 1/2 x 2 1/2"	.44
E11702	8	CS 132	1 1/2 x 1 1/2 x 2 1/2"	.53
E11703	8	CS 133	1 1/2 x 1 1/2 x 2 1/2"	.56
E11704	10	CS 134	1 1/2 x 1 1/2 x 2 1/2"	.67
E11705	12	CS 135	1 1/2 x 1 1/2 x 2 1/2"	.76
E11706	15	CS 136	1 1/2 x 1 1/2 x 2 1/2"	.85

300 V. Peak, 250 V. D.C. Working

E11707	4	CS 121	1 1/2 x 1 1/2 x 2 1/2"	.37
E11708	8	CS 123	1 1/2 x 1 1/2 x 2 1/2"	.47
E11709	10	CS 124	1 1/2 x 1 1/2 x 2 1/2"	.56
E11710	12	CS 125	1 1/2 x 1 1/2 x 2 1/2"	.59
E11711	16	CS 126	1 1/2 x 1 1/2 x 2 1/2"	.65

CN—COMMON NEGATIVE

525 V. Peak, 450 V. D.C. Working

No.	Mfd.	Type	Size	NET
E11714	4-4	CN 150	1 1/2 x 1 1/2 x 2 1/2"	\$0.71
E11715	4-8	CN 151	1 1/2 x 1 1/2 x 2 1/2"	.79
E11716	8-8	CN 152	1 1/2 x 1 1/2 x 2 1/2"	.88
E11717	8-8-8	CN 153	1 1/2 x 1 1/2 x 2 1/2"	1.29

300 V. Peak, 250 V. D.C. Working

E11718	4-4	CN 140	1 1/2 x 1 1/2 x 2 1/2"	.53
E11719	4-8	CN 141	1 1/2 x 1 1/2 x 2 1/2"	.67
E11720	8-8	CN 142	1 1/2 x 1 1/2 x 2 1/2"	.76
E11721	8-8-8	CN 143	1 1/2 x 1 1/2 x 2 1/2"	1.15

CM—SEPARATE NEGATIVES

525 V. Peak, 450 V. D.C. Working

No.	Mfd.	Type	Size	NET
E11724	4-4	CM 170	1 1/2 x 1 1/2 x 2 1/2"	\$0.71
E11725	4-8	CM 171	1 1/2 x 1 1/2 x 2 1/2"	.79
E11726	8-8	CM 172	1 1/2 x 1 1/2 x 2 1/2"	1.06
E11727	4-4-4	CM 173	1 1/2 x 1 1/2 x 2 1/2"	1.29
E11728	8-8-8	CM 175	1 1/2 x 1 1/2 x 2 1/2"	1.29

300 V. Peak, 250 V. D.C. Working

E11729	4-4	CM 160	1 1/2 x 1 1/2 x 2 1/2"	.53
E11730	4-8	CM 161	1 1/2 x 1 1/2 x 2 1/2"	.67
E11731	8-8	CM 162	1 1/2 x 1 1/2 x 2 1/2"	.76
E11732	16-16	CM 164	1 1/2 x 1 1/2 x 2 1/2"	1.06
E11733	8-8-8	CM 165	1 1/2 x 1 1/2 x 2 1/2"	1.15

WE—WET ELECTROLYTICS

Low power factor and efficient self-healing characteristics make these units ideal for all heavy-duty filter requirements. Rated capacitance at 150 Volts D.C. working voltage, 475 Volts D.C. peak. Built for efficient, long-life service. Supplied with nut for mounting upright.

No.	Mfd.	Type	Size	NET
E11787	4	WE 447	1 1/2 x 3 1/2"	\$0.47
E11788	8	WE 847	1 1/2 x 3 1/2"	.56
E11789	8	WE 848	1 1/2 x 3 1/2"	.67
E11790	12	WE 1247	1 1/2 x 3 1/2"	.79
E11791	16	WE 1647	1 1/2 x 3 1/2"	.88
E11792	18	WE 1847	1 1/2 x 3 1/2"	.88
E11793	25	WE 2545	1 1/2 x 4 1/2"	1.00
E11794	35	WE 3540	1 1/2 x 4 1/2"	1.02
E11794	40	WE 4045	1 1/2 x 4 1/2"	1.13

MOUNTING HARDWARE

E13444. A-016. Terminal Connector to replace nuts or harness wiring. NET \$1.36

E13445. 104-1. Universal Mounting Bracket to mount threaded-neck round can units on chassis originally equipped with ring clamp or spade bolt nuts. NET 6c

BB—TUBULARS

15 Volts D.C. Working

No.	Mfd.	Type	Size	NET
E13425	10	BB-12	1 1/2 x 2 1/2"	24c
E13427	25	BB-15	1 1/2 x 2 1/2"	29c
E13428	40	BB-17	1 1/2 x 2 1/2"	35c
150 Volts D.C. Working				
E13429	4	BB-20	1 1/2 x 2 1/2"	24c
E13430	8	BB-21	1 1/2 x 2 1/2"	26c
E13431	10	BB-22	1 1/2 x 2 1/2"	29c
E13432	16	BB-24	1 1/2 x 2 1/2"	32c
E13433	20	BB-25	1 1/2 x 2 1/2"	35c
E13434	30	BB-26	2 1/2 x 2 1/2"	38c
300 Volts D.C. Working				
E13435	4	BB-40	1 1/2 x 2 1/2"	29c
E13436	8	BB-41	1 1/2 x 2 1/2"	32c
E13437	10	BB-42	1 1/2 x 2 1/2"	38c
E13438	16	BB-44	2 1/2 x 2 1/2"	47c
450 Volts D.C. Working				
E13439	4	BB-60	1 1/2 x 2 1/2"	37c
E13440	8	BB-61	2 1/2 x 2 1/2"	35c
E13441	10	BB-62	2 1/2 x 2 1/2"	41c

RS—SINGLE SECTION

Tightly efficient metal can electrolytics. Sealed against humidity and temperature. New internal construction prevents surge failure. With 2" leads, mounting nut, and washer.

525 V. Peak, 450 V. D.C. Working

No.	Mfd.	Type	Size	NET
E11778	4	RS 211	2 1/2 x 3 1/2"	\$0.50
E11779	8	RS 213	2 1/2 x 3 1/2"	.62
E11780	12	RS 215	2 1/2 x 3 1/2"	.82
E11781	16	RS 216	2 1/2 x 3 1/2"	.91
300 V. Peak, 250 V. D.C. Working				
E11782	4	RS 201	2 1/2 x 3 1/2"	.44
E11783	8	RS 203	2 1/2 x 3 1/2"	.56
E11784	12	RS 205	2 1/2 x 3 1/2"	.65
E11785	25	RS 207	3 1/2 x 3 1/2"	.88

RN—COMMON NEGATIVE

525 V. Peak, 450 V. D.C. Working

E11874	4-8	RN 241	3 1/2 x 3 1/2"	\$0.85
E11875	8-8	RN 242	3 1/2 x 3 1/2"	.94
E11876	8-8-8	RN 243	3 1/2 x 3 1/2"	1.35

RM—SEPARATE NEGATIVES

525 V. Peak, 450 V. D.C. Working

E11880	4-8	RM 261	3 1/2 x 3 1/2"	\$0.85
E11881	8-8	RM 262	3 1/2 x 3 1/2"	.94
E11882	8-8-8	RM 263	3 1/2 x 3 1/2"	1.35
300 V. Peak, 250 V. D.C. Working				
E11884	8-8	RM 257	3 1/2 x 3 1/2"	.85
E11885	8-8-16	RM 252	3 1/2 x 3 1/2"	1.38

MN—REPLACEMENT MULTIPLE SECTIONS

Dry electrolytics in round metal cans. Designed for replacement of similarly sized units. Their filtering efficiency permits 5 times to replace all multiple units. Good quality replacement electrolytics.

525 V. Peak, 450 V. D.C. Working

No.	Mfd.	Type	Size	NET
E11795	8-8	MN 273	2 1/2 x 4 1/2"	\$1.06
E11796	5-15	MN 272	2 1/2 x 4 1/2"	1.35
E11797	8-8-8	MN 275	3 1/2 x 4 1/2"	1.59
E11798	8-8-8-8	MN 277	3 1/2 x 4 1/2"	2.12
E11799	9-9-18-18	MN 278	3 1/2 x 4 1/2"	3.09

AEROVOX CONDENSERS

AEROVOX ELECTROLYTIC CONDENSERS

ALUMINUM CAN TYPES



TYPE GL INVERTED—FIG. A

525 Volts D.C. Peak—450 Volts D.C. Working
Inverted mounting, aluminum can condensers suitable for use in any filter circuit. Threaded stem, $\frac{1}{8}$ " dia., fitted with locking nut. All units equipped with 8" flexible insulated color-coded leads. Multiple section units have two leads brought out from each section. Metal can is insulated from condenser sections.

TYPE GL-450—SINGLE SECTION

No.	Mfd.	Size	NET
E6415	4	1.8x1.4	50c
E6416	8	1.8x1.4	61c
E6417	12	1.8x1.4	82c
E6418	16	1.8x1.4	91c

TYPE 2GL450—DOUBLE SECTION

No.	Mfd.	Size	NET
E6419	4-4	1.8x1.4	\$0.76
E6420	4-8	1.8x1.4	.85
E6421	8-8	1.8x1.4	.94
E6422	8-16	1.8x1.4	1.18

TYPE 3GL450—TRIPLE SECTION

No.	Mfd.	Size	NET
E6423	4-4-4	1.8x1.4	\$1.12
E6424	8-8-8	1.8x1.4	1.41

TYPE GLS MIDGET—FIG. B

525 Volts D.C. Peak—450 Volts D.C. Working
Ultra-compact metal can condensers for use where space is at a premium. Have long flexible leads. Threaded hard rubber stem for inverted mounting. Sections insulated from can.
E6942 4 1.2x1.4 50c
E6943 8 1.2x1.4 61c
E6944 12 1.2x1.4 82c
E6945 16 1.2x1.4 91c

TYPE E UNIVERSAL MTG.—FIG. C

525 Volts D.C. Peak—450 Volts D.C. Working
Thoroughly dependable units which will service a large number of popular radio sets. Furnished with clamping rings. Hermetically sealed.
E6785 5-15 2.4x1.4 \$1.35
E6786 8-8 2.4x1.4 1.06
E6787 8-16 2.4x1.4 1.38
E6788 8-8-8 2.4x1.4 1.59
E6789 0-0-18 3 2.4x1.4 2.20

WET ELECTROLYTICS

TYPE PG—FIG. D. 500 V. Peak, 450 V. Wkg.
Use these condensers for heavy-duty work where dry units give trouble. Positively non-leaking. With stud and nut inverted mounting.
E6843 4 1.8x1.4 \$0.47
E6844 6 1.8x1.4 .50
E6845 8 1.8x1.4 .56
E6846 10 1.8x1.4 .65
E6847 12 1.8x1.4 .68
E6848 16 1.8x1.4 .79
E6799 18 1.8x1.4 .82
E6849 20 1.8x1.4 .88
E6849 30 1.8x1.4 1.06



TUBULAR ELECTROLYTICS

TYPE PR. Light, compact units for replacement or construction work. Ideal for by-pass and filter requirements. With $\frac{1}{2}$ " securely riveted tinned wire leads.

No.	Mfd.	Wkg. V.	Size	NET
E6911	2	450	1.8x2.4	38c
E6913	4	200	1.8x2.4	38c
E6915	10	200	1.8x2.4	53c
E6912	5	100	1.8x2.4	32c
E6914	10	100	1.8x2.4	41c
E6920	20	100	1.8x2.4	53c
E6916	25	100	1.8x2.4	56c
E6917	20	50	1.8x2.4	29c
E6919	10	50	1.8x2.4	28c
E6919	20	50	1.8x2.4	44c
E6921	50	50	1.8x2.4	71c
E6922	5-5	50	1.8x2.4	44c
E6923	5	25	1.8x2.4	29c
E6924	10	25	1.8x2.4	29c
E6925	20	25	1.8x2.4	38c
E6926	25	25	1.8x2.4	38c
E6927	50	25	1.8x2.4	56c
E6928	5-5	25	1.8x2.4	44c
E6929	10-10	25	1.8x2.4	44c

NEW MINIATURE "DANDEES"



New tubular midgets in a minimum cans. For use in crowded spaces in midget, A.C.-D.C., and auto radios and for general servicing. Fully insulated and sealed. With handy $\frac{3}{16}$ " tinned wire leads for connections and self-mounting.

No.	Mfd.	Wkg. V.	Size	NET
E3370	4	450	1.8x1.4	32c
E3371	8	450	1.8x1.4	39c
E3372	12	450	1.8x1.4	44c
E3373	16	450	1.8x1.4	53c
E3374	4	350	1.8x1.4	29c
E3375	8	350	1.8x1.4	32c
E3376	12	350	1.8x1.4	41c
E3377	16	350	1.8x1.4	47c
E3378	4	250	1.8x1.4	26c
E3379	8	250	1.8x1.4	29c
E3380	12	250	1.8x1.4	34c
E3381	16	250	1.8x1.4	44c
E3382	4	150	1.8x1.4	24c
E3383	8	150	1.8x1.4	26c
E3384	12	150	1.8x1.4	29c
E3385	16	150	1.8x1.4	35c
E3387	30	150	1.8x1.4	38c
E3388	40	150	1.8x1.4	41c
E3389	10	50	1.8x1.4	26c
E3390	25	50	1.8x1.4	32c
E3391	10-10	50	1.8x1.4	38c
E13392	10	25	1.8x1.4	24c
E13393	25	25	1.8x1.4	29c

MIDGET CARDBOARD DRY ELECTROLYTICS

Space-saver midget units. Conservatively rated to stand up under hardest service. Encased in heavy cardboard, thoroughly impregnated and sealed. With adjustable mounting brackets and flexible leads. Each section of multiple units has separate leads.



TYPE PBS-450

525 V. Peak, 450 V. DC Wkg.

No.	Mfd.	Size	NET
E6750	2	1.8x1.4	\$0.38
E6751	4	1.8x1.4	.44
E6752	8	1.8x1.4	.56
E6754	12	1.8x1.4	.76
E6755	16	1.8x1.4	.85
E6756	4-4	1.8x1.4	.70
E6757	8-8	1.8x1.4	.88
E6758	8-8-8	1.8x1.4	1.29

TYPE PBS-250

300 V. Peak, 250 V. DC Wkg.

No.	Mfd.	Size	NET
E6760	2	1.8x1.4	\$0.32
E6761	4	1.8x1.4	.38
E6762	8	1.8x1.4	.47
E6764	12	1.8x1.4	.66
E6765	16	1.8x1.4	.66
E6766	4-4	1.8x1.4	.53
E6767	8-8	1.8x1.4	.73
E6768	8-16	1.8x1.4	.85
E6769	8-8-8	1.8x1.4	1.12

TYPE "P" ELECTROLYTICS

525 V. Peak, 450 V. DC Wkg.
Wax-filled units. With mounting flanges and 3" flexible wire leads.

No.	Mfd.	Size	NET
E6932	4	1.8x1.4x4	\$0.44
E6933	8	1.8x1.4x4	.56
E6934	12	1.8x1.4x4	.76
E6935	16	1.8x1.4x4	.85
E6936	4-4	1.8x1.4x4	.70
E6937	8-8	1.8x1.4x4	.88

LIVE-RUBBER MOLDED PAPER CONDENSERS

TYPE 88. A new AeroVox development. Paper sections molded in live rubber to increase leakage resistance and breakdown voltage. Moisture-proof. Size: $1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$ "



No.	Mfd.	Wkg. V.	NET
E13400	.01	200	12c
E13401	.01	200	12c
E13402	.15	200	15c
E13403	.25	200	18c
E13404	.25	200	18c
E13405	.05	400	10c
E13406	.05	400	15c
E13407	.05	600	18c
E13408	.01	1000	21c



CARTRIDGE CONDENSERS

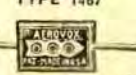
Conservatively rated compact non-inductive paper condensers. Sealed in wax-impregnated paper tubes; with wire leads. Dual section units have common lug for convenient mounting.

400 Volt		Cap. Mfd.	600 Volt	
No.	NET EACH	No.	NET EACH	
E6800		E6818		
E6801		E6819		
E6802		E6820		
E6803		E6821		
E6804		E6822		
E6805		E6823		
E6806		E6824		
E6807		E6825		
E6808		E6826		
E6809		E6827	12c	
E6810		E6828	12c	
E6811	12c	E6829	15c	
E6812	15c	E6830	18c	
E6813	15c	E6831	21c	
E6814	21c	E6832	29c	
E6817	29c	E6833	30c	
E6814	26c		50c	
E6815	41c			

200 Volt		Cap. Mfd.	1000 Volt	
No.	NET EACH	No.	NET EACH	
E6685		E6793		
E6686		E6794		
E6687		E6795		
E6688		E6796		
E6689		E6797		
E6690		E6798		
E6691		E6799		
E6692		E6800	15c	
E6693		E6801	18c	
E6694		E6802	21c	
E6695	11c	E6803	24c	
E6696	14c	E6804	26c	
E6697	26c	E6805	29c	

BAKELITE MICA CONDENSERS

Compact "postage-stamp type" condensers. Ideal for both high-frequency and audio by-pass circuits. Sealed in bakelite cases against all climate and temperature conditions. Selected ruby mica dielectric.



Cap. Mfd.	No. Type	No. Type	No. Type	NET EACH
.00004	E6850	E6864	E6875	
.00005	E6851	E6865	E6876	
.000075	E6852	E6866	E6877	9c
.0001	E6853	E6867	E6878	
.00015	E6854	E6868	E6879	
.0002	E6855	E6869	E6880	
.00025	E6856	E6870	E6881	12c
.00035	E6857	E6871	E6882	
.0005	E6858	E6872	E6883	
.001	E6859	E6873	E6884	15c
.0015	E6860	E6874	E6885	18c
.002	E6861	E6875	E6886	18c
.0025	E6862	E6876	E6887	21c
.003	E6863	E6877	E6888	21c



TYPE 1450 CONDENSERS

Accurate mica-foil condensers in bakelite cases. Handy soldering lugs. Working voltage up to 500 volts D.C. Tested at 1000 volts. Thoroughly sealed against changes in humidity. Capacity of units is clearly marked on case.

No.	Mfd.	No.	Mfd.	NET EACH
E6893	.0001	E6895	.00025	
E6898	.00015	E6896	.00037	15c
E6894	.0002	E6897	.0005	

No.	Mfd.	NET	No.	Mfd.	NET
E6898	.001	18c	E6904	.005	26c
E6900	.002	21c	E6905	.006	32c
E6902	.003	24c	E6907	.01	41c
E6903	.004	26c	E6909	.02	55c

SOLAR CONDENSERS

QUALITY ELECTROLYTIC CONDENSERS

CARDBOARD CASED "LITTLE GIANT" DRY ELECTROLYTICS

The latest perfected development in dry electrolytics. Electrical characteristics are unchanged but size is greatly reduced. Especially desirable where space economy is an important factor. In silver-finish impregnated containers. Have 8" leads. Dual units have separate sections.

TYPE LG 5

525 V. Peak, 450 V. D. C. Wkg.

No.	Mfd.	Size	NET
1100	2	4 x 1 1/2 x 1 1/2	\$0.38
1101	4	2 1/2 x 1 1/2 x 1 1/2	.44
1102	8	2 1/2 x 1 1/2 x 1 1/2	.66
1103	12	2 1/2 x 1 1/2 x 1 1/2	.67
1104	16	2 1/2 x 1 1/2 x 1 1/2	.67
1106	4+4	2 1/2 x 1 1/2 x 1 1/2	.79
1107	4+8	2 1/2 x 1 1/2 x 1 1/2	.88
1108	8+8	2 1/2 x 1 1/2 x 1 1/2	.88
11109	8+8+8	2 1/2 x 1 1/2 x 1 1/2	1.29

LG 2-250 V. Peak, 200 V. D. C. Wkg.

No.	Mfd.	Size	NET
1110	4	2 1/2 x 1 1/2 x 1 1/2	\$0.38
1111	8	2 1/2 x 1 1/2 x 1 1/2	.44
1112	16	2 1/2 x 1 1/2 x 1 1/2	.66
1115	20	2 1/2 x 1 1/2 x 1 1/2	.70
1120	8+8	2 1/2 x 1 1/2 x 1 1/2	.73
1121	8+16	2 1/2 x 1 1/2 x 1 1/2	.85
1122	12+16	2 1/2 x 1 1/2 x 1 1/2	.94
1123	16+16	2 1/2 x 1 1/2 x 1 1/2	.97

DAA-O CARDBOARD DRY ELECTROLYTICS

High quality condensers specially treated to repel moisture. In sturdy cardboard containers; wax filled. Unaffected by the most adverse conditions of temperature and humidity. With convenient mounting flanges and 6" insulated leads. Excellent for replacement purposes. Working voltage 450; will withstand surges of 525 volts.

No.	Mfd.	Size	NET
1133	5	4 1/2 x 1 1/2 x 1 1/2	44c
1134	6	4 1/2 x 1 1/2 x 1 1/2	53c
1135	8	4 1/2 x 1 1/2 x 1 1/2	56c
1136	10	4 1/2 x 1 1/2 x 1 1/2	67c
1137	12	4 1/2 x 1 1/2 x 1 1/2	76c

TUBULAR ELECTROLYTICS

TYPE DT. Encased in impregnated tubes to resist moisture. Wax filling gives additional protection. Have 2" bare wire leads.

No.	Mfd.	Peak V.	Size	NET
1131	5	500	2 x 1 1/2 x 1 1/2	32c
1132	1	500	2 x 1 1/2 x 1 1/2	38c
1133	2	500	2 1/2 x 1 1/2 x 1 1/2	50c
1134	4+4	175	2 1/2 x 1 1/2 x 1 1/2	29c
1135	5	60	2 x 1 1/2 x 1 1/2	38c
1136	10	60	2 x 1 1/2 x 1 1/2	47c
1137	25	60	2 1/2 x 1 1/2 x 1 1/2	29c
1138	5	35	2 x 1 1/2 x 1 1/2	44c
1139	5+5	35	2 x 1 1/2 x 1 1/2	44c
1140	10+10	35	2 1/2 x 1 1/2 x 1 1/2	44c

BAKELITE MOLDED MICA CONDENSERS

Highest quality materials Sealed against all climatic conditions. Preferred by discriminating Servicemen and Amateurs.

Mfd.	Sq. No.	Sq. No.	Sq. No.	NET EACH
000025	E13221	E13222	E13265	12c
00003	E13208	E13223	E13266	9c
00004	E13209	E13224	E13267	12c
00005	E13210	E13225	E13268	15c
0001	E13211	E13226	E13269	18c
0002	E13212	E13227	E13270	24c
00025	E13213	E13228	E13271	26c
0003	E13214	E13229	E13272	
0004	E13215	E13230		
0005	E13216	E13231		
001	E13217			
002	E13218			
003	E13219			
004	E13220			



NEW MINICAP TUBULARS

New etched-toil ultra-compact dry electrolytics, hermetically sealed in metal cans; insulated on sides and ends with cardboard tubes. One lead is riveted directly to the metal container, and positive is brought through rubber and bakelite washers. Dual units have common negative mounting strap. Ideal for replacements.

No.	Mfd.	Wkg. V.	Size	NET
13051	8	525	1 1/2 x 2 1/2	30c
13052	4	450	1 1/2 x 1 1/2	30c
13053	8	450	1 1/2 x 1 1/2	30c
13054	12	450	1 1/2 x 2 1/2	44c
13055	16	450	1 1/2 x 2 1/2	53c
13056	20	450	1 1/2 x 2 1/2	53c
13057	4	350	1 1/2 x 2 1/2	30c
13058	8	350	1 1/2 x 1 1/2	30c
13059	12	350	1 1/2 x 1 1/2	30c
13060	16	350	1 1/2 x 2 1/2	44c
13061	24	350	1 1/2 x 2 1/2	53c
13062	8	250	1 1/2 x 1 1/2	30c
13063	16	250	1 1/2 x 2 1/2	44c
13064	4	150	1 1/2 x 1 1/2	24c
13065	8	150	1 1/2 x 2 1/2	30c
13066	12	150	1 1/2 x 1 1/2	30c
13067	24	150	1 1/2 x 2 1/2	44c
13068	40	150	1 1/2 x 2 1/2	44c
13069	8	100	1 1/2 x 1 1/2	24c
13070	16	100	1 1/2 x 2 1/2	30c
13071	30	100	1 1/2 x 1 1/2	35c
13072	10	25	1 1/2 x 1 1/2	24c
13073	25	25	1 1/2 x 1 1/2	29c
13074	8-8	450	1 1/2 x 2 1/2	59c
13075	8-8	350	1 1/2 x 2 1/2	49c
13076	8-8	150	1 1/2 x 1 1/2	35c
13077	8-16	150	1 1/2 x 2 1/2	59c
13078	16-16	150	1 1/2 x 2 1/2	59c
13079	10-10	25	1 1/2 x 1 1/2	35c

IN METAL CANS

STANDARD SIZE DRY INVERTED CAN

Round inverted type electrolytics with six inch leads. Cans are adequately insulated from the capacitor sections, and the leads are brought through extruded metal screw base. A lock-nut is supplied with each unit. Have exceptional stability and are ideal for replacements. Size, 4 1/2" high, diam. 1 1/2".

Type D-450 V. D. C. Wkg.

No.	Mfd.	Peak V.	NET
13142	4	525	50c
13143	8	525	61c
13144	10	525	73c
13145	12	525	82c
13146	4+4	225	76c
13147	4+8	525	82c
13148	8+8	525	94c

TYPE DM "MINICAP" DRY ELECTROLYTICS

Small size dry electrolytics embodying all the features of larger units. Have remarkable ability to withstand temperature and retain capacity. They are especially desirable for use where space economy is important. 1/2" screw base.

WITH LEADS 525 V. Peak, 450 V. D. C. Wkg.

No.	Mfd.	Size	NET
13170	4	1 1/2 x 2 1/2	50c
13171	8	1 1/2 x 2 1/2	61c
13172	10	1 1/2 x 2 1/2	82c
13173	12	1 1/2 x 2 1/2	91c
13174	4+8	1 1/2 x 2 1/2	85c
13175	8+8	1 1/2 x 2 1/2	94c

WET ELECTROLYTICS

TYPE Z. Compact inverted can type. Size, 1 1/2" diameter by 4 1/2" high.

No.	Mfd.	Peak V.	NET
13200	8	600	88c
13201	4	500	47c
13202	8	500	54c
13203	10	500	64c
13204	12	500	68c
13205	20	500	88c
13206	30	500	1.18
13207	16	350	73c

"SEALDITE" TUBULAR PAPER CONDENSERS

Finest quality paper condensers in specially treated cardboard tubes. Double-vacuum-impregnated; non-inductively wound; leads are hot-soldered to the section.

600 Volts D. C. Working

No.	Mfd.	Size	NET
13223	0001	3 1/2 x 1 1/2	
13224	00025	3 1/2 x 1 1/2	
13225	0005	3 1/2 x 1 1/2	
13226	001	3 1/2 x 1 1/2	
13227	002	3 1/2 x 1 1/2	9c
13228	005	3 1/2 x 1 1/2	
13229	006	3 1/2 x 1 1/2	
13230	01	3 1/2 x 1 1/2	
13231	02	3 1/2 x 1 1/2	
13232	05	3 1/2 x 1 1/2	12c
13233	1	3 1/2 x 2 1/2	15c
13234	2	3 1/2 x 2 1/2	21c
13235	25	3 1/2 x 2 1/2	21c
13236	5	1 1/2 x 2 1/2	29c

400 V. D. C. Wkg. 300 V. D. C. Wkg.

No.	Mfd.	NET	No.	Mfd.	NET
13275	01		E13360	.1	12c
13276	02	9c	E13361	.2	15c
13277	05		E13362	.25	15c
13278	.1	12c	E13363	.5	21c
13279	.2	15c	E13364	1.0	29c
13280	.25	15c	E13365	1+1	24c
13281	1.0	29c	E13366	25+25	29c
13282	1.0	29c			



DOMINO MOLDED CONDENSERS

Paper condensers molded in bakelite. They are resistant to heat and moisture. Flat contact and small; long wire leads; plainly colored for quick identification. Type MP.

No.	Mfd.	Wkg. V.	Size	NET
E13235	001	1000	1 1/2 x 2 1/2	
E13236	002	1000	1 1/2 x 2 1/2	15c
E13237	003	1000	1 1/2 x 2 1/2	
E13238	004	1000	1 1/2 x 2 1/2	
E13239	005	1000	1 1/2 x 2 1/2	18c
E13240	006	1000	1 1/2 x 2 1/2	
E13241	008	1000	1 1/2 x 2 1/2	
E13242	01	1000	1 1/2 x 2 1/2	21c
E13243	02	1000	2 x 1 1/2	24c
E13244	005	600	1 1/2 x 2 1/2	12c
E13245	01	600	1 1/2 x 2 1/2	15c
E13246	02	600	1 1/2 x 2 1/2	
E13247	05	600	1 1/2 x 2 1/2	18c
E13248	1	600	1 1/2 x 2 1/2	
E13249	01	400	1 1/2 x 2 1/2	12c
E13250	02	400	1 1/2 x 2 1/2	
E13251	05	400	1 1/2 x 2 1/2	15c
E13252	.1	400	1 1/2 x 2 1/2	
E13253	.25	400	1 1/2 x 2 1/2	21c
E13254	1	200	1 1/2 x 2 1/2	12c
E13255	.5	200	1 1/2 x 2 1/2	18c
E13256	5	200	2 x 1 1/2	26c

"KMX" DOMINO ASSORTMENT

A special assortment of popular 600 Wkg. Volt Domino Condensers in the following values: 1-1 Mfd.; 2-.05 Mfd.; 2-.02 Mfd.; and 2-.01 Mfd.

E13299. NET \$1.62

"TOM THUMB" TYPE TT CONDENSERS

Very compact uncased paper units sealed in varnished wrappers. Occupy very little space. They are especially recommended for replacements in paper filter blocks, etc.

No.	Mfd.	Wkg. V.	Size	NET
E13080	.25	2 x 1 1/2 x 1 1/2		\$0.29
E13081	.5	2 x 1 1/2 x 1 1/2		.44
E13082	1.0	2 x 1 1/2 x 1 1/2		.67
E13083	2.0	2 x 1 1/2 x 1 1/2		1.18
E13084	4.0	2 x 1 1/2 x 1 1/2		

600 V. Working-1200 V. Test

No.	Mfd.	Size	NET
E13085	.1	2 1/2 x 1 1/2 x 1 1/2	\$0.24
E13086	.25	2 1/2 x 1 1/2 x 1 1/2	.35
E13087	.5	2 1/2 x 1 1/2 x 1 1/2	.50
E13088	1.0	2 1/2 x 1 1/2 x 1 1/2	.79
E13089	2.0	2 1/2 x 1 1/2 x 1 1/2	1.59
E13090	4.0	2 1/2 x 1 1/2 x 1 1/2	

1000 V. Working-2000 V. Test

No.	Mfd.	Size	NET
E13091	1	2 x 1 1/2 x 1 1/2	\$0.35
E13092	.25	3 x 2 x 1 1/2	.44
E13093	.5	4 1/2 x 2 x 1 1/2	.59
E13094	1.0	4 1/2 x 2 1/2 x 1 1/2	.88
E13095	2.0	4 1/2 x 2 1/2 x 1 1/2	1.47

Highest Quality

KNIGHT TRANSFORMERS

KNIGHT FILTER CHOKES



Open-type construction, with leads. For any standard AC receiver. Excellent for servicing and adding to filtering requirements—whenever a high quality, dependable replacement is needed. Size: $1\frac{1}{2}'' \times 2'' \times 3\frac{1}{2}''$.

No.	Henries	M.A.	Ohms	NET
E11650	25	25	850	68c
E11651	25	60	325	65c
E11652	20	80	200	71c
E11653	15	100	160	89c
E11654	750	5	*3500	89c

* Plate coupling choke for def. tube. High impedance at audio frequency.

KNIGHT AC-DC CHOKES

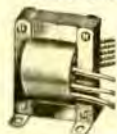


For any 4 or 5 tube midset. Semi shielded. All units rated at 15 Hly. at 40 M.A. Horizontal mounting. Insulated leads. Size: $1\frac{1}{2}''$ high, $2\frac{1}{2}''$ long, $1\frac{1}{4}''$ deep. Mtg. centers, $2\frac{1}{2}''$.

No.	Ohms	No.	Ohms
E11635	200	E11639	400
E11636	250	E11640	450
E11637	300	E11641	500
E11638	350	E11642	550

NET EACH **37c**

KNIGHT AUTO RADIO VIBRATOR TRANSFORMER



A newly developed compact transformer designed to meet the demand for a high-grade replacement transformer for auto radio vibrators. Designed to deliver 250 volts at 50 M.A. in conjunction with any standard vibrator. Diameter, $3\frac{1}{2}''$; height, mtg. centers, $2\frac{1}{2}''$. An excellent low-cost replacement unit.

E11671. YOUR PRICE **\$1.25**

KNIGHT FIELD EXCITER POWER TRANSFORMER



This power transformer is designed to deliver 160 volts at 300 M.A. out of filter, with an 82 or 523 resistor tube. Will furnish full excitation for either one or two 1600 ohm speaker fields in parallel connection. Primary 115 volts 50/60 cycles. See 200 volts at 225 M.A.—C.T. and 5 volts at 4 A.

Size: $2\frac{1}{2}'' \times 3\frac{1}{2}'' \times 3\frac{1}{2}''$ inches. E11673. YOUR PRICE **\$1.95**



KNIGHT TUBE TESTER TRANSFORMER

An ideal transformer for use in "Build-Your-Own" Test Equipment. Also excellent for replacement purposes and for modernizing old equipment. Can also be used as test equipment in laboratories, etc. It is no longer necessary to purchase new test equipment when the transformers burn out. All you need to do is remove the old defective unit and replace with a new transformer. Furnishes three filament voltages for tube testers: 1.5, 2.0, 2.5, 3.3, 5.0, 6.3, 7.5, 15, 25 and 30 Volts at 2.0 Amps. Also has high voltage winding to supply 250 Volts A.C. at 40 M.A. for plate voltage of tube under test. Size, $2\frac{1}{2}''$ high, $4\frac{1}{2}''$ wide, $2\frac{1}{2}''$ deep; with $3\frac{1}{2}''$ mounting centers. **\$2.06**

E11672. List, \$3.50. NET.

MIDGET UNIVERSAL OUTPUT TRANSFORMER

A SPECIAL VALUE

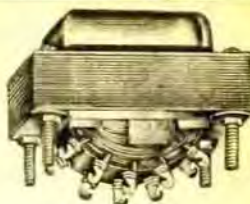


An extremely compact transformer for matching the output of any existing output tubes, single or p.p., to any dynamic speaker voice coil of from 2 to 30 ohms impedance. Size: $1\frac{1}{2}''$ high, $2\frac{1}{2}''$ long, $1\frac{1}{2}''$ thick. **49c**

E11662. NET EACH

KNIGHT HIGH-QUALITY POWER TRANSFORMERS

Splendid values in carefully designed and well-constructed compact power transformers. Only fine quality materials are used throughout. Conservatively rated for long-lived efficient service. Several types insure selection of proper transformer for practically all set requirements. Frontal arrangement provides for sub-panel wiring. It is not necessary to run leads through chassis base. Easily installed as corner bolts furnish positive, solid mounting. Ideal for use in limited space. These transformers are a boon to the serviceman, providing low-cost, high-grade units for replacement purposes. Use them regularly for bigger profits.



FOR 2.5 VOLT TUBES

4 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 650 V. at 40 M.A.—C.T.; 2.5 V. at 3.75 A.—C.T.; 5 V. at 2 A.
Mtg.: $2\frac{1}{2}'' \times 2''$. Wt., 2 lbs.
E6055. NET **69c**

5 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 650 V. at 45 M.A.—C.T.; 2.5 V. at 5 A.—C.T.; 5 V. at 2 A.—C.T.
Mtg.: $2\frac{1}{2}'' \times 2''$. Wt., 2 lbs.
E6056. NET **86c**

6 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 675 V. at 50 M.A.—C.T.; 2.5 V. at 7.5 A.—C.T.; 5 V. at 2 A.—C.T.
Mtg.: $2\frac{1}{2}'' \times 2''$. Wt., 3 lbs.
E6057. NET **98c**

7 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 700 V. at 70 M.A.—C.T.; 2.5 V. at 3.5 A.—C.T.; 5 V. at 3 A.—C.T.; 2.5 V. at 7.5 A.—C.T.
Mtg.: $3\frac{1}{2}'' \times 2\frac{1}{2}''$. Wt., 4 lbs.
E6058. NET **\$1.58**

8 TO 10 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 700 V. at 100 M.A.—C.T.; 2.5 V. at 10.5 Amperes; 2.5 V. at 4 A.—C.T.; 5 V. at 3 A.—C.T.
Mtg.: $3\frac{1}{2}'' \times 2\frac{1}{2}''$. Wt., 4 lbs.
E6059. NET **\$1.75**

FOR 6.3 VOLT TUBES

4 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 650 V. at 40 M.A.—C.T.; 6.3 V. at 1.6 A.—C.T.; 5 V. at 2 A.—C.T.
Mtg.: $2\frac{1}{2}'' \times 2''$. Wt., 2 lbs.
E6060. NET **73c**

5 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 650 V. at 45 M.A.—C.T.; 6.3 V. at 1.5 A.—C.T.; 5 V. at 2 A.—C.T.
Mtg.: $2\frac{1}{2}'' \times 2''$. Wt., 2 lbs.
E6061. NET **86c**

6 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 675 V. at 50 M.A.—C.T.; 6.3 V. at 2 A.—C.T.; 5 V. at 2 A.—C.T.
Mtg.: $2\frac{1}{2}'' \times 2''$. Wt., 4 lbs.
E6062. NET **\$1.05**

7 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 700 V. at 75 M.A.—C.T.; 6.3 V. at 3.2 A.—C.T.; 5 V. at 3 A.—C.T.
Mtg.: $3\frac{1}{2}'' \times 2\frac{1}{2}''$. Wt., 4 $\frac{1}{2}$ lbs.
E6063. NET **\$1.58**

8 TO 11 TUBE SETS

Primary: 115 V. at 50/60 cycles.
Sec.: 700 V. at 100 M.A.—C.T.; 6.3 V. at 4 A.—C.T.; 2.5 V. at 4 A.—C.T.; 5 V. at 3 A.—C.T.
Mtg.: $3\frac{1}{2}'' \times 2\frac{1}{2}''$. Wt., 6 lbs.
E6064. NET **\$1.98**

KNIGHT AUDIO AND OUTPUT TRANSFORMERS

SPECIAL AUDIO



E11656. 1 to 1 ratio. $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 3\frac{1}{2}''$. Mounting centers: $2\frac{1}{2}''$. Strap mounting type. Good quality. **78c**

E11657. Push-pull input. Open frame type. $1\frac{1}{2}'' \times 1\frac{1}{2}'' \times 3\frac{1}{2}''$. **65c**

OUTPUT TRANSFORMERS

To feed into 8 to 15 ohm voice coil. Open frame.
E11658. Single 45, 45, 2A3, 6A5, 25A6, 25A7G. $1\frac{1}{2}'' \times 2\frac{1}{2}'' \times 3\frac{1}{2}''$. **49c**

MIKE TRANSFORMERS

OPEN TYPE
E11655. For single or double button microphone. Tapped primary. Open frame type. $2\frac{1}{2}'' \times 1\frac{1}{2}'' \times 3\frac{1}{2}''$. Mtg. center, $2\frac{1}{2}''$. **52c**

SHIELDED TYPES

E6050. Single button coupling transformer. Turn ratio, 1 to 61; impedance ratio, 1 to 4000. For single button carbon mike to tube input. Fully shielded.
E6051. Two button type. To couple any double button carbon microphone to single grid. Turn ratio, 1 to 45; impedance ratio, 1 to 2000. **\$1.32**

UNIVERSAL AUDIO

A compact, high quality audio transformer for use in any A.C. or battery set or amplifier. Will couple any tube to single grid. Has universal mounting bracket. Size, $2\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{1}{2}''$. Shug. wt., 2 lbs.
E11644. NET **75c**



UNIVERSAL OUTPUT

This versatile transformer couples practically any power tubes, either single or push-pull, to any dynamic or magnetic speaker. Has universal mounting bracket. Size, $2\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{1}{2}''$. With instructions. Shug. wt., 2 lbs. **75c**

UNIVERSAL P.P. INPUT

May be used to couple any single plate to any combination of single or push-pull tubes. Universal mounting bracket. Ruggedly built. Size, $2\frac{1}{2}'' \times 1\frac{1}{2}'' \times 2\frac{1}{2}''$. Shug. wt., 2 lbs. **75c**

STANDARD AUDIOS

Ideal for replacement purposes. Open type construction. $3\frac{1}{2}'' \times 1\frac{1}{2}'' \times 1\frac{1}{2}''$. Mtg. centers: $2\frac{1}{2}''$. Shug. wt., 2 lbs. each.
E11647. $3\frac{1}{2}''$ I. Straight audio. 1 plate to 1 grid.
E11648. 3-1, P.P. Input. 1 plate to 2 grids.
E11649. Push-pull interstage. 2 plates to 2 grids. **71c**



HEAVY-DUTY UNIVERSAL OUTPUT

A heavy-duty, unshielded output transformer for universal use. Accurately matches any single or push-pull plate to any speaker voice coil. Strap mounting. Size: $2\frac{1}{2}'' \times 2\frac{1}{2}'' \times 1\frac{1}{2}''$. **95c**

STANCOR POWER TRANSFORMERS

EXACT DUPLICATE



EXACT FIT GUARANTEED

The units listed below are precision-built transformers which conform exactly in every respect to the original manufacturers' specifications of physical and electrical characteristics. Current and voltage ratings are conservative and assure proper operating and long life. No refitting or refilling is necessary. Just pull out the defective unit, put in the new unit and resolder connections.

ALL TYPES AVAILABLE

Whether your old transformer is round or square, shielded or unshielded, half shell or upright, you can get a replacement at ALLIED. Through close contact with Stancor, we can supply Exact Duplicate Power Transformers for practically any set. Simply give us full information concerning the unit you need and we shall quote prices. Units not shown below can be shipped promptly.



Models	No.	NET
ATWATER KENT		
L&H-1&2, 70 ser.	E11507	\$3.76
188	E11528	2.65
217, 427, 607	E11540	2.94
80, 83	E11542	3.76
82, 85	E11543	3.65
85b, 97b	E11551	2.59
BRUNSWICK		
11, 21, 31, 81, 82	E11512	3.76
10	E11513	2.94
3NCS, 5NCS	E11516	3.12
11, 12, 16, 18, 33	E11554	3.35

Models	No.	NET
CLAYTON		
AC40	E11513	2.94
AC60	E11518	3.76
AC90, 90A, 91	E11521	3.79
AC260	E11524	3.53
AC360	E11526	4.06
AC360	E11529	4.17
AC470, AC472	E11530	2.59
AC61, AC70	E11561	3.76
AC100	E11563	2.65
AC160	E11565	4.00
AC340	E11567	3.23

Models	No.	NET
CROSLBY		
40-S, 41-S, 42-S	E11536	3.76
50S, 51S, 51b, 52S	E11804	1.76
534, 63S, 65S	E11803	1.91
5V2, 6H3, 50, 614	E11568	2.20
140, 148-1	E11591	3.82
517, 537, 547	E11593	1.62
520, 616, 555	E11594	2.06

Models	No.	NET
GENERAL ELECTRIC		
A-52, A-55	E11805	3.23
A-83, A-85	E11806	3.67
A-125	E11807	4.12
E-71, E-72, E-76		
E-79	E11808	2.50
E-01, E-62, E-68	E11596	2.23
E-81, E-86	E11603	3.00
E-105, E-106	E11809	3.38

Models	No.	NET
KNIGHT		
AC5	E11532	2.59
AC7	E11533	2.73
SG8	E11534	4.20
SG9	E11535	3.76

Models	No.	NET
MAJESTIC		
20 (unmounted)	E11550	3.76
70 chassis (Plate)	E11552	2.53
70 chassis (EFL)	E11553	2.73
90B & 100B chassis	E11555	3.76
90 & 100 chassis	E11556	3.79
100, 131, 132, 233	E11557	3.76
151 (unmounted)	E11558	2.09
180, 181 (Plate)	E11559	5.06
180, 181 (EFL)	E11583	3.59
25, 25B	E11584	3.76
320	E11585	4.62

Models	No.	NET
PHILCO		
65	E11569	3.53
70, 270, 370, 470	E11570	3.53
76, 77	E11571	3.53
87	E11573	3.53
95, 96, 296	E11578	3.53
511	E11581	3.53
19, 44, 60, 264	E11562	2.06
80, 81	E11564	1.91
110B (121)	E11572	4.12
610, 630, 625, 2630	E11560	2.35
90 (1-47)	E11692	3.53
90 (2-45)	E11694	3.53
37-9, 37-650 (121)	E11574	3.67
37-62, 37-610 (122)	E11575	2.50

FREE STANCOR REPLACEMENT GUIDE

New fourth edition of Stancor's replacement transformer guide. A 39-page alphabetical listing showing proper replacement transformers, choices, audios and output transformers necessary to do a real servicing job. Also shows full complements of all sets listed. Select the transformer you want and then order from ALLIED. Guide sent FREE on request.



Models	No.	NET
PHILCO (Cont.)		
37-600, 800	E11576	\$1.91
37-116 (121, 122)	E11577	4.41
37-60, 37-61	E11579	2.65
38-7, 38-9 (121)	E11580	2.35
14 (Early)	E11604	3.23
15	E11605	4.41
16 (121)	E11611	4.70
16, 17 (122, 133)	E11612	4.41
16 (126, 127)	E11618	4.12
19 (128)	E11850	2.65
29	E11851	3.09
45, 215	E11852	2.50
51 (Twin Spkr.)	E11853	3.82
86	E11854	3.53
90 (2-47s)	E11855	2.12
91 (Std. Spkr.)	E11857	2.94
97, 98	E11858	4.41
111, 112A (2-45's)	E11859	3.53
112, 112A (2-47's)	E11860	3.53
116X (122)	E11861	4.41
144	E11862	2.50
200, 201	E11863	4.41
630, 635	E11864	3.09
650, 655	E12005	4.41
660, 665	E12006	3.53
680	E12007	4.70
37-10, 37-11 (121)	E11500	3.82
37-84	E11502	2.12
37-93	E11503	2.12
37-640	E11504	3.09
37-660	E11505	4.12
37-673, 38-116 (121)	E11511	4.41
38-1, 38-2 (121)	E11514	3.82
38-12 (121)	E11520	1.76
RCA-RADIOLA-VICTOR		
UT, 7T, 8T, 8R	E11849	2.06
110, 111, 113	E11848	2.35
118, 125, 128E, 225	E11599	2.53
9T, 9U, 10T, 10K	E11588	2.94
D-11-2, T-10-3, 9K3	E11597	3.97
13-K, 15-K	E11598	4.12
R32, R32, RE45	E11586	3.53
R4, R6	E11587	2.53
R7, R9, RE10	E11589	2.53
R7A, RE16A	E11590	2.53
R17, 18, 38, 51	E11515	2.53
R60, R62	E11516	3.12
R66	E11595	4.17
R5, R5X	E11525	2.53
R11, RE18, R21	E11527	3.65
RE20, R50, R55	E11531	3.76
R35, R39, RE37	E11537	3.76
R37, R37P, R38	E11538	2.65
RAD64, 67	E12008	10.00
R70, R70N	E12009	3.41
R73, R75 (47)	E12010	3.53
R73A, R75A (2A5)	E12011	3.18

Models	No.	NET
RCA-RADIOLA-VICTOR (Cont.)		
R74, R76, R77, RE81	E12012	\$4.17
R78, RAES4	E12013	4.12
RAE7D	E12014	8.23
R60, R90P, 260	E12015	4.59
100 (Early)	E12016	2.79
100 (Late), T4-S	E12017	1.76
M116	E12018	2.23
117, 119, 214, T5-2	E12019	2.23
121, 123, 129, 221	E12020	2.94
140, 141, 240, 340	E12021	3.53
143, 243, 243, 262	E12022	3.65
220, 222	E12023	2.59
280	E12024	4.23
330, 331	E12025	2.65
380, 480HR	E12026	4.06
CG-2, T6-1, T6-9		
6K-3	E12027	2.47
C7-6, D7-7, T7-5		
C8-19	E12028	2.53
C7-11, T7-12, 7U	E12029	2.41
C8-15, C8-17	E12030	2.47
C9-4, C9-5	E12031	2.88
C9-6, D9-19, T9-2	E12032	3.47
C11-1, T10-1, 10K-1E	E12033	3.65
C13-2, C15-3	E11680	3.53
D8-28, T9-10, 8U	E11681	2.41
T4-SA, T4-9A, 4T	E11682	1.94
T8-14, T8-16	E11683	2.47

Models	No.	NET
STARTON		
AC7, 62, 63	E11600	2.47
9A, 410	E11601	3.76
591, 593, 931	E11607	4.12
235, 737	E11602	3.29
930	E11608	3.35
25, 26, 27, 30, 45	E11684	4.17
33, 101, 110, 574	E11685	5.59
53 Police	E11686	3.76
67, 68, 616, 666	E11687	4.12
71, 71B, 72, 78	E11688	2.35
76	E11689	2.65
104, 105X, 135		
966	E11690	3.06
589	E11691	4.12
1116X, 1166, 1176	E11696	3.53

Models	No.	NET
U. S. RADIO & TEL.		
8 (series)	E11610	3.35
7 (series)	E11614	3.76
26 series Gloritone	E11616	2.29
26P series Gloritone	E11617	2.29
20	E11697	2.94

Models	No.	NET
ZENITH		
4P-26, 4T-26, 5-S		
161	E11615	1.47
705, 700, 707, 711		
712, 760	E11619	3.53
715, 755, 757, 975	E11632	3.23
805, 845, 909, 941	E11634	2.20
10, 11, 12, 102, 112		
122	E11622	3.79
50, 52, 54, 60, 70		
72, 77	E11623	4.59
273, 410, 420, 475	E11624	4.17
430, 440, 441, 619	E11625	3.53
476, 770, 775, 780	E11626	4.12
476B, 770B, 777	E11627	3.53
825, 827, 829	E11628	2.20
835, 880, 935, 990	E11629	3.38
6827, 6852, 68154	E11630	2.06
9854, 9855	E11631	2.65
108130, 108147	E11632	2.94
12157, 12158	E11620	3.53
12U158, 12U159	E11621	3.53

POWER TRANSFORMERS REBUILT LIKE NEW

DEALER'S PRICE LIST

Tubes	POWER TUBES	NET	Tubes	POWER TUBES	NET
4 to 7	1-6A3, 6A6, 6D5, 41, 42, or 6F6	\$2.95	8	1-45, 47, 59, 2A5, 2A3, or 53	\$3.95
6 to 10	2-6A3, 6A6, 6D5, 41, 42, or 6F6	3.95	9	2-45, 47, 59, 2A5, 2A3, or 53	4.65
8	1-71A	2.95	10	1-50, 10 or 61A	5.25
8	2-71A	3.95	10	2-50, 10 or 61A	6.50

Prices quoted above are for rebuilding transformers not mounted in plex or wax or other sealing compound. Add \$1.00 to prices shown if your transformer is mounted in sealing compound. Add \$1.50 to prices for 25-cycle primaries. We will rebuild all transformers regardless of primary windings. Write for quotations stating full particulars. All inquiries will be given prompt attention.

SERVICE YOU WILL LIKE

Rebuilding is expertly done, quickly and economically, to exact original specifications. We use the original case and insulation. Transformers for Battery Chargers, Auto Transformers, Neon Transformers, Diathermy and Amateur Transformers are also expertly rebuilt. List at left is only representative. If you cannot determine price, write for quotation, stating name and model number of receiver, tube lineup, and other available data. Increase your profits with neat, efficient repair jobs.

SHIPPING INSTRUCTIONS

For speedy and efficient service, please follow these suggestions:
 1. Send old transformers prepaid. We pay return postage.
 2. Include full price or 20% minimum deposit.
 3. Be sure to include tube lineup, name of set, 25 or 60 cycle, etc.
 We will return rebuilt transformers postpaid anywhere in the United States. Take advantage of this additional big saving for added profits.

THORDARSON UNIVERSAL POWER TRANSFORMERS

UNIVERSAL DUPLICATE TRANSFORMERS



18 UNITS FOR 800 SETS

A radically new line of transformers designed to meet the requirements of every serviceman and set-builder. The slotted brackets permit universal mounting. Have long flexible color-coded leads. 100% shielded electrostatically and magnetically. For 110 volts, 50-60 cycles. (Add 60% to list price for 25 cycle, and 30% for 220 volt operation. Includes deposit with order.

DIMENSIONS

Transf.	H.	W.	D.
T-13R01	3	2 1/2	2 1/4
T-13R02	3	2 1/2	2 1/4
T-13R03	3 3/4	2 1/2	2 1/4
T-13R04	3 3/4	3 1/2	3 1/4
T-13R05	3 3/4	3 1/2	3 1/4
T-13R06	4 1/2	3 1/2	3 1/4
T-13R07	4 1/2	3 1/2	3 1/4
T-13R08	3 1/2	3 1/2	3 1/4
T-13R09	4 1/2	3 1/2	3 1/4

TYPE T13R01-2.5 VOLTS

SEC.: 650 V. C.T. at 10 M.A.; 2.5 V. C.T. at 4 A.; 5.0 V. C.T. at 3 A.

E11223. List, \$2.50. NET. **\$1.47**

TYPE T13R02-2.5 VOLTS

SEC.: 700 V. C.T. at 50 M.A.; 2.5 V. C.T. at 7.25 A.; 5.0 V. C.T. at 3.0 A.

E11224. List, \$3.25. NET. **\$1.91**

TYPE T13R03-2.5 VOLTS

SEC.: 700 V. C.T. at 70 M.A.; 2.5 V. C.T. at 9.0 A.; 5.0 V. C.T. at 3.0 A.

E11225. List, \$3.50. NET. **\$2.06**

TYPE T13R04-2.5 VOLTS

SEC.: 700 V. C.T. at 90 M.A.; 2.5 V. C.T. at 12.5 A.; 5.0 V. C.T. at 3.0 A.

E11226. List, \$4.25. NET. **\$2.50**

TYPE T13R05-2.5 VOLTS

SEC.: 700 V. C.T. at 70 M.A.; 2.5 V. C.T. at 9.0 A.; 2.5 V. C.T. at 3.5 A.; 5.0 V. C.T. at 3.0 A.

E11227. List, \$4.00. NET. **\$2.35**

TYPE T13R06-2.5 VOLTS

SEC.: 700 V. C.T. at 120 M.A.; 2.5 V. C.T. at 12.5 A.; 2.5 V. C.T. at 3.5 A.; 5.0 V. C.T. at 3.0 A.

E11228. List, \$5.25. NET. **\$3.09**

TYPE T13R07-2.5 VOLTS

SEC.: 800 V. C.T. at 110 M.A.; 2.5 V. C.T. at 15.0 A.; 2.5 V. C.T. at 3.5 A.; 5.0 V. C.T. at 3.0 A.

E11229. List, \$5.50. NET. **\$3.23**

TYPE T13R08-2.5 & 6.3 VOLTS

SEC.: 700 V. C.T. at 50 M.A.; 6.3 V. C.T. at 3.0 A.; 2.5 V. C.T. at 6.0 A.; 5.0 V. C.T. at 3.0 A.

E11230. List, \$4.50. NET. **\$2.65**

TYPE T13R09-2.5 & 6.3 VOLTS

SEC.: 750 V. C.T. at 180 M.A.; 6.3 V. C.T. at 3.5 A.; 2.5 V. C.T. at 6.0 A.; 5.0 V. C.T. at 3.0 A.

E11231. List, \$6.50. NET. **\$3.82**

REPLACEMENT ENCYCLOPEDIA

A brand new 30-page book that tells you what Thordarson transformer to use for replacement in almost any set. Enables you to service 99% of the sets listed in Rider's, with the 18 units listed below. They duplicate originals with minimum stock requirements and at the same time service more sets perfectly than will any other assortment.

E11004. FREE with your order for any Thordarson transformer. Be sure to get this helpful guide at once. Get your Guide today.



DIMENSIONS

Transf.	H.	W.	D.
T-13R00	3 1/2	2 1/2	3 1/4
T-13R11	3	2 1/2	2 1/4
T-13R12	3	2 1/2	2 1/4
T-13R13	3 1/2	3 1/2	3 1/4
T-13R14	3 1/2	3 1/2	3 1/4
T-13R15	4 1/2	3 1/2	3 1/4
T-13R16	4 1/2	3 1/2	3 1/4
T-13R17	3 1/2	2 1/2	3 1/4
T-13R18	4 1/2	3 1/2	3 1/4

TYPE T13R00-2.5 & 5 VOLTS

SEC.: 550 V. C.T. at 70 M.A.; 5.0 V. C.T. at 9.5 A.; 2.5 V. C.T. at 10.5 A.; 5.0 V. C.T. at 3.0 A.

E11232. List, \$4.00. NET. **\$2.35**

TYPE T13R11-6.3 VOLTS

SEC.: 650 V. C.T. at 40 M.A.; 6.3 V. C.T. at 2.0 A.; 5.0 V. C.T. at 3.0 A.

E11233. List, \$2.50. NET. **\$1.47**

TYPE T13R12-6.3 VOLTS

SEC.: 700 V. C.T. at 70 M.A.; 6.3 V. C.T. at 2.5 A.; 5.0 V. C.T. at 3.0 A.

E11234. List, \$3.25. NET. **\$1.91**

TYPE T13R13-6.3 VOLTS

SEC.: 700 V. C.T. at 90 M.A.; 6.3 V. C.T. at 3.5 A.; 5.0 V. C.T. at 3.0 A.

E11250. List, \$4.00. NET. **\$2.35**

TYPE T13R14-6.3 VOLTS

SEC.: 700 V. C.T. at 120 M.A.; 6.3 V. C.T. at 4.7 A.; 5.0 V. C.T. at 4.0 A.

E11251. List, \$4.25. NET. **\$2.50**

TYPE T13R15-6.3 VOLTS

SEC.: 750 V. C.T. at 150 M.A.; 6.3 V. C.T. at 5.0 A.; 5.0 V. C.T. at 4.0 A.

E11252. List, \$5.75. NET. **\$3.38**

TYPE T13R16-6.3 VOLTS

SEC.: 800 V. C.T. at 200 M.A.; 6.3 V. C.T. at 5.14 A.; 5.0 V. C.T. at 4.0 A.

E11253. List, \$6.50. NET. **\$3.82**

TYPE T13R17-6.3 & 2.5 VOLTS

SEC.: 600 V. C.T. at 60 M.A.; 6.3 V. C.T. at 2.5 A.; 2.5 V. C.T. at 7.5 A.; 5.0 V. C.T. at 3.0 A.

E11254. List, \$4.00. NET. **\$2.35**

TYPE T13R18-2.5 and/or 6.3 VOLTS

SEC.: 700 V. C.T. at 80 M.A.; 6.3 and 2.5 V. C.T. at 3.5 A.; 2.5 V. C.T. at 9.0 A.; 5.0 V. C.T. at 3.0 A.

E11255. List, \$4.75. NET. **\$2.79**



GENERAL-PURPOSE POWER TRANSFORMERS

A carefully selected listing of general-purpose power transformers. Only the finest materials used in their construction. Choice of two types as shown. All listings 110 V., 50-60 cycles. Add 60% for 25 cycles; 30% for 220 volts. (*Indicates weight in lbs.) Typical Thordarson quality is built into each one of these quality units to assure perfect performance coupled with long life.

Transf.	DIMENSIONS			MTG. HOLES
	H.	W.	D.	
T-60R49	2 1/2	3	2 1/4	2 1/2" Centers
T-70R20	3	3 1/2	2 1/4	2 1/2" Centers
T-75R47	3 1/2	3 1/2	3 1/4	3 1/2"x2 1/4"
T-70R78	4 1/2	3 1/2	3	2 1/2"x2 1/4"
T-70R61	4 1/2	3 1/2	3 1/4	2 1/2"x2 1/4"
T-56R01	4 1/2	3 1/2	3 1/4	2 1/2"x2 1/4"
T-56R03	5	3 1/2	3 1/4	3x2 1/2"
T-70R62	5	3 1/2	3 1/4	3x2 1/2"
T-56R05	5	3 1/2	3 1/4	3x3"
T-92R21	4 1/2	4 1/2	3 1/4	3 1/2"x3 1/4"
T-17R10	4 1/2	3 1/2	3 1/4	3 1/2"x3 1/4"
T-74R28	5	3 1/2	3 1/4	3x2 1/2"

T-60R49. FIG. 2H-2.5 VOLTS

SEC.: 500 V. C.T. at 30 M.A.; 2.5 V. at 3.5 A. C.T.; 5 V. at 2 A. (*1/2").

E11014. NET. **\$1.32**

T-70R20. FIG. 2H-6.3 VOLTS

SEC.: 600 V. C.T. at 50 M.A.; 6.3 V. at 2 A. C.T.; 5 V. at 2 A. (*1/2").

E11040. NET. **\$1.62**

T-75R47. FIG. 2H-6.3 VOLTS

SEC.: 610 V. C.T. at 125 M.A.; 6.3 V. at 2 A. C.T.; 5 V. at 2 A. (*8).

E11015. NET. **\$2.20**

T-70R78. FIG. 2G-6.3 VOLTS

SEC.: 680 V. C.T. at 55 M.A.; 6.3 V. at 1.5 A. C.T.; 5 V. at 2 A. (*6).

E11016. NET. **\$1.91**

T-70R61. FIG. 2G-6.3 VOLTS

SEC.: 770 V. C.T. at 70 M.A.; 6.3 V. at 2.5 A. C.T.; 5 V. at 2 A. (*6 1/2").

E11017. NET. **\$2.35**

T-56R01. FIG. 2G-1.5 VOLTS

SEC.: 650 V. C.T. at 70 M.A.; 1.5 V. at 1 A.; 1.5 V. at 4 A.; 2.5 V. at 3 A. C.T.; 5 V. at 1.5 A. C.T.; 5 V. at 2 A. (*7).

E11019. NET. **\$2.79**

T-56R03. FIG. 2G-2.5 VOLTS

SEC.: 700 V. C.T. at 105 M.A.; 2.5 V. at 3 A. C.T.; 2.5 V. at 1.75 A. C.T.; 1.5 V. at 5 A.; 1.5 V. at 1 A.; 5 V. at 3 A. (*9).

E11023. NET. **\$3.23**

T-70R62. FIG. 2G-6.3 VOLTS

SEC.: 700 V. C.T. at 145 M.A.; 6.3 V. at 4.5 A. C.T.; 5 V. at 3 A. (*8).

E11021. NET. **\$3.23**

T-56R05. FIG. 2G-2.5 VOLTS

SEC.: 700 V. C.T. at 110 M.A.; 2.5 V. at 9 A. C.T.; 2.5 V. at 3 A. C.T.; 2.5 V. at 3 A. C.T.; 5 V. at 3 A. (*9).

E11022. NET. **\$3.38**

T-92R21. FIG. 2G-6.3 VOLTS

SEC.: 800 V. C.T. at 200 M.A.; 6.3 V. at 5 A. C.T.; 5 V. at 3 A. (*11).

E11024. NET. **\$4.41**

T-17R30. FIG. 1G-6.3 VOLTS

SEC.: 740 V. C.T. at 280 M.A.; 6.3 V. at 3.5 A. C.T.; 5 V. at 3 A. (*7).

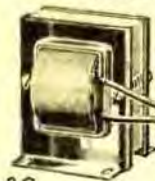
E11025. NET. **\$4.56**

T-74R28. FIG. 2G-6.3 VOLTS

SEC.: 880 V. C.T. at 125 M.A.; 38 V. Bias tap; 6.3 V. at 3.3 A. C.T.; 5 V. at 3 A.; 2.5 V. at 3 A. (*10).

E11026. NET. **\$3.82**

UNIVERSAL 6 VOLT VIBRATOR TRANSFORMERS



More and more servicemen are adding to their incomes by repairing defective or burned-out vibrator transformers. The flood of "bargain" vibrators sold in recent years has resulted in a great increase in burned-out and defective vibrator transformers. Thousands of the estimated 3,000,000 auto sets sold in 1936, '37, and '38 will soon require replacement power transformers. Thordarson replacement vibrator transformers are provided with mounting feet or may be used with original mounting brackets. You can add to your service profits by ordering one each of these transformers. Be prepared to service any auto set that may come into your shop. Shpg. wt. of all transformers is approximately 3 1/2 lbs. each, except T11R40 which is 8 1/2 lbs.



Cat. No.	Type	Fig.	D.C. Volts	M.A.	Size	List	NET EACH
E12735	T14R33	3C	225	40	2 1/4"x2 1/4"x3 1/4"	\$2.75	\$1.62
E12736	T14R34	3C	250	50	2 1/4"x2 1/4"x3 1/4"	3.25	1.91
E12737	T14R35	3C	260	60	2 1/4"x2 1/4"x3 1/4"	3.75	2.20
E12738	T14R36	3C	285	75	2 1/4"x2 1/4"x3 1/4"	4.25	2.50
E12739	T14R37	3C	350	75	2 1/4"x3 1/4"x3 1/4"	4.75	2.79
115 V. 50-60 CYCLE OR 6 V. D.C. MODEL							
E12740	T14R40	2G	350-6.3 C.T.	135-2.25 C.T.	3 1/2"x4 1/2"x4 1/2"	\$5.50	\$3.23

THORDARSON AMPLIFIER & LINE COUPLING TRANSFORMERS

LATEST COUPLING TRANSFORMERS



FIG. 2-F



FIG. 2-B



FIG. 2-G



FIG. 2-D



FIG. 4-D

The latest Thordarson high quality transformers, designed for practically every input, output, mixer or line purpose. A transformer for almost any need will be found in the listing below. All units have been carefully designed, and are precision-built to rigid, exact specifications. We can supply all Thordarson transformers. Send us your orders, or write for prices.

TUBE TO LINE (LOW LEVEL)

Cat. No.	Type	Fig.	Primary	Secondary	List	NET
E11038	T14A90	2-F	20,000 CT	500/125	\$2.50	\$1.47
E11039	T14A91	2-F	20,000 CT	200/50	2.50	1.47

MIXER OR LINE TO TUBE

E11045	T55A10	2-F	200 or 50 Ohms	Single or PP Grids	\$2.75	\$1.62
E11046	T65A72	2-F	50, 100, 150 or 200 Ohms	Single Grid	3.75	2.20
E11047	T63A71	2-F	200, 400, 600 or 800 Ohms	Single Grid	3.75	2.20
E11048	T61A94	2-F	500 or 125 Ohms	Single or PP Grids	3.25	1.91
E11037	T83A78	2-F	S.B. Mike, 100 Ohms	Single Grid	2.00	1.18

MICROPHONE COUPLING TRANSFORMERS

E11052	T63A72	2-F	D.B. Mike 200-0-200	200 or 50 Ohms	\$3.25	\$1.91
E11053	T70A83	2-F	D.B. Mike to line 200-0-200	500 or 125 Ohms	3.50	2.06
E11054	T70A83	2-F	Crystal Mike to line 100,000	200 or 50 Ohms	3.50	2.06
E11055	T58A37	2-F	D.B. Mike 200-0-200	Single Grid	2.25	1.32

OUTPUT COUPLING TRANSFORMERS

E11060	T61825	2-B	Universal, 2A3, 2A5, 45, 47, 50, etc.	500 Ohms	\$3.50	\$2.06
E11061	T61826	2-B	Universal, PP2A3, 2A5, 45, 47, 50, etc.	500 Ohms	3.50	2.06
E11062	T57801	2-B	Universal, Single or PP output tubes.	1 to 29 Ohms	2.00	1.18
E11063	T67854	2-F	PP2A3 or 45 Class "AB"	4, 8, 15 or 500 Ohms	4.00	2.35
E11064	T67848	2-F	PP45 Class "A" or 1-53 Class "B" (8,000)	4, 8, 15 or 500 Ohms	3.50	2.06
E11065	T67852	2-F	2-53 PP parallel Class "B" or 2-10 or 59 Class "B" or 2-616 Class "AB" (8,000)	4, 8, 15 or 500 Ohms	4.00	2.35
E11066	T67893	2-F	4-2A3 or 45 PP Parallel Class "AB" (1,500)	4, 8, 15 or 500 Ohms	4.00	2.35
E11070	T67851	2-F	PP Pentodes, 79 Class "B" or 2-10 Class "A" (14,000)	4, 8, 15 or 500 Ohms	3.50	2.06
E11071	T65894	2-F	PP50 Class "A", 2A5 or 42 Class "AB", or 2-79 Class "B" (8,000)	4, 8, 15 or 500 Ohms	4.00	2.35
E11072	T75875	2-F	PP645, 216, 6A6, 6N7, 6P6, 30, 49, 31, PP, 1-19 (10,000)	4, 8, 15 or 500 Ohms	4.00	2.35
E11092	T81801	2-F	2-616 Class "AB" (8,000)	2-4-8 Ohms	1.65	.97
E11073	T84858	2-G	PP6L6 Class "AB2" (3,800)	4, 8, 15 or 500 Ohms	6.00	3.53
E11068	T89875	2-F	PP6L6 Class "AB1" (6,600)	4, 8, 15 or 500 Ohms	4.00	2.35
E11069	T89874	2-F	1-6L6 Class "A" (4,000)	4, 8, 15 or 500 Ohms	3.75	2.20
E11049	T89868	2-G	PP Pat. 6L6 Class "AB1" 50-125-200-250-333-500 Ohms	50-125-200-250-333-500 Ohms	6.50	3.82
E12770	T17810	2-F	1-6L6 (2,500)	2-4-8-50 Ohms	3.50	2.06
E12771	T17811	2-F	2-6V6 PP (8,000)	4-8-15-250-500 Ohms	4.00	2.35
E12772	T17812	2-F	2-6L6 PP (4,300)	4-8-15-250-500 Ohms	4.00	2.35
E12773	T17813	2-G	2-6L6 PP (6,600)	4-8-15-250-500 Ohms	6.50	3.82
E12774	T17814	2-G	2-6L6 PP (5,500)	4-8-15-250-500 Ohms	6.50	3.82
E12775	T17815	2-G	4-6L6 PP Pat. (3,300)	4-8-15-250-500 Ohms	7.00	4.12

*Has third winding for obtaining 10% in inverse feed back.

LINE TO SPEAKER

E12776	T60848	2-B	500 to 3000 Ohms	Univ. Voice Coil	\$3.00	\$1.76
E12777	T14880	2-B	300 Ohms	2-4-6-8 Ohms	2.00	1.18
E12778	T170874	2-B	500 Ohms	250/100/125/100/84 Ohms	3.00	1.76
E12779	T53881	2-D	500 or 250 Ohms	4, 8, or 15 Ohms	4.00	2.35

CLASS "B" AND "AB" DRIVERS

E12780	T67D50	2-F	1-89 Class "A" Triode	1-79 or 53 Class "B"	\$2.75	\$1.62
E12781	T67D17	2-F	1-33 (plates in parallel)	1-53 Class "B"	2.50	1.27
E12782	T67D78	2-F	1-46 or 59 Class "A"	2-46 or 59 Class "B"	3.00	1.76
E12783	T81D42	2-F	6P6 Triode	PP 6P6 Class "AB"	3.25	1.91
E12784	T84D59	2-F	PP 6C5, 37, 76, etc.	PP 6L6 Class "AB"	3.50	2.06
E12785	T19D01	4-D	15 Watts, 60 Ma.	1:1, 1:2:1, 1:4:1	6.00	3.53
E12786	T19D02	4-D	15 Watts, 60 Ma.	1:6:1, 1:8:1	6.00	3.53
E12787	T19D03	4-D	15 Watts, 60 Ma.	2:1, 2:2:1, 2:4:1, 2:6:1, 2:8:1	6.00	3.53
E12788	T19D04	4-D	15 Watts, 60 Ma.	3:1, 3:2:1, 3:4:1, 3:6:1, 3:8:1	6.00	3.53
				4:1, 4:5:1, 5:1, 5:5:1, 6:1	6.00	3.53

TRANSCIVER AIDS

E11090	T54D63	2-F	1-30 or 49 Class "A"	1-19 or 2-49's Class "B"	\$2.50	\$1.47
E11091	T67M69	2-F	1-19 Class "B"	2,700 Ohms (50MA)	2.75	1.62
E11092	T81801	2-B	30, 49, 31, PP, 1-19	2-4-8	1.65	.97
E11093	T68806	2-F	Single Pentode	10 or 2000 Ohms	2.50	1.47
E11094	T72558	2-B	Single Pentode	High or Low Impedance Phones	1.65	.97
E11095	T72A59	2-B	Single Plate and Single Button Microphone	Single Grid	1.65	.97

TRU-FIDELITY TRANSFORMERS

Sensational new design now makes possible really True Fidelity. Completely shielded units. Can be used as standards in laboratories, etc. Leads can be taken from top or bottom. Handy terminal board for ease of connection. Size: 2 1/2" x 3 1/2" x 1 1/2". Wt.: 14 lbs. Full inductive capacity and inductive balance to center tap, for use on balanced (transmission line).



CRYSTAL MIKE

E11173. T90A06. Crystal Mike or P.E. Cell to Line. Pri. 250,000 and 65,500. Sec. like T90A02 below. NET \$10.58

PLATE-TO-LINE (LOW LEVEL)
E11174. T90A07. Single Tube to Line. Couple single triode to line or mixer. Pri. 21,000, 5,000. Sec. 500⁺-333-250-200-125 and 50 ohms. NET \$10.29

E11175. T90A01. P.P. Tubes to Line. P.P. Triodes to line. Pri. 20,000 and 5,000. Sec. as above. NET \$9.70

MIXER

E11172. T90A10. Line or Mike to Line. Primary impedances, 500⁺-333-200⁺-125 and 50 ohms. Secondary impedances, 500⁺-333-250-200-125 and 50 ohms. NET \$9.41

LINE-TO-GRID

E11170. T90A00. Line or Mike to Single Grid. Couple to grid of any tube. Pri. 500⁺-333-250-200-125-50 ohms. Sec. 75,000 and 18,750 ohms. NET \$10.00

E11171. T90A11. Line or Mike to P.P. Grids. Primary, 500⁺-333-250-200-125-50. Sec. 150,000 and 37,500 ohms. NET \$11.76

INTERSTAGE

E11176. T90A03. Single Plate to Single Grid. For cascade coupling. Pri. 10,000, 2,500. Sec. 40,000, 10,000 ohms. NET \$8.82

E11177. T90A04. Single Plate to P.P. Grids. As above, but with Sec. of 10,000 and 40,000 ohms. NET \$8.82

E11178. T90A05. P.P. Plates to P.P. Grids. To couple P.P. triodes to P.P. outputs. Pri. 20,000 and 5,000. Sec. 45,000 and 11,250 ohms. NET \$9.70

OUTPUT

E11179. T90S07. P.P. Power Tubes to Line. Primary, 5,000-3,000-1,250 and 750 ohms. Secondary, 500⁺-333-250-200⁺-125 and 50 ohms. NET \$10.58

E11180. T90S08. P.P. Tubes to Voice Coil. Primary, 5,000-3,000-1,250 and 750 ohms. Secondary, 1.25-3.75-9-7.5-10 and 15 ohms. NET \$10.29

E11169. T90S13. P.P. Tubes to Line or Voice Coil. Primary, 5,000-3,000-1,250 and 750 ohms. Secondary to line 500⁺-333-250-200⁺-125-50 or voice coil 15-10-7.5-5-3.75 and 1.25. NET \$11.76

LINE-TO-VOICE COIL

E11181. T90S12. Line to Voice Coil. Pri. impedances, 500⁺-333-250-200⁺-125 and 50 ohms. Sec. 1.25-3.75-9-7.5-10 and 15 ohms. NET \$10.58

PLATE REACTOR

E11182. T90C09. Audio Plate Reactor. For use in Series or Parallel primary circuits. Inductance, 300 Henries, 8 Ma. as series reactor; 75 Henries, 16 Ma. as parallel reactor. D.C. Resistance, 4000 ohms as series reactor; 1000 ohms as parallel reactor. NET \$7.35

SOUND AMPLIFIER GUIDE

A very valuable manual for the sound engineer, etc. Contains a world of knowledge pertaining to audio section of metal and glass tube circuits and amplifiers. Covers pre-amplifiers, mixers, etc. One of these manuals should be a part of every sound-man's library. Latest edition supplied. NET \$9.00



E11001. NET \$9.00

RADIO SERVICE GUIDE

Newest Edition. Contains most up-to-date of valuable information to help you select the proper transformers you require. Lists transformer units for every purpose. NET \$9.00

E11207. NET \$9.00

THORDARSON AUDIOS · OUTPUTS · CHOKES

THORDARSON TRANSFORMERS



Genuine Thordarson audio transformers, chokes and other radio components. The representative illustration below includes the most popular transformers in the Thordarson line. These units are supplied in a variety of mountings, as illustrated, for convenience in replacement work. All units carry regular Thordarson guarantee. If the transformer you require is not listed, send us your order with deposit, and we will supply correct unit promptly.

STRAIGHT AUDIO TRANSFORMERS

Dependable audio units ensuring good reproduction at attractively low prices. Universally adaptable for service replacement work.

Cat. No.	Type	Fig.	Ratio	Size	List	NET
E 11121	T47A25	2-C	3:1	2 1/2 x 2 1/2 x 1 1/2	\$1.75	\$1.03
E 11122	T29A99	2-B	3:2:1	2 1/2 x 2 x 2	1.75	1.03
E 11123	T57A36	2-F	3:2:1	2 1/2 x 2 1/2 x 2 1/2	2.00	1.18
E 11125	T57A38	2-F	3:1	3 x 2 1/2 x 2 1/2	2.75	1.62
E 11127	T75A74*	2-F	2:1	2 1/2 x 2 1/2 x 2 1/2	2.50	1.47
E 11120	T17A02†	2-F	3:1	2 x 2 1/2 x 2 1/2	2.25	1.32

* Has static shield between primary and secondary windings.
† For either straight or push-pull use.

PUSH-PULL INPUTS

Cat. No.	Type	Fig.	Ratio	Size	List	NET
E 11128	T14A29	2-C	3:2:1	2 1/2 x 2 1/2 x 1 1/2	\$2.25	\$1.32
E 11129	T32A91	2-B	3:2:1	2 1/2 x 2 x 2	2.00	1.18
E 11130	T57A39	2-F	3:2:1	2 1/2 x 2 1/2 x 2 1/2	2.25	1.32
E 11131	T57A40	2-B	3:1	3 x 2 1/2 x 2	2.75	1.62
E 11132	T57A41	2-F	3:1	3 x 2 1/2 x 2 1/2	3.00	1.76

PUSH-PULL INTERSTAGE

Cat. No.	Type	Fig.	Ratio	Size	List	NET
E 11137	T58A70*	2-F	1.5:1	3 x 2 1/2 x 2 1/2	\$3.25	\$1.91
E 11136	T13A36	3-II	1:1	2 x 2 1/2 x 1 1/2	1.75	1.03

* May be used in Class "AB" Amplifiers where some grid current flows.

OUTPUT TRANSFORMERS

FOR .1 TO 29 OHM VOICE COILS

Cat. No.	Type	Fig.	Primary	Size	List	NET
E 12763	T57501	2-E	Universal for single or P.P. Tubes.	2 1/2 x 2 x 2	\$2.00	\$1.18
E 12764	T13538	3-E	Universal for single or P.P. Tube.	2 x 1 1/2 x 1 1/2	1.50	.88
E 12765	T13542*	3-E	Universal for single output tube	2 x 1 1/2 x 1 1/2	1.50	.88
E 12766	T13541*	2-E	Universal for P.P. tubes	2 1/2 x 2 x 3	3.00	1.76

* For heavy-duty power tubes drawing up to 60 M.A.

FOR 6 TO 12 OHM VOICE COILS

Cat. No.	Type	Fig.	Primary	Size	List	NET
E 12767	T33599	2-B	P445, etc.	2 1/2 x 2 x 2	1.50	.88

FOR 1, 2, AND 4 OHM VOICE COILS

Cat. No.	Type	Fig.	Primary	Size	List	NET
E 12768	T13537	3-E	1-6F0, 4Z, 2A5, 47	1 1/2 x 1 1/2 x 1 1/2	1.25	.73
E 12769	T13539	3-E	1-4E, 12A5, 31, 43, 71A	1 1/2 x 1 1/2 x 1 1/2	1.25	.73
E 11142	T13543	3-E	1-1F4, 1D4, 1F6G	1 1/2 x 1 1/2 x 1 1/2	1.35	.79

PLATE COUPLING CHOKES

No.	Type	Fig.	MA	Hys.	Size	List	NET
E 11145	T29C27	2-B	.5*	1080	2 x 2 1/2 x 1 1/2	\$1.50	\$0.88
E 11146	T52C98	2-F	.5*	1080	2 1/2 x 2 1/2 x 1 1/2	1.65	1.03
E 11147	T37C36	2-F	.5	510	2 1/2 x 2 1/2 x 2	2.00	1.18
E 11148	T67C46	2-F	.5	510	2 1/2 x 2 x 2	1.75	1.03
E 11143	T68C08	2-F	.35	22	2 1/2 x 2 1/2 x 2 1/2	2.00	1.18

* For use as plate inductance with S. G. tubes. Max. Cap. 8 MA.

FILTER CHOKES

Designed with typical Thordarson precision to give good service.

Cat. No.	Type	Fig.	Hys.	MA	Ohms	Size	List	NET
E 12750	T18C02	2-B	29	35	405	2 x 2 1/2 x 2 1/2	\$1.75	\$1.03
E 12751	T47C07	3-II	12	75	290	2 x 2 1/2 x 2 1/2	1.65	.97
E 12752	T68C02	2-B	15	85	375	2 x 2 1/2 x 3	2.00	1.18
E 12753	T57C53	2-F	9.5	110	200	2 x 2 1/2 x 3	2.00	1.18
E 12754	T57C54	2-F	9.5	110	200	2 1/2 x 2 1/2 x 3	2.25	1.32
E 12755	T17C00B	2-F	12	150	231	2 1/2 x 3 x 2 1/2	2.75	1.62
E 12756	T13C26	3-B	7	40	530	1 1/2 x 1 1/2 x 1 1/2	.90	.53
E 12757	T13C27	3-B	10	40	475	2 x 1 1/2 x 1 1/2	1.10	.65
E 12758	T13C28	3-B	10	65	460	2 1/2 x 1 1/2 x 2	1.20	.71
E 12759	T13C29	3-B	9	85	250	2 1/2 x 2 x 2	1.60	.94
E 12760	T75C49	3-B	7.2	120	290	2 1/2 x 2 1/2 x 2	1.50	.88
E 12761	T13C30	2-B	8	150	200	2 1/2 x 2 x 2 1/2	2.00	1.18

THORDARSON NEW "CHT" SERIES OF TRANSFORMERS

An entirely new line of transformers filling the gap between laboratory grade units and servicemen's requirements. Their response curve meets all requirements for wide-range reproduction. Many advanced electrical and mechanical features take the C.I.T. line out of all competition in its price field. Balanced windings remove hum. Sub-panel terminals make wiring easy. Complete impregnation eliminates moisture problems. Ideal for use in high-grade receivers, transmitters, and portable public address systems. Listing below is representative. We can supply all other C.I.T. transformers immediately. Send us your order.



LOW IMPEDANCE SOURCE TO GRID

Cat. No.	Type	Pri. Ohms	Sec. Ohms	List	NET
E 12710	T15A66	500, 333, 250, 200, 125, 50	60,000, 15,000 Single Grid	\$7.25	\$4.26
E 12711	T15A67	500, 333, 250, 200, 125, 50	120,000/30,000 P.P. Grids	8.00	4.70
E 12712	T15A68	60, 38, 30, 22, 15, 10, 5.5, 2.5	60,000, 15,000 Single Grid	7.25	4.26

LOW IMPEDANCE TO LINE OR MIXER

Cat. No.	Type	Pri. Ohms	Sec. Ohms	List	NET
E 12713	T15A69	600, 333, 250, 200, 125, 50	500, 333, 250, 200, 125, 50	\$6.25	\$3.67
E 12714	T15A70	60, 38, 30, 22, 15, 10, 5.5, 2.5	500, 333, 250, 200, 125, 50	6.25	3.67

TUBE TO LINE (LOW LEVEL)

Cat. No.	Type	Pri. Ohms	Sec. Ohms	List	NET
E 12715	T15A71	20,000, 5,000	500, 333, 250, 200, 125, 50	\$7.25	\$4.26
E 12716	T15A72	20,000, 5,000 P.P. Plates	500, 333, 250, 200, 125, 50	7.25	4.26

INTERSTAGE COUPLING UNITS (CLASS A)

Cat. No.	Type	Pri. Ohms	Sec. Ohms	List	NET
E 12717	T15A73	10,000/2,500 Single Plate	40,000/10,000 Single Grid	\$5.00	\$2.94
E 12718	T15A74	10,000/2,500 Single Plate	40,000/10,000 P.P. Grids	5.75	3.38
E 12719	T15A75	20,000/5,000 P.P. Plates	45,000/11,250 P.P. Grids	6.25	3.67

MULTI-TAP LINE TO GRID

Cat. No.	Type	Pri. Ohms	Sec. Ohms	List	NET
E 12720	T15A65	500, 333, 250, 200, 125, 50	5,000/12,500 P.P. Cl. A 845	\$10.50	\$6.17
E 12721	T15D87	500, 333, 250, 200, 125, 50	7220 P.P. Cl. A 845	11.00	6.47

DRIVER TRANSFORMERS

Cat. No.	Type	Pri. Ohms	Sec. Ohms	List	NET
E 12722	T15D85*	Sgt. 6F6, 42, 2A5	P.P. 6L6-10 W Triodes	\$7.50	\$4.41
E 12723	T15D86*	P.P. 6F6, 42, 2A5	P.P. Par. 6L6 Triodes	7.50	4.41

* With humbucking coil construction.

MULTI-TAP OUTPUT TRANSFORMERS

Cat. No.	Type	Primary	Secondary	List	NET
E 12724	T15S90*	8000 5000 5000	2-3-1-5 8-16-125 250-500	\$ 9.25	\$ 5.44
E 12725	T15S91*	4300 3000	Same as above	11.50	6.76
E 12726	T15S92*	6600 5500	Same as above	13.75	8.08
E 12727	T15S93*	3300 3800	Same as above	15.00	8.82
E 12728	T15S94*	1900	500-250-166 125-100-84	17.50	10.29

* Tertiary winding to give feedback voltage 10% of full primary.

MULTI-TAP LINE TO VOICE COIL

Cat. No.	Type	Primary	Secondary	List	NET
E 12729	T15S96	1000-500 (25 Watts)	50-24-16- 8-6-4-3-2	\$11.00	\$6.47
E 12730	T15S97	1000-500 (60 Watts)	50-24-16- 8-6-4-3-2	14.50	8.53

ISOLATING TRANSFORMERS

For use on electrical therapeutic machines, hair-dryers, clippers, medical instruments, beauty parlor equipment, etc. Also used in Amateur transmitters for elimination of line noises or to keep R.F. out of the line. Pri., 105-115-125 V., 50-60 cycles. Sec., 115 V. Static shield between pri. and sec.



E 12731.	Type T18V00.	Capacity, 100 V.A. 3 1/2 x 3 1/2 x 5".	Shpg. wt., 10 lbs.	\$5.29
E 12732.	Type T18V01.	Capacity, 250 V.A. 5 1/2 x 6 1/2 x 7".	Shpg. wt., 22 lbs.	NET \$10.29
E 12733.	Type T18V02.	Capacity, 500 V.A. 6 1/2 x 7 1/2 x 8 1/2".	Shpg. wt., 33 lbs.	NET \$16.17

We can supply all transformers and associated equipment manufactured by Thordarson. If the particular item you require is not listed in this catalog, simply make your selection from any Thordarson Guide, Manual, or parts list, and we will supply promptly at discounts of 40/20% from list prices. We are in constant touch with the Thordarson organization and can supply any special parts needed with minimum delay. Send us your order with deposit; shipment will be made promptly.

STANCOR TRANSFORMERS



SHIELDED UNIVERSAL POWER REPLACEMENTS



where space is a limiting factor. Their compact size has been obtained without any sacrifice of efficiency. Each transformer contains an electrostatic shield. Flexible leads are R.M.A. color-coded. Brackets supplied permit either vertical or horizontal mounting. For 110-115 V, 50-60 cycles. (No 110-115 V, 25 cycles, add 60%. For 220-230 V, 50-60 cycles, add 15%. For 220-230 V, 25 cycles, add 75%.)

4 OR 5 TUBES—2.5 VOLTS
Type P-6001. Sec.: 650 V. at 40 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Wt., 3 1/2 lbs.
E12915. List, \$2.35. NET **\$1.32**

5 OR 6 TUBES—2.5 VOLTS
Type P-6002. Sec.: 700 V. at 50 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Wt., 3 1/2 lbs.
E12916. List, \$3.00. NET **\$1.76**

6 OR 7 TUBES—2.5 VOLTS
Type P-6003. Sec.: 700 V. at 70 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Wt., 4 lbs.
E12917. List, \$3.25. NET **\$1.91**

8 OR 9 TUBES—2.5 VOLTS
Type P-6004. Sec.: 700 V. at 90 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Wt., 5 1/2 lbs.
E12918. List, \$4.00. NET **\$2.35**

6 OR 7 TUBES—2.5 VOLTS
Type P-6005. Sec.: 700 V. at 70 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Wt., 3 1/2 lbs.
E12919. List, \$4.00. NET **\$2.35**

11 OR 13 TUBES—2.5 VOLTS
Type P-6006. Sec.: 700 V. at 120 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T., 2.5 V. at 6 A.-C.T. 3 1/2 x 3 1/2". 0 lbs.
E12920. List, \$5.00. NET **\$2.94**

10 OR 12 TUBES—2.5 VOLTS
Type P-6007. Sec.: 800 V. at 110 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T., 2.5 V. at 6 A.-C.T. 3 1/2 x 3 1/2". 6 1/2 lbs.
E12921. List, \$5.00. NET **\$2.94**



HALF-SHELL REPLACEMENT POWER TRANSFORMERS

A complete line of high-grade compact power transformers, designed to meet all requirements for superior finish-mounting replacements. Made of the best quality materials; superior design and neat, workmanlike appearance make them unusual values. Uniformly wound coils and generous insulation assure long, trouble-free performance. Ample safety factor allows momentary high peak-current drains without seriously taxing transformer. For 110 Volt 60 cycle A.C. operation.

FOR 2.5 VOLT TUBES

Type P-2770. Sec.: 650 V. at 40 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 3 lbs.
E12930. List, \$2.50. NET **\$1.47**

Type P-2868. Sec.: 650 V. at 40 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T., 2.5 V. at 6 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 3 lbs.
E12931. List, \$2.80. NET **\$1.65**

Type P-2869. Sec.: 700 V. at 50 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T., 2.5 V. at 6 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 3 1/2 lbs.
E12932. List, \$3.00. NET **\$1.76**

Type P-2859. Sec.: 700 V. at 70 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T., 2.5 V. at 6 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 4 lbs.
E12933. List, \$3.50. NET **\$2.06**

Type P-2860. Sec.: 700 V. at 90 M.A.-C.T., 5 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T., 2.5 V. at 6 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 5 1/2 lbs.
E12934. List, \$4.00. NET **\$2.35**

FOR 6.3 VOLT TUBES

Type P-2751. Sec.: 650 V. at 40 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 1 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 2 1/2 lbs.
E12935. List, \$2.25. NET **\$1.32**

Type P-2771. Sec.: 650 V. at 40 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 2 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 3 lbs.
E12936. List, \$2.50. NET **\$1.47**

Type P-947. Sec.: 700 V. at 50 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 2 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 3 1/2 lbs.
E12937. List, \$2.75. NET **\$1.62**

Type P-948. Sec.: 675 V. at 70 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 2 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 5 lbs.
E12938. List, \$3.60. NET **\$2.12**

Type P-949. Sec.: 700 V. at 120 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 3 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 6 lbs.
E12939. List, \$4.00. NET **\$2.35**

Type P-955. Sec.: 800 V. at 160 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 3 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Mfg. centers, 2 1/2". Shng. wt., 7 lbs.
E12940. List, \$6.00. NET **\$3.53**

Stancor's new line of Universal Power Transformers is the result of extensive engineering research to determine the exact electrical and physical requirements to service the greatest number of sets. These transformers are ideally suited for replacement work where space is a limiting factor. Their compact size has been obtained without any sacrifice of efficiency. Each transformer contains an electrostatic shield. Flexible leads are R.M.A. color-coded. Brackets supplied permit either vertical or horizontal mounting. For 110-115 V, 50-60 cycles. (No 110-115 V, 25 cycles, add 60%. For 220-230 V, 50-60 cycles, add 15%. For 220-230 V, 25 cycles, add 75%.)

14 OR 16 TUBES—6.3 VOLTS
Type P-6008. Sec.: 750 V. at 180 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 3 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Wt., 7 lbs.
E12922. List, \$6.00. NET **\$3.53**

6 OR 7 TUBES—5 VOLTS
Type P-6009. Sec.: 550 V. at 70 M.A.-C.T., 5 V. at 2 A.-C.T., 5 V. at 4 A.-C.T., 2.5 V. at 10 A.-C.T. 2 1/2 x 3 1/2". 4 lbs.
E12923. List, \$3.50. NET **\$2.06**

4 OR 5 TUBES—6.3 VOLTS
Type P-6010. Sec.: 650 V. at 40 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 2 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Wt., 3 1/2 lbs.
E12924. List, \$2.50. NET **\$1.47**

6 OR 7 TUBES—6.3 VOLTS
Type P-6011. Sec.: 700 V. at 70 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 2 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Wt., 3 1/2 lbs.
E12925. List, \$3.00. NET **\$1.76**

8 OR 9 TUBES—6.3 VOLTS
Type P-6012. Sec.: 700 V. at 90 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 2 A.-C.T., 2.5 V. at 4 A.-C.T. Mfg. area, 2 1/2 x 3 1/2". Wt., 5 1/2 lbs.
E12926. List, \$3.75. NET **\$2.20**

11 OR 13 TUBES—6.3 VOLTS
Type P-6013. Sec.: 700 V. at 120 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 4 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Wt., 5 1/2 lbs.
E12927. List, \$4.25. NET **\$2.50**

13 OR 15 TUBES—6.3 VOLTS
Type P-6014. Sec.: 750 V. at 150 M.A.-C.T., 5 V. at 2 A.-C.T., 6.3 V. at 3 A.-C.T. Mfg. area, 3 1/2 x 3 1/2". Wt., 6 lbs.
E12928. List, \$5.75. NET **\$3.38**

UNIVERSAL AUDIOS

These unshielded audio transformers are among the finest available today. They are noted for their exceptionally flat frequency response curve. The universal mounting plate and long flexible leads make installation exceedingly easy on every replacement job.



E12941. Type A-53. 10,000 ohms plate to single grid, 5:1 ratio. 1 1/2 x 1 1/2 x 2 3/4". Mfg. centers, 2". Wt., 1/2 lb. NET **68c**

E12942. Type A-53. 10,000 ohms plate to single grid, 5:1 ratio. 1 1/2 x 1 1/2 x 2 3/4". Mfg. centers, 2". Wt., 1/2 lb. NET **79c**

E12943. Type A-53C. 10,000 ohms plate to P.P. grids, 3:1 ratio. 1 1/2 x 1 1/2 x 2 3/4". Mfg. centers, 2". Wt., 1/2 lb. NET **73c**

E12944. Type A-63C. 10,000 ohms plate to P.P. grids, 3:1 ratio. 1 1/2 x 1 1/2 x 2 3/4". Mfg. centers, 2". Wt., 1/2 lb. NET **85c**

UNIVERSAL CHOKES

Excellent for replacement work. Universal brackets and long leads simplify installation.

E12945. Type C-1708. 10 HENRY at 65 MA, D.C. resistance 400 ohms. 1 1/2 x 1 1/2 x 3 1/2". Wt., 1 1/2 lbs. NET **71c**

E12946. Type C-1709. 9 HENRY at 85 MA, D.C. resistance 250 ohms. 1 1/2 x 1 1/2 x 3 1/2". Wt., 1 1/2 lbs. NET **94c**

E12947. Type C-1710. 8 HENRY at 150 MA, D.C. resistance 200 ohms. 2 1/2 x 2 1/2 x 4 1/2". Wt., 2 lbs. NET **\$1.18**

FILTER CHOKES

These high-quality chokes are for filter or plate coupling use. They are conservatively and accurately rated. The well-insulated windings are vacuum impregnated to insure long life.



E12950. C-1706. 5 H. at 40 MA, D.C. resistance 300 ohms. 1 1/2 x 2" mfg. area. Wt., 3/4 lb. List, 90c. NET **53c**

E12951. C-1707. 7 H. at 40 MA, D.C. resistance 500 ohms. 1 1/2 x 2" mfg. area. Wt., 3/4 lb. List, 90c. NET **53c**

E12952. C-1003. 30 HENRY at 50 MA, D.C. resistance 550 ohms. 1 1/2 x 3 1/2". Wt., 2 lbs. List, \$1.25. NET **73c**

E12953. C-1002. 30 HENRY at 75 MA, D.C. resistance 400 ohms. 1 1/2 x 3 1/2". mfg. area. Wt., 2 lbs. List, \$1.55. NET **91c**

E12954. C-1001. 30 HENRY at 110 MA, D.C. resistance, 200 ohms. 2 1/2 x 3 1/2". Wt., 3 lbs. List, \$1.85. NET **\$1.09**

E12955. C-1515. 50 HENRY at 15 MA, D.C. resistance, 750 ohms. 1 1/2 x 2 1/2". Wt., 1 1/2 lbs. List, \$1.00. NET **59c**

STANCOR UNIVERSAL VIBRATOR TRANSFORMERS

The following five transformers were designed particularly for use in servicing those receivers for which exact duplicates are not available. They are ruggedly built to give long, dependable service. If a tube is non-conductive, since they are practically identical to the original equipment, it is recommended that the brackets from the old transformer be used on these replacement units. Average shipping weight each unit, 2 1/2 lbs.



E11273. Output 225 volts at 40 MA. YOUR PRICE **\$1.47**

E11274. Output 250 volts at 50 MA. YOUR PRICE **\$1.76**

E11275. Output 260 volts at 65 MA. YOUR PRICE **\$2.06**

E11276. Output 285 volts at 75 MA. YOUR PRICE **\$2.35**

E11277. Output 330 volts at 100 MA. YOUR PRICE **\$2.79**

SPECIAL TRANSFORMERS

ACME STEP-DOWN TRANSFORMER



Will reduce line voltage of 200-240 volts, 50-60 cycles to 100-120 volts for operation of radio sets, amplifiers, appliances, etc. Will safely handle any device consuming up to 200 watts. Supplied with 8 foot cord, plug, and output receptacle. Small, compact, and well-built. Wt., 3 lbs.

E11265. List, \$10.00. **YOUR PRICE... \$3.95**

ACME VARIABLE VOLTAGE ADJUSTER



Maintains proper operating voltage under varying line conditions. Always step-up or step-down action. Primary tapped

85-100-115-130-145 volts; sec. 1.5 volts. With voltmeter for 50-60 cycle. A.C. E11266. Capacity 150 Watts. Ship. wt., 7 lbs. **YOUR PRICE \$7.06**
E11268. Capacity 350 Watts. Ship. wt., 11 lbs. **YOUR PRICE 11.76**
E11269. Capacity 500 Watts. Ship. wt., 14 lbs. **YOUR PRICE 12.94**

STANCOR OSCILLOSCOPE TRANSFORMERS



These transformers are ideal for use in circuits either where two independent high voltage supplies are used, or where both high voltages are obtained from one unit with a separate transformer for the filament voltage of the sweep tube. Designed with low flux density so that they do not attain the high temperatures encountered in midge transformers. Each unit is electrically shielded, and furnished with wiring diagrams

FOR 913 TUBE

Type P-4025. Has a primary of 115 V. at 60 cycles, and 5 secondaries: 275-375 V. at 10 MA; 180 V. at 6 MA; 6.5 V. at 1 amp; 2.5 V. at 1.5 amp; 6.3 V. at 6 amp. Size: 3 1/2" high, 2 1/2" wide, and 2 1/4" deep. 2 lbs. E12972. NET **\$2.26**

FOR 902 TUBE

Type P-5130. Has a primary of 115 V. at 60 cycles, and 5 secondaries: 480 V. at 30 MA; 6.5 V. at 6 amp; 6.3 V. at 2 amp; 5 V. at 2 amp; and 5 V. at 2 amp. Size: 3 1/2" high, 3 1/2" wide, and 3 1/2" deep. Ship. wt., 4 1/2 lbs. E12973. NET **\$3.23**

KNIGHT VARIABLE VOLTAGE TRANSFORMERS



A completely new line of variable voltage adjustable type transformers. Designed by a leading manufacturer to meet the requirements of standard 110 volt A.C. appliances in districts where voltage stabilization is unavailability. Offered in two wattage ratings to cover requirements of small or large equipment.

150 WATTS

Suitable for regulating input voltages of 90, 105, 120, 130, 180, 210, 230, 250. Ideal for use with midge sets, small table model sets, small consoles, small fans, hair-dryers, electric razors, electric clocks, soldering irons, lamps, etc. Actually serves 3 purposes. Can be used as a step-up transformer when line voltage is less than 110 volts A.C.; can be used as a step-down transformer when line voltage is higher than 110 volts A.C.; can be used as an isolation transformer for static-shielding purposes. Equipped with selector knob and 8 position plate. Built in A.C. receptacle. In shielded upright mounting case approx. 4 1/2" x 3 1/2" x 6". Approved cord and plug. Ship. wt., 10 lbs.

E12980. **YOUR PRICE \$8.23**

300 WATTS

Has same general specifications as transformer above. Based at 300 watts. Will handle larger sets, soldering irons, and appliances which draw up to 300 watts. Size approximately 4 1/2" x 4 1/2" x 6". Ship. wt., 12 lbs.

E12981. NET **\$10.58**

FAMOUS JEFFERSON TRANSFORMERS

PLASTIC-SEALED TRANSFORMERS



Hermetically sealed with a plastic coating which permanently adheres to and seals all exposed surfaces. These transformers provide positive protection against adverse climatic conditions. Windings are completely protected.

Sizes: A—2 1/2" x 1 1/2" x 1 1/2"; B—3 1/2" x 1 1/2" x 2 1/2"; C—2 1/2" x 2 1/2" x 2 1/2"; D—1 1/2" x 2 1/2" x 1 1/2"; E—3 1/2" x 2 1/2" x 2 1/2"

AUDIO TRANSFORMERS

No.	Type	Ratio	Down	Size	NET
E6038	467-501	1 to 2	5 D.E.	A	\$0.91
E6039	467-507	1 to 2	D.E.	D	1.44
E6040	467-503	1 to 3	D.E.	B	1.06
E6041	467-505	1 to 1	3.5 D.R.	E	1.15

P. P. INPUT TRANSFORMERS

No.	Type	Ratio	Size	NET
E6042	467-502	1 to 2	A	\$1.00
E6043	467-504	1 to 3	B	1.15
E6044	467-506	1 to 4	E	1.29
E6045	467-508	1 to 1	D	1.59

OUTPUT TRANSFORMERS

For single or P.P. 71A, 45, 33, 42, 47, etc. Have 7000 ohm primaries.

No.	Type	Watts	Sec.	Ohms	Size	NET
E6046	467-509	2	4 to 8	A	\$0.79	
E6047	467-510	3 1/2	6 to 8	B	.94	

CHOKES

No.	Type	Hg. Ma.	Ohms	Size	NET
E6048	466-500	20	50	425 B	\$0.88
E6049	466-540	200	12	5000 C	.76



MIKE TRANSFORMERS

For use as microphone to grid transformers. Single button types have turn ratio of 1 to 64; double button type, 1 to 45. Flat response, 30-7000 cycles. Low-cost high quality units.

E6036. 467-413. Single Button; strap mounting. 2x3 1/2" x 1 1/2". Ship. wt., 1 1/2 lbs. List, \$1.60. NET **94c**

E6037. 467-414. Double Button; strap mounting. 2x3 1/2" x 1 1/2". Ship. wt., 1 1/2 lbs. List, \$1.75. NET **\$1.03**

E6034. 467-261. Single Button; Shielded type. 2 1/2" x 2 1/2" x 3". List, \$2.25. NET **\$1.32**

STANCOR OUTPUT TRANSFORMERS

These scientifically designed output transformers are substantially built, using only the highest quality materials. Coils are carefully wound and highly insulated. Insulations are accurately made of the silicon steel. Unshielded type. Will withstand hard continuous usage. For Class "A" amplification. Operate directly from plates of either single or push-pull power tubes into 5 to 10 ohm voice coils or dynamic speakers. The exceptionally flat response curve of these transformers assures true reproduction.

SINGLE TYPE

E12957. A2203, 45, 71A, 2A3, 25A6, 25A7G, 6Y6G. Size, 2 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2". Wt., 1 lb. List, \$1.10. NET **65c**

E12958. A2200, 45, 71A, 2A3, 25A6, 25A7G, 6Y6G. Size, 3 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2 1/2". Wt., 2 lbs. NET **82c**

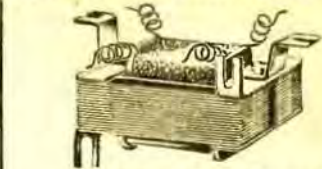
E12959. A2227, 31, 41, 10, 12, 6A4, 6A6, 38, 89, 53, 6N7, 40, 12A7, 19, 79. Size and use, same as above. Wt., 1 lb. NET **82c**

E12960. A2313, 42, 47, 6B5, 6P6, 6N6, 950. Size, 2 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2 1/2". Wt., 2 lbs. List Each, \$1.40. NET EACH **82c**

E12961. A3822, 42, 47, 2A5, 6P6, 6N6, 950. Size, 1 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2". Wt., 1 lb. List, \$1.15. NET **68c**

E12962. A3841. Universal Output Single Plate. Primary Impedance, 2500, 4000, 5000, 6000, 7000 ohms. 2 1/2" x 2 1/2" x 2 1/2". Wt., 2 lbs. List, \$3.50. NET **\$2.06**

E12963. A3842. Universal Output Push-Pull Plates. Pri. Imp. 8,000, 10,000, 12,000, 14,000 ohms. 2 1/2" x 2 1/2" x 2 1/2". Wt., 3.5 lbs. List, \$3.50. NET **\$2.06**



UNIVERSAL AUDIO

A small, compact audio unit for use in any AC or DC set. Core of high grade silicon steel with accurate machine-wound coil. True Jefferson quality. Furnished with two sets of brackets for horizontal or vertical mounting. Low height makes it suitable for sub-base mounting. Ratio 2 to 1. Popular for sub-building and replacement purposes. Size, 1 1/2" x 1 1/2" x 2 1/2". With flexible leads. Ship. wt., 1 1/2 lbs. Type 467-164.

E6025. List, \$1.25. **YOUR PRICE... 73c**

"STAR" SEALED TRANSFORMERS

Outstanding values in high quality transformers for use in any set or amplifier, A.C. or D.C. Machine-wound coils for accuracy and uniformity. Laminated core of high silicon steel. Assembled in black enameled sheet steel case with nickel-plated binding posts. Windings completely shielded and clearly marked. Size, 2 1/2" x 2 1/2" x 2 1/2" high. Mfg. centers 2 1/2". Ship. wt., 2 lbs. each.

E6030. 467-113. 3 to 1. E6031. 467-116. 5 to 1. List, \$2.25. NET EACH **\$1.32**

LINE TO VOICE COIL OUTPUT TRANSFORMER

A high-quality heavy-duty transformer capable of handling up to 12 watts continuously. Ideal for P.A. installation. Several of these transformers may be connected in various series or parallel arrangements for coupling a number of speakers to a 500 ohm line. Primary impedances in 1000 ohms, with taps at 500 and 250 ohms, for matching almost any line. Secondary is 3, 9, 9 and 15 ohms. Size, 4 1/2" x 2 1/2" x 2 1/2". Wt., 3 lbs.

E6026. Type 467-438. List, \$3.00. **YOUR PRICE... \$1.76**



PUSH-PULL TYPE

E12964. A2220. PP 45, 71A, 2A3, 6A5, 25A6, 6Y6G. Size, 2 1/2" x 2 1/2" x 2 1/2". Mfg. centers, 2". Wt., 1 lb. List, \$1.20. NET **71c**

E12965. A2201. PP 45, 71A, 2A3, 6A5, 25A6, 6Y6G. Size, 3 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2 1/2". Wt., 2 lbs. List, \$1.50. NET **88c**

E12966. A2231. PP 31, 41, 6A6, 38, 6N7, 12A7, 19. Size, 3 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2 1/2". Wt., 2 lbs. List, \$1.50. NET **88c**

E12967. A2312. PP 42, 47, 6B5, 6P6, 6N6, 950. Size, 2 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2 1/2". Wt., 2 lbs. List, \$1.50. NET **88c**

E12968. A2285. PP 43, 45, 69, 71, 2A3, 6A5. Size, 2 1/2" x 2 1/2" x 2 1/2". Mfg. centers, 2 1/2". Wt., 3.5 lbs. List, \$2.15. NET **\$1.26**

E12969. A3830. Universal. 6L6, 6V6, 6AR, 40, 6A6, 6X7. Size, 3 1/2" x 2 1/2" x 2 1/2". Mfg. centers, 3 1/2". Wt., 3.5 lbs. List, \$3.00. NET **\$1.76**

E12970. A3823. Universal Output Single or Push-Pull Plates. Size, 1 1/2" x 1 1/2" x 2 1/2". Mfg. centers, 2 1/2". Wt., 1 1/2 lbs. List, \$1.50. NET **88c**

Quality REPLACEMENT VIBRATORS

MALLORY EXACT DUPLICATE VIBRATORS

The listing below shows the complete line of Mallory 6 volt vibrators. This list includes vibrators to replace defective units in both automobile and regular household type radio sets. Order your vibrator by manufacturer's type number if original vibrator is a Mallory. If your model is not shown, order your vibrator from ALLIED, giving model number and type number of original set and vibrator. We will fill your order promptly from our large vibrator stocks. Our complete stocks include vibrator replacements for 12 volt sets and also for 22 volt sets. Your requirements will receive our closest attention.

EXTRA DISCOUNTS: Deduct 10% from net prices shown if you purchase 6 or more vibrators on one order.



USE YOUR M. Y. ENCYCLOPEDIA

See your new Mallory-Yaxley Encyclopedia for help in selecting the proper vibrator for any set. Mallory vibrators are easily the finest available today.

Select the vibrator you want from the set listing below. For price, see chart at right which shows prices for all Mallory vibrator types.

Mallory No.	Cat. No.	1-st. Price	NET EACH	Mallory No.	Cat. No.	List Price	NET EACH	Mallory No.	Cat. No.	List Price	NET EACH
201	E4656	\$8.60	\$3.82	W246	E4683	\$4.95	\$2.91	989Y	E4642	\$4.95	\$2.91
205	E4630	8.50	3.82	247	E4668	4.95	2.91	292	E4652	3.95	2.91
210	E4663	7.50	4.41	248	E4633	4.95	2.91	294	E4653	2.95	1.73
220B	E4655	4.50	2.65	249	E4679	4.95	2.91	294C	E4643	2.95	1.73
221	E4664	3.95	2.32	253	E4650	3.95	2.32	294SW	E4644	2.95	1.73
222	E4654	5.90	3.23	253T	E4676	3.95	2.32	296	E4651	2.95	1.73
223	E4667	5.95	3.50	253Y	E4662	3.95	2.32	297	E4660	3.95	2.32
224	E4631	7.00	4.32	270S	E4673	5.95	3.50	302S	E4671	6.50	3.82
225	E4658	5.95	3.50	271HD	E4634	5.95	3.50	314S	E4645	4.95	4.41
226	E4657	5.95	3.50	271	E4661	5.95	3.50	300P	E4677	2.90	1.73
230	E4672	7.50	4.41	273C	E4665	5.50	3.23	501P	E4678	2.95	1.73
231	E4674	7.25	4.26	273D	E4666	5.50	3.23	603	E4646	3.95	2.32
235	E4675	5.95	3.50	275	E4661	5.95	3.50	504	E4647	3.95	2.32
245	E4632	4.95	2.91	275X8	E4636	7.50	4.41	505P	E4685	2.95	1.73
245A	E4631	4.95	2.91	277S	E4675	5.95	3.50	506P	E4686	3.95	2.32
W245	E4682	4.95	2.91	281	E4638	3.95	2.32	514	E4648	4.95	2.32
W245A	E4640	4.95	2.91	285X8	E4687	7.00	4.12	722A	E4691	4.95	2.91
245C	E4689	4.95	2.91	P285Y	E4684	4.95	2.91	738A	E4692	4.95	2.91
246	E4688	4.95	2.91	286S	E4641	5.50	3.23				

Name and Model	Mrs. No.	Name and Model	Mrs. No.	Name and Model	Mrs. No.	Name and Model	Mrs. No.
AIRLINE 62-106, 62-118, 6U 62, 062 102 87 62-199	253 205 296 292 286S	FIRESTONE R1322 54.64, R1312, TRAVELER R1431	289V 294 294SW	SIMPLEX T 33, 33A, 33B, 333 36	292 292 222	WELLS-GARD, -Cont'd 6N 6K 25Y1 (5Y) 06W	294 218 286S 210
ARVIN 15, 25, 35, 45 1st Ser 10A, 20A, 30A, 20B, 30B, 16, 15, 25, 35, 45 2nd Ser 18, 28, 33, 38, 7, 17, 17A, 27, 37 61B, 62B, 517B, 617B, 627B	296 292 294 245	FORD MAJESTIC 40-18805 PHILCO PHILCO (1936), 817, 818, 819	220B 500P 501P	STEWART-WARNER R112, 1121, 1122, 1123, R118, 1171, 1172, 1181, R189 1601, 143 R132, R1322	292 285N 294SW 289Y	WURLITZER A60, 460	292
ATWATER KENT 6066, 776 816, 424, 534 126, 136, 416, 446, 556	296 226 294	FRED A7, A9	210	STROMBERG-CARLSON 33, 33A	210	ZENITH 460, 462 11210R, 7, FORD 3405-6, 5621, 35 666, 668, 680, 6M90, 7M19S, 7M191 5M190 (Ch. 5510), 66-34	221 296 246 294 294SW
AUDIOLA 33A6 C6, 64, 74 33S6 (1st Series) 33S6 (2nd Series) 346, 347 (6 Prong), B6 43, 67, 73 Series	225 294 302S 292 246	G. E. B40, C41, B52 C60 D50, D51, D52 N51 C61 C72, N-60	271* 253 286S 248 224 294	UNITED MOTORS BUICK-OLDS PONTIAC 393884-5, 405045 405046 Series 544267 Series 980534-5 364441, 980193 980441, 980455, 980459	273C 273C 514 221	MALLORY TYPE "4-4" VIBRATOR A new Mallory development. Used as initial equipment in thousands of low-current auto radio sets. 4 contacts, 4 prong (standard), can measure 3 1/2" x 1/2" similar to 6-0-294, but handles less current. E4635. List. \$1.75. NET EACH \$1.03 IN LOTS OF 6, 95c EACH	\$1.03 95c
BELMONT 566, 600 664 (Vibrator only) 880, 670, 680 Series 1932 Models	294 292 296 311S	KNIGHT P9541, P9531 U 6 L7, N6, Z4, Z5, BA41 A9811-12, H9817	292 294 245C 285X8	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
BOSCH 140 (2nd & 3rd Ser.) 536, 636, 637, 521A, 634, 634A 150 (1st Series) 130 (2nd Series) 736, 737, 738	271 253V 271 294	LEWAL 9101-2	292	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
CHEVROLET 364441 600153 Series 601038 Series 985100, 985200, 985300, 985252, 3, 4, 5	222 221 273C 294 2731J 294C	L'TATRO 6A, K665, J665, H465, 1465 R, S, Q 5636; O, P, 4626; M, 4616 (1st Ser.) R, S, Q 5636; O, P, 4626; M, 4616 (2nd Ser.)	275 275XS 285XS	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
CROSLEY 98, 99, 102, 103, 5A1 4A1, 5A3, A155 A166, A255, A355, A166, A455, A555 A156, A266 6615, 435, 546, 636	223 247 273C 501P 246	MALLORY 201-2-3-4 10, 11, 12, 13, 14 Ser.	201 210	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
DELCO 2035, 4036 4037, 4038 626, 627, 628, 629, 634, 635 6010 630, 631, 632, 633, 500, 631A	221 222 273C 245 294	MOTOROLA 34, 30, 60, 90, 61, 88 77 77A, 44A, 66 55 47, 62, 75, 79, 100, 110, Dual 6, Twin 8	294 302S 230 270B 235 253T 253	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
DETROLA 6A, 1109, 1100A 6A, 6R 1934, 1935 (3 Lead)	220B 294 292	MUSIC MASTER TEN-TEN	292	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
EMERSON 965, 607 5A 678-1 & 2 6A, 1A, 2A, E123	296 277S 222 253V	PHILCO All to 1936, 816, 1936 and 817, 818, 819, 1937, 1938 821P, 821PV	500P 501P 550P 506P	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
ERLA-SENTINEL 5500, 10M 600, 602, 603	294 292	RCA VICTOR 5M, 6M, 6M12 M134, M105, M116, M107 M101, M104, M108 M109, RS63-1, H6 M123 6BK6, 6BT6, 8BK8, 8BT6	249 271* 253 286S 294 224	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		
FADA 101, 102, 104, 104B 166 266, 266SD, 266SG	221 253V 294	SEARS-ROEBUCK 7128 (4 PRONG) 7117, 1859A 7128 (6 PRONG) 3400, 1071A62	294 271 296 219 504	WELLS-GARDNER 61, 6S V622, Z621 062, 062A 072-072A	253 292 205 210		

KNIGHT SPECIAL VALUE EXACT DUPLICATE VIBRATORS

These vibrators are exact duplicates of the vibrators they replace. Because of their popularity, the manufacturers were able to produce them in large quantities at a savings in production cost. These savings are in turn passed on to you. Carry 100% guarantee. Excellent values. Offered in the most popular replacement brackets, according to manufacturers' specifications. You will get fine service and efficient results from these quality special value vibrator units.

FOR PHILCO SETS
For all Philco auto sets prior to 1936: 816, RT14X, 816B, T2, T3, T5, T6, NT15, ST15, PHX0, 37-S131. Standard 4 prong base.
E4694, NET EACH 98c
LOTS OF 6, EACH 95c

For models 817, 818, 819, T12, 827, 826, 828, 1418, 1417, 1430, 1432, 1431, 1421, 1450, 1442, 1440, 1436, 1418, B. P. DP, DVP.
E4695, NET EACH 98c
LOTS OF 6, EACH 95c

FOR DELCO SETS
For models 2035, 4036, etc. also for United Motors 980383, 980393 and 364441 sets. Oiling: size, 2 1/2 x 1 1/2 x 1 1/2.
E4696, NET EACH \$1.16
LOTS OF 6, EACH \$1.04

For Delco models 625, 626, 627, 628 and 629.
E4697, NET EACH \$1.57
LOTS OF 6, EACH \$1.41

FOR MOTOROLA SETS
For models 34, 62, 79, 50, 60, 65, 35, 45 and 70.
E4698, NET EACH \$1.23
LOTS OF 6, EACH \$1.11

FOR KNIGHT SETS
Type SP55. For models H9751, M9850, L7, X6, Z4, Z5 and BA41. Has five prong base. Measures 3 1/2" long, 1 1/2" diameter.
E4693, NET EACH \$2.91
LOTS OF 6, EACH \$2.62





More Features—More Watts for Your Money

IN EVERY Knight SOUND SYSTEM!



AN IRON-CLAD Guarantee

We ask you to compare the tone quality, the power output, the overall performance of any Knight Sound System with that of any other system now on the market. Order the model you want, buying for Cash or on Time Payments, and test it out for yourself, under your own operating conditions.

Compare the features, compare the quality, compare the actual performance. If your Knight Sound System isn't everything we claim it to be, if it doesn't prove to be the biggest P.A. dollar's worth on the market for power, for tone, for all-around results after you've tried it—send it back and we'll refund every penny of the purchase price, less only transportation charges. Remember, too, that every Knight Radio System is covered by the regular Radio Manufacturers' Association guarantee.

This is the fairest and the strongest Sound System guarantee you could ask for. It's your absolute assurance that when you buy a Knight Sound System you get more watts, more fidelity, more stamina and more quality for less money.

—ALLIED RADIO CORP.

FREE CONSULTING SERVICE

We invite you to submit your Public Address problems to our Sound Engineers for authoritative aid and proper recommendations without any obligation on your part. Write to us today.

BUY ANY KNIGHT SOUND SYSTEM ON CONVENIENT MONTHLY PAYMENTS

Don't lose big profits in P.A. for lack of Cash! You can get any of the profit-building Knight P.A. Equipment you need—NOW—and make it earn for you while it pays for itself. You can buy Knight Public Address Equipment easily and conveniently on our attractive new Monthly Payment Terms, if your order comes to \$40.00 or more. You'll find our Time Payment Terms extremely attractive. Complete explanation as well as table of terms appears below. It will pay you to make your Public Address purchases from ALLIED. You get the finest equipment in the field at the lowest prices—and in addition you can, if you wish, buy it on the easiest terms you can get anywhere. Select the Knight Public Address Equipment you want now, and write to us for full details of our convenient Time Payment Plan.

If Cash Price of Order Amounts to	Minimum Down Payment is 10% of Cash Price	To Find Carrying Charges	Monthly Payments 8 Months
\$40.00	\$ 4.00	Simply add 10% to original price, then add and divide by 8. Example: \$40.00 plus \$4.00 = \$44.00 divided by 8 = \$5.50	\$ 4.95
60.00	6.00		7.43
80.00	8.00		9.90
100.00	10.00		12.38
120.00	12.00		14.85
150.00	15.00		18.57
175.00	17.50		21.66
200.00	20.00		24.75
225.00	22.50		27.85
250.00	25.00		30.94

Take eight months to pay. You pay just 10% down, and the balance in convenient monthly payments. Add 10% to the unpaid balance to cover carrying charges. Then divide by 8 to obtain the monthly payments required. Select the equipment you want, and send in your order with a 10% cash down payment, including your credit references. Credit investigation will be promptly handled and contract forms for your signature will be forwarded to you immediately after-ward.

Knight 8 WATT Standard SOUND SYSTEMS



MORE FOR YOUR MONEY IN POWER AND TONE

- Mike and Phono Input
- Beam Power Output
- Built-In Output Transformer
- Built-In Mike Current
- Polarized Connections
- Jensen Dynamic Speaker
- Full Tone Control
- 4, 8, 500 Ohm Output
- Completely Fused

A high-quality low-cost sound system intended for smaller installations where moderate coverage is desired. Comes complete, ready to set up quickly and easily. Compact and complete, no external batteries or mixers are required; microphone transformer and current supply are built in. Output is full 8 watts with remarkably true tonal fidelity. The complete Knight 8 Watt System has essentially uniform frequency response from 80 to 8,000 cycles. A variable Tone Control is provided to accentuate bass or treble as desired and to aid in compensating for varying acoustical conditions. Each system is carefully tested before shipment to assure perfect operation when it reaches you.

• **Latest Circuit.** Latest octal tubes are used: 1—6N7G, 1—6L6G, 1—5Y4G. Gain is 95 db. Hum and distortion are negligible. Field current for the 2500 ohm dynamic speaker is supplied by the amplifier. Output transformer with 4, 8 and 500 ohm taps is mounted in the amplifier. The amplifier circuit is fused. A detailed wiring diagram is mounted on the base plate. No detail has been overlooked in our desire to give you the most for your P.A. dollar.

• **Built-in Mixer.** The Knight 8 Watt Sound System is supplied with an entirely new high-grade double-button microphone of latest streamlined design. A twin tip-jack is provided for plugging in a high-impedance crystal or magnetic phono pickup. Separate volume controls for both microphone and phonograph permit effective blending and fading action. Microphone current is automatically supplied by the amplifier. No external batteries or transformers are required. Microphone and speaker receptacles are polarized for rapid, convenient connection. A tip-jack is provided for extra speaker (high impedance P. M. dynamic or magnetic) or headphones. These are exclusive Knight "extra-value" features incorporated to give exceptionally versatile operation in the field.

• **Complete System.** The Knight 8 Watt Sound System comes complete with the following: 1—Knight 8 Watt Amplifier; 1—Knight Streamlined double-button microphone on desk stand with 25 foot cable and polarized plug; full 8 inch Jensen Electro-dynamic speaker with 25 foot cable and polarized plug attached; R.C.A. tube kit, spare fuse and complete operating instructions. For 110 volts, 50-60 cycles A.C. Shpg. wt., 39 lbs.

E12209, Complete 8 Watt Carbon System.

A splendid low-cost P.A. System.

List Price, \$44.95.

YOUR PRICE

\$21.45

• **AMPLIFIER ONLY.** The Knight 8 Watt Amplifier is also available separately. Includes: built-in microphone and phonograph mixer; tone control; field current for 2500 ohm dynamic speaker; output transformer with 4, 8 and 500 ohm taps; input for single or double-button carbon mike, and crystal or high-impedance magnetic pickup; fuse. Develops full 8 watts output; uses octal tubes: 1—6N7G, 1—6L6G, 1—5Y4G; gain is 95 db. with essentially flat frequency response from 80 to 10,000 cycles. Attractively designed; size: 11 3/4" x 6 3/4" x 8". For 110 volts, 50-60 cycles A.C. Shpg. wt., 18 lbs.

E12208, 8 Watt Amplifier only.

List, \$22.50. **YOUR PRICE**

E12300, R.C.A. Tube Kit. NET

\$9.95

\$2.84

8 WATT PORTABLE SOUND SYSTEM

The Knight 8 Watt Standard Sound System is offered also in modern, low-cost portable form. Ideal for use in store demonstrations, small halls, churches, club rooms, for sales talks, side-shows, etc. Unusually compact and convenient. Gives excellent coverage of small audiences at low cost. The entire system is completely contained in a single leatherette-covered carrying case, 19 3/4" x 15 1/4" x 8". Weighs only 32 lbs. Uses new type streamlined double-button carbon mike for excellent response; employs latest octal tubes throughout for maximum stability and output. Microphone transformer and current supply are built in. Has input for phonograph as well as microphone. Includes individual volume controls for microphone and phonograph to permit "mixing" and blending of voice and music. Tone Control allows for emphasis of bass or treble as desired. The Beam Power 6L6G tube assures full 8 watts output with minimum distortion. The Jensen 8-inch dynamic speaker is the finest type available. The Knight 8 Watt Standard Portable System comes complete in sturdy and attractive carrying case illustrated. Includes: 1—Knight 8 Watt Amplifier; 1—streamlined Carbon Microphone and desk stand with 25 foot cable and plug; 1—Jensen 8-inch Electro-dynamic Speaker with 25 foot cable and polarized plug—all in a single unit carrying case. For operation on 110 volts, 50-60 cycles. Shpg. wt., 45 lbs.

E12210, Complete 8 Watt Portable System.

List, \$54.95.

YOUR PRICE

\$26.40



Built-in Mixer. Individual volume controls are provided on the Knight 8 Watt amplifier for simultaneous mixing microphone and phonograph. Tone Control is also included. All controls are easily accessible on the front base panel.



Phono Input. The Knight 8 Watt Amplifier has plus-in input for any high-impedance type phono pickup. May be hooked up instantly by means of tip-jacks for splendid wide-fidelity phonograph record reproduction.



Streamlined Carbon Mike. New two-button type of latest, efficient design—beautiful in appearance; internally rubber-floated—has essentially flat response from 45 to 7000 C.P.S. for excellent performance.



Knight 8 WATT High-Gain SOUND SYSTEMS



- Inverse Feedback
- Hi-Gain Mike and Universal Phono Input
- Beam Power Tube
- Electronic Mixer
- Tone Control
- 4, 8, 500 Ohms O.P.
- Fuse Protected
- New Octal Tubes

Here's a smashing P. A. Value Leader in a high quality modern full 8 Watt High-Gain Sound System packed with exclusive new features—yet priced below all competition. Ideal for smaller installations where moderate sound coverage or effective reinforcement is desired. Fine for window demonstrations, small halls, parking lots, lecturers, small churches and schools, clubs, lodges, night clubs, taverns, weighmasters' offices, for hearing-aid use, electric guitars, etc.

• **Inverse Feedback.** Provides greater output with less distortion, hum and noise, and at the same time improves tone quality immeasurably. Just compare the Knight 8 Watt System with similar more costly systems lacking Inverse Feedback, and you'll notice an astounding difference—you'll buy Knight every time.

• **Knight Velocity Microphone.** You get the highest quality new velocity type microphone with the Knight 8 Watt Sound System. Features: Acoustic Compensator which permits automatic matching of the microphone response for best results on either voice or music and also compensates for varying acoustical conditions; "On-off" Switch; live gum-rubber Shock Absorber; Locking-type Polarized Cable Connector, Tilt-Swivel arrangement, etc.

• **Universal Input.** Provision is made to handle any high-impedance type microphone and crystal or magnetic pickup. No circuit changes are required when changing from one type of microphone to another.

• **Built-in Electronic Mixer.** Separate microphone and phonograph volume controls are provided, permitting blending and "mixing" action, as desired. Tone Control is also included to accentuate bass or treble, as desired, and to aid in compensating for varying acoustical conditions.

• **New High-Gain Circuit.** Advanced engineering design is reflected in the circuit of the Knight 8 Watt Amplifier. Uses the following octal tubes to the fullest advantage: 1—6J7G, 1—6F5G, 1—6L6G, 1—5Y4G. This modern tube line-up assures absolute rated output and minimum distortion. The amplifier develops a gain of 115 db. for microphone and 80 db. for phonograph. Has essentially flat frequency response from 70 to 10,000 C. P. S. The incorporation of Inverse Feedback results in negligible hum and distortion. Field current for the 2500 ohm dynamic speaker is supplied by the amplifier. Built in output transformer is tapped at 4, 8 and 500 ohms. An extra speaker outlet permits the use of an additional speaker (P. M. dynamic or magnetic) or headphones, if desired.

• **Simple to Operate.** The Knight 8 Watt Sound System has been designed for the utmost simplicity in both installation and operation. Polarized connections and complete operating instructions permit instant installation and

operation by anyone. It's impossible to make a wrong connection. The amplifier is effectively fused for complete protection. A complete wiring diagram is mounted on the base plate.

• **Complete Velocity System.** The Knight 8 Watt High-Gain Velocity Sound System comes complete as follows: 1—Knight 8 Watt High-Gain Amplifier; 1—Knight Velocity Microphone with 25-foot cable and connecting plug; 1—Highest grade Banquet type Stand; 1—Jensen 8-inch Electro-dynamic speaker with 25-foot cable and polarized plug attached; complete kit of R.C.A. tubes, spare fuse and complete instructions. For operation from 110 volts, 50-60 cycles A.C. Shpg. wt., 40 lbs.

E12201,
List, \$67.50.
YOUR PRICE

\$32⁹⁵

AMPLIFIER ONLY

The Knight 10 Watt High-Gain Amplifier is available separately, either as an ideal replacement for obsolete amplifiers or for use as the heart of practically any moderate-power sound system. Includes features as described above. Size: 11 1/2" x 6 3/4" x 8". Weighs only 19 lbs.

E12200, 8 Watt High-Gain Amplifier only.
List, \$23.50. YOUR PRICE

\$11⁴⁵

E12301, Kit of R.C.A. Tubes. NET \$3.38



CHOICE OF MICROPHONES

In addition to the Knight Velocity Microphone, the 8 Watt System is available with choice of microphones, as illustrated above:

E12204, Complete System as described above, but with American "Clipper" D-7T Dynamic Microphone. (Fig. A.)

E12202, Complete System as above, but with "Rocket" Crystal Microphone. (Fig. B.)

E12203, Complete System as above, but with Bruno Velotron Microphone. (Fig. C.)

List, \$67.50.
NET EACH OF ABOVE **\$32.95**

HIGH-GAIN PORTABLE

The Knight 8 Watt High-Gain Sound System with Velocity Microphone is available also in a modern, low-cost portable system. Designed for coverage of small audiences. Ideal for musical organizations, lecturers, demonstrations, side-shows, etc. All components are housed in a single compact carrying case, 19 1/2" x 15 1/2" x 8". Weight complete is only 40 lbs. Includes all features described above: Inverse Feedback; Universal Phono Input; High-Gain Mike Input; Beam Power Output; Electronic Mixer; Tone Control; Fuse; Extra Speaker Jack; 4, 8, 500 ohms tapped output; latest octal tubes. Delivers full 8 watts output. The complete Knight 8 Watt High-Gain Portable System includes: 1—Knight 8 Watt High-Gain amplifier; 1—Knight Velocity Microphone with banquet stand and 25 foot cable and plug; 1—8-inch Jensen Dynamic Speaker with 25 foot cable and polarized plug, complete set of R.C.A. tubes, spare fuse, and operating instructions. Entirely self-contained in portable case. For operation from 110 volts, 50-60 cycles A.C. Shpg. wt., 45 lbs. One of the finest low-cost Portable P.A. Systems available.

E12205,
List, \$77.50.
YOUR PRICE
COMPLETE

\$37⁹⁰



Knights



The exclusive Knight Velocity microphone with built-in acoustic compensator and "On-off" Switch.

FEATURES:

- Four Input Channels
- Universal Mike Input
- Dual Phono Input
- Built-in V. I. Meter
- 12" Jensen Speakers
- Dual Tone Control
- Inverse Feedback
- Beam-Power Output
- Speaker Selector Switch
- Built-in Electronic Mixer
- Universal Output
- Headphone Monitor Jack
- Shorting Type Input Jacks
- Power Stage Tap
- Completely Fused

TECHNICAL SPECIFICATIONS:

The Knight 15 Watt High-Gain System delivers full 15 watts output at 5% distortion, 25 watts peak. Gain is 120 db., essentially flat from 70 to 10,000 C. I. S. Hum level is negligible. Tubes used: 2-6J7G, 2-6N7G, 1-6J5G, 2-6V6G, 1-5V4G. Two high-gain microphone channels permit use of any high-impedance Crystal, Velotron, Velocity, Sound-cell or Dynamic microphone. Individual microphone controls are provided. Has exclusive new Dual Phono Input with taper control to accommodate one or two crystal or magnetic pickups. Includes Dual Tone Controls for bass or treble accentuation. Individual microphone and phono controls permit blending and fading as desired. Mixing action is electronically controlled. Incorporates Inverse Feedback, has Speaker Selector Switch providing choice of 2, 4, 8, 16 or 300 ohms at standard two-contact speaker receptacles. Input jacks are of shorting type, blocking out all possibility of noise from channels not in use. Equipped with Power Stage Tap for adapting it to use of Knight Power Stage (see page 86). Supplied with genuine Jensen Permanent Magnet Dynamic Speakers. Complete with R.C.A. tubes. High quality throughout. Amplifier features latest streamline design, in beautiful grey and black finish. Removable top cover and bottom plate make all tubes and parts immediately accessible. Full instructions are furnished for easy installation and operation. Each system is carefully tested before shipment.

Front Panel Controls: 1—Microphone No. 1; 2—V. I. Meter; 3—Treble Tone Control; 4—Jewelled Pilot Light; 5—Microphone No. 2; 6—Zero position Dual Phono Control; 7—Bass Tone Control; 8—"A.C. On-off" Control Switch.

Volume Level Indicator Meter. Indicates output level of amplifier, directly in decibels. Essential for recording or for maintaining constant volume level at amplifier when speakers are remotely located.

Has provision for use of additional high-impedance microphone. Individual microphone controls allow either microphone to be cut in or out or blended together at will. Rich, high-fidelity tone is achieved on both 15 Watt High-Gain Sound Systems—1939's biggest P.A. values.

The Knight 15 Watt Sound System has plug-in input for one or two crystal or magnetic pickups. (See page 88 for portable phonograph.) Operated from new dual control on front panel, each phono control from either side of a zero position—allowing fading action for background or sound effects. Another fine feature.

New Speaker Selector Switch permits instant selection of voice coil or speaker line output impedances to match any number of speakers of the P.M. Dynamic type or any self-excited dynamics, to the amplifier. No figuring or guessing—just set the switch at the position where volume and quality are best.

Dual Tone Controls are provided in the Knight 15 Watt Systems to give individual bass or treble emphasis and to aid in compensating for varying acoustical conditions. Individual controls have no effect on one another.



15 WATT STANDARD HIGH-GAIN SOUND SYSTEMS

THE ALL-PURPOSE P. A. LEADER

An exceptional value in a low-cost complete **Knight 15 Watt High-Gain Sound System** using the new **Knight Velocity Microphone** with exclusive **Acoustic Compensator** feature. Delivers maximum output of 25 watts. Ideal for use by orchestras, churches, morticians, schools, clubs, lodges, night clubs, carnivals or wherever intermediate power with exceptional fidelity is desired. The finest medium-power sound system available at **Allied's** sensationally low price.

Inverse Feedback. A new feature that is seldom found in moderately priced sound systems. Provides greater output with minimum distortion, and greatly improves frequency response. Inverse Feedback permits operation at higher levels not possible in ordinary systems.

Four Input Channels. The **Knight 15 Watt High-Gain Sound System** permits the use of any two high-impedance microphones along with two crystal or magnetic phono pickups. Full electronic mixing is provided by means of individual microphone and phono controls, permitting blending and fading as desired. Dual Tone Controls are also incorporated, giving individual bass and treble control.

New V. I. Meter. Indicates output level of amplifier directly in decibels. May be had with System at small additional cost. Valuable for recording or for maintaining constant volume level where speakers are remotely located. Another exclusive **Knight P.A.** feature for 1938!

12" Jensen Speakers. Two genuine 12-inch Jensen Permanent Magnet Type Dynamic Speakers are provided with this 15 Watt System. They adequately handle the output of the amplifier, giving wide-range faithful reproduction. These speakers are far superior to ordinary dynamics; they require no field excitation; ruggedly built with typical Jensen quality. Each speaker is equipped with 30 foot rubber-covered cable and standard 2-prong appliance plug.

Powerful Circuit. The High-Gain Amplifier incorporated in the **Knight 15 Watt Sound System** develops a full 15 watts output with admirable fidelity, free from distortion. Uses the latest type tubes, as follows: 2-6J7G, 2-6N7G, 1-6J5G, 2-6V6G, 1-5V4G. Brilliant engineering makes this system a marvel of efficiency, resulting in unusually high gain and remarkable wide-range fidelity.

Splendid Response. Frequency response is essentially flat from 70 to 10,000 C.P.S. Gain is 120 db. on mike and 80 db. for phono. Hum level is negligible. These splendid characteristics assure high output coupled with excellent fidelity, making the **Knight 15 Watt Sound System** ideal both for sound reinforcement as well as for powerful public address coverage.

Professional Appearance. 1939 in design and function this **Knight 15 Watt Sound System** is distinguished for beautiful, practical design. All controls are assembled conveniently on the etched black front panel, with clear, distinct calibrations in brushed aluminum. Control knobs are of contrasting grey bakelite. Rear and side base panels hold all microphone, speaker and phono controls in receptacles. Here also are the speaker selector switch, a monitor headphone jack and a power stage driver tap. Shield screen at back gives access to tubes.

Extra Features. You get full value in the **Knight 15 Watt Sound System.** Extra refinements include the following: Speaker Selector Switch, permitting impedance matching instantly to any number of speakers; Power Stage Driver Tap allowing for addition of extra power stage when desired (see page 86); Monitor Headphone Jack for checking amplified program, completely unused line diagram on base plate, etc. The **Knight 15 Watt System** is backed by our iron-clad guarantee.

Complete 15 Watt Velocity Mike System. The complete **Knight 15 Watt Velocity Microphone System** includes: 1—**Knight 15 Watt High-Gain Amplifier**; 1 **Knight Velocity Microphone** with **Acoustic Compensator**; 25 feet of special shielded microphone cable with polarized amplifier plug and lock-type microphone connector; 1 standard **Knight microphone floor stand** with air-grip clutch (adjustable from 46 to 70 inches); 2—12 inch **Jensen P.M. Dynamic Speakers** with 30 foot rubber-covered cables and 2-prong plugs; complete R.C.A. tube kit, spare fuse, and full instructions for installation and operation. For operation on 110 volts, 50-60 cycles A.C. (May also be had for 220 volt and 110 volt, 25 cycle at small additional cost.) Shpg. wt., 65 lbs.

E12216, Complete System (less V. I. meter) **\$66.50**
List, \$134.50
CASH PRICE.

Time Payments: \$6.65 down, \$8.33 monthly.

E12250, Volume Level Meter, \$4.50

(Note: See Page 88 for Portable Microphone suitable for the 15 Watt System)

15 WATT AMPLIFIER ONLY

The **Knight 15 Watt High-Gain Amplifier** is available separately as an ideal nucleus for sound systems using low level microphones. Features as described. Has universal input for any two high impedance microphones and two phonos. Develops a remarkable gain of 120 db., permitting the direct use of high impedance microphones without requiring the use of a preamplifier. The frequency response is essentially flat from 40 to 10,000 cycles. Has individual volume controls for both microphones and phono controls, permitting them to be "faded" or "mixed" as desired. Provision is made for the use of two microphones, either of which may be used at will. Dual Tone Control is built-in for bass or treble emphasis. Has polarized receptacles for mikes, 2-contact receptacles for speakers and twin jacks for phono input. Output is universal, tapped at 2, 4, 8, 16 and 500 ohms. Size: 19 1/2" x 11 3/4" x 9 3/4". Shpg. wt., 27 lbs. For 110 volts, 50-60 cycles A.C.

E12215, Knight 15 Watt Amplifier, less V. I. Meter and tubes. **\$26.95**
List, \$54.95
CASH PRICE.

E12302, R.C.A. Tube Kit, NET, \$7.58

E12250, Volume Level Meter, \$4.50



CHOICE OF MICROPHONES

In addition to the **Knight Velocity Microphone**, the 15 Watt System is available with a choice of microphones, as illustrated above (less V. I. meter).

E12211. Complete System as described above, but with **Shure "Rocket" Crystal Microphone**, (Fig. B.)

E12213. System with **Electro-Voice Dynamic Microphone**, (Fig. C.)

E12214. System with **Bruno No-Voltage Velotron Microphone**, (Fig. E.)

E12217. System with **Brush Sound Cell Microphone**, (Fig. A.)

E12212. System with **Shure "Uniplux" Crystal Microphone**, (Fig. D.)

List, Each, \$134.50.

CASH PRICE, EACH OF ABOVE SYSTEMS, \$66.50

Time Payments: \$6.65 down, \$8.23 monthly, for 8 months.

15 WATT High-Gain PORTABLE SYSTEM

A splendid new completely portable full 15 watt Public Address System of exceptional power and wide-range fidelity. Uses the new type **Shure "Rocket" Crystal Microphone**. Designed especially for use by orchestras and lecturers, for demonstration purposes, funeral parlors, churches, political meetings, etc. Unusually portable, compact and convenient. Entirely self-contained in a single carrying case, 24 3/4" x 20 3/4" x 12". Weighs 60 lbs. complete. The **Knight 15 Watt Portable System** will also handle one or two crystal or magnetic phono pickups. Individual volume controls are provided. Dual Tone Control is built-in. Additional features include: Speaker Selector Switch permitting use of additional speakers if desired; Headphone Jack; extra Power Stage Tap; Fuse; Input for additional high-impedance mike with separate volume control, etc.

THE LAST WORD IN P.A. CONVENIENCE

The complete system includes: 1—**Knight 15 Watt High-Gain Amplifier**; 1—**Shure "Rocket" Crystal Microphone** with 25-foot cable and polarized plug; 1—**Banquet Stand**; 1—**Jensen 12" P.M. Dynamic Speaker** and 30-foot rubber-covered cable with 2-prong plug; R.C.A. tube kit, spare fuse and instructions. Self-contained in single sturdy carrying case. For operation on 110 volts, 50-60 cycles A.C. Shpg. wt., 75 lbs. As illustrated.

E12227, 1 list, \$127.50 **\$62.50**

CASH PRICE COMPLETE (Less V. I. meter)

Time Payments: \$6.25 down, \$7.74 monthly, for 8 months.

E12229, Extra Speaker Case complete with 12" Jensen P.M. Speaker and 30 foot cable and plug. NET \$11.35

PORTABLE SYSTEM WITH 2 SPEAKERS

Same as above, but assembled in two cases: one for amplifier only, the other a dual split-case with two Jensen speakers, with cables and plugs. Shpg. wt., 75 lbs.

E12228, Complete 2 Speaker System (Less V. I. meter) **\$79.30**

List, \$162.50 NET

Time Payments: \$7.33 down, \$9.82 monthly, for 8 months.



KNIGHT 18 WATT DeLuxe SOUND SYSTEMS



The new Knight Velocity Microphone with built-in Acoustic Compensator and "On-off" Control Switch.

\$82⁵⁰
Cash Price

Time Payments: \$8.25 down, \$10.21 monthly for 8 months.

4 MIKE CHANNELS
2 PHONO INPUTS
A. V. C.—A. V. E.
INVERSE FEED-BACK
TONE COMPENSATION
SPEAKER SELECTOR
MASTER CONTROL
V. I. METER

A brilliant medium-power system—**ALLIED'S** great quality P.A. challenger for 1939—packed with smashing new features that work—built for top-notch versatile performance—priced so amazingly low it bows over all competition. Check the exclusive advantages of this sensational system, and you'll see that **ALLIED** gives you the most for your money.

• **Automatic Volume Stabilizer.** 1939's successor to A.V.C.—exclusive with **ALLIED.** Limits excessive peaks to eliminate feedback and blasting. Actually provides twice the usable power output of ordinary 18 watt systems.

• **5 Channel Mixer.** Has input for any four high-impedance microphones with individual gain controls for each channel. Also has provision for any two high-impedance crystal or magnetic pick-ups with fader control. Incorporates Master Gain Control which provides instant control of overall level.

• **Automatic Volume Expansion.** Provides realistic phono reproduction by automatically building up the louder phono passages to preserve the proper relationship between the loud and soft passages of the original recording.

• **Inverse Feedback.** In new improved form; permits greater power output with less distortion, hum and noise, achieving a higher fidelity of tone.

• **Dual Tone Compensation.** Separate controls are provided for both bass and treble ranges, permitting low or high notes to be built up either separately or together without disturbing tones in the middle ranges.

• **Volume Level Meter.** Indicates output of amplifier, directly in decibels. May be had with system at small additional cost. Valuable for recording or for maintaining constant volume level when speakers are remotely located.

• **1939 Features and Design.** Brilliantly engineered. Uses following octal tubes: 4—6J7G, 3—6N7G, 2—6K7G, 1—6H6G, 2—6V6G, 1—5V4G. Delivers full 18 watts at 5% distortion, 25 watts peak output. Gain is 125 db. on microphone, and 80 db. on phono. Hum level and distortion are negligible. Frequency is essentially flat from 40 to 10,000 C.P.S. Other features include: Speaker Selector Switch, offering impedances of 2, 4, 8, 16 and 500 ohms; Power Stage Driver Tap; Monitor Headphone Jack; Fuse; Shorting-type Input Jacks; Wiring Diagram mounted on base plate.

• **Complete 18 Watt Velocity System.** Includes: 1—Knight 18 Watt High-Gain De Luxe Amplifier; 1—Knight Velocity Microphone with 25 foot cable and plug; 1—Knight De Luxe adjustable Floor Stand; 2—Jensen 12-inch P.M. Dynamics with 30 foot cables and polarized plugs; Complete kit of R.C.A. tubes; spare fuse and operating instructions. For 110 volts, 50-60 cycles A.C. Shpg. wt., 72 lbs.

E12219. Complete System \$82⁵⁰
(less V. I. meter). List, \$167.50.
CASH PRICE.....

Time Payments: \$8.25 down, \$10.21 monthly.
E12250. Volume Level Meter. NET. \$4.50

18 WATT AMPLIFIER ONLY

E12218. The Knight 18 Watt High-Gain De Luxe amplifier is also available separately. Includes all of the advanced features described above. Size: 21 1/2" x 11" x 9 1/4". Weighs 34 lbs. For 110 volts, 50-60 cycles A.C. Less tubes and V. I. meter. List, \$75.00.

YOUR PRICE \$36.95
E12303. Kit of R.C.A. Tubes. NET. \$12.59

18 WATT DE LUXE PORTABLE SYSTEM

The **Knight 18 Watt De Luxe Sound System** is also available in convenient portable form. Has all of the advantages and features described above. Entirely self-contained in two cases—one for amplifier (22 1/2" x 13 1/4" x 10 1/4"), the other a split-case for the speakers (21 1/2" x 13 1/4" x 8 1/4"). Designed to carry easily and conveniently. The complete **Knight 18 Watt Portable System** includes: 1—**Knight 18 Watt De Luxe High-Gain Amplifier** in case; 1—Shure "Uniplex" Microphone with 25 foot cable and plug; 1—**Knight** collapsible de luxe floor stand; 2—Jensen 12-inch P.M. Dynamic Speakers with 30 foot cables and 2-prong plugs. R.C.A. tube kit, spare fuse and instructions. Contained in two handy carrying cases. Shpg. wt., 85 lbs.

E12225. Complete 18 Watt System (less V. I. meter). \$94⁵⁰
List, \$194.50.
CASH PRICE.....



CHOICE OF MICROPHONES

In addition to the **Knight Velocity Microphone**, the 18 Watt System is available with a choice of microphones as illustrated above:
E12223. Complete System as described above, but with **Shure 701-D Crystal Microphone**. (Fig. C.) Less V. I. meter.
E12224. Complete System as above, but with **Bruno No-Voltage Velotron Microphone**. (Fig. E.) Less V. I. meter.
E12220. Complete System as above, but with **Brush Sound Cell Microphone**. (Fig. A.) Less V. I. meter.
E12221. Complete System as above, but with **American Dynamic Microphone**. (Fig. B.) Less V. I. meter.
E12222. Complete System as above, but with **Shure "Uniplex" Crystal Microphone**. (Fig. D.) Less V. I. meter.
List Each, \$167.50. **CASH PRICE, EACH OF ABOVE \$82.50**

Time Payments: \$8.25 down, \$10.21 monthly.

KNIGHT 35 WATT *Standard* SOUND SYSTEMS



The new Knight Velocity Microphone with built-in Acoustic Compensator and "On-Off" Control Switch.



Provision is made for the simultaneous use of any two high-impedance microphones. Each microphone has a separate volume control permitting blending or "mixing" action.



Has plug-in input for one or two crystal or magnetic pickups. Each phono is controlled from either side of a zero position, allowing fading action for background or sound effects.



Controls: 1—Microphone No. 1; 2—V. I. Meter; 3—Treble Tone Control; 4—Pilot Light; 5—Microphone No. 2; 6—Dual Phono Control; 7—Bass Tone Control; 8—A.C. Switch.

Here is ALLIED'S answer to the big demand for an intermediate-power High-Gain Sound System. Especially designed to handle the requirements of large auditoriums, ball-rooms, athletic fields, skating rinks, for small parks, political rallies, carnivals, etc.

• **4 Input Channels.** Will accommodate any two high-impedance microphones as well as one or two crystal or magnetic phono pickups. Individual gain controls, together with full electronic mixing, allow any degree of blending or "mixing" as desired.

• **Dual Tone Controls.** Separate controls are provided for bass and treble emphasis and to compensate for varying acoustical conditions.

• **Inverse Feedback.** Results in greater power output with less hum and noise, and tremendously improved tonal fidelity. A remarkable feature seldom found in a low-cost P.A. system.

• **New V. I. Meter.** Indicates output level of amplifier directly in decibels. May be had with system at small additional cost. Valuable for recording or for maintaining constant volume level where speakers are remotely located.

• **Knight Velocity Microphone.** Provides superior quality of reproduction. Acoustic Compensator allows matching of mike to either voice or music for best effect. "On-off" switch provides control right at microphone.

• **1939 Circuit.** The 35 Watt High-Gain Amplifier uses the latest octal tubes as follows: 6J7G, 2—6N7G, 1—6J5G, 2—6I4G, 1—5V4G. Develops full 35 watts output at 5% distortion with 50 watts peak. A gain of 125 db. is de-

veloped for microphones and 80 db. for phono. Frequency response is essentially flat from 70 to 10,000 C.P.S. Hum level is negligible. Other features include: Sreaker Selector Switch providing 2, 4, 8, 16 and 500 ohms taps; Monitor Headphone Jack; Power Stage Driver Tap; Shortline-type Input Jacks; Fuse; diagram on base of amplifier; easy access to all parts.

• **35 Watt System Complete.** The Knight 35 Watt High Gain Standard System is offered complete as follows: 1—Knight 35 Watt Amplifier; 1—Knight Velocity Microphone with 25 foot cable and polarized plug; 1—Knight adjustable Floor Stand; 2—12-inch Jensen P.M. Dynamic Speakers with 30 foot cables and 2-prong plug; R.C.A. tube kit; spare fuse and operating instructions. For 110 volts, 50-60 cycles A.C. Ship. wt., 67 lbs.

E12236. Complete 35 Watt System, \$7750
(less V. I. Meter)

CASH PRICE

Time Payments: \$7.75 down, \$9.59 monthly for 8 months.

E12250. Volume Level Meter, NET \$4.50

35 WATT AMPLIFIER ONLY

E12235. Features exactly as described above and at left. Size: 19 1/2" x 11 1/2" x 9 1/2". Ship. wt., 29 lbs. For 110 volts, 50-60 cycles A.C. Less tubes and V. I. meter.

E12240. Complete System as above, (Fig. C.)
List \$67.50 **NET \$33.50**

E12306. R.C.A. Tube Kit, NET \$8.38

35 WATT STANDARD PORTABLE SYSTEM

The Knight 35 Watt Standard Sound System is also available in highly portable form as illustrated at right. Includes all of the advanced features described above. Entirely self-contained in two compact cases, one for amplifier (24 1/2" x 20 1/2" x 12"), the other a split case for the speakers (21 1/2" x 13 1/2" x 8 1/2"). This system can easily be carried anywhere and can be set up instantly for operation. The complete Knight 35 Watt Standard Portable System includes: 1—Knight 35 Watt Amplifier in portable carrying case; 2—Jensen 12-inch P.M. Dynamic Speakers with 30 foot cables and plugs, mounted in split carrying case; 1—Shure "Uniplex" Microphone with 25 foot cable and plug; 1—Knight Deluxe collapsible floor stand; R.C.A. tubes; spare fuse and instructions. Ship. wt., 79 lbs.

E12242. Complete (less V. I. meter), \$8950
CASH PRICE



CHOICE OF MICROPHONES

The 35 Watt System is available also with a choice of microphones as illustrated above (less V. I. meter):
E12238. Complete System as described, but with Shure "Rocket" Microphone. (Fig. B.)
E12240. Complete System as above, but with Electro-Voice Dynamic Microphone. (Fig. C.)
E12241. Complete System as above, but with Bruno Velotron Microphone. (Fig. E.)
E12237. Complete System as above, but with Brush Sound Cell Microphone. (Fig. A.)
E12239. Complete System as above, but with Shure "Uniplex" Microphone. (Fig. D.)
List Each, \$157.50
CASH PRICE EACH \$77.50

Time Payments: \$7.75 down, \$9.55 monthly. 79

Knight 35 WATT De Luxe



Exclusive Knight Velocity Microphone with built-in Acoustic Compensator and "On-off" Switch.

OUTSTANDING NEW FEATURES

- **Volume Level Meter.** Indicates volume output directly in decibels. May be had with Knight Systems at small additional cost. Valuable for recording work or for determining volume output where speakers are remotely located from amplifier.
- **4 Microphone Inputs.** Here is the first 35 Watt De Luxe Sound System ever offered which permits the use of from one to four microphones, either separately or simultaneously. Each microphone may be individually controlled, and the total number of microphones used may be mixed or blended for proper balance. Microphones may be any of those illustrated at right and need not all be of the same type.
- **A.V.C. and A.V.E.** Among the outstanding new features of the Knight 35 Watt De Luxe Systems are Automatic Volume Control and Automatic Volume Expansion. The former automatically prevents feedback and blasting, maintaining constant volume level. A.V.E. is especially effective in providing higher fidelity phono reproduction.

An advantageous new feature of the Knight 35 Watt De Luxe System is the convenient Master Gain Control. This feature provides simultaneous control of the overall volume level of all the five input channels. After setting the individual microphone controls to desired degree of blending, the handy Master Gain Control may be used to adjust the total volume level. This convenient feature is another one of the exclusive new Knight P.A. features.

The Knight 35 Watt De Luxe Sound System has built-in true Dual Tone Compensation. Separate controls are provided for both bass and treble ranges, permitting low or high notes to be built up either separately or together without disturbing tones in the middle range. This feature is a significant advance in P.A. design and creates a degree of tonal excellence that must be heard to be appreciated. Only Knight P.A. offers such quality of flawless tonal reproduction.

New Speaker Selector Switch permits instant selection of voice coil or speaker line output impedance to match any number of speakers of the P.M. Dynamic type or any self-excited dynamics, to the amplifier. No figuring or guessing—just set the switch at the position where volume and quality are best. Impedances available are 2, 4, 8, 16, 500 ohms, to match all standard voice coils. 500 ohm tap is for use with extremely long speaker lines. You will like the convenience of the Selector Switch.

You can use one or two crystal or magnetic phono pickups with the Knight 35 Watt De Luxe System. Dual phono input of the convenient plug-in type is provided. This is operated from the special dual control on the front panel. Each phono is controlled from either side of a zero position, allowing fading action for background or sound effects. For suitable complete low-cost portable phonograph units see listing on page 88.



Powerful SOUND SYSTEMS!

... EVERY DELUXE FEATURE AT LOW COST

- Automatic Volume Stabilizer
- Automatic Volume Expander
- Six Input Channels
- Improved Inverse Feedback
- Dual Tone Compensation
- 4 Hi-Gain Mike Channels
- Dual Phonograph Input
- Master Gain Control
- Jensen P. M. Dynamics
- Full 35 Watts Output
- Speaker Selector Switch
- Universal Output
- Volume Level Meter
- Headphone Monitor Jack
- Power Stage Tap • Fused

- 5 Channel Mixer. Exclusive in the Knight 35 Watt System. Has provision for the use of one to four high-impedance microphones of any type, each with a separate volume control. One of two crystal or magnetic phono units may also be used, regulated by a single fader-type control. As many as four microphones and one phono unit may be used simultaneously and blended or "mixed" in any desired degree. The entire output of all the input channels used at any one time is electronically mixed and may be controlled by the single Master Gain Control without disturbing the original balance.
- Dual Tone Compensation. The Knight 35 Watt De Luxe System has built-in True Dual Tone Compensation. Separate controls are provided for both bass and treble ranges, permitting low or high notes to be built up either separately or together without disturbing tones in the middle range. You get far superior tone with this outstanding new feature—exclusive with Knight.
- Inverse Feedback. A new development in its latest and most improved form, which permits greater power output with less distortion, hum and noise, achieving a higher fidelity of tonal response. This feature is used effectively in the Knight 35 Watt Sound System. You'll notice the difference once you hear it.
- Knight Velocity Microphone. Incorporates the best features of the finest velocity microphones. Has new Acoustic Compensator which matches the microphone to either voice or music for best effect; new "on-off" switch for control right at the microphone; live gum-rubber shock absorber; adjustable swivel mounting; studio type locking cable connector.
- Volume Level Meter. Indicates volume output directly in decibels. May be obtained with system at small additional cost. Ideal for recording use or for maintaining constant volume level where speakers are remotely located from amplifier.
- 1939 Engineering. Uses the following optical tubes: 4—6J7G; 4—6N7G; 2—6K7G; 1—6H6G; 2—6L6G; 1—5V4G. Gain is 130 db. on microphone and 80 db. on phonograph. Full 35 watts output at 5% distortion. 50 watts peak. With negligible hum level and distortion. Frequency response is essentially flat from 40 to 10,000 C.P.S.
- Genuine Jensen P. M. Dynamic Speakers. Two 12-inch Jensen P.M. Dynamic Speakers are included with the Knight 35 Watt De Luxe System. They handle the output of the amplifier with excellent fidelity.

- Added Features. Special Speaker Selector Switch provides 2, 4, 8, 16 and 500 ohm output taps. Has Headphone Monitor Jack; Power Stage Drive Tap; Fused A.C. line; Shorting-type Input Jacks; diagram on base plate; standard 2-prong speaker receptacles. Top cover and base plate are removable for easy accessibility to all tubes and parts. You get more for your money in every detail.

- Complete 35 Watt Velocity System. The complete Knight 35 Watt De Luxe Velocity System includes: 1—Knight 35 Watt High-Gain Amplifier; 1—Knight Velocity Microphone with Acoustic Compensator and 25 foot cable and polarized plug; 1—Knight Adjustable Microphone Floor Stand; 2—Jensen 12" P.M. Dynamic Speakers, each with 30 foot rubber-covered cable and standard 2-prong plug, complete R.C.A. tube kit, spare fuse, and instructions. Ship wt., 83 lbs. For 110 volts, 50-60 cycles A.C.

E12276, Complete 35 Watt System, (Less V. I. meter) List. \$187.50. CASH PRICE \$92.50

Time Payments: \$9.25 down; \$11.45 monthly. E12250, V. I. Meter, NET \$4.50

AMPLIFIER ONLY

Available separately for replacement in high-grade sound systems or as initial equipment. Has input for four high-impedance microphones and two phono pickups. Gain is 130 db. The amplifier has an exceptionally wide frequency response essentially flat from 30 to 15,000 cycles. Hum level and distortion are negligible. Output is universal, tapped at 2, 4, 8, 16 and 500 ohms. Has polarized receptacles for speakers, standard 2-prong receptacles for speakers. Equipped with individual volume controls for each microphone and with fader control for phonos. Also has Master Gain Control for all inputs. Includes individually variable Bass and Treble Compensation Controls. Has A.C. switch and indicating built-in eye on front panel. Protecting fuse is located in tube compartment. Striking modern case measures 21 1/2" x 11" x 9 1/2". Beautiful black and grey two-tone finish. For 110 volts, 50-60 cycles A.C. Ship wt., 44 lbs.

E12275, 35 Watt Amplifier, (Less V. I. meter) List. \$90.00. CASH PRICE \$44.95
E12307, R.C.A. Tube Kit, NET \$13.39

Our finest Public Address achievement—a phenomenal New Sound System backed by ALLIED'S iron-clad guarantee—an invincible System that will outperform and outlast anything on the market in its own power and price class. It has so much built-in quality, so much output and high-fidelity tone, you'll marvel at the low price at which you can buy it. Especially developed for the most critical and exacting of sound requirements. Superb quality makes it ideal for use by large orchestras, for church and school, for large auditoriums and halls, for theatre presentations, for outdoor pageants, field days, for recording studios, etc., wherever large power and utmost fidelity are required.

• Automatic Volume Stabilizer. 1939's remarkable successor to A.V.C.—exclusive with ALLIED. Limits excessive peaks and maintains volume at proper level for the elimination of feedback and blasting. Actually permits twice the effective usable power output of ordinary 35 watt systems. An exclusive and brilliant new Knight feature found in no other sound system.

• Automatic Volume Expansion. Designed to re-create the original tonal realism of phonograph recordings by automatically building up the louder passages to their true volume relationship, maintaining the correct balance between the loud and soft passages of the original recording.



CHOICE OF MICROPHONES

- In addition to the Knight Velocity Microphone, the 35 Watt System is available with a choice of microphones illustrated at left.
- E12279, Complete System as described above, but with **Shure 701-D Crystal Microphone**. (Fig. C.) Less V. I. meter.
 - E12280, Complete System as above, but with **Bruno No-Voltage Votatron Microphone**. (Fig. E.) Less V. I. meter.
 - E12277, Complete System as above, but with **Brush Sound Cell-Microphone**. (Fig. A.) Less V. I. meter.
 - E12281, Complete System as above, but with **American Dynamic Microphone**. (Fig. B.) Less V. I. meter.
 - E12278, Complete System as above, but with **Shure "Uniplax" Microphones**. (Fig. D.) Less meter.
- List Each, \$187.50. **CASH PRICE, EACH OF ABOVE, \$92.50**
Time Payments: \$9.25 down, \$11.45 monthly for 8 months.

35 WATT PORTABLE SYSTEM

The finest high-quality Portable Sound System now available. Incorporates superb performance with unusual portability and convenience. Answers the most exacting and critical sound requirements; ideal for schools, churches, traveling orchestras, musical organizations, night clubs, funeral homes, lecturers, for portable recording work, etc. An unusually compact system. Contained in two handy carrying cases—one for the amplifier (10 1/2" x 22 1/2" x 13") and the other a split-case for the two speakers (21 1/2" x 13 1/2" x 8 1/2"). Weighs only 75 lbs. complete. The 35 Watt Portable System includes all features described above: Automatic Volume Stabilizer; Automatic Volume Expansion; 6 Input Channels; Inverse Feedback; Dual Tone Compensation; Dual Phonograph Input; 4 Hi-Gain Mike Channels; Master Gain Control; Universal Output; Speaker Selector Switch; Headphone Monitor Jack; Driver Stage Tap, etc. The complete portable system includes: 1—Knight 35 Watt De Luxe Amplifier in portable carrying case; 2—12 inch Jensen P.M. Dynamic Speakers with 30 foot cable and plugs in dual-speaker carrying case; 1—Shure "Uniplax" Microphone with 25 foot cable and plug; 1—Knight de luxe collapsible floor stand; R.C.A. tubes, extra fuse and complete instructions. For 110 volts, 50-60 cycles A.C. Ship wt., 95 lbs.

E12282, Complete System, (less V. I. meter) List. \$207.50. CASH PRICE \$104.50
Time Payments: \$10.45 down; \$12.94 per month, for 8 months.



Knight 65 WATT "Giant-Power"



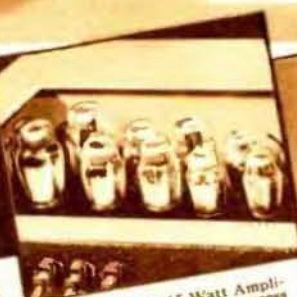
The exclusive new Knight Velocity Microphone with Acoustic Compensator, "On-off" Switch, Shock Absorber, Swivel and cable lock—the finest velocity microphone made.



The Knight 65 Watt System has exclusive plug-in input for handling two crystal or magnetic phono pickups. Operated from dual control on front panel—each phono is operated from either side of a zero position—allowing fading action for background or sound effects as desired.



Dual Tone Controls are provided in the Knight 65 Watt System to give individual bass or treble emphasis and to aid in compensating for varying acoustical conditions. Controls operate independently and have no effect on one another.



The Knight 65 Watt Amplifier is arranged for easy access to all tubes and parts. Shield screen at back top is easily removable to get at tubes. Base plate can be quickly detached for access to underside of chassis. Circuit diagram is included on base plate for reference.



An exclusive new Volume Level Indicator Meter is available with the Knight 65 Watt System at small additional cost. Indicates volume output of amplifier directly in decibels. Ideal for recording use or for use where speakers are remotely located from the amplifier.

\$127⁵⁰
CASH PRICE

Time Payments: \$12.75 down, \$15.78 monthly, for 8 months.

FEATURES

- Four Input Channels
- 2 Universal Mike Inputs
- Dual Phono Input
- 4—12" Jensen Speakers
- Dual Tone Control
- Inverse Feedback
- 4—6L6 Beam Power Tubes
- Headphone Monitor Jack
- Power Stage Top

TECHNICAL SPECIFICATIONS

The Knight 65 Watt High-Gain Sound System delivers full 65 watts output at 5% distortion, 90 watts peak. Gain is 125 db., essentially flat from 70 to 10,000 C.P.S. Hum level is negligible. Tubes used are: 2—6J7G; 2—6N7G; 1—6J5G; 4—6L6G; 2—5V4G. Two high-gain microphone channels permit the use of any high-impedance Crystal, Velotron, Velocity, Sound Cell or Dynamic microphone. Individual microphone controls are provided. Has exclusive new Dual Phono Input with fader control to accommodate one or two crystal or magnetic pickups. Includes Dual Tone Controls for bass or treble accentuation. Individual microphone and phono controls permit blending and fading as desired. Mixing action is electronically controlled. Incorporates Inverse Feedback; has Speaker Selector Switch providing choice of 2, 4, 8, 16 or 300 ohms at standard two-contact speaker receptacles. Input jacks are of shorting type, blocking out all possibility of noise from unused channels.

SOUND SYSTEMS

Super-Power AT LOW COST

We set out to build a giant-power system to cover a wide range of P. A. requirements at low-cost—and we're proud to say that we've succeeded in a big way. This new **Knight 65 Watt System** is perfect for outdoor use in large stadiums and athletic fields, in public parks, in music band-shells, at race tracks, circuses, skating rinks, benches, fair grounds, for factory call systems or wherever big power, faithful tone and versatile operation are required. Just check these outstanding value features:

- **Four Input Channels.** The **Knight 65 Watt Sound System** permits the use of one or two high-impedance microphones along with two crystal or magnetic phono pickups. Full electronic mixing is provided by means of individual microphone and phonograph controls permitting blending and fading as desired. Dual Tone Controls are also incorporated, giving individual bass and treble control.
- **Inverse Feedback.** An advantageous development in its most recent, improved form. Permits greater power output with less distortion, hum and noise, achieving a higher fidelity of tonal response. This feature is used effectively in the **Knight 65 Watt Sound System**. You'll notice the difference the minute you hear it.
- **New V. I. Meter.** Indicates output level of amplifier directly in decibels. May be had with the system at small additional cost. Valuable for recording use, or for maintaining constant volume level where speakers are remotely located.
- **Knight Velocity Microphone.** Never before available with a Sound System at this price. Incorporates the best features of the finest velocity microphones. Has new Acoustic Compensator which matches the microphone to either voice or music for best effect; new "on-off" switch for control right at the microphone; live gum-rubber shock absorber; adjustable swivel mounting; studio-type locking cable connector.
- **Four Jensen PM-12B Speakers.** Four genuine 12" Jensen PM-12B Permanent Magnet Dynamic Speakers are provided with the 65 Watt System. They reproduce with excellent fidelity and will adequately handle the volume generally needed for most requirements. These speakers are far superior to ordinary dynamics; they require no field excitation; ruggedly built with typical Jensen quality. Each speaker is equipped with 30 foot rubber-covered cable and standard 2-prong appliance plug.
- **Super Powerful Circuit.** The High-Gain Amplifier incorporated in the **Knight 65 Watt Sound System** develops full 65 watts output undistorted. Uses the latest type RCA tubes as follows: 2-6J7G; 2-6N7G; 1-6J5G; 4-6L6G; 2-5V4G. Frequency response is essentially flat from 70 to 10,000 C.P.S. Gain is 125 db on microphone, and 80 db for phono. Hum level is negligible. These unusually fine characteristics plus the incorporation of 4-6L6 Beam Power Output Tubes assure exceptionally high-gain and big-power output coupled with desirable wide-range fidelity.
- **Added 1939 Features.** New and advantageous refinements are featured in the **Knight 65 Watt System**. Among these are: Speaker Selector Switch permitting matching of amplifier to any number of speakers automatically—offers impedances of 2, 4, 8, 16 and 500 ohms; has Power Driver Tap for adding power stage for exceptional power requirements; Headphone Monitor Jack for program supervision; fused A.C. line for protection; wiring diagram conveniently mounted on base plate. Unique modern case design makes all tubes and parts easily accessible.
- **Complete 65 Watt Velocity System.** The complete **Knight 65 Watt Sound System** includes: **Knight 65 Watt High-Gain Amplifier**; 1—**Knight Velocity Microphone** and 25 foot cable and plugs; 1—**Knight adjustable Microphone Floor Stand**; 4—**Jensen PM-12B Dynamic Speakers** with 30 foot heavy rubber-covered cables and 2-prong plugs; complete R.C.A. tube kit; spare fuse and full instructions. Shpg. wt., 115 lbs. For 110 volts, 50-60 cycles A.C.

E12266, Complete System, less V. I. meter.
List, \$260.00
CASH PRICE.....

Time payments: \$12.75 down, \$15.78 monthly, for 8 months.

E12250, V. I. Meter only. NET..... \$4.50



CHOICE OF MICROPHONES

In addition to the **Knight Velocity Microphone**, the 65 Watt System is available with a choice of microphones as illustrated above (less V. I. meter):

E12268, Complete System as described at left, but with **Shure 701-D Crystal Microphone**. (Fig. C.)

E12270, Complete System as described, but with **Brüel Veltatron Microphone**. (Fig. E.)

E12269, Complete System, but with **Brush Sound Cell Microphone**. (Fig. A.)

E12271, Complete System, but with **American Dynamic Microphone**. (Fig. B.)

E12267, Complete System, but with **Shure "Uniplex" Crystal Microphone**. (Fig. D.)

List, Each \$260.00

CASH PRICE, EACH OF ABOVE \$127.50

Time Payments: \$12.75 down, \$15.78 monthly.

65 WATT AMPLIFIER ONLY

The **Knight 65 Watt High-Gain Amplifier** is offered separately either as an ideal replacement; for obsolete amplifiers or for use wherever giant power is required. Has universal input for any two high-impedance microphones and two phonos. Develops a remarkable gain of 125 db., permitting the direct use of high-impedance microphones without requiring preamplifier. Frequency response is essentially flat from 40 to 10,000 C.P.S. The amplifier has individual volume controls for both microphones and phonos, permitting them to be "faded" or "mixed" at will. Dual Tone Control is built-in with separate controls for bass or treble emphasis; helps compensate for varying acoustical conditions. Has polarized receptacles for rikes, 2-contact receptacles for speakers and twin jacks for phono input. Output is universal, tapped at 2, 4, 8, 16 and 500 ohms. Size: 21 1/2" x 11" x 9 1/2". Shpg. wt., 50 lbs. For 110 volts, 50-60 cycles A.C. operation.

E12265, Knight 65 Watt Amplifier, \$47.50
less V. I. Meter and tubes.
List, \$95.00 **CASH PRICE.....**

E12250, Volume Level Meter. NET.... \$4.50

E12308, R.C.A. Tube Kit. NET..... \$12.43

See Page 73 for attractive Time Payment Plan. Suitable portable phonograph units are shown on Page 88. Excellent baffles of all types are described on Page 87.



New Speaker Selector automatically matches impedances correctly to any number of speakers at the turn of a switch. Offers 2, 4, 8, 16 and 500 ohms taps. An outstanding convenience feature.

Provision is made for the use of any two high impedance microphones at the same time. Each microphone has a separate volume control allowing blending or "mixing" as desired. In addition, dual input is provided for 1 or 2 phonograph units.

65 WATT PORTABLE SYSTEM

The **Knight 65 Watt Giant Power Sound System** is offered in a remarkably compact portable system as illustrated at right. Includes all of the advanced features described above with the added convenience of ready portability. Equipment is contained in three compact cases—one for amplifier (10 3/4" x 22 3/4" x 13"), and two split-cases for the speakers (21 3/4" x 11" x 9 1/2" each). Includes: 1—**Knight 65 Watt Amplifier** in a portable carrying case; 4—**Jensen 12" P.M. Dynamic Speakers** with 30 foot cables and plugs, mounted in split carrying cases; 1—**Shure "Uniplex" Microphone** with 25 foot cable and plug; 1—**Knight De Luxe collapsible floor stand**; R.C.A. tubes and spare fuse—Shpg. wt., 130 lbs.

E12272, Complete (less V. I. meter).
List, \$295.00 **CASH PRICE.....**

Time Payments: \$14.45 down, \$17.89 monthly for 8 months.



\$144.50

Now! POWERFUL P. A.



18 WATT STANDARD SYSTEM MOBILE

An outstanding Mobile Sound System that is available for universal 6 Volt D.C. or 110 Volt A.C. operation. Versatile and powerful, it has a wide number of applications. Its low price gives it exceptional appeal.

• **COMPACT, POWERFUL 6 VOLT-110 VOLT MOBILE SYSTEM.** The Knight 18 Watt 6 Volt-110 Volt Mobile Sound System is designed for versatile performance. Operates directly and entirely from any 6 volt storage battery or from any 110 volt A.C. line. Will cover large crowds, both indoors and outdoors, with wonderful power and excellent fidelity. Compact and portable. May be simply and quickly installed or changed from car to car or from one place to another. The lowest priced efficient mobile-portable sound system available. Designed especially for sound trucks; an ideal system for powerful reproduction of phonograph records.

• **HIGHEST QUALITY COMPONENTS.** The Knight 18 Watt 6 Volt-110 Volt Mobile System is built of the finest matched components selected to withstand the punishment of heavy-duty mobile use. The powerful high-gain 18 Watt Amplifier unit has plug-in vibrator "B" supply. A high-quality single speed 78 R.P.M. phonograph motor with 10-inch turntable and speed-regulator is built-in. The pickup is of the finest crystal type, especially designed for mobile service. Supplied with high quality Amperite ACH Velocity Microphone with detachable handle. (May also be used with floor stand if desired.) Cables for microphone, speakers and battery are all equipped with polarized plugs for easy, errorless connection. Battery cable has high-grade 30 ampere polarity-marked battery clips. Entire system is housed in an attractive, sturdy steel case equipped with strong handles. Size: 17 3/4" x 15 3/4" x 10 1/2".

• **1939 CIRCUIT DESIGN.** The powerful 18 Watt Universal 6 Volt-110 Volt Amplifier used in the system incorporates the finest new features, including improved Inverse Feedback, high-gain Class "AB" circuit, latest octal tubes, dependable vibrator supply, etc. Inverse Feedback develops greater output with less distortion and noise, achieving greatly improved tonal fidelity. The amplifier uses 1-6J7G; 2-6N7G; 2-6V6G; 1-6X5G tubes in an efficient high-gain circuit with a gain of 115 db. The amplifier has essentially flat frequency response from 70 to 8,000 C.P.S. The built-in control panel conveniently located on the top face of the steel amplifier cabinet, carries separate volume controls for the microphone and phono pickup, permitting blending and "mixing" of voice or music as desired. Also includes Tone Control as well as "on-off" switch. Polarized receptacles are provided for plugging in microphone, speakers, and battery cable. Has Speaker Selector Switch which permits matching to any number of speakers with output taps at 2, 4, 8, 16 and 500 ohms. Fully fused on both 6 Volts D.C. and 110 Volts A.C.

• **COMPLETE 18 WATT 6 VOLT-110 VOLT MOBILE SYSTEM.** Offered complete for operation from any 6 volt storage battery or from any 110 volt, 50-60 cycle A.C. line. Includes: 1-Knight 18 Watt High-Gain Universal Amplifier, mixing panel and phonograph in steel cabinet, with 2-genuine Jensen 12-inch P.M. dynamic speakers, each with generous 30 foot cables and polarized plugs; Amperite ACH Velocity Microphone with detachable handle and generous 25 foot cord and polarized plug; R.C.A. tube kit, spare fuse and instructions. Shpg. wt., 90 lbs.

E12319. Complete 6 Volt-110 Volt 18 Watt Mobile System.

List Price, \$175.00

CASH PRICE

WITH TUBES

Time Payments: \$8.65 down, \$10.71 monthly, for 8 months.

\$86⁵⁰



DIRECTIONAL BAFFLES

To obtain maximum sound distribution from the splendid new Mobile Sound System shown on these two pages, we recommend the selection and use of any of the baffles described on page 91 of this catalog. These inexpensive baffles can be easily and quickly installed for either permanent or temporary use on sound trucks and cars.



CHOICE OF MICROPHONES

We offer the Knight Mobile Sound Systems with a wide choice of famous microphones in addition to the type mentioned with each system. Among those illustrated are: A—the Shure "Rock" Crystal Microphone; B—the American Dynamic Microphone; C—the Shure "Uniplux" Crystal Microphone.

18 WATT
6 VOLT-
110 VOLT
SYSTEM

\$86⁵⁰

CASH PRICE

CHOICE OF MICROPHONES

The Knight 18 Watt Mobile System may also be had with a choice of any of the famous microphones illustrated above:

E12320. Knight 18 Watt System complete as described at left, but with Shure "Rock" Crystal Microphone. (Fig. A.)

E12321. Knight 18 Watt System complete, but with Shure "Uniplux" Crystal Microphone. (Fig. C.)

E12322. Knight 18 Watt System complete, but with American Dynamic Microphone. (Fig. B.)

List Each, \$175.00.

\$86⁵⁰

CASH PRICE EACH

Time Payments: \$8.65 down, \$10.71

monthly, for 8 months

TIME PAYMENTS

You can buy any of the new Knight Mobile Sound Systems shown on this and the next page on our convenient Time Payment Plan. For complete attractive details and Easy Terms chart, read Page 73. Earn and profit while you pay for this quality Knight Public Address equipment.

18 WATT 6 VOLT MOBILE SOUND SYSTEM

Here is the Knight 18 Watt Mobile Sound System with essentially the same features as described above, but intended only for use from a 6 volt storage battery. An ideal low-cost system for permanent installation in sound trucks and cars or where A.C. current is not available. Particularly recommended for use in advance publicity wagons for carnivals and road-shows, for advertising cars, for gospel-work, etc. Basically the same as the Universal Systems described above, with identical features, but with 6 volt field type dynamic speakers in place of the P.M. type. If at any future date, it is desired to use this system from 110 volts A.C., this may be accomplished by the purchase and substitution of P.M. type dynamic speakers in place of the 6 volt type. Offers ideal service at low-cost. The complete system includes: 1-Knight 18 Watt High-gain Amplifier, mixing panel and phonograph in steel cabinet; 2-Knight 12-inch 6 volt dynamic speakers, each with generous 30 foot cable and plug; 1-Amperite ACH Velocity Microphone with detachable handle, generous 25 foot cable and polarized plug, battery cable, R.C.A. tube kit, spare fuse and complete instructions. Shpg. wt., 92 lbs. For 6 volt D.C. operation only.

E12323. Complete 18 Watt 6 Volt Sound System.

List Price, \$167.50.

CASH PRICE

Time Payments: \$8.25 down, \$10.21 monthly, for 8 months.

\$82⁵⁰



from 6 volts D.C. or 110 volts A.C.



30 WATT DELUXE MOBILE SYSTEM

\$104.50

America's newest and most versatile Universal Sound System! A new departure in design, features, quality and performance—developed and offered exclusively by ALLIED. Operates entirely and directly from any 6 volt storage battery wherever A.C. current is not available, or with a slight change, may be operated from any 110 volt, 50-60 cycle A.C. outlet. Delivers full 30 watts output at 5% distortion (30 watts maximum) with excellent tonal fidelity, making it ideal for use in sound trucks, for political rallies, circuses, carnivals, traveling dance orchestras, road shows, lectures, evangelists, etc.

*** 1939 Amplifier Design.** Outstanding for power and circuit excellence—the new Knight 30 Watt Universal Amplifier incorporates exclusive improved Inverse Feedback—a feature which assures larger power output with less noise, hum and distortion; and at the same time aids in developing improved tonal reproduction on both microphone and phono. Has two high-gain universal microphone input channels, permitting the use of any high-impedance microphones. Dual phonograph input permits the use of an additional phonograph pickup of either crystal or magnetic type in addition to the crystal pickup already built into the system. Separate volume controls are provided for blending microphone and phonograph as desired. Has Dual Tone Controls for emphasizing bass and treble and to aid in compensating for varying acoustical conditions. Rear and side panels carry Speaker Selector Switch offering 2, 4, 8, 16 and 500 ohm outputs; Power Stage Tap; Headphone Jack, Extra Phono Jack, Speaker and Microphone receptacles. Amplifier is fitted on both A.C. and D.C. Wiring diagram is included on base plate.

*** Powerful New Circuit.** The 30 Watt Universal Amplifier uses the following tubes: 2 6J7G; 2 6N7G; 1 6J5G; 2 6L6G; 2 6N5G. Gain on microphone is 123 db., on phono 80 db. Frequency response is essentially flat from 40 to 10,000 C.P.S. Hum level and distortion are negligible. Current drain on 6 volts as well as 110 volts is at a minimum. A built-in special heavy-duty power supply with plug-in type vibrator operates efficiently from either 6 volts D.C. or 110 volts A.C. Special stand-by switch conserves power supply drain but keeps filament ready for operation.

*** New V. I. Meter.** Indicates volume output directly in decibels. May be had with system at small additional cost. Ideal for use where speakers are remotely operated from amplifier.

*** Compact Single Unit Design.** The entire 30 Watt De Luxe Mobile System is built around the compact single amplifier unit. Amplifier, high grade single speed motor, sturdy crystal pickup, 6 volt and 110 volt power supplies, and all controls and connecting receptacles are assembled in one compact modern steel case. Size overall is 18 3/4" x 13 1/4" x 11".

CHOICE OF MICROPHONES

The Knight 30 Watt Mobile System may also be had with a choice of any of the famous microphones shown on page 84.

E12232. Knight 30 Watt System complete but with Shure "Rocket" Crystal Microphone. (Fig. A.) Less V. I. meter.

E12233. Knight 30 Watt System complete but with Shure "Uniques" Crystal Microphone. (Fig. C.) Less V. I. meter.

E12234. Knight 30 Watt System complete but with American Dynamic Mike. (Fig. B.) Less V. I. meter **\$104.50** List Each. \$215.00. **NET EACH** Time Payment: \$10.45 down, \$12.94 monthly.

*** Highest Quality Accessories.** The new Shure Military Hand Microphone is used with the Knight De Luxe Mobile System. Built for rugged service, easy handling, and fine response. Two genuine 12-inch Jensen P.M. dynamic speakers are included for finest reproduction. A high quality single-speed synchronous phono motor with 12-inch turntable is incorporated. Constant speed type whether used from 6 volts D.C. or 110 volts A.C. Will play 8, 10 and 12-inch records. The high-grade Shure Crystal pickup has excellent response to assure fine tonal reproduction of all recordings. No finer accessories have ever been incorporated in a P.A. System.

*** 6 Volts or 110 Volts in a Jiffy.** Anyone can change the Knight 30 Watt De Luxe System from 6 volts to 110 volts in an instant. Just substitute the A.C. cord for the battery cable, and you're ready to work from A.C. There has never been anything like the convenience, versatility, power and general all-around performance of this outstanding 1939 De Luxe Mobile Sound System.

*** Complete De Luxe Universal System.** Includes: 1—Knight 30 Watt High-Gain Amplifier with battery and A.C. cables, built-in phonograph motor and pickup, 6 volt and 110 volt power supplies, 1—Shure Military Hand Microphone with ample 10 foot cord and polarized plug; 2—Jensen 12-inch P.M. dynamic speakers with generous 30 foot rubber-covered cords and 2-prong plugs; R.C.A. tube kit, spare fuse and instructions. For 6 volt D.C. or 110 volt A.C. operation. Shipt. wt. 95 lbs. **E12231. Complete 30 Watt De Luxe Mobile System.** (less V.I. meter) **\$104.50** List Price. \$215.00. **CASH PRICE**

Time Payments: \$10.45 down, \$12.94 monthly. **E12250. Volume Level Meter. NET \$4.50**

E12230. AMPLIFIER ONLY with built-in phono and power pack. For 6 volt-110 volt operation. Less tubes and V. I. meter. Wt. 50 lbs. **\$62.50** List Price. \$127.50. **CASH PRICE**

E12305. R. C. A. Tube Kit. NET \$8.93

OUTDOOR EVENTS



INDOOR P.A.



6 VOLT OR 110 VOLT



AMPLIFIER LESS PHONO

E12245. Knight 30 Watt 6 Volt-110 Volt De Luxe Amplifier only. Less built-in phono and pickup. Includes all features and advantages as described above. A splendid all-purpose universal amplifier. Less tubes and V. I. meter. **\$59.50** List. \$125.00. **CASH PRICE** **E12305. R.C.A. Tube Kit. NET \$8.93**



*** Control Panel.** 1—Microphone No. 1; 2—Volume Level Indicator Meter; 3—Trebble Tone Control; 4—Jewelled Pilot Light; 5—Microphone No. 2; 6—Phonograph Control with zero position; 7—Bass Tone Control; 8—“On-off” switch. The panel is beautifully finished for easy reading. All control knobs are of bakelite in contrasting attractive grey color. It's easy to set up and operate this outstanding Knight 30 Watt De Luxe Mobile Sound System—the finest ever offered.



ADD MORE WATTS WITH THIS LOW-COST POWER STAGE

Knight 35 WATT POWER STAGE

Offered exclusively by ALLIED, an ideal power stage unit for use with any type of amplifier. Especially suitable for the 1939 Knight Amplifiers which are equipped with power stage taps. You can add full 35 watts power inexpensively to your present equipment to take care of an increased number of speakers for larger installations. For example, if your present amplifier is rated at 35 watts and you add this new Knight Power Stage, you get full 70 watts at low cost. The new Knight 35 Watt Power Stage is entirely self-contained in an attractive modern-styled case, 19 3/4" x 11 1/4" x 9 1/4". Easy to hook up to any amplifier from amplifier for excitation. Draws no power from amplifier since it makes use of an ingenious bridging type input. Uses the following tubes: 1-6N7G; 2-6L6G; 1-5Y4G. Beam Power Output with Inverse Feedback results in greater power with less distortion, hum and noise. Frequency response from 40 to 10,000 cycles. Front panel holds A.C. switch, jeweled pilot light, and volume control, has provision for installable Volume Level Switch which makes available 2, 4, 8, 16 and 500 ohm output taps at the two standard two-prong speaker receptacles. Requires only a single-conductor shielded cable for connection to driver amplifier. Any P.M. dynamic or any self-excited electro-dynamic speakers can be used. This fine unit may be connected to any amplifier to add power at a moderate cost.

35 Watt Power Stage.

E12330.

Less Tubes.

List \$57.50

YOUR PRICE

E12309. R.C.A. Tube Kit. NET \$5.00

E12250. Volume Level Meter. NET 4.50

\$28⁵⁰



VOLUME EXPANDER

A complete, self-contained, self-powered unit for use with any amplifier lacking an effective volume expander. Designed to recreate the original tonal realism of phonograph recordings. When recordings are made, it is necessary to reduce the louder passages and to increase the level of the softer passages to avoid high surface noise and over-cutting into adjacent grooves. This results in a reduction of contrast and brilliance in the recording. To recreate the original rendition properly, the Volume Expander automatically builds up the louder phonograph passages to their true volume relationship, maintaining a correct balance between the loud and soft passages of the original recording. Brings out the exact original recorded rendition and actually minimizes surface noise. The Knight Volume Expander is compactly built; size, 11 3/4" x 6 1/2" x 8 3/4". Uses the following tubes: 1-6N7G, 1-6K7G, 1-6H6G, 1-6X5G. Two controls are used, one for control of volume, the other to control the degree of expansion. Has tip-jack output to connect directly into the phonograph input circuit of any amplifier. Bring your present equipment up-to-date with the Knight Volume Expander and get deluxe phonograph record reproduction. The Knight Volume Expander is also suitable for coupling with high-grade home-type phonograph equipment not provided with this feature. Adds immeasurably to wider tonal response. Recommended for use with Knight 8, 15, 35 and 65 watt standard amplifiers to provide unsurpassed reproduction.

E9850. The Knight Volume Expander. For 110 Volts, 50-60 cycles A.C. Shpg. wt., 12 lbs. Less tubes. (Note: The Volume Expander is intended only for use as an accessory with record playing equipment; it is not in itself a complete record-playing device.)

List, \$23.50.

YOUR PRICE

E12310. R.C.A. Tube Kit. NET \$3.39

\$11⁷⁵



A.C. PREAMPLIFIER

A new broadcast-station-quality A.C. operated preamplifier. Ideally suited for use with any type of Public Address or recording equipment. Completely built into one compact steel case. Designed to amplify the output of crystal, velocity, dynamic or other low-level microphones to a point where they can be fed into mixing circuits, telephone lines or any low-gain main amplifier. Input is arranged for 50, 200 or 500,000 ohms to match the output of any type of microphone. A volume control is incorporated for convenient operation. Output is to 200 ohm line. Uses 1-6C6 as S.G. Amp.; 1-6C6 as Triode-Amp.; uses 84 as rectifier. Components are carefully shielded and rubber-floated. Has a gain of 60 db. and a flat response from 30 to 12,000 cycles. Hum is negligible. Case size, 6 3/4" x 8 1/4" x 11 3/4". Shpg. wt., 33 lbs. For 110 Volts, 60 cycles A.C. Complete with tubes. A ruggedly constructed unit.

E12252.

YOUR PRICE

\$44²⁵



MEISSNER R. F. TUNER

A true high-fidelity Broadcast band tuner for those who desire the very finest program reproduction. Consists of three Tuned R.F. stages and detector, with high impedance output circuit designed to couple to input circuit of almost any type of high quality audio amplifier. Coils have Ferrocart cores providing maximum selectivity without sacrificing quality. Ideally suited for P.A. monitoring of broadcast programs, for School and Educational Broadcast reception, etc. Has monitor headphone jack with unique circuit arrangement which prevents unbalancing of circuit when phones are plugged in or out, thus eliminating annoying plug noises. Built-in power supply is highly stabilized to prevent erratic operation; heavily filtered to insure smooth performance. Illuminated 4" airplane dial is directly calibrated to simplify tuning in desired programs. Tuning range is from 530 to 1600 KC covering all standard Broadcast station frequencies. The entire unit is housed in an attractive black wrinkle finished steel cabinet. Extremely compact in size; measures only 3 1/2" wide, 8 1/2" high, 12 1/2" deep. Has full AVC. Equipped with volume and tone controls. Uses 3-6K7, 1-6H6, 1-6F6G, and 1-5Z4 tubes. Supplied completely wired (not a kit) ready for immediate operation; less tubes. One of the finest R.F. tuners available, yet our price is attractively low for such outstanding quality. For 110 volts, 60 cycles A.C.

E9852.

Meissner R.F. Tuner.

NET PRICE

E9853. R.C.A. Tube Kit. NET \$5.00

\$28⁸⁵

QUALITY CRYSTAL HEARING AIDS

NOW—every hard-of-hearing person can regain the thrill of perfect hearing inexpensively. New portable battery model is housed in pin-seal leather case only 5" deep, 8" wide, 6" high. Requires only two small batteries, one 1½ volt cell, and one small "B" battery. No longer need your friends raise their voices—no more embarrassing situations through misunderstanding. Regain the pleasure of equal understanding on a par with those whose hearing is unimpaired. Here, in one amazingly sensitive and simple-to-operate hearing-aid is the entire solution to your problem. You can use it in your home or at your office, club, or anywhere you travel. It picks up voices or music from any part of the room and reproduces with clear, crisp naturalness of tone. New, modern circuit using latest type crystal microphone and crystal earphone unit reproduces and amplifies every sound at many times its normal intensity—without annoying buzz and noise so prevalent in cheap, imperfectly designed hearing-aids. Here is the first low-cost Hearing Aid that will function sensitively and with excellent fidelity. Weighs only 6 lbs.

E12175. Portable Battery Model (illustrated).
With tubes and batteries. Less only earphone (see listing below).
YOUR NET PRICE.

\$29.95

LATEST ALL-ELECTRIC MODELS

This sensational new device plugs into any 110 volt outlet, AC or DC. Operation is extremely economical—line drain is only 35 watts, less than your favorite reading lamp. Service is limited to occasional tube replacement—and in most cases tubes will last from one to two years! Churches, clubs, and many organizations can use the standard unit also, for every unit will handle up to eight lorgnette, headband or bone conduction type reproducers. Designed and built of highest quality materials to insure long, dependable service. Standard Model is housed in a handsome polished walnut cabinet, 5½" high, 6¾" wide, 4½" deep, to harmonize everywhere. Uses 1 to 8 lorgnette, headband, or bone conduction units listed below. The AC-DC unit is also available in a portable model, housed in pin-seal leather case no larger than the average camera. Either operates from any 110 volt AC-DC outlet.

E12176. Standard AC-DC Model in walnut case.

With tubes; less earphone. Shpg. wt., 6 lbs.

NET PRICE.

E12177. Portable AC-DC Model in leather case.

With tubes; less earphones. Shpg. wt., 6 lbs.

NET PRICE.

\$29.95

\$29.95

HEARING-AID ACCESSORIES

- E12178. Crystal Earphone with headband and 4 foot cord. NET. \$4.41
- E12179. Lorgnette Type Crystal Earphone with 4 foot cord. NET. \$4.41
- E12180. Bone Conduction Unit with 4 foot cord. NET. \$17.64
- E12182. Individual volume control with 10 foot cord. NET. \$2.06
- E9145. 220 Volt Adapter Cord. Permits use of 110 volt AC-DC units from 220 volt AC-DC source. NET. 59c
- E12183. Double plugs. Permit use of two earphone units in single earphone outlet. NET PER PAIR. 59c
- E12184. Replacement batteries for battery model. NET PER SET. \$1.49



ELECTRICAL INSTRUMENT AMPLIFIER

The very latest in electrical amplification for musical instruments. Everywhere the best of soloists are using amplifiers to create new and novel musical effects, to put new pep into swing arrangements, to bring up feature passages, for lades, overtones, treble endings, etc. **NOW**—you can get these same effects from your own string or reed instrument. The new KNIGHT Electrical Instrument Amplifier consists of the KNIGHT 8 Watt High Gain Sound System described on page 75 but with the new Home Model Amperite Kontakt instrument pickup with foot-pedal volume control supplied in place of the usual microphone. It's so simple a child can operate it! You merely slip the tiny inconspicuous pickup unit under the strings of any instrument, plug the cable from the foot-operated volume control into the amplifier, and you're all set to produce practically any effect you desire.

FOR USE WITH ANY INSTRUMENT

A small slip of adhesive tape holds pickup securely in place. A slight flip of the fingers, and it is instantly removed for portable use or for attachment to another instrument if desired. The complete Electrical Instrument Amplifier is extremely compact for convenient portability. Designed for easy operation (no technical knowledge required). Delivers full 8 watts to carry feature solos or passages above even the largest orchestra. Operates from any 110 volt 50-60 cycle AC outlet. Full 8" dynamic speaker mounted in portable case is also equipped with 25 foot cable permitting operation at some distance from the amplifier unit. Supplied complete, ready to operate, including RCA tubes, amplifier and carrying case with 8" dynamic speaker and Amperite Home Model Kontakt pickup with foot-pedal volume control and 25 foot cord.

E12335. Complete System as described.

YOUR NET PRICE.

E12336. Same System as above but with Amperite KTH Professional Pickup with foot-pedal volume control.

NET PRICE.

\$35.75

\$41.35



Knights INTERCOMMUNICATION SYSTEM

Here is an entirely new type of intercommunication system which permits instant, automatic, direct contact between adjacent rooms, offices, etc. Essential to all modern business, homes, and institutions. Much faster and more convenient than telephone systems; permits instant contact between two (or more) points. The simple two-way system is fast and easy to operate. You simply push the small lever to talk and release to listen. Built-in amplifier operates from any 110 volt AC-DC wall outlet. Stations may be held. All conversations are heard at all four units simultaneously.

E12340. Complete Two Way System. Consists of: 1—Station unit with amplifier and tubes, 1—Sub-station unit, and 50 foot connecting cable with polarized plugs. **YOUR NET PRICE.** **\$26.25**

E12341. Additional Sub-Station Unit with 50 foot cable and polarized plugs. Up to four of these units may be used with system above. **YOUR NET PRICE.** **\$9.90**

* MASTER STATION SYSTEM. The Knight Intercommunication System is also available in a selective type Master Station arrangement. Master station can select and talk in complete privacy with any one of a number of sub-station units up to a total of 10. Sub-station units can call Master station but cannot converse with other sub-stations. Operates from 110 volt AC or DC. **YOUR NET PRICE.** **\$24.50**

E12342. Master Station Unit. Complete with tubes, junction box, and instructions. **YOUR NET PRICE.** **\$7.95**

E12343. Sub-Station Unit. Up to 10 may be used with each Master Station Unit. Complete with junction box. **YOUR NET PRICE.** **PER 10 FEET. 40c**

E12344. Cable for connecting Master and Sub-station units. **PER 10 FEET. 40c**

NOTE: WE CAN SUPPLY all types of intercommunication systems for various purposes, as well as Factory and Industrial Paging and Call Systems. For complete details and prices, write to our Engineering Division, giving your requirements in detail.



MASTER

Illustrated are the Master and Sub-Station units as used in a Master station installation. Up to 10 sub-station units may be used.

STATION UNIT



Values IN FINE ELECTRIC PORTABLE PHONOGRAPHS

LOW-COST SINGLE-SPEED MODEL

A dependable portable electric phonograph, suitable for use with any amplifier or radio set having a high-impedance phono input circuit. Incorporates a high-grade single-speed 78 R.P.M. motor, self-starting synchronous type; maintains constant speed regardless of line voltage variations. Equipped with 12-inch turntable. Uses a high-impedance flat type Knight magnetic pickup which has excellent frequency response. Pickup cord is equipped with convenient phone tip ends. Includes built-in volume control. Has needle cup. The entire assembly is housed in a compact, sturdy leatherette-covered case which measures 17 1/2" x 13 3/4" x 7" open; 17 1/2" x 13 3/4" x 9 1/2" closed. Leather carrying handle is securely riveted on top. Entire unit is light in weight; compactly built for easy portability. Includes approved 6 foot cord and plug. For operation on 110 Volts, 60 cycles, A.C. Shpg. wt., 29 lbs.

E10080. With Magnetic Pickup.

YOUR PRICE.....

\$1365

E10077. Single-Speed Portable Phonograph unit exactly as described above, but with Knight Crystal Pickup.

YOUR PRICE.....

\$14.50

HIGH GRADE DUAL-SPEED MODELS

Essential equipment for sound systems. Also suitable for use with any radio set arranged to accommodate a high impedance phonograph. Equipped with the finest self-starting dual-speed (78 and 33 1/2 R.P.M.) heavy-duty phonograph motor with weighted, balanced 12 inch turntable. Motor has speed-regulating and speed-shift levers. Incorporates the latest Webster high-fidelity magnetic pickup; with built-in volume control. Has pickup cord with convenient phone tip ends. Comes in maroon-colored leatherette-covered case with carrying handle and rubber feet. Has slip-type hinges which allow cover to be removed. Measures 17 1/2" x 13 3/4" x 9 1/2". Equipped with leather carrying handle which will not loosen or pull off. Fills every requirement for high quality, portable phono equipment. Includes approved 6 foot cord and plug. For operation on 110 Volts, 50-60 cycles, A.C. Shpg. wt., 36 lbs.

E10081. With Magnetic Pickup.

YOUR PRICE.....

\$2155

E10078. Dual-Speed Portable Phonograph unit as above, but with famous Astatic B-10 Crystal Pickup.

YOUR PRICE.....

\$27.95

E10079. Special Transcription Portable Phono unit. Has 16-inch specially-balanced turntable, professional-type high impedance Astatic Tru-tan Pickup with 12 inch arm. Dual-Speed Green Flyer Motor. With volume control. 23" x 17 1/2" x 8".

YOUR PRICE.....

\$54.95

NEW 6 VOLT D.C. MODELS

Essentially the same as the 110 Volt Models listed above, but equipped with heavy-duty 6 volt D.C. motors. Dual-speed type; will play any 8 to 12 inch record, either 78 or 33 1/2 R.P.M. In ruggedly constructed portable cases. Ideal for all portable 6-volt operated sound equipment. Case size, 17 1/2" x 13 3/4" x 9 1/2". Shpg. wt., 40 lbs.

E10053. With Webster Magnetic Pickup.

NET.....

\$25.75

E10054. With Astatic B-10 Crystal Pickup.

NET.....

\$32.15



PORTABLE PHONO WITH ENCORE PICKUP

An entirely new type of portable phonograph. Much smaller in size than usual portable units, it is designed for ready portability. New "Encore" type crystal pickup mounts in lid of case directly above turntable. Operation is simple: place record on turntable, start motor, lower lid, and record starts playing. Pickup is automatically lowered in starting groove; fast flip-over adjustment makes instant change for playing either 10 or 12-inch records. Pickup is high-fidelity crystal type with tangent head; has extremely wide frequency range and greatly reduces record wear and needle hiss. Patented mechanical arrangement provides cushion rest for pickup when unit is being carried. Case is finished in handsome maroon leatherette with handle and rubber bumper feet. Motor is sturdy single-speed 78 R.P.M. type with 10" turntable. For 110 volt 60 cycles. Size: 15" x 15" x 7". Shpg. wt., 15 lbs.

E10052.

NET.....

\$1575

KNIGHT PLAYER

A dandy little record player that will bring endless hours of entertainment. May be quickly and easily attached to any radio set or amplifier to provide brilliant reproduction of 8, 10 or 12" standard records. Sturdy, self-starting 78 R.P.M. motor runs evenly without wavering. High-quality magnetic pickup has extremely wide tonal response. Equipped with smooth, noiseless volume control. Housed in attractive hand-rubbed walnut cabinet with hinged lid. Size: 13" x 11" x 6 1/2". For 110 volts, 60 cycles.

E10050.

NET.....

\$995



KNIGHT RECORD PLAYER & AMPLIFIER

This new portable self-contained unit meets a wide demand for a high-quality self-powered phonograph player. Ideal for use in homes, schools, fraternities, dormitories, advertising agencies, churches, club-rooms, summer homes and camps, etc. Can be used wherever 110 volt 60 cycle A.C. is available. Built of highest quality components to assure long life and trouble-free operation. Single unit carrying case contains sturdy, single-speed 78 R.P.M. phonograph motor and turntable, tangent-head crystal pickup, and built-in amplifier and speaker. Pickup, amplifier and speaker are accurately matched to provide the finest type of record reproduction; will play all 8, 10 and 12" standard records with brilliant tonal quality. Built-in volume control with A.C. switch attached permits operation at either high or low volume levels as desired. Case is covered in attractive tan leatherette with carrying handle and rubber bumper feet. Operates from 110 volts, 60 cycles A.C. Size: 15" x 15 1/2" x 9". Sturdily-built for ideal portable service wherever fine record reproduction is in demand.

E10051.

List \$49.95.

NET.....

\$2995



IN PORTABLE CASE



Famous AUTOMATIC RECORD CHANGERS

GARRARD RECORD CHANGERS

New, high-grade record changers for use in the finest type of record-reproducing units. Designed and built to provide finest quality of tone, minimum surface noise, mechanically perfect operation, and a minimum of record groove wear. Will not damage the finest records. Rugged mechanical construction for trouble-free long-life.

MODEL RC-6 CHANGER

An unusually sturdy, rugged mechanism designed to provide simple smooth-acting operation. Spindle holds eight 10" or 12" records; can be instantly set to play 10" or 12" records by means of simple adjustment knob on top of mechanism mounting plate. Heavy-duty electric motor is fully enclosed and requires only periodic inspection; runs silently. Crystal pickup is tangent-head type with swivel head to permit top-changing of needle. An unusual feature is the Rejector control by means of which any undesired records on the spindle can be automatically rejected without being played. Entire assembly is compact in size: only 16" long, 14" wide, 4 1/4" above panel, and 3 3/4" below panel. For 100/130 and 200/250 volts, 50/60 cycles, 30 lbs.

E10085, NET. \$4470

E10086, Model RC-5. Same as RC-6 but for 100/130, 200/250 volts, 25/60 cycles A.C. or D.C. NET **\$50.98**

E10089, Portable Carrying Case for Garrard RC-6 or RC-5 record changer. In maroon leatherette. NET **\$6.75**

MODEL RC-1A MIXER-CHANGER

The finest and most versatile of all record-changing mechanisms. Will play any combination of eight 10" or 12" records inter-mixed without mechanical settings or changes. High-fidelity tangent-head crystal pickup provides true tonal reproduction of every type of recording. Powerful, fully-enclosed motor will operate silently and efficiently without attention. Smooth-acting mechanism is equipped with automatic stop; changer stops when last record in magazine is finished. Automatic rejector allows undesired records to be rejected as will without playing. Any record may be repeated as many times as desired by means of automatic repeater. Dimensions: 17 1/2" long, 14 3/4" wide, 5 3/4" below panel, and 4 1/4" above panel. Wt., 30 lbs. For 100/130 and 200/250 volts, 50/60 cycles.

E10087, NET. \$5995

E10088, Model RC-2A. Same as RC-1A but for 100/130 and 200/250 volts, 25/60 cycles A.C. or D.C. NET **\$66.16**

E10090, Portable Carrying Case for Garrard RC-1A or RC-2A record changers. NET **\$7.50**

PACKARD RECORD CHANGERS

A completely dependable automatic Record Changer, single speed type; will play any 8, 10 or 12" 78 R.P.M. records. Last record will repeat until mechanism is turned off. May be set to repeat or reject any record at will. Motor is governor-controlled, induction type. Operates without noise. Equipped with high impedance, high-fidelity crystal pickup, assuring the very best quality of reproduction. Provides brilliant response without mechanical distortion or noise. For 110 volts, 60 cycles A.C. operation. Available as mechanism only or in portable case.

MODEL K. Mechanism only. An efficient, compact unit measuring only 12" x 12" x 5 1/4". Plays eight 10" records automatically; plays 12" records manually, by means of simple change. Repeats last record. Finished in stately bronze. Wt., 26 lbs. **\$2760**

E10134, NET.

MODEL L. Mechanism only. Will play eight 10" or seven 12" records automatically with only simple change adjustment. Size: 14" x 15" x 5". Repeats last record. Statuary bronze finish. Wt., 26 lbs. **\$30.45**

E10135, NET. \$30.45

MODEL M. Mechanism only. Will play eight 10" or seven 12" records automatically. Requires only one shift of adjustment lever to change sizes. This is the finest of the Packard units. Repeats last record. With volume control. Size: 15" x 14" x 5". Wt., 28 lbs. **\$31.80**

E10136, NET. \$31.80

IN PORTABLE CARRYING CASES

The Packard Record Changer mechanisms, as listed above, are also available in attractive, sturdy black leatherette covered carrying cases.

MODEL K RECORD CHANGER, in portable case. \$32.00

E10137, NET. \$32.00

MODEL L RECORD CHANGER, in portable case. \$35.20

E10138, NET. \$35.20

MODEL M RECORD CHANGER, in portable case. \$36.55

E10139, NET. \$36.55

E10128, PORTABLE CASE ONLY. For all Packard Record Changers. NET **\$4.75**

We Can Also Supply Packard Record Changers in other than the standard models listed above, as follows: For dual-speed (78 and 33 1/3 R.P.M.) motors, add \$1.80 to above prices. Add \$5.40 if 78 R.P.M., 6 volt D.C. motor is desired. For 110 volt 25 cycle motor, add 90c, and for 220 volt 50 cycle motor, add 45c.

R.C.A. AUTOMATIC RECORD CHANGER

Here is an exceptionally fine 78 R.P.M. unit for those who require the highest-quality record-changing mechanism. Identically the same as units used in RCA Radio-Phono combinations. Will automatically play eight 10" or seven 12" records. When loaded with 12" records, it will provide 35 minutes of uninterrupted entertainment. New RCA Senior crystal pickup is of the latest inertia type, balanced to assure minimum record wear and surface noise. Top-loading makes needle changing fast and easy; no fumbling; simply drop needle in top well and tighten set-screw. Mechanism is of simple fool-proof design, built to provide continuous trouble-free operation. Shock-absorbent coupling between motor and turntable eliminates vibration. High-fidelity type high-impedance crystal pickup has output of 1.5 volts at 1000 cycles; range is from 70 to 7000 C.P.S. providing extremely brilliant reproduction of all types of records. Operates from 110 volts, 60 cycles A.C. Shpg. wt., 35 lbs.

E10091, No. 9844, List, \$74.95. \$4497

E10092, No. 9844A. Same as above but with motor for operation from 110 volts, 50-60 cycles A.C. List, \$77.45. **\$46.47**

NET. \$46.47



Knight 4 WATT AC-DC AMPLIFIER



Now for the first time, you can get a high-quality, A.C.-D.C. amplifier to build your own record-reproducing unit. Especially designed by ALLIED'S engineers to provide low-cost record reproduction of highest quality. Can be used for modernizing old phono equipment or for building compact record or transcription-playing devices or for installation in portable phonograph units, etc. Extremely compact in size, chassis measures only 4" wide, 8" long, and 2" high, exclusive of tubes. Overall height with tubes is only 6 1/4". Uses 1-6C8G, 2-25L6G, and 1-25Z5 tubes. Will operate from any 110 volt A.C.-D.C. outlet and produce full 4 watts output. Input circuit with tip-jacks is designed for high-impedance crystal pickup. Output circuit is high-impedance and designed to operate with a Permanent Magnet dynamic speaker having an output transformer to match the 2 beam-power 25L6G tubes in push-pull. Volume control on front is equipped with "on-off" switch; tone control permits accentuation of treble or bass ranges as desired. Can be quickly and easily installed. Select one of the many fine crystal pickups and P.M. speakers listed in this catalog, and with the Knight 4 Watt A.C.-D.C. Amplifier and a phono motor, you can build a fine record-playing unit that will provide endless hours of high-quality entertainment.

E10055, Knight 4 Watt A.C.-D.C. Amplifier, less tubes and speaker. \$595

Shpg. wt., 8 lbs. NET. \$595

E10056, R.C.A. Tube Kit for 4 Watt A.C.-D.C. Amplifier. NET. \$3.90

Knight TRANSCRIPTION REPRODUCER AND RECORD PLAYER



This fine new instrument answers the demand for a portable, versatile, high-quality transcription reproducer and record-player. Consists of a built-in amplifier with an output of 4 watts; a universal dual-speed Green Flyer motor with 12-inch turntable, both of which operate from 110 volts, either AC or DC; a 12-inch Astatic Crystal pickup which will handle all 8, 10 or 12-inch recordings as well as 16-inch carrying case, featuring an 8-inch high-fidelity permanent-magnet speaker with 25-foot cable in removable front cover—all contained in a sturdy leatherette-covered carrying case, 19 1/4" x 11 1/4" x 14". With handle. Ideal for the needs of schools, broadcast studios, government agencies, advertising agencies and all other institutions and services requiring good fidelity reproduction of all types of transcriptions and records.

PLAYS 8" TO 16" RECORDS ON 110 V. AC OR DC

The new Knight Transcription Reproducer and Record Player has been designed for maximum versatility in operation. The universal character of both amplifier and phonograph equipment makes the Knight Transcription Reproducer suitable for use on any 110 volt line, AC or DC. The amplifier has been especially developed to give maximum fidelity with the Astatic Crystal pickup, and has a scratch-filter built-in for elimination of surface noise. The latest Beam Power tubes are employed for maximum output on DC as well as AC. The amplifier has a gain control for accurate volume-setting and is equipped with Tone Control which permits accentuation of bass or treble ranges as desired. The dual-speed phono motor (33 1/3 or 78 R.P.M.) is equipped with speed regulator, speed-shift lever (33 1/3 or 78 R.P.M.) and AC-DC switch. All controls are grouped conveniently on top panel of portable case. Shpg. wt. 34 lbs.

\$49⁷⁵

E10082. Knight Transcription Reproducer complete as described. YOUR PRICE.....

PORTABLE CASES for AMPLIFIERS, SPEAKERS, etc.



FOR KNIGHT 15 & 35 WATT AMPLIFIERS

Designed for use with the Knight 15 and 35 watt amplifiers. Maroon leatherette-covered. Comfortable, securely fastened carrying handle; bottom fitted with rubber feet. Has shielded grill for 12" speaker, protected by roll-down cover with snap fasteners. Web straps provided for holding desk type mike stand. 21" x 24" x 12". Wt. 15 lbs.

E12506. NET.....\$7.35
E12516. As above but in Black leatherette. Size 18 1/2" x 17 1/2" x 9 1/2". NET.....\$4.75



FOR KNIGHT 8 WATT SOUND SYSTEMS

Designed for easily carrying either of the two Knight 8 watt sound systems. Sturdy construction with metal reinforced corners. Maroon leatherette covering. Has shielded grille for 8" speaker. Metal plate and web strap for holding microphone and desk stand. 19 1/4" x 15 1/4" x 8". Designed and built with typical Knight quality. May also be used for other amplifiers or similar equipment. A sturdy, easy-to-carry case. Shpg. wt., 10 lbs.

E12505. NET.....\$4.95



DUAL SPEAKER CARRYING CASE

Permits easy carrying of two 12" speakers. Case divides into separate units, serving as baffles when speakers are in use. Has attractive leatherette covering and sturdy carrying handle. Speaker grilles are backed with heavy metal screen. Heavy plywood construction, snap-type trunk clasp; rubber feet on bottom of each section. Extremely compact and portable. Size closed, 21 1/2" x 13 1/2" x 8 1/2". Wt., 7 lbs.

E12519. NET.....\$4.95



SINGLE SPEAKER CARRYING CASE

An attractive case for any 12" dynamic speaker. Ideal for portable sound systems or for temporary installations. Speaker opening with grille cloth backed with heavy metal screen. Removable back fitted with snap-type trunk clasp. Constructed of heavy plywood for light weight and long service. Has carrying handle and rubber feet on bottom. Size, 13 1/4" x 13 1/4" x 9". A fine speaker case value. Shpg. wt., 9 lbs.

E12518. NET.....\$2.95

FOR KNIGHT 15 & 35 WATT SOUND SYSTEMS

Designed to make completely portable the Knight 15 or 35 watt Standard sound systems. Attractive leatherette-covered case with ample room to carry amplifier and two 12" dynamic speakers. Separates into three units, two of which serve as speaker baffles; holds amplifier in bottom section. All units fasten securely together with heavy trunk clasp. Heavy plywood with reinforced corners. Size, 25" x 22 1/2" x 15 1/2". Shpg. wt., 28 lbs.

E12521. NET.....\$9.95
E12507. Same high quality case as above, but for equipment other than Knight Sound Systems. Size, 24 1/2" x 19 1/2" x 15 1/2". Shpg. wt., 26 lbs. NET.....\$8.25



CASE FOR AMPLIFIER ONLY

An exceptionally rugged portable carrying case for use with the Knight 15 or 35 watt Standard amplifiers or similar units. Laminated plywood construction. Attractive maroon leatherette covering. For amplifier only. Size, 10 1/4" x 20 1/2" x 12 1/4".

E12508. NET.....\$5.85
E12509. As above but for Knight 18 and 35 watt Deluxe and 65 watt Standard amplifiers. 10 1/4" x 22 1/4" x 13 1/4". NET.....\$5.95



PHONOGRAPH CASE

Maroon leatherette-covered cases. Sturdy ply-wood construction; carrying handle; rubber feet on bottom. Cutout for Green Flyer motor. With needle cups and volume control. 9 1/2" x 17 1/2" x 19 1/4".

E12512. NET.....\$4.50
E12513. Same as above but with cutout for Knight Special Value Phono Motor. 13 lbs. NET EACH.....\$4.50

PORTABLE UTILITY CARRYING CASE

A necessity for every user of portable sound equipment. This ingenious case is designed to carry all miscellaneous accessories. Has ample room for one to four microphones, spare tubes, cables, tools, etc. Covered with attractive maroon leatherette; sturdily built of laminated plywood for light weight and maximum strength. Accurately balanced for easy carrying. Every sound equipment owner will find this case an invaluable accessory. Overall size, closed, 15" wide, 20" long, 14" deep. Shpg. wt., 32 lbs.

E12522. NET.....\$8.75



P. A. BAFFLES, TRUMPETS, STANDS & MOUNTINGS

P. A. BAFFLE AND STAND

WEATHERPROOF BAFFLES

STEEL MODEL

Designed to afford complete speaker protection as well as adequate sound distribution for either indoor or outdoor sound installations. Rigidly constructed of pressed steel. Flare is 16 1/4" diameter, 9 1/4" deep. Bell housing 10" deep to accommodate 12" speaker. For smaller speakers use reducer rings listed below. Comes with weather-proof snap-on cover. Has no annoying resonant rattles or vibrations. Finished in black wrinkle enamel. Shpg. wt., 15 lbs. **\$8.25**

E10565. NET

REDUCER RINGS

E10280. Reducer ring for 8" speaker. **\$3.60**
E10281. Reducer ring for 10" speaker. **\$3.60**
NET EACH

DELUXE ALUMINUM

Ruggedly built of 18 gauge aluminum, yet easily portable. Similar to Steel Baffle described at left. Flare, 16 1/4" diam., 9 1/4" deep. Bell, 10" deep, with absorbent felt lining. Supplied with snap-on weather-proof cover. For smaller speakers. The finest aluminum baffle on the market. Wt., 10 lbs. **\$7.75**
E10282. NET

STANDARD ALUMINUM

Similar to Deluxe baffle above but made of slightly lighter weight aluminum. Bell housing is not lined with felt; supplied less cast mounting ring. A good quality unit at an unusually low price. **\$4.68**
E10283. Wt., 5 lbs. **\$4.68**
NET

AUTO TOP & WALL MOUNT STAND

For use with any of the Aluminum or Steel Baffles listed above. Heavy rigid construction. 12" high with cast mounting base 7" diam. Swivel top for angle adjustment. **\$1.95**
E10568. Auto top and wall mount finished in black wrinkle. 8 lbs. **\$1.95**
NET
E10569. Auto top and wall mount finished in aluminum. Wt., 8 lbs. **\$2.95**
NET

"STORM-PROOF" MARINE HORNS

A completely new type of weatherproof horn designed especially to withstand severe weather conditions of all kinds. For use with mobile Sound Trucks, Police and Fire cars, etc. Speaker unit mounts in inverted position in heavy steel horn which is acoustically treated.

E10572. WX-8. Horn only for 8" speaker. 18" diam., 12" deep. Less speaker and mounting fixture. **\$10.29**
NET

E10573. WX-8HP. Complete horn with 8", 16 watt speaker. Less mounting fixture. **\$18.52**
NET

E10574. WX-12. Horn only for 12" speaker. 24" diam., 16" deep. Less speaker and mounting fixture. **\$17.64**
NET

E10575. WX-12SP. Complete horn with 12", 16 watt speaker. Less mounting fixture. **\$25.87**
NET

E10576. WX8. Fixture and base for WX-8 horn. **\$4.12**
NET

E10577. WX12. Fixture and base for WX-12 horn. **\$4.12**
NET

TRUMPET FLARE ONLY

The trumpet flare only as used in the aluminum baffles described above is available for mounting on front of portable speaker cases. Will provide even distribution of sound in desired direction and reduces the problem of acoustic feedback. 16 1/4" diam. 9 1/4" deep. Wt. 3 lbs.

E10284. **\$3.88**
NET

BULLET SPEAKER HOUSING



This new streamlined enclosure is ideal for many types of call systems as well as for general voice and sound re-inforcement. Can be suspended from a wall bracket or from the ceiling. Made of high-grade spun aluminum and steel, finished in gray enamel. Metal-cloth front screen is black and silver. Has internal lining of felt to prevent resonant rattles. Equipped with mounting hardware and suspension loops. Size, 11" diam., 10" deep. For 8" speaker. Wt., 4 lbs. Sturdily made; attractive in appearance. **\$3.53**
E10570. **\$3.53**
NET

E10571. Same as above but for 12" speakers. Size, 14" diam., 12" deep. Wt., 6 lbs. **\$4.70**
NET

INCLINED SPEAKER BAFFLES

Attractive, walnut-finished speaker baffles for either wall or table mounting. Especially suited for all types of centralized radio and sound installations. Front openings are backed with attractive black and gold grille cloth. **\$3.50**
E10287. For 8" Speakers. **\$3.50**
NET
E10288. For 12" Speakers. **\$4.25**
NET



OXFORD HORNS & UNITS

A new exponential type of indoor or portable horn. Constructed of heavy-gauge spun-aluminum with chrome finished steel shell housing; acoustically designed and treated to prevent metallic sounds. Complete assembly is impervious to all weather and atmospheric conditions. Driver units are 6" in diam. and have heavy-duty 5" diaphragms with 6 ohm voice coils; will handle up to 15 watts safely. Units are available with either PM or DC-excited fields. Horn has adapter for use on all standard horn stands; bell diam. 20", length 20", overall length approximately 36". Light weight makes this complete unit ideal for mobile or portable sound systems. Shpg. wt., 28 lbs. **\$23.80**
E10580. E equipped unit with P. M. horn unit. **\$23.80**
List, \$40.50. NET

E10581. Complete horn assembly equipped with 6 volt DC field type unit. List, \$36.00. **\$21.17**
NET

E10582. 6 Volt DC Unit only. **\$8.82**
NET
E10583. P.M. Type Unit only. **\$11.76**
NET

E10584. Oxford Exponential Horn only, less trumpet unit. **\$14.70**
List, \$25.00. NET

E10585. Weatherproof Cover. Heavy rubberized cover for Oxford horn for protection in wet weather. **\$2.06**
NET

The ideal sound accessory combination for all portable speaker requirements. Consists of steel baffle as described at right with sturdy adjustable floor stand fitted with swivel adjustment. Stand can be adjusted from 46 to 76" and has locking clutch. Tripod legs provide firm support. Stand may be collapsed into a compact unit for easy packing. Swivel top permits pointing baffle for best distribution of sound. Stand is finished in black enamel. Shpg. wt., 25 lbs. **\$14.55**
E10567. Complete Baffle, Stand and Swivel. **\$14.55**
NET

E10566. Stand Only. As described above. May be used with Steel or Aluminum baffles at right or similar units. Shpg. wt., 15 lbs. **\$6.45**
NET



LOW-COST DEMOUNTABLE BAFFLES

Fig. A. Ideal for use with any standard dynamic speaker; will greatly increase sound coverage. Weather-proof for mounting either outside or indoors. Bell is 22" x 23" x 25" deep. Type 1 is for 10" and 12" speakers; Type 2 is for 6" to 9" speakers.

LESS SPEAKER HOUSING
E10270. Type 1. **\$5.00**
E10271. Type 2. **\$5.00**
NET EACH

WITH SPEAKER HOUSING
E10272. Type 1. **\$7.85**
E10273. Type 2. **\$7.85**
NET EACH

GIANT TYPE BAFFLE
E10588. For 12" to 15" speakers. Bell 24" x 36" x 37" long. Shpg. wt. 24 lbs. **\$8.53**
NET

GIANT TYPE BAFFLE
E10589. For 12" to 15" speakers. Bell 24" x 36" x 4 feet long. Shpg. wt., 32 lbs. **\$11.38**
NET

Fig. B. Semi-directional type, demountable, weatherproof baffles for use where extreme directional effect or long range projection is not required. For short range, large-area coverage. Bell is 30" x 18" x 14" deep. Type 1 for 10" to 12" speakers; Type 2 for 7" to 9" speakers. Can be assembled in a few minutes and are readily portable.

LESS SPEAKER HOUSING
E10276. Type 1. **\$3.95**
E10277. Type 2. **\$3.95**
NET EACH

WITH SPEAKER HOUSING
E10278. Type 1. **\$6.80**
E10279. Type 2. **\$6.80**
NET EACH

Knight P.A. SPEAKERS

\$5.75

AUDITORIUM DYNAMICS

These powerful 12 inch Auditorium Dynamic Speakers will reproduce large audio power with absolute fidelity. Will handle from 10 to 15 watts with minimum distortion. They are especially designed for brilliant reproduction of voice and music, either indoors or outdoors. Have rigid pressed-steel frame finished in satin-black. One-piece cone has heavy-duty 1 1/2" diameter 8 ohm voice coil. Overall height, 12 1/4". Depth 7". Supplied less transformer. Write for prices for

Knight Auditorium Dynamic Speakers equipped with any field you specify, and with output transformers for Class "B" or Class "AB" operation. Portable speaker cages are listed on Page 90. If case is ordered with speaker, we will assemble at no extra charge.

E12525, 6 Volt Field.
E12526, 1000 Ohm Field.
E12527, 2500 Ohm field.
YOUR PRICE EACH \$5.75
E11005, Knight Universal Output Transformer.
NET 66c
(If ordered with speaker, specify O.P. tubes and connections.)

A.C. MODEL

E12529, The Knight 12-inch Auditorium Dynamic Speaker is also available in a model for 110 Volt 60 Cycle A.C. operation. The busless field supply requires a type 80 rectifier. Tube is not supplied.
NET \$8.75

KNIGHT HEAVY-DUTY DYNAMICS

Similar to the Knight Auditorium Dynamics described above, but power-handling ability is 25 watts. With 8 ohm voice coils.

E12477, Knight Heavy-Duty 12" Dynamic, 1000 ohm field.
E12478, Knight Heavy-Duty 12" Dynamic, 2500 ohm field.
NET \$8.29
E12388, Line transformer 66c
E12390, Output transformer 66c

KNIGHT P.M. DYNAMIC SPEAKERS

A new type of magnet construction has produced a splendid speaker with exceptional sensitivity and unequalled high-fidelity response. Ideally suited wherever quality reproduction combined with power-handling ability must be had at a reasonable cost. Units are fully protected from dust. Require no field excitation. Voice coil impedance, 8 ohms. All water-tight and conservative. Average shipping weight 6 lbs.

E12485, Knight 12" P.M. Speaker. Normal rating, 18 watts.
NET \$6.67
E12396, Line transformer 66c
E12393, Output transformer 66c
E12486, Knight 12" P.M. Speaker. Normal rating, 25 watts.
NET \$7.86
E12397, Line transformer 68c
E12394, Output transformer 68c



E12487, Knight 12" P.M. Speaker. Normal rating, 30 watts.
NET \$15.72
E12398, Line transformer 88c
E12395, Output transformer 88c
E12488, Knight 15" P.M. Speaker. Rating, 30 to 35 watts.
NET \$17.38
E12398, Line transformer 88c
E12395, Output transformer 88c



P.M. SPEAKER CABLE

Round flexible weather-proof cable. No. 18 (16/30) stranded wire conductors, each rubber-covered and coded, with cotton wrapping and outer fire rubber sheath. High quality; built to last.
E2435, 2 CONDUCTOR, 100 FT. \$2.95.
PER FT. 3 1/2c



FIELD EXCITER

A useful field supply unit, using a type 80 tube as a rectifier. For converting a D.C. field speaker for A.C. operation. Furnishes 15 watts under normal use. Special filter reduces hum. With 110 volt 60 cycle transformer. Size 3 1/2 x 4 1/2 x 4 1/2 high. Wt. 5 lbs. Less tube.
E9482, YOUR PRICE \$2.94

HEAVY-DUTY DYNAMICS

15 INCH DYNAMICS



Famous UTAH SPEAKERS

HEAVY-DUTY DYNAMICS

These 12-inch D.C. Dynamic Speakers are especially designed to handle all heavy-duty requirements in the P.A. field with true high-fidelity reproduction. The completely enclosed cone suspension excludes dust and dirt. Conservatively rated at 15 watts normal input without distortion. Will easily handle peaks of 18 watts. Voice coil impedance, 8 ohms at 400 cycles. The oversized field requires 18 watts excitation - supplied less transformer. See listing below for suitable line and output transformers. Average shipping weight is 14 lbs. each.

E12530, Type F12-2, 6 Volt.
E12531, Type F12-10, 1000 Ohms.
E12532, Type F12-25, 2500 Ohms.
NET \$6.03
EACH

A.C. MODEL
E12534, Type F12AC, For 110V 60 Cycle A.C.
Less 80 tube.
NET \$10.44

UTAH SUPER-DYNAMIC SPEAKERS

These Utah 12-inch Super-Dynamic Speakers are particularly noted for their faithful frequency response over the entire audible range. They are designed to handle 18 watts without any trace of distortion and will easily take peaks of 25 watts. The pole pieces are 1 1/2" in diameter. Voice coil impedance is 8 ohms at 400 cycles. The recommended field excitation is 18 watts. Speakers are supplied less transformers. See listing below for suitable line and output transformers. Shipping weight is 13 lbs. each.

E12465, Type G12-10, 1000 Ohms.
NET \$9.85

E12466, Type G12-25, 2500 Ohms.
NET \$9.85

UTAH 15-INCH ELECTRO-DYNAMICS

One of the finest, most efficient stadium type speakers available today. The extremely wide frequency response covers from 50 to well over 8000 cycles. Highly sensitive to even the lowest tone levels. The specially-treated voice coils provide great power-handling ability. Magnificently built.

E12467, Type G15-25, 20 watts normal input, 30 watt peaks, 2500 ohm field. Voice coil impedance, 8 ohms. Requires 18 watts field excitation. Less output transformer. Shpg. wt., 18 lbs.
NET \$13.23

E12468, Type H15-25, 30 watts normal input, 45 watt peaks, 2500 ohm field. Voice coil impedance, 8 ohms. Requires 25 watts field excitation. Less output transformer. Shpg. wt., 19 lbs.
NET \$15.58

HIGH-FIDELITY PERMO-DYNAMIC SPEAKERS

These P.M. speakers represent the last word in Permanent Magnet design and must be heard to be appreciated. Extremely high efficiency and sensitivity are achieved through the use of a newly developed magnet. The entire voice coil assembly is completely covered for protection against dust and dirt. Each of these units equals or surpasses the performance of the same size of electro-dynamic speaker. Will assure you of the very finest high-fidelity reproduction. Conservatively rated. Less output transformer.

E12470, Type G8P, Normal input, 15 watts. Cone size, 8". Voice coil, 8 ohms. Shpg. wt., 5 lbs.
NET \$5.14
E12471, Type E12P, Normal input, 18 watts. Cone size, 12". Voice coil, 8 ohms. Shpg. wt., 6 1/2 lbs.
NET \$8.23
E12472, Type F12P, Normal input, 25 watts. Cone size, 12". Voice coil, 8 ohms. Shpg. wt., 8 1/2 lbs.
NET \$9.70

E12473, Type G12P, Normal input, 25 watts. Cone size, 12". Voice coil, 8 ohms. Shpg. wt., 10 lbs.
NET \$12.49
E12474, Type H12P, Normal input, 30 watts. Cone size, 12". Voice coil, 8 ohms. Shpg. wt., 17 lbs.
NET \$19.40
E12475, Type H15P, Input, 30 watts. Cone size, 15". Voice coil, 8 ohms. Shpg. wt., 19 lbs.
NET \$21.46

UTAH SPEAKER TRANSFORMERS

The output type transformers listed below are designed to couple single or push-pull power tubes to an 8 ohm voice coil. The line transformers have primaries tapped at 500, 1000, 1500, and 2000 ohms. Secondaries for 8 ohm voice coils. These units are sturdily constructed and will stand full rated load without distortion. Line transformers permit accurate matching of several transformers to 500 ohm line for multiple speaking installations. Easily mounted on speakers.

No.	Type	For Speakers	NET
E12350	Output	H15P, H12P, H15 25, G15 25	\$1.18
E12351	Output	G12P, F12P	.73
E12352	Output	F12P, G8P	.59
E12353	Output	G12-10, G12-25, F12-10, F12-25	.73
E12354	Line	H15P, H12P, H15 25, G15 25	1.18
E12355	Line	G12P, F12P	.73
E12356	Line	F12P, G8P	.59
E12357	Line	G12-10, G12-25, F12-10, F12-25	.73

We can supply all UTAH Speakers made. Write for Catalog.

Jensen • The SPEAKERS with a REPUTATION



JENSEN BASS REFLEX PERI-DYNAMICS

Another exclusive Jensen development. Models KM and KV speaker and cabinet assemblies incorporate the Peri-dynamic principle with new "Bass Reflex" feature. Acoustically correct enclosures with matched speakers provide clear, wide-range reproduction of the finest type. Eliminates cavity resonance, boom, vibration, and provides better bass frequency response. The type KM have been especially designed for all-around high-fidelity requirements. Use type KV for voice or speech only. Speakers are supplied less matching transformers. See listing below at right for suitable impedance-matching transformers.

MODEL KM

No.	Speaker Used	Size	Weight	NET
E9630	PM8CS	24" x17 1/2" x11 1/4"	31 lbs.	\$14.41
E9631	PM10CS	28" x21 1/4" x12 1/4"	45 lbs.	17.82
E9632	PM12C	30 1/2" x23 1/4" x12 1/4"	53 lbs.	21.81
E9633	PM12B	30 1/2" x23 1/4" x12 1/4"	58 lbs.	23.14
E9634	A12PM	30 1/2" x23 1/4" x12 1/4"	66 lbs.	25.87
E9635	PM15B	33 1/2" x25 1/4" x13 1/4"	83 lbs.	33.28
E9636	A15PM	33 1/2" x25 1/4" x13 1/4"	89 lbs.	39.90

MODEL KV

No.	Speaker Used	Size	Weight	NET
E9637	PM8CS	11 1/2" x 9 3/4" x 6 1/4"	11 lbs.	\$ 9.06
E9638	PM10CS	14 1/4" x11 3/4" x 7 1/4"	17 lbs.	11.11
E9639	PM12C	16 3/4" x13 1/4" x 9 1/4"	22 lbs.	14.46
E9640	PM12B	16 3/4" x13 1/4" x 9 1/4"	25 lbs.	20.79

JENSEN KM ENCLOSURES ONLY

Particularly recommended for use with Jensen speakers but may be used with other speakers of the correct size.

No.	Type	Speaker	Wt.	Net
E10484	BKR	PM8CS	27 lbs.	\$ 9.41
E10485	BK10	PM10CS	38 lbs.	11.64
E10486	BK12	PM12C	47 lbs.	13.44



CINAUDAGRAPH "Magic Magnet" SPEAKERS

These famous "Magic Magnet" speakers have gained an enviable reputation for unrivaled fidelity of reproduction. Unique compact design and construction; cone and voice coil are one integral assembly. Voice coil cannot get off-center. Supplied less output transformer.

No.	Type	Size	Watts	V.C.	Wt.	NET
E10410	MA6-8	6"	4-8	6 ohms	2 lbs.	\$ 3.09
E10411	EZ8-7	8"	5-8	6 ohms	3 lbs.	4.41
E10412	EZ8-10	8"	6-8	6 ohms	5 lbs.	6.17
E10413	NZ10-7	10"	7-9	6 ohms	6 lbs.	5.29
E10414	NZ10-10	10"	8-10	6 ohms	7 lbs.	7.20
E10415	FV12-12	12"	15-18	6 ohms	11 lbs.	16.17
E10416	HW13-13	12 1/2"	20-30	8 ohms	13 lbs.	20.87
E10417	SU18-12	18"	30-35	8 ohms	25 lbs.	35.80

CINAUDAGRAPH AIR COLUMN UNITS

Utilize the famous "Cinaudagraph" permanent-magnet field structure which does away completely with separate field supplies. Conservatively rated. Supplied less output transformer.

No.	Type	Size	Watts	V.C.	Wt.	NET
E10420	FVA	8"	15	6 ohm	8 lbs.	\$18.23
E10421	HWA	10"	25	6 ohm	27 lbs.	41.16
E10422	SUA	10"	30	6 ohm	36 lbs.	53.80

CINAUDAGRAPH AIR COLUMN HORNS

For use with air column units above. Strongly built to withstand hard outdoor handling. Constructed of spun aluminum.

No.	Type	Length	Bell	For Unit	Wt.	NET
E10425	HU	20"	24"	HWA or SUA	5 lbs.	\$14.41
E10426	FX	28"	24"	FVA	7 lbs.	18.82
E10427	SW	30"	32"	HWA or SUA	11 lbs.	31.16

E10430, Support- ing bracket for FVA unit.	NET	\$2.06	E10431, Support- ing bracket for HWA unit.	NET	\$2.65	E10432, Support- ing bracket for SUA unit.	NET	\$3.38
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PERMANENT MAGNET DYNAMICS

The famous Jensen line of improved permanent-magnet dynamic speakers provides a high quality unit for every purpose. Scientifically designed, and developed in the laboratories of the world's leading manufacturer of fine reproducers, these speakers are equal in every respect to the finest electro-dynamic types. Smaller units are ideal for replacement purposes, or for original installation in any type of radio receiver requiring the highest quality of reproduction. The larger 10" and 12" units will adequately fill all requirements for full fidelity of reproduction in large radio receivers, Public Address systems, Centralized Radio and Sound installations, Call systems, etc. Every model is available less transformer, with adjustable impedance line to voice-coil transformer or with adjustable output transformer. Sturdy frame assemblies are designed to resist vibration and are rust-proof for use under all types of climatic conditions. Correctly balanced and aligned voice-coil and cone assemblies are designed for extremely wide frequency range without rattle or annoying resonant peaks. New improved and over-size permanent-magnet type field assemblies of highly magnetized alloy require no external field supply of D.C. exciting voltage. All models feature extremely high sensitivity and overall efficiency. All "E" and "D" models have 4 ohm voice coils; "C" models have 6 ohm voice-coil; "B" models have 8 ohm voice coils.

Type	Size Dia.	Less Transformer No.	NET	With adjust. Output Trans. No.	NET	With adjust. Line Trans. No.	NET	Average Shpg. wt.
PM5FS	5"	E9600	1.59	E9680	2.09	E9681	2.69	2 lbs.
PM6ES	6"	E9602	1.94	E9684	2.44	E9685	3.04	3 lbs.
PM6CS	6"	E9605	4.70	E9675	6.02	E9688	6.62	4 lbs.
PM8DS	8"	E9607	2.73	E9608	3.61	E9609	3.61	4 lbs.
PM8CS	8"	E9610	5.00	E9676	6.32	E9611	6.32	5 lbs.
PM10CS	10"	E9612	6.17	E9677	7.49	E9613	7.49	7 1/2 lbs.
PM12C	12"	E9614	7.79	E9678	9.11	E9615	9.11	7 1/2 lbs.
PM12B	12"	E9616	14.70	E9617	16.32	E9618	16.32	11 lbs.

JENSEN HIGH-FIDELITY P.M. DYNAMIC SPEAKERS

Highest quality Jensen Permanent Magnet Dynamic Speakers. Especially designed for those installations which require the finest of high fidelity reproduction. Acoustically correct in every detail, these speakers have extended frequency range, greater than the standard models listed above. Response is exceptionally good up to 7500 C.P.S. Have 8 ohm voice coils.

Type	Size Dia.	Less Transformer No.	NET	With Adjust. Output Trans. No.	NET	With Adjust. Line Trans. No.	NET	Average Shpg. wt.
PM12B	12"	E9619	\$14.70	E9679	\$16.32	E9620	\$16.32	11 lbs.
A12PM	12"	E9621	20.43	E9622	22.05	E9623	22.05	20 lbs.
PM15B	15"	E9624	17.43	E9625	22.05	E9626	19.25	15 1/2 lbs.
A15PM	15"	E9627	24.25	E9628	26.45	E9629	26.45	21 1/2 lbs.

NEW ADJUSTABLE IMPEDANCE MATCHING TRANSFORMERS

Permit accurate matching of one or more speakers to any output circuit or line. Clip terminals with flexible lead for instant selection of impedance. Tube type is tapped at 4500, 7000, 10,000 and 14,000 ohms. Line type is tapped at 500, 1000, 1500 and 2000 ohms. Ideal for single or multiple speaker work.

No.	Type	For Speakers	NET
E11390	Tube	PM5FS, PM6ES	\$0.50
E11391	Tube	PM6CS, PM8CS, PM10CS, PM12C	1.32
E11392	Line	PM6CS, PM8CS, PM10CS, PM12C	1.32
E11393	Tube	A12PM, PM12B, PM15B	1.82
E11394	Line	A12PM, PM12B, PM15B	1.82
E11395	Tube	A15PM	2.20
E11396	Line	A15PM	2.20

JENSEN HEAVY-DUTY B12-X

An exceptionally high quality, highly efficient 12" dynamic speaker. Recommended for use wherever high fidelity performance is desired. Curvilinear type cone provides greatly extended high frequency response. Will handle up to 10 watts continuously. With hum-bucking coil and adjustable output transformer. For all tubes. 8 ohm voice coil Shpg. wt. 14 lbs. An excellent speaker value at our low price.

E9668, 1250 Ohm field.
E9669, 2500 Ohm field.
NET EACH \$10.14



JENSEN LEVEL CONTROLS

Constant impedance devices which will control up to 50 watts of power in speaker circuits. Variable in steps of 2, 4, 7, 10, 14, 18 to 100 db. Permit individual regulation of power level in speakers to provide maximum distribution of sound as desired. Shpg. wt. 9 lbs. Highest quality units of their type available.
E9643, 200 Ohm
E9645, 500 Ohm, NET EACH \$10.88 93



New Astatic CRYSTAL MICROPHONES



MODEL T3 ACORN

A diaphragm-type crystal microphone with many features. Swivel-type mounting for directional or non-directional positions. Frequency response flat within 5 db. from 30 to 10,000 C.P.S. Output, -60 db. Acoustic feedback is definitely reduced. With plug-in connector and 25-foot cable. 3/4-27 thread.

E2361. List, \$25.00. NET

\$14.70

LAPEL TYPE

A new dual diaphragm, lapel-type crystal microphone. Ideal for use by soloists, speakers, etc. Permits user to move about freely without loss of volume from amplifier system. Only 1 1/2" in diameter, 3/4" thick. Weighs only one ounce. Output, -68 db. with a frequency response flat from 50 to 6,000 cycles. Non-Directional. Element is genuine Grafon Bimorph crystal. Supplied with 25 ft. shielded cable.

E2363. List, \$25.00. NET

\$14.70



D2 WATCH CASE MODEL

Fig. A. A small crystal microphone with good frequency response. Non-directional. Response flat from 50 to 6,000, with rising characteristics to 10,000 cycles. Output, -60 db. Case is 2 1/2" in diameter, 3/4" thick. Locking type plug and socket; 3/4-27 thread. Shpg. wt., 2 lbs. With 25 ft. cable.

E2364. List, \$25.00. NET

\$14.70

D-104 STANDARD MODEL

Fig. B. Has excellent frequency response, 40 to 10,000 cycles; output, -65 db. Case, 3" diameter; 1" thick. With 8 foot shielded cable. Threaded for 3/4-27 stands. \$13.23

E2366. List, \$22.50. NET

\$13.23

NEW "MU" MODEL

Fig. C. New MU-2 has two dual-diaphragm crystal units; MU-4 has four dual diaphragm units. Provides maximum amplification without feedback; cannot be overloaded. Tilting head has polarized cable connector. Excellent frequency response. Output, -60 db. Self-locking type tilting head. 3/4-27 thread. Has 25 foot shielded cable.

E2367. MU-2. NET

\$17.35

E2368. MU-4. NET

\$23.23

R.C.A. TWO BUTTON CARBON MIKE

Genuine R.C.A. quality 2 button microphone. Same as used in R.C.A. home recording equipment, etc. Suitable for public address work. Impedance is 200 ohms per button. Case is 6 x 3 1/2 x 2 inches. Finished in dark brown crackle. With flexible cord. Has high output level.

E2551. NET

\$5.73



LATEST SHURE CRYSTAL MICROPHONES

NEW "ROCKET" MODEL

New convertible semi directional crystal microphone having all the features of "Ultra" wide-range design. Satin-chrome finish. Exceptionally wide frequency response with output of -53 db. Equipped with polarized cable connector and 25 foot shielded cable. 3/4-27 thread. An excellent all-purpose mike. Wt., 1 1/4 lb.

E2552. List, \$25.00. NET

\$14.70

E3929. "Soap-on" baffle plate for "Rocket" NET

\$1.47

"UNIPLEX" MODEL

Sensational new microphone that provides true uni-directional operation. Solves feedback, room and background noise, and reverberation problems. Sensitive at front, dead at rear. Tilts up for even 360 degree pickup if desired. Smooth, high-quality wide-range response; output, -62 db. Satin-chrome finish. With polarized cable connector and 25 foot cable. 3/4-27 thread. Wt., 1 1/4 lb.

E2554. List, \$29.50. NET

\$17.35

DIAPHRAGM MODEL 70H

A superior crystal microphone of the diaphragm pressure-actuated type. Output is -46 db. 3/4-27 thread. Has new side cable outlet and connector plug 3 inch diameter, 1 1/4 in thick. Supplied complete with 7 foot shielded rubber-covered cable.

E2557. List, \$22.50. NET

\$13.23

E2558. Same as above, but with 25 foot cable attached.

NET PRICE

\$14.29

NEW TYPE "TRI-POLAR"

A new mike having three directional characteristics available by means of a 3-point switch. Uni-Directional; wide-angle front pickup, dead at back; Bi-Directional pickup from front and back, dead at sides; or Non-Directional; 360 degree pickup. Response: from 30 to 10,000 cycles. New satin-chrome case. 7 1/2" high, diameter 2 1/2". 3/4-27 thread. Wt., 2 1/2 lbs. With new cable connector and 25 foot cable.

E2566. NET

\$26.46



MILITARY HANDMIKE

These small and compact crystal microphones are designed to fit naturally in the palm of the hand. Ideal for portable sound systems. Only 3 1/2" high by 1 1/4" thick. Furnished with removable suspension hook and 7 foot cable. For use with portable and portable-mobile equipment or for all low-talking purposes. Shpg. wt. 1 lb.

E2559. NET

\$14.70

E2560. Same as above but with on-off switch. NET

\$15.58

2-BUTTON CARBON MIKE

Convenient double-button carbon microphone suitable for general P.A. use. Ideal for use with all portable sound equipment, for sound cars, sports announcing, etc. Can be quickly detached from handle by removing mounting ring; may be hung in floor-stand ring by inserting four hooks supplied. Comfortably shaped handle. Overall length, 8 3/4". With 6 foot three-conductor cable, 1 1/4 lb.

E2555. List, \$10.00. NET

\$5.88

SHURE ULTRA WIDE-RANGE CRYSTAL MICROPHONE

These Shure microphones provide reproduction from 30 to 10,000 cycles. Output level, -53 db. Crystal is moisture-sealed. All models have 3/4-27 thread and 25 foot cable.

E2561, Model 702 D. Fig. A. Spherical semi-non-directional type. 2 1/4" overall diameter. Satin-chrome finish. Wt. 1 lb. Complete with 25 foot cable.

E2562, Model 700D. Fig. B. Semi-directional type. Swivel arrangement for tilting head. Chromium finish. 2 3/4" shpg. wt., 2 lbs. Complete with 25 foot rubber-cover shielded cable.

E2563, Model 701D. Fig. C. Grille type case. Satin-chrome finish. 3 1/2" x 2 1/4" x 1 1/4". Wt., 1 lb. Complete with 25 ft. cable.

YOUR PRICE EACH

\$14.70

E2564. Baffle for 700D Mike. Fastens on mike with spring clips. Decreases side and rear pickup.

E3932. NET

\$1.47

Famous UNIVERSAL MICROPHONES



NEW CRYSTAL MICROPHONE

Recommended for high quality Sound installations, recording studios, etc. New streamline case has built-in on-off switch. "Flex-mount" tube permits tilting without adjustments. Finished in polished chrome. Frequency response, 50 to 5,000 C.P.S.; -64 db. output. Has pressure-actuated curvilinear diaphragm. Supplied with suspension loop, cloth cover, and 25 foot cable. Shpg. wt., 3 lbs.

E2645. List, \$24.50. NET

\$14.41

DYNAMIC MIKE

Wide-range pickup and freedom from background noise make this new streamlined dynamic mike suitable for every requirement. Response, 50 to 8,000 C.P.S.; -64 db. output. No polarizing voltage required. Supplied with suspension loop, "Flex-Mount" tube, cover, and 25 foot cable. Shpg. wt., 3 lbs.

E2646. High Impedance. NET

\$14.41

E2647. 200 Ohm Output. NET

\$14.41

LAPEL MIKE MODEL "W"

Extremely small and compact lapel type single-button carbon microphone. Absolutely dependable. For use in inter-office systems, dictaphones, P.A. systems, etc. Impedance, 200 ohms. Can be used with low-gain amplifiers. Will provide maximum efficiency when used by lecturers, soloists, etc. Output level, -38 db. Completely enclosed in metal case, 1 1/2" diameter, 3/4" thick.

E2508. List, \$3.00. NET

\$1.76

SINGLE BUTTON HAND MIKE

Carbon mike for sound trucks, portable transmitters, and demonstration work. Close-talking type. Will provide excellent results when used with portable or portable-mobile radio transmitters. Impedance 200 ohms. New balanced-grip body finished in polished chrome, with on-off switch in handle. Output level, -41 db. Length, 6". Furnished with 6 foot cable. Shpg. wt., 1 1/4 lb.

E2642. List, \$10.00. NET

\$5.88



CARRIER MICROPHONES

MODEL 618-D

An exceptionally high-quality dynamic microphone. This mike requires no field excitation; magnets are of aluminum-nickel alloy. May be used for close-talking without booming; wide angle pickup makes it suitable for use in Broadcast Stations, Recording studios, etc. Response is flat from 30 to 10,000 C.P.S., output level, -60 db. Swivel adjustment for directional or non-directional angle of pickup. With mounting swivel and cable plug. Less cable.

E3948. 30 Ohms Impedance. List, \$60.00. **NET \$35.28**
E3949. 200 Ohms Impedance. **NET \$40.28**

MODEL 105-D

A new, compact dynamic microphone. Has extremely wide frequency response range making it suitable for all general-purpose use. Semi-directional characteristics make it ideal for P.A. installations to obtain maximum pickup in the desired direction with reduced feedback tendencies. Permanent magnets of Alnico. Output level, -65 db. Furnished with locking type cable connector and 20 foot cable. Finished in gray wrinkle. Fits any 3/8" 27 thread stand.

E3916. 30 Ohms Impedance. List, \$27.50. **NET \$16.17**
E3917. 200 Ohms Impedance. **NET \$19.11**



ELECTRO-VOICE MICROPHONES

MODEL V-2

An excellent velocity microphone with high fidelity response characteristics making it suitable for all sound pickup requirements. Overall response is essentially flat from 40-11,000 C.P.S.; output level, -68 db. Housing and case design eliminates cavity resonances even under close-talking conditions. Supplied with cradle type mounting; 3/8" 27 thread. With 20 foot cable. A popular efficient microphone of fine response.

E2579. 200 Ohm Model. **NET EACH \$20.58**

MODEL V-1

An unusually popular velocity microphone combining high-quality performance and extremely compact size. Ideal for use in Public Address Systems, Recording, Amateur Stations, etc. Cradle type suspension with built-in on-off switch. Frequency response from 40 to 10,000 C.P.S. Output level, -65 db. Shock proof type mounting; 3/8" 27 thread. With 8' cable, and cable connector.

E2577. 200 Ohm Model. **NET EACH \$14.70**
E2578. High Impedance. **NET EACH \$14.70**

MODEL 620

A high-fidelity dynamic microphone of the permanent-magnet type with complete elimination of "middle register resonance." Frequency response is flat from 40-10,000 C.P.S. with rising characteristics. Output level, -55 db. Plug-type removable mounting with 3/8" 27 thread. Swivel head permits directional or non-directional pickup. Equipped with 20 foot cable. Finished in attractive gunmetal.

E2358. 50 Ohms. **NET EACH \$16.17**
E2359. 200 Ohms. **NET EACH \$16.17**
E2360. High Impedance. **NET EACH \$16.17**



BRUSH MICROPHONES

VIBRATION PICKUP

A genuine crystal-type vibration pickup which can be used for musical instruments, industrial vibration study, vibration and noise measurements, etc. Measures only 1 1/4" long, 3/4" wide, and 1/2" thick. Can be attached to musical instruments in a jiffy without oil defacing or marring the instrument finish. Exceptionally wide frequency response; high output level. High impedance type; can be used with any high-gain amplifier. Case is aluminum. With 25 foot cord.

E1213. List, \$25.00. **NET \$14.70**

BR25 SOUND CELL

A high fidelity piezo-crystal microphone that is ideal for use in all general-purpose. Public Address or Sound installations, or for uni-directional pickup in theatres and auditoriums. Requires no polarizing voltage; batteries, or input transformers. May be connected direct to grid of input stage in high-gain amplifier. Output, -65 db. Has built 360° pickup with wide frequency range. Equipped with plug and socket type connector with locking ring. Less cable.

E2535. **NET \$17.35**

AMERICAN DYNAMIC MICROPHONES

TYPES D7-D7T

A rugged general-purpose dynamic microphone with fine frequency response. Output level is -55 db. Semi-directional pickup for installations where background noise and feedback must be attenuated. Chrome finish cast metal case; size, 2 1/2" high, 1 1/4" diam. Threaded 3/8" 27. Supplied with 12 1/2 foot cable.

E2352. D7, 50 Ohms. **NET \$11.76**
E2353. D7 T, High Impedance. **NET \$13.23**

MODEL D-3

A studio-type high-fidelity inductor-dynamic microphone for use wherever extremely high quality reproduction is desired. Semi-directional; swivel-mounted for maximum pickup. Uses Alnico permanent magnets, no polarizing voltage required. Response, 30 to 10,000 C.P.S. Output, -80 db. 50 Ohms impedance. Thread, 3/8" 27. With 25 foot cable and connector plug.

E2356. List, \$90.00. **NET \$52.92**

MODEL D-9

New, uni-directional dynamic microphone designed for use in public address and general sound installations for exclusion of extraneous noise and feedback reduction. Wide frequency response range with output level of -55 db. Black and chrome finish case, 7" high, 2 1/2" wide, 2 1/4" deep. 25 ft. cable and plug.

E2354. D9, 50 Ohms. **NET \$20.58**
E2355. D9 T, High Impedance. **NET \$22.05**

MODELS D5-D5T

An all-purpose dynamic type microphone especially suited to installations having abnormal acoustic conditions. Output, -55 db. Semi-directional; with tilting bracket to fit 3/8" 27 thread. Finished in chrome. Size, 3 1/4" long, 2 1/4" diam. Complete with 25 ft. cord and plug at microphone. Unusually compact.

E2350. D5, 50 Ohms. **NET \$16.17**
E2351. D5 T, High Impedance. **NET \$19.10**



BRUNO MICROPHONES

VELOTRON

Famous no-voltage static-velocity-type microphone which can be used with cable lengths up to 2000 feet without appreciable loss. High impedance type; output level, -50 db. Adjustable swivel type mounting yoke with 3/8" 27 thread. With cable connector plug. Has built-in rubber shock absorber.

E3938. Model M8. Less cable. List, \$22.50. **NET \$13.23**
E3937. 25 foot shielded cable for Bruno Velotron with connector. **NET \$1.47**

SP-CCELL

Special purpose microphone suitable for musical instrument pickup, detetaphone, lapel microphone systems, etc. Extremely small and compact. Only 2 1/4" x 2 1/4" x 1/4". Frequency response from 30 to 14,000 C.P.S., high impedance; output level, -55 db. Can be easily concealed for remote pickup, etc. Has multitude of important applications. Wt. 4 oz. With three foot cable and connector plug.

E3933. Model SP. List, \$13.50. **NET \$7.94**



WESTERN ELECTRIC DYNAMIC MIKE

MODEL 633A

A genuine Western Electric dynamic type microphone of the now famous "Salt-Shaker" type. Same as used in leading Broadcast and Communication radio stations, Recording studios, etc. Developed by engineers of the Western Electric, A. T. & T. and Bell laboratories. May be mounted on floor stand or desk stand, suspended on cord, or tilted to any desired angle by means of separate swivel unit. Small and compact in size; only 3 1/2" long, 2" in diam. etc. Exceptionally flat frequency response from 40 to 10,000 C.P.S. Model 633A will reproduce all types of voices or music with crisp, natural tone quality. Type 8A baffle plate may be attached to increase directional characteristics; microphone alone may be used straight up for non-directional pickup or tilted to any angle. Finished in grey. Height, mounted on desk stand, 12"; on floor stand, 46 to 76".

E3915. Model 633A Dynamic Microphone, less stand, swivel, baffle and cable. **\$48.30**
YOUR NET PRICE
E9986. Type 22A Floor Stand. **NET \$15.25**
E9987. Type 23A Desk Stand. **NET 3.15**
E9988. Type 8A Directional Baffle Plate. **NET 1.45**
E9989. Type 9A Swivel Attachment. **NET \$3.15**



TRANSDUCER BULLET MIKES

MODEL MK20

Finished in attractive black crackle. Overall length, 3", only 2" in diameter. Has unusually wide frequency range. Threaded 3/8" 27; with cable connector. Less cable.

E3940. 200 Ohm Model. **NET EACH \$11.47**
E3941. High Imp. Model. List, \$19.50. **NET EACH \$11.47**
MODEL MK30
 Highly directional type. Range, 30 to 10,000 C.P.S. Length, 3", diam. 2". Output, -55 db. Satin black finish. 25 ft. cable and plug. Ship. wt., 3 lbs.
E3942. 200 Ohm Model. **NET EACH \$16.17**
E3943. High Imp. Model. List, \$27.50. **NET EACH \$16.17**

AMPERITE VELOCITY

MICROPHONES

ACOUSTIC COMPENSATOR VELOCITY MODEL

A complete line of highest quality velocity microphones that fills every requirement for high-fidelity voice reproduction. The Acoustic Compensator is extremely valuable in adapting the microphone to varying acoustic conditions. Raise the slide to increase the high frequencies; lower the slide to increase low frequency response. These new Ampelite velocity microphones feature: heavy cast gunmetal finished case; hand-hammered ribbons; genuine Alnico magnets; triple-shielding against RF and magnetic fields; high output; elimination of cavity resonance and greatly reduced feedback tendencies. Range from 40 to 10000 C.P.S. With removable cable plug and 25 feet of rubber-covered shielded cable. On-off switch in base of mounting yoke. Swivel type mounting. Live-rubber shock absorber. Threaded $\frac{3}{8}$ "-27. Output, -65 db. Available in chrome-finished cases at no extra charge. Specify when ordering.

E2539. RBMk. 200 ohm model with Acoustic Compensator.
E2306. RBMk. High Impedance model with Acoustic Compensator.
E2540. RBMk. 200 ohm model.
E2541. RBMk. High Impedance model.
E2542. RBMk. 200 ohm model.
E2543. RBMk. High Imp.
NET EACH OF ABOVE. \$24.70

MODEL RBSK

E2544. Similar in appearance to the models above. With Acoustic Compensator. Response is 60-8000 C.P.S. Output, -68 db. With switch and 8' cable. 200 ohms impedance. List, \$32.00.
NET \$18.82

MODEL RSHK

E2545. Same as Model RBSK at left, but high impedance type; output, -68 db. 2000 ohms. With Acoustic Compensator. With built-in switch and 12' cable. A really high-grade microphone. List, \$32.00.
NET \$18.82

STANDARD MODEL RAL

A moderately priced ribbon velocity microphone of typical Ampelite construction. Will reproduce from 60 to 7500 C.P.S. without cavity resonance or background noise. Output, -68 db. Impedance, 200 ohms. With 8' cable. Threaded $\frac{3}{8}$ "-27; with rubber shock absorber.
E2546.
NET \$12.94

MODEL RAH

Identically the same as Model RAL listed above but high impedance type, 2000 ohms. With 12' cable.
E2547.
NET \$12.94

STUDIO VELOCITY TYPE

A real Broadcast Studio type mike now available at an unusually low price. Frequency response with plus or minus 1 db. variation from 40 to 15000 C.P.S. Exceptionally well-suited for Broadcast station or Recording studio or for Sound installations. Has swivel mounting, rubber shock absorber, on-off switch, locking type cable plug, and 25' cable. Gunmetal finish. Threaded $\frac{3}{8}$ "-27. Output, -56 db. Available in chrome finish at no extra charge. Specify when ordering.
E2307. SR80r. 200 ohm model.
E2308. SR80Hn. High Impedance model.
 List, \$80.00.
NET EACH \$39.20

NEW MODEL ACH

Ideal for use with all types of portable high-gain sound equipment. Can be used as hand, desk or stand type mike. Threaded $\frac{3}{8}$ "-27 to fit all standard mike stands. Frequency response is 60 to 7500 C.P.S. Output is -70 db. Size of head, $1\frac{3}{4}$ " x $2\frac{3}{4}$ " x $1\frac{3}{4}$ ". With 25' cable.
E2310. MODEL ACH.
 High Impedance.
NET \$14.70

NEW MODEL ACL

Same high quality, compact velocity mike as Model ACH above, but 200 ohms impedance.
E2309.
NET \$14.70

AMPERITE KONTAK MICROPHONES

For use with string type musical instruments. Can be attached to most radio sets or to any amplifier. Will provide natural reinforcement without peaks or resonant rattles or vibrations. Greatly enhances quality and volume of tone. Exceptionally fine frequency response. High impedance type. Output, -40 db. Foot-operated volume control permits unusual tonal effects. Supplied with cable.

E2311. SKH. Home Model.
 Range, 60-6000 C.P.S.
 With 20' cable. **NET \$7.06**

E2312. SKH. With foot-pedal volume control.
NET \$11.76

E2313. KTH. Professional Model.
 Range, 40-9000 C.P.S.
 With 25' cable. **NET \$12.94**

E2314. KTH. With foot-pedal volume control.
NET \$17.64



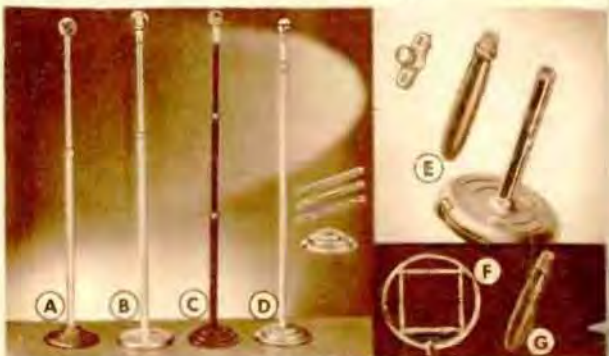
KNIGHT CARBON MICROPHONES

STREAMLINE 2-BUTTON

Modern streamline design. This fine double-button carbon microphone has a frequency response from 40 to 8000 C.P.S. Impedance, 200 ohms per button. Internally suspended on live rubber. Equipped with 6' cable.
E2644. NET \$4.41
E2643. With desk stand and 25' cable. NET \$5.29

STANDARD 2-BUTTON

An outstanding value in a high quality inexpensive double-button carbon microphone. Has essentially flat frequency response from 45 to 7000 C.P.S. Impedance is 200 ohms per button. High quality stretched duralumin diaphragm. This high-grade carbon microphone will give excellent service.
E2566. NET \$2.94



KNIGHT MICROPHONE STANDS

E10550. Fig. A. Chrome-finished telescopic stem with gray crinkle-finished base. Adjustable from 47 to 72". Threaded $\frac{3}{8}$ "-27. Has positive action clutch and heavy cast base. Shpg. wt., 17 lbs. NET \$3.95

E10551. Fig. B. Deluxe Type. Base and telescopic stem finished in polished chrome. Adjustable from 47 to 72". Threaded $\frac{3}{8}$ "-27. Shpg. wt., 18 lbs. YOUR PRICE \$4.95

E10552. Fig. C. Three Section Telescopic Type. Base and three section stem finished in attractive black rubber. Positive clutches. Adjustable from 25 to 63 inches. $\frac{3}{8}$ "-27 thread. Shpg. wt., 17 lbs. YOUR PRICE \$4.45

E10553. Fig. D. Deluxe Collapsible Type. Base and three section take-down stem finished in polished chrome. Ideal for portable work. Use as banquet or floor stand. 20" to 59". Wt., 18 lbs. NET \$5.75

E10554. Fig. E. 3 Way Mike Stand. Can be used as desk stand, hand type, or suspension type. Consists of: 1—base, 1—6' chrome stem, 1—Mike handle, and 1—Suspension link. Shpg. wt., 6 lbs. NET \$2.25

E10555. Fig. F. Carbon Microphone Ring. $6\frac{1}{4}$ " diameter. Chrome finished. With 8 springs. For use with all carbon mikes. Threaded $\frac{3}{8}$ "-27. Shpg. wt., 3 lbs. NET \$1.47

E10556. Fig. G. Detachable Microphone Handle. Makes any microphone a hand mike for portable use. Spindle threaded $\frac{3}{8}$ "-27. Overall length, 5". Wt., 1 lb. NET 25c

E10557. Mike Stand Adapter. For old type mikes. Chrome-plated. Bottom, $\frac{3}{8}$ "-27 female; top, $\frac{1}{2}$ " male pipe thread. NET 29c

E10558. Mike Stand Adapter. For old style Ampelite, R.C.A., and Universal mikes. Bottom is $\frac{3}{8}$ "-27 female; top is $\frac{1}{2}$ " male pipe thread. NET 29c

MIKE TRANSFORMERS

EXTERNAL INPUT

Balance winding for coupling low impedance microphones to high impedance input.
E3919. NET \$2.94

COUPLING TYPE

E6050. Single button type. Shielded. Flexible wire leads.
E6051. Double-button type. NET EACH \$1.32

2-BUTTON TYPE

Universal mounting type. Primary, 200-200 ohms. Flexible wire leads.
E3918. NET \$2.06



BANQUET & DESK STANDS

E10559. Fig. A. Crystal Mike Desk Stand. Chrome finished 10" high. Base finished in gray wrinkle. $\frac{3}{8}$ "-27 thread. Shpg. wt., 6 lbs. NET \$1.25

E10561. Fig. B. Carbon Mike Desk Stand. Height overall, 10". Octagonal ring, $5\frac{1}{4}$ ". With 8 mike springs. Finished in black wrinkle. Wt., 4 lbs. NET \$1.32

E10560. Fig. C. Adjustable Banquet Stand. Telescopic two section stem and base finished in polished chrome. Adjustable from 16" to 27". Threaded $\frac{3}{8}$ "-27. Wt., 6 lbs. A deluxe stand in every detail of design and construction. NET \$3.45

FINEST QUALITY MICROPHONE ACCESSORIES



HIGH GRADE MIKE & SPEAKER CABLE CONNECTORS

Single Conductor

Designed to permit instant connection or disconnection of cables. Side screw holds cable securely. Coupling ring lock. Chrome. **E1977, Fig. A. CHROME PLUG, NET 24c**

E1976, Fig. B. RECEPTACLE, NET 29c

E1978, Fig. C. CHASSIS TYPE, NET 18c

TRIPLE CONNECTOR
Fig. D. Connects two microphones or loud speakers in parallel to a single output or input of amplifier.

E1979, NET \$1.18

CHASSIS TYPE

Fig. A. Mounts in $\frac{1}{4}$ " hole; use with connectors at right.
E1971, 3 CONTACT RECEPTACLE, NET 29c

E1973, 4 CONTACT RECEPTACLE, NET 32c

E1972, 4 PRONG PLUG, EACH 32c

CAP. Fig. B. Fits connectors above. Protects against dust, dirt, and moisture. Chrome finish. **E1974, NET 29c**

SHIELDED TYPE

Polished chrome-finished heavy brass microphone cable connectors. Threads, $\frac{1}{8}$ "-27

Cable Type Plugs
E1965, 3 PRONG 59c

E1966, 4 PRONG 65c

Receptacles
E1967, 3 CONTACTS 59c

E1968, 4 CONTACTS 65c

CRYSTAL MIKE CABLE

For all types of crystal and velocity microphones. Internal conductor is of fine stranded copper; completely shielded; extremely flexible.

Single Conductor
E2199, PER FOOT 4c

PER 100 FEET \$3.45

Double Conductor
E2498, PER FOOT 6c

PER 100 FEET \$4.10

WEATHERPROOF CABLE

May be used outdoors without break-out or leakage, not affected by atmospheric conditions. Conductors are stranded copper, individually rubber-covered; full cotton weaving; completely shielded; covered with heavy rubber.

CAT. No. Cont. PER 100 FT. FEET

E3514 2 3 $\frac{1}{2}$ c 52.70

E3515 3 4c 3.75

E3516 4 5 $\frac{1}{2}$ c 4.90

See page 149 for additional cable listings of all types.



FIGS. A, B. ARMORED CONNECTORS

Sturdy, heavy-duty connectors for microphone cables. Polarized type; cannot be reversed when joining cables. Have adjustable cable clamps. Positive knife-blade contacts will handle up to 10 amps at 250 volts.

E7579, Fig. A. 3 Prong Plug, NET 48c

E7578, Fig. B. Polarized 3 Prong Socket, NET 69c

FIG. C. MIKE RECEPTACLE

Designed for use with E7579 plug above. Two types; receptacle only; or receptacle mounted in $\frac{1}{4}$ " cover for standard conduit boxes.

E5485, Receptacle-only, NET 75c

E5486, With $\frac{1}{4}$ " inch cover, NET \$1.15

FIG. D. MIKE RECEPTACLE & PLATE

A polarized microphone receptacle mounted on brass bakelite plate for flush wall mounting. Measures 2 $\frac{1}{2}$ " x 4 $\frac{1}{2}$ ". Will take E7579 plug listed above. Ideal for permanent installations.

E5487, EACH \$1.32

CARBON GRANULES, No. 100 size. Highest quality. Each vial holds enough to re-carbon two double-diaphragm microphones.

E2597, NET 40c

REPLACEMENT RIBBONS. For use in any standard ribbon velocity microphone.

E2598, STANDARD Package of 2 ribbons, NET 73c

E2599, SUPERSENSITIVE. Package of 2 ribbons, NET \$1.03

MICROPHONE SPRINGS. Highest quality tempered steel springs for mounting mikes.

E7557, Set of 8, NET 15c



SHIELDED PLUGS & JACKS

Fully insulated standard 2 and 3 circuit plugs and jacks. Nickel-plated brass barrels.

2 CIRCUIT
E5666, PLUG, 59c

E5667, JACK, NET EACH 59c

3 CIRCUIT
E5668, PLUG, 69c

E5669, JACK, NET EACH 69c



3-WAY MIKE PLUG AND JACK

For use in any two or three conductor mike input circuit. High quality plug has bakelite handle. Long jack has phosphor-bronze springs for low-loss contact. Jack mounts in $\frac{1}{4}$ " hole.

E8957, PLUG, NET 40c

E8958, JACK, NET 35c



SHURE STAND SWITCH

For use with any type microphone. Fits any standard $\frac{1}{4}$ "-27 threaded stand. Operable toggle type switch permits cutting mike in or out of circuit without disturbing gain control setting. Case 2 $\frac{1}{2}$ " high finished in satin black. Model A80A. A real "A" convenience.

E9878, NET \$1.47



SHOCK ABSORBER

Prevents floor vibrations from reaching microphone. A necessity with all mikes. Made of heavy brass with polished chrome finish. Has live gum-rubber cushions. $\frac{1}{4}$ "-27 threads, male and female. Will improve microphone performance.

E975, NET \$1.47



MIDGET JACK

Three contact microphone jack to fit E8957 plug at left.

E1605, NET 21c



PORTABLE JACK

Fully insulated. Fits E8957 plug at left. Compact black molded bakelite barrel threaded to hold plug.

E5665, NET 35c

MIKE STAND REDUCERS

Fig. B. Chrome-finished adapters. In every requirement.

No. Top Male Bottom

E7523 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 44c

E7524 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 44c

E7525 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7526 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7527 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7528 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7529 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7530 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7531 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7532 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7533 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7534 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7535 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7536 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7537 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7538 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

E7539 2 $\frac{1}{2}$ " pipe to $\frac{1}{4}$ "-27 59c

MIKE STAND CABLE GUIDES

Will keep mike cords from becoming loose and tangling. Hold cord neatly.

E9879, Soft Rubber Guide. Will fit all stands up to 1 $\frac{1}{2}$ " diam. NET 21c

E9891, Safety-Pin Clasp Type. Rubber-covered. Fits tubing up to 1 $\frac{1}{2}$ " diam. NET 21c

New SHURE PHONOGRAPH PICKUPS



NEW "ECONOMY" CRYSTAL

A small compact crystal pickup that mounts in minimum space. Especially recommended for compact record players and for modernizing obsolete phonograph units and combinations. Plays 10" and 12" records. Has balanced-tracking, needle-tilt feature, triple moisture-sealed crystal, full-floating rubber-cushioned pivot bearing, and modern streamlined housing. Although moderately priced, the "Economy" crystal pickup has full-range frequency response to render full tonal reproduction of all types of recordings. Accurately balanced arm exerts minimum pressure on needle, resulting in less record wear and greatly reduced surface noise. Finished in wood-tone brown. Length 7 $\frac{1}{8}$ ". Ship. wt., 1 lb. With arm rest.

E7527, Model 94A, \$3.82
List, \$6.50 NET

"ZEPHYR" CRYSTAL

A crystal pickup with uniform frequency response from 50 to 10000 C.P.S., resulting in brilliant reproduction of all types of records. 80,000 ohm impedance; can be connected direct to grid. Needle-tilt angle keeps needle tangent to and centered in record groove. Needle pressure is only 2 $\frac{1}{2}$ ounces, making for minimum wear and greatly reduced surface noise. In attractive new black molded bakelite housing. 11 $\frac{1}{2}$ " long. Equipped with socket insert to fit arm rest supplied.

E7528, Model 99C, \$5.88
List, \$10.00 NET

E7529, Model 99CW. Same high quality pickup as 99C above, but molded of walnut-finish bakelite to match cabinets. \$5.88

TRANSCRIPTION TYPE

High fidelity crystal type pickup for recording-reproducing equipment. Designed to meet the latest requirements for high quality reproduction of records in broadcasting, recording and public address work. Wide-range response up to 7000 C.P.S. Exclusive Shure meritless assures proper tracking of needle to groove at all times. Has tip-back head for rapid, easy needle changes. Needle pressure is only 2 $\frac{1}{2}$ oz. Arm locks automatically when swung back from turntable.

E9628, Model 910B, \$9.11
For all 8" to 12" records. List, \$15.50 NET

E9629, Model 934A, \$9.70
For all records up to 16" size. List, \$16.50 NET



NEW KNIGHT PICKUPS

CRYSTAL PICKUP

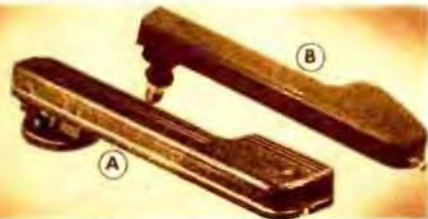
Type A. An accurately balanced, high-impedance, high-output type crystal pickup at a sensationally low price. Has triple-sealed crystal cartridge set at tangent to assure proper needle-tracking to minimum wear and surface noise. Exceptionally wide response for brilliant reproduction. Will play all 8" to 12" records with remarkable tonal fidelity.

MAGNETIC PICKUP

Type B. An outstanding value in a high-quality high-impedance magnetic pickup. Combines high-fidelity performance with attractive appearance. Designed to give maximum output over an extremely wide frequency range. Accurately balanced for minimum needle pressure. Suitable for use in all types of record playing equipment. Plays all 8" to 12" records.

E2288, Magnetic Type.
E2289, Crystal Type.
YOUR PRICE, EACH

\$385



RCA-VICTOR CRYSTAL PICKUPS

Fig. A. De Luxe Model. A new development from the famous RCA Laboratories. Used in many of the expensive RCA piano-radio combinations. Features top needle-loading for quick, easy needle changing. Has offset crystal cartridge; rubber-cushioned arm has ball-bearing mounting. Finished in brown wrinkle with chromium trim.

E7623, RCA 1481E, List, \$14.95, **\$8.97** NET

E9493, Senior Model, RCA 9847. Similar in appearance to above, but without chromium trim. Has top needle-loading and automatic needle ejection. List, \$6.95, **\$4.17** NET

E9492, RCA 9848, Needle Box and Pickup Rest for Senior Pickup. **NET \$4.5c**

Type B. Junior Model. Another new RCA crystal pickup at a sensationally low price. Impedance at 1000 cycles is 100,000 ohms. Frequency response is 70 to 7,000 cycles. The offset needle position assures true tracking. Pickup arm is swiveled. Needle pressure only 2.7 ounces.

E9494, RCA 9842, List, \$4.95, **\$2.97** NET

RCA-VICTOR HEADS

E9496, RCA 9676, Exact duplicate for RE45 and RE75. Imp. 400 ohms. **YOUR PRICE \$3.90**

E9495, RCA 9666, For Model 341. Impedance 30 ohms. **YOUR PRICE \$3.30**

E11279, New Pickup Transformer, 30 ohms to grid. **YOUR PRICE \$2.20**



NEW WEBSTER PHONOGRAPH PICKUPS

STREAMLINE MAGNETIC

A true high-fidelity magnetic pickup of advanced design. Vertical bearing permits lifting of arm past vertical center for rapid easy needle changes. Correctly damped to eliminate resonance peaks and to smooth out the frequency response. Output, 1 volt at 1,000 C.P.S. Impedance, 18,000 ohms. Length, 9 1/2 inches.

E2285, List, \$8.00, **\$4.70** NET PRICE

STREAMLINE CRYSTAL

Tangent of needle and correct balancing contribute to the increased frequency response of this highly efficient unit. Vibration-free bearings and correctly damped head assembly eliminate resonance peaks. For all 10" or 12" records.

E2286, List, \$10.00, **\$5.88** NET PRICE



NEW STANDARD CRYSTAL PICKUP

New—in performance, and in styling, this crystal pickup has excellent frequency response. Impedance 130,000 ohms; output, 2 volts at 1,000 cycles. Tangent type in new curved walnut wood case.

E2287, List, \$14.00, **\$3.47** NET

DELUXE CRYSTAL PICKUP

Similar in appearance to Standard model directly above, but with extended frequency range for full high-fidelity reproduction. Impedance, 80,000 ohms; output, 2.5 volts at 1,000 cycles. Housed in curved genuine walnut case.

E2284, List, \$16.00, **\$5.82** NET



LATEST ASTATIC CRYSTAL PICKUPS

STANDARD TYPE

Carefully balanced for correct needle pressure. Frequency response may be varied to accentuate either treble or bass.

E7693, For 10" and 12" records, List \$10.00, **\$5.88** NET

E7694, For 10" to 16" records, List \$12.50, **\$7.35** NET

E7688, SCRATCH FILTER, NET 88c

TRU-TAN TYPE

Offset head holds needle true to tangent through entire record playing surface. Arm rotates on double-row ball-bearings. Top loading. Will provide true high-fidelity reproduction.

E7687, B-10, For 10" and 12" records, List \$17.50, **\$10.29** YOUR PRICE

E7686, B-16, For all records up to 16", List \$27.50, **YOUR PRICE \$16.17**

MODEL O-7

Offset head type to assure minimum tracking error and reduction of surface noise. Combines easy needle-loading with correct cushioning against vibration 2 1/2 oz. needle pressure. Has high output voltage. For 10" or 12" records.

E7695, NET **\$3.82**

POPULAR RECORD ASSORTMENTS

CARTON OF 25 DOUBLE-FACED RECORDS

Famous brands American records at real savings. All are recorded by famous artists, dance orchestras, and bands. Because these assortments reach us already packed, we cannot determine what titles are in each assortment. Many are current popular numbers. Ship. wt., 13 lbs.

E9999, Carton of 25 Assorted. **\$2.25** YOUR SPECIAL PRICE

FOREIGN RECORDS

Popular selections of foreign language recordings. All new records, no seconds or rejects. 25 assorted.

E9998, Spanish, E9993, Swedish, E9995, Bohemian, E9996, Italian, ASSORTMENT OF 25 RECORDS. **\$3.50** NET

RCA-VICTOR PHONOGRAPH NEEDLES

E7613, Soft Tone, 100 to pkg.
E7605, Half Tone, 75 to pkg.
E7606, Full Tone, 100 to pkg.
E7607, Loud Tone, 100 to pkg.
Per Pkg., 9c, 10 Pkgs. for **75c**

E7608, Chromium, 78 R.P.M., 25 to pkg. **25c**
E7609, R.P.M. 6 to pkg. PER PKGE

E7610, Tungstone, Full Tone, 8 to pkg. PER PKGE **25c**
E7611, Tungstone, Loud Tone, 8 to pkg. PER PKGE **25c**

E7612, Home Recording Needles, 5 to pkg. **25c**

YOUR PRICE PER PKGE
E7620, PERMO-POINT NEEDLE plays over 2000 records. Prolongs record life. Gives good tone quality. **50c**



NEEDLE CUP

Attractive well-made needle cup of nickel-plated brass. Will fit any 1 1/2 inch round hole. Holds 100 needles. **E7601, NET 5c**



HEAVY-DUTY RECORDING MOTOR

A heavy-duty double motor and turntable for 78 and 33 1/2 R.P.M. recording and playback. Has constant speed, governor-controlled, induction motors. Silent performance is assured by spiral-cut gears running sealed in oil; over-size, self-lubricating bearings. Just the turntable to use with high-grade recording and playback equipment. Ideal for recording with any head on either blank or pre-grooved disc. Supplied with speed shift lever, speed regulator, hardware and weighted 12" turntable.

E10075. List. \$33.50. **\$20.00**
YOUR PRICE

E10076. Same heavy-duty motor as above, but with 16" balanced cast-aluminum turntable. NET **\$30.85**



KNIGHT SPECIAL VALUE MOTOR

An unusual value in a high-quality, inexpensive phono motor. Designed along advanced principles for long life. Absolutely dependable and quiet in operation. Constant speed, self-starting motor is fully enclosed for complete protection from dirt, dust, etc. Will maintain constant speed regardless of line voltage fluctuations. Single speed, 78 R.P.M. Has balanced 12" turntable covered with felt. Motor assembly can be quickly and easily mounted on wood or metal panel. Ideal for modernizing old phono equipment. Operates from 110 volts, 60 cycles, A.C. Shipping wt., 7 lbs. Of famous General Industries make; a motor which will give excellent service and exceptionally long life.

E10093. **\$5.55**
YOUR SPECIAL PRICE



"Green Flyer" MOTORS

SINGLE SPEED 78 R.P.M.

Heavy-duty governor-controlled induction type motor. Operates constantly and quietly at 78 R.P.M. Has spiral-cut laminated gears sealed in oil. With 10" felt-covered turntable, and speed control lever. All necessary mounting hardware supplied. For 110 volts, 60 cycles. **\$7.65**
NET

2 SPEED 78-33 1/2 R.P.M.

A heavy-duty motor suitable for all records and transcription-playing requirements. Will play all standard 78 or 33 1/2 R.P.M. records. Fully enclosed gears in oil-filled, sealed housing. With 12" turntable, speed control, speed change lever, and hardware. For 110 volts, 60 cycles. **\$10.50**
NET

E10072. List, \$17.50. **\$10.50**
NET
E10071. As above but with 10" turntable. List \$17.00. NET **\$10.20**

UNIVERSAL 110 VOLT AC-DC

A single-speed motor for use on any 110 volt AC-DC line. Operates at 78 R.P.M. With 12" turntable and AC-DC change switch. **\$11.85**
NET

E10073. List, \$19.75. NET **\$11.85**

DUAL SPEED UNIVERSAL

Plays either 78 or 33 1/2 R.P.M. records. Operates at constant speed from 110 volts AC or DC. Supplied complete with 12" felt-covered turntable, speed control lever, speed change lever, AC-DC switch, and mounting hardware. **\$13.50**
NET

E10069. List, \$22.50. NET **\$13.50**

6 VOLTS D.C.

Operates from 6 volt battery with drain of 2.8 amperes. Dual-speed type for 78 or 33 1/2 R.P.M. With 12" turntable and all hardware. **\$14.70**
NET

E10074. List, \$24.50. NET **\$14.70**

WEIGHTED 12" TURNTABLE

For 33 1/2 R.P.M. instead of standard 78 R.P.M. turntable, add \$1.80 to prices given above.

Automatic Stop. For use with any of the Green Flyer motors above. **90c**
NET
E7624. NET **90c**



DEAGAN CHIMES

Produces four perfectly pitched notes. Creates delightful mellow tones at any random tapping. Ideal for home use and for Amateur and Broadcast Stations. With tapping mallet and instructions.

E7330. **\$4.30**
List, \$6.00. NET



STROBOSCOPE

E7331. 6 in. diam. Checks turntable speed at either 78 or 33 1/2 R.P.M. on any phono motor. **12c**
NET



RCA RK24 PHONO OSCILLATOR

Designed to insure good phonograph reproduction when used with practically any radio set. May be used with any electrical pickup and can be connected in a few minutes. No changes in the set. Leads are arranged to slip under tube prongs of radio set. Requires 6A7 tube with set using 6.3 volt tubes, or 2A7 if set has 2.5 volt tubes.

E9497. **\$5.85**
List, \$9.75. NET



R.C.A. MIDGET MOTOR

A midget type phono motor identical to the same as used in the R.C.A. portable record players. An ideal motor assembly for use in all types of portable record-playing equipment, for modernizing old or obsolete phonograph equipment, or wherever space is limited. Synchronous type; manual-starting. Operates at 78 R.P.M. from 105-125 volts, 60 cycles, A.C. without wows or vibration. Power consumption only 10 watts. With 12" turntable for 10 and 12 inch records, and shock-proof mountings.

E9491. R.C.A. **\$3.90**
3841. List, \$6.50. NET

ALLIED OFFERS A COMPLETE SELECTION OF *New* RECORDING EQUIPMENT



ALLIED PORTABLE RECORDER

A deluxe type portable recording turntable. Solid, accurately machined cast-aluminum turntable runs with absolute freedom from side-sway, "wow" or table vibrations; rim-driven by a synchronous type self-starting motor which is suspended in live-rubber. Ruggedly constructed overhead drive assembly has accurately-cut leadcrew driven by completely housed worm gear drive. Quick-acting release lever is provided to raise or lower cutting head without damage to disc. Leadcrew guides cutting head from inside to outside at 112 lines per inch. Records on any disc up to 16" diameter at 78 or 33 1/2 R.P.M. Cutting head has impedance of 500 ohms; smooth frequency response to 5000 C.P.S. Equipped with Astatic Tru-Tan crystal pickup for playback. Housed in leatherette carrying case. For 110 volts, 60 cycles. Write for complete descriptive literature. **\$225.00**
Less amplifier.
E10340. NET

Time Payments: \$22.50 down, \$27.85 monthly for 8 months

E10341. Single Unit Portable Recorder. Consists of turntable described above, with built-in amplifier; playback speaker mounted in top of case; adjustable floor stand and Sound Cell microphone. NET **\$425.00**

Time Payments: \$42.50 down, \$50.97 monthly for 8 months



UNIVERSAL PORTABLE RECORDER

An entirely new recording unit built by Universal, and truly universal in its flexibility and simplicity of operation. Will record on any acetate disc up to 17" in diameter at either 78 or 33 1/2 R.P.M. Pitch of leadcrew can be instantly changed to cut either inside to out, or vice versa, at either 90, 110 or 130 lines per inch. Cutting head is of the new full-frequency type with frequency response of 30 to 10,000 C.P.S.; impedance, 15 ohms. Rugged leadcrew assembly is mounted entirely outside the turntable, leaving record space free of obstruction; has calibrated timing scale to indicate elapsed cutting time at different cutting speed or pitch. Turntable of heavy cast aluminum and lead screw are driven by a self-starting 100% synchronous type motor. Maintains absolutely constant speed at all times even under varying load conditions. Housed in sturdy leatherette carrying case. Supplied complete with Micro-metric caliper for measuring depth of groove. Microscope, and spirit level. 110 v., 50-60 cycles. Write for complete descriptive literature. Shpg. wt., 117 lbs. Less amplifier. **\$278.00**
E10342. Complete as described. NET

Time Payments: \$27.80 down, \$34.40 monthly for 8 months.

E10343. As above, with Full Frequency playback pickup. **\$293.00**
NET

Time Payments: \$29.30 down, \$36.26 monthly for 8 months.



FEDERAL PT-12 RECORDER

A complete portable recorder that will fill the requirements of Schools, Broadcast stations, Advertising Agencies, etc. Completely self-contained, and ready for operation anywhere that 110 volts, 60 cycles, A.C. is available. Consists of portable carrying case with built-in recording turntable, amplifier, radio tuner, and speaker; with crystal microphone and floor stand. Amplifier has four high-gain stages and uniform overall response from 50 to 12,000 C.P.S.; output 12 watts for either recording or playback. Cutting head is of the permanent magnet type with range of 50 to 6,000 C.P.S. Built-in licensed radio tuner permits recording of broadcast programs for monitoring or checking purposes. Playback pickup is of the high-fidelity crystal type. Precision-type geared leadcrew cuts inside out or outside in at 112 lines per inch. Heavy-balanced 12" cast-aluminum turntable will handle any acetate disc up to 12" diameter at either 78 or 33 1/2 R.P.M. Powered by a heavy-duty self-starting synchronous type motor which has a constant speed of 1800 R.P.M., geared down to drive turntable smoothly without variation. Jensen 8" speaker built into top of case. Write for complete descriptive literature. **\$183.75**
E10344. Federal Recorder, complete as described. Wt., 79 lbs. NET

Time Payments: \$18.37 down, \$22.74 monthly for 8 months **99**

The Latest in FINE RECORDING EQUIPMENT



KNIGHT PORTABLE RECORDER

The new **Knight Portable Recorder** has been designed to meet the demand for a high-quality recording unit at a price everyone can afford. Ideal for school and home use. Will produce uniform results with a minimum of experience in the art of recording. Powered by a 1/60 h.p. 110 volts, 60 cycle motor, the rim-driven and dynamically-balanced cast-aluminum turntable runs smoothly and silently at 78 R.P.M. without variation. Completely enclosed lead screw of massive construction is finely machined for positive feed and long trouble-free operation. New horizontal magnetic type cutting head has smooth response from 70 to 5,000 C.P.S. without peaks; automatically compensated for low-frequencies. Impedance of cutting head is 500 ohms. Exclusive "Dual-Action" control automatically engages drive screw and lowers cutting head; eliminates possibility of damaging stylus or disc. Records on any disc up to 12" diam., cutting 100 lines per inch inside to outside, at 78 R.P.M. Supplied complete with pick-up of the inductive-dynamic type. Housed in leatherette covered portable case. Descriptive bulletin on request. Less amplifier.

E12381. SPECIAL NET PRICE \$99.50



PRESTO Quality RECORDING EQUIPMENT

MODEL 12-E PORTABLE

An extremely portable high-grade recorder. Designed primarily to fill the requirements of Schools, Advertising Agencies, etc., for high-quality recording equipment at moderate cost. Consists of complete recording and playback equipment in one compact, easily-operated unit. Features heavy 12" turntable, synchronous motor, sturdy overhead assembly, built-in amplifier and 8" dynamic speaker. Grooves and records in one operation on acetate discs up to 12". Records at either 78 or 33 1/3 R.P.M. Switch on amplifier for recording or playback. Playback pickup is high-quality magnetic type. Has built-in volume level indicator meter. With crystal mike and floor stand or banquet stand. Complete descriptive literature sent on request. For 110 volts, 60 cycles.

Wt., 82 lbs. **\$350.00**

E12375. NET
MODEL 16-X. Similar to the Model 12-E above, but records any size acetate disc up to 16" diameter at either 78 or 33 1/3 R.P.M. Supplied complete with velocity microphone and floor stand. With 4-A cutting head.
 Ship. wt., 95 lbs. **\$500.00**

E12377. Model 16-X equipped with 1-H High fidelity cutting head. **\$560.00**

NEW "JUNIOR" 5J MODEL

Designed especially for acetate disc recording in the school, club, business home, or office. Excellent for use by business executives, advertising agencies, clubs, lodges, etc., for making permanent records of important meetings, conferences, lectures, etc. Has a host of applications such as Speech correction, Music auditions, Sales talks, and many others. Compact, portable unit contains complete recording-playback equipment. Grooves and records in one operation on discs up to 12" at 78 R.P.M. only. Single compact unit has built-in amplifier, cutting head assembly, magnetic playback pickup and playback speaker. Will turn out recordings of voice and music with remarkable fidelity. Supplied with high-quality desk type microphone. With instructions. For 110 volts, 60 cycles.

Wt., 48 lbs. **\$149.00**

E12378. "Junior" Recorder, complete, NET \$149.00

E12380. Same as above but less amplifier, speaker, mike and meter. In Walnut case. Wt., 30 lbs. **\$98.50**

E12379. Similar to Model 5J but equipped with high-grade capacity type microphone mounted on adjustable floor stand. For operation from 110 volts, 60 cycles. **\$164.00**

WE CAN SUPPLY all Presto recording equipment not listed here on special order. Many Presto items not listed are carried in stock for immediate shipment. Complete Presto catalog sent on request. For Low Time Payment Terms, See Page 73.

Complete Selection of RECORDING DISCS



ALUMINUM DISCS

Made of hardened aluminum alloy; mirror-polished. Assure maximum volume and life.

PREGROOVED			PLAIN		
Double-faced discs, records on both sides.			Extra-heavy blank aluminum, .036" thick.		
No.	Dia.	NET	No.	Dia.	NET
E8005	6"	16c	E8009	6"	15c
E8006	8"	23c	E8010	8"	20c
E8007	10"	39c	E8011	10"	29c
E8008	12"	55c	E8012	12"	42c

MIRROR ACETATE DISCS

Inexpensive mirror-smooth acetate discs.

No.	Dia.	Thickness	NET
E8014	6"	.047"	25c
E8015	8"	.047"	35c
E8016	10"	.047"	58c
E8017	12"	.047"	72c
E8018	16"	.051"	\$1.32

OVERSIZE MIRROR DISCS

For making master plates where duplicate pressings are required. Only one side can be used.

No.	Size	EACH	PER 10
E8020	13 1/4"	.056"	\$1.18
E8021	17 3/4"	.066"	2.42

FEDERAL "PERMA-DISK" DISCS

New Acetate discs capable of 100 playbacks when properly cut. Have even coating on heavy base for greatly reduced surface noise.

No.	Dia.	Each	Per 10
E8023	6"	\$0.39	\$3.61
E8024	8"	.54	4.96
E8025	10"	.78	7.21
E8026	12"	9.98	9.98
E8027	16"	1.76	16.23

FEDERAL "PERMA-BOARD" DISCS

Acetate-coated composition board disc. Coated one side only.

No.	Size	Each	Per 10
E8029	6"	.20	\$1.80
E8030	8"	.29	2.70
E8031	10"	.39	3.61

PRESTO "GREEN SEAL" DISCS

Heavy aluminum base with mirror-smooth cellulose compound coating. The finest recording disc available for professional work. New "O" Type.

No.	Dia.	Thickness	NET
E8033	6"	.051"	\$0.40
E8034	8"	.051"	.55
E8035	10"	.051"	.80
E8036	12"	.051"	1.00
E8037	16"	.051"	1.80

Attractive quantity discounts to Schools, Universities, etc. Write us.

OVERSIZE "GREEN SEAL" DISCS

For making master plates where duplicate pressings are required. Only one side can be used.

No.	Size	Each	Per 10
E8039	11 1/4"	.079"	\$1.25
E8040	13 1/4"	.079"	1.80
E8041	17 3/4"	.079"	3.00

PRESTO BLACK SEAL DISCS

For making master plates where duplicate pressings are required. Only one side can be used.

No.	Size	Each	Per 10
E8043	6"	.021"	35c
E8044	8"	.021"	55c
E8045	10"	.021"	65c
E8046	12"	.025"	80c

UNIVERSAL ECONOMY DISCS

New lightweight, low-priced acetate discs. Even coating for reduced surface noise. Excellent frequency response.

No.	Size	Each	Per 10
E8050	6"	36c	\$3.31
E8051	8"	48c	4.42
E8052	10"	60c	5.53
E8053	12"	72c	6.62

RCA HOME-RECORDING DISCS

Reduces surface noise. In 1 oz. vials.

No.	Size	Pkg. of 4	75c
E8055	6"	Pkg. of 2	75c
E8056	10"	Pkg. of 2	75c
E8057	12"	EACH	68c

E8060. Cutting Lubricant.

Reduces surface noise. In 1 oz. vials.

E8061. Record Preservative. Polishes and seals off disc surface. 1 oz. cans.

E8062. Record Reconditioner. For softening old or new records. 1 oz. cans.

NET PRICE EACH OF ABOVE 29c

RECORDING NEEDLES



SAPPHIRE NEEDLES

Precision-ground and polished, high quality sapphire cutting needles. Have long life and excellent fidelity.

E2602. Fig. A. For blank aluminum discs. List. \$4.00. **EACH \$2.35**

E2604. Fig. B. For pregrooved aluminum and composition discs. List. \$4.00. **EACH \$2.35**

E2605. Fig. C. For All Acetate or all other semi-plastic discs. List. \$6.00. **EACH \$3.53**

E2601. Fig. A. Bent shank sapphire. Cuts Aluminum at 30° angle when used in 2" acetate cutting head. List. \$7.50. **EACH \$4.41**

PRESTO GENUINE SAPPHIRE NEEDLES

E2606. Fig. D. Highest quality recording needles available. Genuine sapphire. Accurately ground and polished. For use on acetate discs. Average life approx. 15 hours. **EACH \$5.00**

E2607. Fig. D. Same high-quality genuine sapphire needle as E2606, but with long shank to fit Presto Professional Recording head. **EACH \$5.00**

We resharpen Presto sapphire needles at \$1.65 each.

STEEL CUTTING NEEDLES

Professional type cutting style. Special alloy steel hand-polished to a razor edge. For cutting acetate discs.

E2640. For 78 or 33 1/3 R.P.M. PACKAGE OF 10, EACH \$1.76

E2641. Long shank steel cutting needle for use in Presto Professional cutting head. PACKAGE OF 12, EACH \$2.65

E8004. RCA Victor Steel Home Recording Needles. For pregrooved discs. **PACKAGE OF 8, NET 25c**

PLAYBACK NEEDLES

E8000. BAMBOO NEEDLES. Pkg. of 100. **55c**

E8001. KACTI NEEDLES. Pkg. of 10. **29c**

E8002. RED SHANK STEEL NEEDLES. For playing acetate discs. .002" at point. Package of 100. **59c**

E8003. TRAILING SHOE NEEDLES. 100. **59c**

E2622. "WALCO" SAPPHIRE NEEDLE. Lasts for years. **EACH \$1.90**

ALLIED has everything for the AMATEUR

ALLIED has everything for the Amateur—and for schools, laboratories, industrials, government agencies, etc., where transmitting, receiving or experimental equipment is required. This section is packed with complete listings of the leading brands of Amateur equipment—available constantly from our regular stock. We can also supply promptly, on special order, any other type of standard or special equipment not listed here.

NEW! NATIONAL 600 WATT TRANSMITTER KIT

OST-OST-OST Announcing the newest and latest of modern transmitter kits for the Amateur stop. Designed by the National Co. oldest and most famous builders of high-quality Amateur equipment stop. Power input up to 600 watts phone or CW stop. Incorporates sensational new National combination RF and AF exciter unit described below—stop. 35T buffer and P.P. 100T11 final with 203Z modulators—stop. All chassis and black-wrinkle-finish panels drilled and punched and supplied with necessary hardware—stop. Buffer and amplifier leads short and direct for top efficiency—stop. Thorarson CHT series chokes and transformers—stop. Aerovox filter condensers stop—National tuning condensers, sockets, coil-forms, etc. stop. All parts fit together without adjusting, jig saw puzzle tactics—stop. Looks and operates like commercial rig—stop. Don't waste your time and money but build complete National 600 watt transmitter for best results—stop. You can't miss if you start construction of your National transmitter now—stop—You can buy now on easy, deferred payment plan and pay by the month—stop—National catalog with picture on details sent on request—stop. Take good look at picture on right; then send your order now so you can get started—stop.

COMPLETE R.F. UNIT KIT

All parts, National NT-100PC foundation kit, condensers, coil-forms, sockets, hardware, wire, instructions, etc. Includes meters and dials. Less only 1-35T and 2-100T11 tubes.

\$71.59

E9501. Complete, less tubes. NET
E9502. National NT-100PC Foundation Kit only. \$9.60 NET

COMPLETE MODULATOR UNIT KIT

All parts including National NT-300PC foundation kit, CHT transformers, meter, sockets, hardware, wire, etc. Less only 2-203Z tubes.

\$42.55

E9503. Complete, less tubes. NET
E9504. National NT-300PC Foundation Kit only. \$7.20 NET

COMPLETE MEDIUM VOLTAGE POWER SUPPLY

All parts including National NT-1200PC foundation kit, CHT transformers and chokes, Aerovox condensers, sockets, hardware, wire, etc. Less only 2-866 tubes.

\$49.47

E9505. Complete kit, less tubes. NET
E9506. National NT-1200PC Foundation Kit only. \$7.20 NET

HIGH VOLTAGE POWER SUPPLY KIT

All parts including National NT-2000PC foundation kit, CHT transformers and chokes, Aerovox condensers, wire, sockets, meter, etc. Less only 2-866 tubes.

\$100.80

E9507. Complete kit, less tubes. NET
E9508. National NT-2000PC Foundation Kit only. \$7.20 NET

E12511. 7 1/4 inch relay rack for mounting the units above. Shipped knocked-down. Ship. wt. 40 lbs. **\$10.70** NET

NTE EXCITER AND SPEECH AMPLIFIER

An ultra-modern exciter unit that provides sufficient RF excitation for any low-power or medium-power buffer stage, plus a 15 watt speech amplifier, housed in a single table style cabinet. Ingeniously designed to prevent stray coupling between RF and AF channels. New push-button type band-changing permits rapid shift from one band to another. Multiple crystal holder provides selection of any one of four crystals instantly. Entirely self-contained, including humless power supply. RF channel consists of crystal oscillator followed by three frequency multiplier stages. High gain Audio channel has input for crystal mike; supplies 15 watts output from P1 2A3's. For 110 Volts, 50-60 cycles. With tubes, less crystals.

NTE-A. Complete Exciter-Speech amplifier for operation on 5, 10, 20, and 75 meters. Furnished complete with tubes. In black-wrinkle table-type cabinet. Ship. wt. 70 lbs. **\$129.00**
E9509. NET

NTE-B. Complete Exciter-Speech amplifier for operation on 10, 20, 40, and 75 meters. With tubes. In black wrinkle-finish table cabinet. Ship. wt., 70 lbs. **\$129.00**
E9510. NET

NTE-C. Complete R.F. Exciter unit for use on 10, 20, 40, and 75 meters. Supplied less built-in Speech Amplifier for those who want a CW exciter only. With tubes. Ship. wt., 70 lbs. **\$93.00**
E9511. NET

NSA. The National Speech Amplifier only, housed in black-wrinkle table cabinet. With built-in power supply. Two input channels, one for crystal, one for phono. Frequency response flat within 1 db. from 25 to 10,000 C.P.S. Delivers full 15 watts output. With tubes. Ship. wt., 50 lbs. For 110 volts, 50-60 cycles. **\$69.00**
E9512. NSA. NET

NOTE: All units above can be supplied on special order with relay rack panel at \$6.00 net added to above prices. Ask for Time Payment details.



ATTRACTIVE TIME PAYMENT TERMS

Buy your National 600 Watt transmitter on our Time Payment Plan. You pay only 10% down, add 10% to the balance, and divide by 12 to get the amount of each monthly payment for 12 months. For example, the complete transmitter consisting of: E9501 R.F. Unit Kit, E9503 Modulator Unit Kit, E9503 Medium Voltage Power Supply Kit, E9507 High Voltage Power Supply Kit, 73 1/4" Relay Rack, and either NTE-A (E9505) or NTE-B (E9510) Exciter unit totals \$404.11. You pay \$40.41 down and \$33.34 each month for 12 months.

Hallicrafters

THE SKYRIDER DIVERSITY

The most amazing contribution to the Communication receiver field in years. The Sky Rider Diversity "stole the show" at its preview at the 1938 R.M.A. Trade Show. Literally two receivers in one, it provides unparalleled and unmatched performance, with remarkable freedom from fading and image interference. Developed only after years of painstaking research and design, the Diversity is the very last word in constant performance, high-fidelity reception. Definitely not "just a receiver", but an engineering masterpiece that will satisfy the most exacting reception requirements. Tunes from 545 KC to 44 MC. As modern in its streamlined appearance as it is in performance, the Diversity must be seen and heard to be appreciated. We make no attempt to describe in detail the many features or technical specifications. Complete descriptive literature available on request.

E10656. Diversity Receiver, complete with Audio Amplifier, Power Supply, and Diversity Action meters. Less speaker. NET \$410.00
 Time Payments: \$41.00 down, \$33.83 monthly for 12 months



CUSTOM BUILT SUPER-SKYRIDER

A super model of the Super Sky Rider for those who demand the very finest receiver possible. Identically the same as the S16 in appearance, flexibility, and efficient performance, but has the extra advantages of 2 tuned RF stages and built-in noise silencer for better reception of ultra high frequency signals. Furnished with tubes, crystal filter, and matching 12-inch P.M. speaker. Absolute custom-built quality throughout. Only a limited number will be built for discriminating Amateurs who want only the finest communications model which can be bought.

E10657. \$X17. CASH PRICE. \$149.50
 Time payments: \$14.95 down, \$18.50 per month for 8 months



THE SKY CHALLENGER II

Ever popular in the medium-price class, the Sky Challenger has been pepped up and refined. The Sky Challenger II incorporates the most amazing contribution to the communication receiver field in years—Infinite Image Rejection, completely eliminating objectionable image interference, providing additional selectivity, and putting a real thrill into your operating or listening. Continuous tuning range covers 545 KC to 38,000 KC in five bands. Exclusive and outstanding features include: recessed type main tuning dial; 1000 degree spiral bandspread dial; Iron-Core I.F.'s; Tone Control; Band Selector Switch; Crystal Phasing control and in-out switch; Beat Oscillator Pitch Control; AF and RF gain controls; AVC switch; phone jack; and many others. Efficient new circuit uses: 3-6K7, 6L7, 6J5G, 6Q7G, 6J7, 6F6G, and 80. No other receiver at the price offers so much as the Sky Challenger II. Available with or without crystal filter. Has terminals for "S" meter. For 110 V. 50-60 cycles. Shpg. wt., 82 lbs.

E10658. \$18. Less crystal and speaker. NET \$770.00
 Time Payments: \$77.00 down, \$95.53 monthly for 8 months

E10659. \$X18. With crystal, less speaker. NET \$89.00
 Time Payments: \$8.90 down, \$11.02 monthly for 8 months

E10660. \$P meter for Sky Challenger II. \$10.00
E10662. 5" P.M. speaker in metal cabinet. \$10.00

THE SUPER-SKYRIDER

Here is a communications type receiver, outstanding in performance, distinctive in modern styling, unbelievable in its selectivity, tone quality and sensitivity, and priced so low that you can't appreciate its value until you've operated it yourself. Here is complete, continuous tuning from the top of the Broadcast band down to 5 meters, from 545 to 62,000 KC. A unique dual tuning system makes the Super-Sky Rider the easiest tuning receiver you've ever handled. A directly-calibrated six-band dial with automatic band indicator tells at a glance just what portion of the tuning range it's set to receive. The exclusive 1000 degree spiral bandspread dial separates closely crowded stations with astonishing ease. Iron-core I.F. stages with Broad and Sharp I.F. expander assure tremendous selectivity. Important, too, is the average over-all sensitivity of better than 1 microvolt for all bands! The Super-Sky Rider is literally loaded with desirable features. Imagine the ease and flexibility possible with flywheel tuning, AVC on-off switch, beat oscillator pitch control, variable beat oscillator inductor, RF and AF gain controls, send-receive switch, phasing control for I.F. and crystal stage, crystal in-out switch, headphone jack, directly calibrated signal meter, tone control, Broad and Sharp selectivity control, extremely high signal-to-noise ratio, and dynamically-balanced electro-mechanical bandspread tuning. Bandspread dial covers 1000 degrees in 35 complete rotations of control wheel and is rear illuminated. Advanced circuit uses 11 tubes: 6K7-RF, 6L7-1st Det., 6K7-1st IF, 6K7-2nd IF, 6R7-2nd Det., AVC-1st. Audio, 2-6V6-PP Power Output, 6J5-H.F.O., 6J7-Meter Amplifier, 6J7-B.F.O. and 5Z3-Rectifier. The Super-Sky Rider fills every requirement for an all-wave receiver either for communication work or for Short-Wave. It's one of the outstanding communications type receivers on the market today—unsurpassed for versatility and dependability. Available with or without crystal filter. For 110 V. 50-60 cycles. Shpg. wt., 60 lbs. With tubes.

E10654. \$16. Less speaker and crystal. \$99.00
 CASH PRICE
 Time Payments: \$9.90 down, \$12.26 monthly for 8 months

E10655. \$X16. With built-in crystal filter, less speaker. \$111.00
 CASH PRICE
 Time Payments: \$11.10 down, \$13.74 monthly for 8 months

E10661. 12" P.M. Speaker. Accurately designed to match the Super-Sky Rider both in appearance and performance. Housed in non-resonant type cabinet. With 5 foot connecting cord. NET PRICE. \$12.00



THE SKY CHAMPION

Meet the Sky Champion!—a real winner for quality performance—a blue-ribbon champion in its price class. It's "got what it takes" to make it a favorite with the Short-Wave DX fan and Amateur operator. You'd hardly expect so much for so little, but your Sky Champion will hold its own with many more expensive sets. Features are: separate Bandspread dial, RF and AF gain controls, individual coils for each band, inertia tuning mechanism, Beat Frequency Oscillator, AVC switch, Tone Control, Beat Oscillator switch, send-receive switch, Pitch Control, Band switch, phone jack, and others. Here, too, is continuous tuning in four overlapping bands from 545 KC to 44,000 KC for dependable reception on Broadcast, Amateur, and Short-Wave bands. Eight tubes—2-6K7, 6L7, 2-6J5, 6Q7, 6F6, and 80—are arranged in a modern circuit which provides maximum gain, selectivity, and sensitivity. Speaker is built in—there's nothing else to buy. Signal-to-noise ratio is surprisingly high. In fact, in every way, the Sky Champion is a super-efficient, low-priced receiver that will put a real thrill into SW DX-ing or Amateur operation. It offers you professional styling, conveniently grouped controls, operating flexibility, and above all, precision workmanship and performance that are truly outstanding. For 110 V. 50-60 cycles A.C. Shpg. wt., 34 lbs.

E10651. \$20. With Tubes. NET CASH PRICE. \$49.50
 Time Payments: \$4.95 down, \$6.13 monthly for 8 months

hallicrafters

THE POPULAR LOW-COST SKY BUDDY

For the beginning Amateur, the Short-Wave Listener, or the boy in quest of new thrills by way of Short-Wave Radio, the Sky Buddy has always been the outstanding low-cost choice. The new, improved 1939 model offers even greater features, greater performance, and greater value. Tunes from 545 KC to 18,500 KC in three bands, and covers Broadcast, Amateur, and Short-Wave bands. Features are comparable to those usually found only in higher-priced receivers: separate Bandspread dial, Beat Frequency Oscillator, send-receive switch, AVC switch, Pitch control, AF gain control, phone jack, etc. Has built-in speaker offering excellent tone quality. The Sky Buddy uses only five tubes—6K8, 6P7, 6Q7, 6K0, 80—but its performance is characteristic of most 8 tube sets. Antenna input for either doublet or Marconi type antenna system. For 110 V. 50-60 cycles A.C. Shpg. wt., 20 lbs.

E10650. With Tubes. NET CASH PRICE \$29.50
Time Payments: \$5.90 down, \$4.41 monthly for 6 months



THE NEW SKYRIDER MARINE

For special communication requirements such as Marine and Aircraft service, but also an ideal receiver for Jewelers, Press stations, and other services which require dependable reception on frequencies from 140 KC to 18.5 MC. The new Sky Rider Marine is an 8-Tube receiver designed especially for the commercial frequencies that can be readily adapted for marine work. In its design, especial emphasis has been placed on 600 meter and 700 meter operation. Tunes from 16.2 to 2150 meters (18.5 MC to 140KC) on 4 Bands. Uses: 2-6K7, 2-6J5, 1-6L7, 1-6Q7, 1-6F6, and 1-80 tubes. Incorporates many features such as: Built-in speaker, AVC, Beat Oscillator, Tone and Volume Controls, RF gain control, Phone jack, and Standby switch. Sensitivity and selectivity are excellent. Improved image rejection at the higher frequencies is achieved through the use of 1600 KC-LF transformers. The directly-calibrated 338° Main Tuning Dial eliminates the use of complicated charts and tables, and an efficient mechanical band spread with separate dial provides easy and simplified tuning. Mounted in sturdy metal cabinet finished in black crystal. This efficiently-designed, ruggedly-built communications type receiver is one of the Hallicrafters' finest achievements. For operation from 110 Volts, 60 cycles, A.C., with tubes and built-in speaker. Shpg. wt., 50 lbs.

E10652. Model 5-21. NET \$64.50

Time Payments: \$6.45 down, \$7.99 monthly for 8 months

THE NEW SKYRIDER 5-10

This new receiver is specifically designed to render exceptionally efficient performance on the ultra high-frequency range in two bands from 27,000 K.C. to 68,000 K.C. It is ideal for the Amateur who specializes in ultra H.F. work, and for Municipal Dept. communications service. Uses new RK 1851 tube as RF amplifier, offering U.H.F. sensitivity of better than 1 Mv. 1600 K.C. IF stage provides band width of 20 K.C. at 10 times down. This unusual combination of sensitivity and selectivity is only one of the features which make the Sky Rider 5-10 outstanding. Other features include: noise silencer; A.V.C. switch; send-receive switch; R.F. and A.F. gain controls; Beat Frequency Oscillator; Tone Control; Pitch Control; phone jack; built-in speaker, etc. Powerful new 8 tube circuit employs: 1-1851, 1-6L7, 1-6J5, 1-6P7, 1-6Q7, 1-6F6, 1-80. Separate bandspread dial provides easy, accurate logging and is equipped with inertia tuning control. From every standpoint, the new Sky Rider 5-10 is the answer to the ultra H.F. communications problem. For operation from 110 V. 50-60 cycles. Supplied with tubes. Has "5" meter terminals. Shpg. wt., 34 lbs.

E10653. 5-21. With Tubes. NET \$69.50

Time Payments: \$6.95 down, \$8.60 monthly for 8 months
E10682. "5" meter for Sky Rider 5-10. NET \$10.00



SARGENT 39 STREAMLINER

An entirely new, moderately priced communication type receiver designed for long-distance reception. Attractive modern styling, coupled with advanced circuit refinements, make this fine receiver an ideal set for the Short Wave DX fan as well as for Amateur communication work. Constructed of the very finest materials, designed to provide maximum efficiency and flexibility of operation. Has four frequency bands covering 9.5 to 550 meters. Has extremely high efficiency on Amateur 10 meter band. Full-vision type dial is rear-illuminated and directly calibrated for easy tuning. Incorporates all desirable features such as: Two I.F. stages. Vernier tuning with high ratio drive and extended bandspread, built-in 5" Jensen Speaker, Headphone jack, C.W. Oscillator, A.V.C., built-in hum-free power supply, high-gain Superhet circuit with reduced noise level, modern steel cabinet in black crackle with silver striping, etc. Uses five tubes: 1-6K8, 1-6F7, 1-75, 1-42, and 1-80. Antenna input for single wire or doublet line. An unusual high-performance receiver that will satisfy even the most exacting requirements, yet priced so low that everyone can afford to own it. In its trim professional appearance as well as its remarkable performing ability, the new Sargent "Streamliner" is sure to meet with universal approval. For operation from 110-120 volts, 50-60 cycles A.C., with tubes. Size, 17 1/2" x 9" x 8 1/2". Shpg. wt. 25 lbs.

E10185. NET \$33.90

RME MODEL 69 SINGLE-SIGNAL SET

A precision-built communications receiver with an exceptionally efficient circuit. Laboratory-built and tested, aligned and adjusted with the tubes which are included when shipped from the factory. Features: two calibrated, illuminated dials; calibrated signal meter; built-in modulation monitor; T.R.F. stage; shielded coil assembly; electron-coupled oscillators; crystal filter. Panel control of bandswitching provides rapid selection of any frequency band from 550 to 32,000 K.C. Uses 5-6D6, 1-6C6, 1-6B7, 1-42 and 1-80 tubes. (Illustrated with built-in Noise Silencer which is \$11.40 net additional. Specify when ordering.) For 110 V. 50-60 cycles A.C.

E10176. Less Speaker. NET \$141.03

E10175. With Speaker. NET \$152.88

510X FREQUENCY EXPANDER. For use with any high-quality Communications superhet. Will provide excellent U.H.F. reception with overall sensitivity of better than 1 Mv. Tunes 27.8 to 70 Mc.

E10178. With tubes. NET \$45.10

DB-20 PRESELECTOR. Frequency range, 550-32,000 K.C. Average signal gain, 20 to 25 DB; rejection ratio approx., 50,000 to 1. Built-in power supply; input for any antenna. For 110 V. 60 cycles.

E10177. With Tubes. NET \$42.60

Literature on request. See P. 73 for Time Payment terms. 103



NATIONAL NC44 RECEIVER

The new NC-44 Communication Receiver combines capable performance with low price. It employs seven tubes in a superheterodyne circuit. The 6K8 first detector and oscillator has exceptional stability and conversion gain. Other circuit features are: Two 456 KC IF stages, second detector and AVC tube, CW oscillator, and 25L6G beam power tube with 2 watts output. There are separate controls for RF and AF gain, and on-off switches for the AVC and CWO circuits. The self-contained power supply operates on 105-130 volts A.C. or D.C. A straight-line frequency condenser is used in conjunction with a separate bandspread condenser. This combination, plus the full-vision dial calibrated in frequency for each range covered and a separate linear scale for the bandspread condenser, makes accurate tuning easy. Both condensers have an inertia-type drive. A coil switch with silver-plated contacts selects the four ranges from 550 KC to 30 MC. Provision is made for either headphone or speaker operation. Shipping weight, 45 lbs. Housed in an attractive, dustproof steel table type cabinet finished in black wrinkle enamel. With tubes and speaker.

E10676. NET

\$49.50

NC-44B, A battery model of the NC-44 for those who have no A.C. or D.C. supply lines. Operates from a 6 Volt storage battery and "B" batteries. With tubes and speaker.

E10678. NET **\$49.50**

Write for Easy Time Payment Terms.



NATIONAL NC-80X RECEIVER

A communications receiver for operation from any 110 volt A.C. D.C. line. Skillful engineering and mechanical design blended together provide the maximum in sensitivity, selectivity and ease of operation. A new 1560 KC I.F. system eliminates image interference without preselection. Tuning range is continuous from 550 KC to 30 MC in four bands. Band switching is accomplished through a unique coil arrangement controlled from the front panel. New type full-vision dial with multiple scales is accurately calibrated, making tuning and "logging" easy. The NC80X is equipped with a crystal filter continuously variable from 400 CPS to 5 KC for sharp tuning. Uses 1-6L7, 2-6J7, 3-6K7, 1-6CS, 1-6B8, 1-25L6G, and 1-25Z5 tubes. Beam power output tube (25L6G) supplies 2 watts undistorted to P.M. speaker. Features include AVC, 16 to 1 and 80 to 1 tuning ratios, linear scales, BFO, etc. Ample bandspread is provided for easy tuning on all frequency ranges. Complete with tubes, crystal and 8" P.M. speaker in metal cabinet.

E10670. NET

\$99.00

SPECIAL AMATEUR BAND NC-81X RECEIVER

Similar to the Model NC-80X as described above but incorporates several features making it an exclusive Amateur model. Tuning range covers only the Amateur bands. New mechanical bandspread system will provide adequate bandspread on the 160, 80, 40, 20 or 10 meter bands. Novel design of calibrated full-vision dial makes accurate logging of stations possible. New crystal filter with controllable selectivity makes reception of CW or 'Phone signals possible even through severe interference. Has built-in power supply. For 110 Volts A.C. or D.C. With tubes and 8" P.M. speaker in metal cabinet.

E10671. YOUR NET PRICE

\$99.00

NOTE: The NC-80X and NC-81X are both available on special order for battery operation from a 6 volt storage battery and "B" batteries at no additional charge. Write for Time Payment Terms.

SM-80 MOUNTED "S" METER

For use with the NC-80X or NC-81X receivers which do not have built-in "S" meters, a meter of the same type as that used in the HRO is now available in a desk mounting. The necessary resistor network is built into all receivers of the NC-80 series, and it is only necessary to connect two wires to install the meter. Black wrinkle finish.

E10680.

\$6.00

NET



NEW NATIONAL NC-100 SERIES

An amazingly efficient 11 tube superhet with a frequency range of from 540 to 30,000 KC in five bands. Incorporates efficiency of plug-in coils with smooth, rapid band-change switch. Panel controls are: Band-switch; AVC-Volume-BFO switch; AC on-off and standby switch; RF and AF gain controls; Tone Control, etc. Full-vision dial is calibrated in megacycles, with separate high-speed vernier scale for precision tuning. Built-in tuned RF stage operates on all bands. Also has built-in hum-free power supply. Has signal level meter calibrated directly in "S" units. Antenna input for single wire or double antenna. 10" speaker supplied.

NC-100A A.C. MODEL

New improved model of the famous NC-100 series. As described above, in attractive black wrinkle finish steel cabinet. With tubes and 10" P.M. speaker (in metal cabinet). For 110 volts, 50-60 cycles, A.C. Shpg. wt., 70 lbs.

E10672. NET **\$120.00**

NC-100A BATTERY MODEL

Similar to the NC-100A but less the built-in power supply. Operates from 6 volt storage battery and "B" batteries. Supplied complete with tubes and 8" P.M. speaker. Especially suited for portable operation. Shpg. wt., 65 lbs. Less batteries.

E10674. NET **\$110.50**

NC-100XA CRYSTAL FILTER MODEL

Identically the same as the Standard NC-100A, but with built-in crystal filter for extreme selectivity. Has crystal phasing control for maximum selectivity. For operation from 110 volts, 50-60 cycles, A.C. With tubes and 10" P.M. speaker in metal cabinet.

E10673. NET **\$142.50**

NC-101X "HAM" MODEL

Similar to the NC-100A, but built strictly for use in Amateur communication work. Covers only the 1.7-2.05, 3.5-4.0, 7.0-7.3, 14.0-14.4, and 28.0-30.0 MC bands. Equipped with PW type microphone dial giving extreme bandspread. Crystal filter, calibrated "S" meter and supplied with tubes and 10" P.M. speaker. Shpg. wt., 71 lbs.

E10675. NET **\$129.00**



NEW NATIONAL NC-510 RECEIVER

A new and ultra-efficient communications type superheterodyne receiver for Ultra High-Frequency work. Has tuning range from 28 MC to 64 MC in three bands. Full-vision type dial is accurately calibrated in megacycles for each band. Dial has parallax eliminating mirror, range indicator, frequency logging markers, and inertia type tuning drive with 60:1 ratio. Rotary coil-changing system combines plug-in coils with easy operating selector switch. Uses 956 in R.F. stage, 954 first detector, and 955 H.F. oscillator. Has three 1560 KC IF stages; air-trimmed R.F. and IF's; continuously variable selectivity crystal filter from 300 cycles to 7 KC. Also incorporates a CW oscillator, a new type of AVC circuit, a vacuum tube voltmeter type "S" meter calibrated to provide accurate indication of signal level. The NC-510 has been carefully and accurately designed to provide optimum performance in the Ultra High Frequency ranges. With tubes and 8" P.M. speaker, in cabinet. Shpg. wt., 62 lbs.

E10677. Complete, less power supply.

NET

\$150.00

E10679. Type 5856 Power Supply, less tube. NET **\$17.70**

Write for Easy Time Payment Terms on any of above National sets.



NATIONAL SHORT WAVE EQUIPMENT

NEUTRALIZING CONDENSERS

TYPE NC-600



A small-sized neutralizing condenser suitable for use with 6L6's and similar beam power tubes. Has adjustment range from 5 mmfd. to 5 mmfd. Insulative insulated. **27c**
E1372. NET

TYPE NC-800



For use with the RCA 800 or other tubes which require small neutralizing capacity. Insulative insulation. Micrometer adjustment with lock nut. Max. capacity 10 mmfd. **\$1.80**
E1369. NET

TYPE NC-150



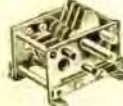
A high-voltage condenser for neutralizing the 11K-354, 11K-36, 300T, 852 and like tubes. Max. capacity 12 mmfd. Adjustable from .2 to 1.6". Insulative insulated. **\$3.90**
E1370. NET

TYPE NC-500



High-voltage condenser to neutralize WE-251A and similar tubes. Max. cap. 12 mmfd. Adjustable from .5 to 1.9". **\$7.50**
E1373. NET

TYPE TCN



A heavy-duty neutralizing condenser with a peak voltage rating of 3000 volts. Maximum capacity 25 mmfd. For use with 205A, 852, 204A and like tubes. **\$2.40**
E1368. NET

TYPE STN



Suitable for neutralizing type 45, 47, 10, or similar tubes. Insulative insulated. Max. cap. 18 mmfd. Peak voltage breakdown. 3000 volts (ideal for buffer or doubler stages). **\$1.20**
E1371. NET

PRECISION GANGED CONDENSER WITH MICROMETER DIAL



A precision ganged condenser assembly for H.F. circuits. Ruggedly built with four bearings which insulated rotors have brush type contacts. Stator insulated with

Serrated. Has 20 to 1 worm drive. S.L.F. plates. 160 MMF. PER SEC. 225 MMF. PER SEC.
No. Sections No. NET
E1350 2 3353 \$12.00
E1351 3 3354 14.40
E1352 4 3355 6.50
E1353 Complete Drive Unit. Consists of enclosed worm drive and micrometer dial described above. NET **\$8.10**

Above condensers are also available in single section types, in capacities of 150, 200, 350 and 500 mmfd. Grounded rotor. **\$9.00**
NET. EACH

SHAFT COUPLINGS

TYPE TX-9



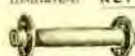
E1550. A small efficient condenser shaft coupling. Hubs fit 1/4" shaft. Insulation is Sigatite. **66c**
NET

E1555. TX-10, Similar to TX-9 but has ballite insulation. NET **33c**

TX-11 & TX-12

Flexible shaft with 1/4" hubs for driving offset shafts up to 90 degrees. No backlash. TX-12 has insulative insulated hubs. **75c**

E1551. TX-12, NET **75c**
E1552. TX-11, Plain hubs, not insulated. NET **36c**



TX-1 & TX-2

For use with transmitting condensers in high voltage circuits. Insulation is of plated insulative. Hubs fit any 3/8" shaft. TX-1 (leakage path is TX-2 leakage path is 2"). **60c**
E1553. TX-1, NET **60c**
E1554. TX-2, NET **66c**

NATIONAL CONDENSERS

RECEIVING TYPES



SE 270

This well-known condenser has straight line frequency plates, 270° rotation. Insulative insulated. Plates and frame are aluminum; two bearing rotor with front bearing insulated to prevent noise. Motor contact is through constant impedance digital. Type SEU 15 mmfd. and 25 mmfd. condensers have thick plates with rounded and polished edges and are suitable for high voltages. All other types have cut plates; edges are not polished. Air gaps are as follows: for SE types—.053" for SEH type—.018" and for SEU type—.053". These condensers are ideally suited for use in all types of high-frequency receivers.

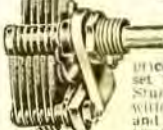
STOCK No.	TYPE No.	CAP. MMF.	NO. OF PLATES	NET EACH
E1300	SEU-15	15	6	\$1.50
E1301	SEU-25	25	9	1.60
E1302	SE-50	50	11	1.80
E1303	SE-75	75	15	1.95
E1304	SE-100	100	20	2.10
E1305	SE-150	150	29	2.25
E1306	SEH-200	200	27	2.25
E1307	SEH-250	250	32	2.40
E1308	SEH-300	300	39	2.55
E1309	SEH-335	335	43	2.55

TYPE ST 180

Similar to SE types above, but with 180° Straight-Line-Wave length plates, and somewhat more compact in size. Air gaps are as follows: Types STHS, STM, and STD—.018"; Type STD and ST—.020". STHS types have single bearing, while other models are double-bearing.

STOCK No.	TYPE No.	CAP. MMF.	NO. OF PLATES	NET EACH
E1311	STHS-15	15	3	\$0.84
E1312	STHS-25	25	4	.90
E1313	STHS-50	50	6	.90
E1314	STM-35	35	8	.90
E1315	ST-50	50	11	1.08
E1316	ST-75	75	15	1.20
E1317	ST-100	100	20	1.35
E1318	ST-140	140	28	1.50
E1319	ST-150	150	29	1.50
E1320	STH-200	200	27	1.80
E1321	STH-250	250	32	1.80
E1322	STH-300	300	39	1.95
E1323	STH-335	335	43	2.10
E1343	STD-50	50-50	11-11	2.10
E1344	STDH-100	100-100	11-14	2.70

EXPERIMENTERS TYPE CONDENSERS

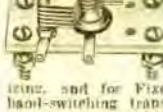


A superior low-priced midsize condenser for SW set builders and experimenters. Sturdy, all-brass construction with insulative insulation. Rotor and stator plates may be easily removed. Single hole mounting.

Cat. No.	MMF.	Type	EACH
E1325	15	EX-157	51c
E1326	25	EX-257	51c
E1327	35	EX-357	60c
E1328	50	EX-507	54c
E1329	100	EX-100	60c
E1330	140	EX-140	75c

* Double spaced; others single.

ULTRA-MIDGET CONDENSERS



Contact midget condensers. For Ultra H.F. use in receivers and transmitters.

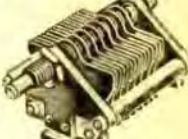
Stock No.	Cap. Mmf.	Facet. Type	NET EACH
E1333	15	UM-15	\$0.75
E1334	35	UM-35	.90
E1335	50	UM-50	.96
E1336	75	UM-75	1.02
E1337	100	UM-100	1.14

DOUBLE SPACED
E1339 25 UM1-25 1.11
BALANCED STATOR SINGLE SPACED
E1341 25 UM1-25 1.11

TRANSMITTING TYPES

TYPE TMS

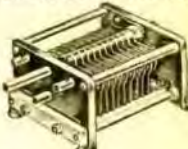
Precision type condensers for use in low-power stages of transmitters. A 1.5" diameter. 1.5" for TMS type—.062" for TMSA. "Low T" condensers are rated at 2000 Volt Peak; others are 1000 Volt Peak. Conical front bearing; single ball thrust, radial rear bearing. Insulative insulation.



NO.	TYPE	MMF.	PLATES	NET
E1358	TMS-100	100	10	\$1.50
E1359	TMS-150	150	14	1.65
E1360	TMS-250	250	23	1.80
E1361	TMS-500	500	27	2.16
E1362	TMS-50D	50-50	5-5	2.25
E1363	TMS-100D	100-100	9-9	2.70
E1365	TMSA-35	*35	8	1.80
E1366	TMSA-50	*50	11	1.95
E1367	TMSA-50D	50-50	11-11	2.40

TYPE TMC—MODERATE POWER

For use in power stages of transmitters where the peak voltage does not exceed 3000 volts. Extremity rigid frame. Serrated-insulative insulation. Aluminum plates have beveled edges; all-glass is .072". Have conical front bearing and radial rear bearing with single ball thrust. Stator of split-rotor model is supported at both ends.



NO.	TYPE	MMF.	PLATES	NET
E1375	TMC-50	50	7	\$2.40
E1376	TMC-100	100	7	2.70
E1377	TMC-150	150	7	3.15
E1378	TMC-300	300	39	3.90
E1380	TMC-100D	100-100	13-13	4.50

TYPE TMA HEAVY-DUTY

Insulative insulation. Aluminum plates. Peak voltage of air gaps—.077-1.000 V.; .171-0.000 V.; .265-0.000 V.; .350-12.000 V.

NO.	TYPE	MMF.	AIRGAP	NET
E1384	TMA-300	300	077	\$7.20
E1385	TMA-200D	200-200	077	9.00
E1386	TMA-50A	50	171	2.90
E1387	TMA-100A	100	171	6.00
E1388	TMA-150A	150	171	7.20
E1389	TMA-230A	230	171	9.60
E1390	TMA-50DA	50-50	171	6.60
E1391	TMA-100DA	100-100	171	10.50
E1392	TMA-100B	100	350	8.10
E1393	TMA-150B	150	350	10.20
E1394	TMA-60DB	60-60	265	11.10
E1395	TMA-50C	50	350	4.80
E1396	TMA-100C	100	350	8.70
E1397	TMA-40DC	40-40	350	8.10

ROTOR CLAMPING DEVICE

E1556. For clamping rotor shaft of TMA or TMC National Transmitting Condensers. Easy to mount. Holds firmly. **51c**
NET

TYPE TML

Have self-cleaning rotor contact; thick exterior plates with rounded edges. Cast aluminum frame and drive bars. Insulative insulated. Peak voltage of air gaps—.210-7.500 V.; .247-10.000 V.; .480-15.000 V.; .710-20.000 V.



NO.	TYPE	MMF.	AIR-GAP	NET
E1280	TML-75E	75	710'	\$15.60
E1281	TML-150D	150	480'	15.90
E1282	TML-100D	100	480'	14.10
E1283	TML-50D	50	480'	9.90
E1284	TML-245D	245	344'	17.10
E1285	TML-150B	150	344'	15.60
E1286	TML-100B	100	344'	15.00
E1287	TML-75B	75	344'	10.80
E1288	TML-150B	150	210'	21.00
E1289	TML-350A	350	310'	16.80
E1290	TML-250A	250	210'	15.60
E1291	TML-30DE	30-30	710'	15.90
E1292	TML-60DD	60-60	480'	17.10
E1293	TML-100DB	100-100	344'	18.90
E1294	TML-60DB	60-60	344'	16.50
E1295	TML-200A	200-200	210'	21.00
E1296	TML-100DA	100-100	210'	17.10



NATIONAL

Short

NATIONAL COILS AND COIL FORMS

TRANSMITTING INDUCTORS



A new series of low-loss air-spaced coils for use in exciters, buffers, and low power finals. Vicron-insulated. All sizes listed will tune over their respective bands with 30 muf, and all have separate windings for link coupling—end or center as listed. All coils fit XB16 socket below (not supplied).

End Link No.	Center Link No.	Type	Mega-cycles	NET EACH
1607	1611	AR16-80	3.5-4	90c
1608	1612	AR16-30	7-7.3	
1609	1613	AR16-20	14-14.4	
1610	1614	AR16-10	28-30	

COIL FORMS



Un glazed Insolanite forms for winding your own coils. Drilled for leads. Will fit any base as coils above. Plug, socket, and coil forms are available separately or as complete assembly as listed.

No.	Type	Description	EACH
1411	PB15	Plug	24c
1412	XB16	Socket	30c
1413	XR16	Coil Form	36c
1414	UR16	Complete Unit	90c

FIXED TUNED EXCITER TANK



An ideal unit for use in multi-band excitors using bandswitching. Aluminum case, 4 1/2" x 3 1/2" contains two 25 muf, 2000 Volt condensers and XR-2 coil form, 1 1/2" long, 1" diam. With plug-in base to fit tube sockets. Aluminum shield isolates condensers; times from top.

E1512.	TYPE FXTB.	5 Prong Base.	
E1513.	TYPE FXTB.	6 Prong Base.	
NET EACH			\$2.94
E1511.	TYPE FXT.	Without the plug-in base.	
NET			\$2.70

PLUG-IN COIL BASE AND SHIELD



New National combination of plug-in coil base and shield, especially suited for mounting condensers and coils when it is desirable to have them shielded, yet easily removable. Shield can measure: 2 1/2" x 1 1/2". Special low-loss base is available in 5 or 6 prong types and is offered complete with shield (E1346-1347) or separately (E1348-1349).

Cat. No.	Type No.	Prongs	NET EACH
E1346	PB-10	5	45c
E1347	PB-10	6	45c
E1348	PB-10A	5	24c
E1349	PB-10A	6	24c

TUBE AND COIL SHIELDS



High-grade non-magnetic aluminum shields. Coil shield measures 3" dia. x 2 1/2" high and is offered alone or with mounting base. Tube shield includes 2 1/2" dia. mounting base and is suitable for tubes such as 57, 58, 77, 78, etc.

E1597.	B30.	Coil Shield Only.	21c
NET			
E1598.	B30.	Coil Shield with Base.	30c
NET			
E1599.	T58.	Tube Shield.	24c
NET			

GRID CAPS



Unique construction assures perfect continuous contact with grid cap of tube.

E1547.	For Standard Glass Tubes.	
E1548.	For All Octal Base Tubes.	
NET EACH		3c
E1549.	For Transmitting Tubes.	
NET EACH		6c

RECEIVER COIL FORMS



Low-loss I-39 forms which are extremely popular with Amateurs and Experimenters. Easy to work. Finger-grip rim. 1 1/2" dia., 2 1/4" long.

E1490.	4 Prong.	
E1491.	5 Prong.	
E1492.	6 Prong.	EACH .45c

MIDGET FORMS



Small coil forms designed with excellent form factor, contributing to high efficiency in I.F. circuits. Of I-39 composition, coils are machineable, so that experimenters may groove and drill them to suit individual needs. XR-1 and XR-2 forms measure: 1" dia. x 1 1/2" long; wall thickness, 3/16". XR-1 form has four prongs; others are plain.

E1565.	XR-1.	4-Prong Coil.	30c
NET			
E1566.	XR-2.	Without Prong.	21c
NET			
E1567.	XR-3.	3/16" Dia. x 3/4" long. Without Prong.	18c
NET			

PLUG-IN COIL FORM AND SOCKETS



This completely new UR-10A coil form and socket assembly consists of the XR-10A coil form for 20 and 40 meters and an entirely new Insolanite Plug-in Base and Socket. Five prong base is easily attached to coil form by means of two screws. Base may also be used separately for air-wound coils. Sockets are complete with special attachments for mounting on TMA condensers if desired.

E1503.	TYPE UR-10A.	Coil Form Assembly. Complete. NET.	\$2.76
E1505.	TYPE PB-15.	Plug-in Base Only. NET.	81c
E1506.	TYPE XB-15.	Socket Only. NET.	\$1.05

TRANSMITTER FORMS



Grooved and drilled ceramic forms for winding low-loss transmitter coils. Will make your home-made coils look professional. XR10A form measures: 2 1/2" winding dia. x 5" long. XR-14A is 5" diameter. Both forms will fit the PB-15 plug and XB-15 socket listed above.

E1494.	XR-10A.	20 or 40 meter	90c
E1497.	XR-14A.	80 meter band.	\$2.10
NET			

BUFFER COIL FORM AND SOCKET



A new Insolanite, low-loss coil form assembly. 1 3/4" x 3 1/2" long. Plug with five prongs is easily attached to coil form by two screws. Socket is equipped with five rugged side-wiping contacts. Plug and socket are made of R39 low-loss insulation.

No.	Type	Description	NET
E1498	UR-13	Complete Assembly.	\$1.50
E1499	XI-13	Coil Form only.	.66
E1500	PR-5	Coil Plug only.	.45
E1501	XI-5	Coil Socket only.	.45

XTS COIL FORM



Low-loss Sreatite form for R.F. chokes, precision resistors, etc. Four sections: wire slot between sections and to terminals.

E1508.	NET EACH	30c
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S-101 AUDIO COUPLER



A high-gain unit for optimum output of screen grid detector to grid of audio tube. Consists of 700 henry plate coupling choke, .01 coupling condenser and .25 megohm resistor in metal case.

E1485.	NET	\$3.60
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NATIONAL R-100 R.F. CHOKE

Ideal for high frequency circuits. Extensively used in receivers and low-power stages of transmitters. Has continuous 4 section universal winding on Insolanite form. Distributed capacity is only 1 mufd. 2 1/2" Mf, 125 MA, 50 ohm D.C. resistance.

E1479.	List. 60c.	YOUR PRICE	36c
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TRANSMITTING TYPE CHOKES



Universal chokes with honeycomb-type windings in five sections. Rated at 600 MA continuously. Inductance, 4 MH, 10 ohms D.C. resistance. R152 is for the 160 meter band, and R154 for the 40 meter band.

E1481.	R152.		\$1.35
E1482.	R154.	NET EACH	
E1483.	R154U.	For 20, 40 and 80 meter bands. Five section honeycomb type coil on Insolanite core, with solder lugs. Rated at 600 M.A. continuous, 1 mh. inductance, 6 ohms D.C. resistance.	\$1.05
NET			

AIR-TUNED

I. F. TRANSFORMERS

Efficient IF transformers with air dielectric condensers. Stearate insulation; aluminum plates. Coils are Litz wound. Adjustments are on top of shield can. Oscillators are tuned by a knob.

E1462.	450-550 KC IF.	
E1463.	450-550 KC Beat Osc.	
E1464.	175 KC IF.	
E1465.	175 KC Beat Osc.	
List.	\$5.00	
NET EACH		\$3.00

DIODE TRANSFORMERS

Insolanite mounted, moisture-proof units with air-tuned primary and close-coupled, untuned push-pull secondary. For noise-silencing circuits, or for coupling to a diode detector tube in detector-AVC combinations. Tune 450 to 650 KC.

E1469.	NET	\$2.10
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LOW FREQUENCY OSCILLATOR COIL



Two separate inductances, closely coupled, in aluminum can. Used in super-regenerative sets as interruption-frequency oscillator. Sec. Inductance, 6.35 mh. Tunes to 100 KC coil with .00011 mfd. condenser.

E1476.	NET	90c
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CRYSTAL HOLDERS

VERTICAL TYPE

Mounts crystal in vertical position, allowing it to vibrate freely. Permits rapid change of crystals. Molded I-39 body, with metal shield. Res. crystal.

E1558.	CH1 Resonator.	
E1559.	CHT Transmitting.	
NET EACH		\$1.50

VARI-GAP CRYSTAL HOLDER

Tunes over range of 6 KC when used with special 3.5 MC crystal (12 KC on 7 MC, 24 KC on 14 MC). With 6" shaft, 0-10 dial, knobs and panel bushing. Not for X or Y cut crystals.

E1561.	Holder only.	\$5.70
NET		
E1562.	With Crystal	\$19.50

4-IN-1 HOLDER

New pressure type holder which accommodates 4 crystals and has built-in low-capacity switch for selecting frequencies. Holds crystals up to 1" square; especially suitable for use where an immediate choice of frequencies is desirable. Has prongs for plug-in mounting.

E1560.	Holder Only	\$4.50
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NATIONAL SOCKETS

UNIVERSAL MOUNTING TYPE



Unusually adapted for use in a wide variety of applications. May be mounted in several ways by means of stand-off insulators and metal flange supplied. Has full pin-wiring terminals which do not extend above top of socket and cannot cause shorts.

NO.	PRONGS	NO.	PRONGS
E1515	4	E1518	7 M
E1516	5	E1519	7 S
E1517	6	E1520	8 Octal

List Each, 40c
NET EACH **24c**

LOW-LOSS TYPE



Insulative sockets designed for use in H.F. receivers and in low power stages of transmitters. Ground Special Socket for National Coils is square; others are as illustrated.

NO.	PRONGS	NO.	PRONGS
E1580	4	E1583	7 M
E1581	5	E1584	7 S
E1582	6	E1585	8 Octal

NET EACH **36c**
E1586, 6 (For National Coils)..... 45c

TRANSMITTING TYPE SOCKETS



An efficient fifty watt socket with glazed ceramic insulation, side-wire contacts, and conventional Incom-loc metal shell. Has binding post terminals.

E1588, XM50, NET **\$1.05**

E1587, XM10. A socket similar in construction to the XM50 above, but designed for tubes using the 7X10 base. NET **75c**

E1589, XC-50, ALL-STEATITE. 50 watt socket; provides safety from arc-over. Contacts are only metal in entire assembly. List, \$3.50. NET **\$2.10**

ACORN TUBE SOCKETS



E1591, FOR USE WITH TRIODES. Five contact clips mounted on Insulante. NET EACH **90c**

E1592, FOR PENTODES. Has aluminum base with all contacts to pass to ground. NET **\$1.20**

POWER PENTODE SOCKETS

An efficient large wafer-type Insulante socket for the 6K28 and 6CA 803 power pentode tubes. Has three point mounting and side-wiring contacts.

E1594, NET **\$2.16**

E1595, As above, but less stand-off insulators. NET **\$1.80**

STEEL CABINETS

Rigidly constructed, painted steel cabinets for housing home-lab receivers, special experimental or laboratory equipment, etc. Used with Wave and National P157, SW-3, R105, P158, H100, and NC100. Panels and sub-bases are milled so that you can punch holes to your individual requirements. Black enamel finish. Supplied with sub-base and bottom cover.

No.	Type	Size	NET
E10306	C-SRR	7 1/2 x 7 x 7 1/2"	\$2.10
E10307	C-FB7	11 1/2 x 8 x 12"	4.20
E10308	C-PSK	6 x 8 x 12"	3.60
E10309	C-SW3	9 1/2 x 7 x 9"	3.30
E10310	C-110	11 x 7 x 7 1/2"	3.30
E10311	C-HWR	13 1/2 x 7 x 7 1/2"	5.00
E10312	C-HRO	18 1/2 x 8 1/2 x 10"	5.00
E10313	C-NC100	17 1/2 x 8 1/2 x 11 1/4"	5.10

NATIONAL "HRO" STANDARD RECEIVER



Built to meet the most exacting requirements of H. F. communication. Incorporates: Two T.R.F. stages; crystal filter with adjustable selectivity; calibrated tuned plug-in coils; single control tuning; calibrated "S" meter; variable beat oscillator. Micrometer dial with 20 to 1 ratio has 500 divisions for tuning accuracy. Extremely high noise sensitivity and selectivity. Supplied with tubes and coils covering 1.7-30 MC. (Less speaker and power supply.) Literature on request. Shpg. wt., 62 lbs.

E10062, 2.5 Volt A.C. Model.
E10063, 6 Volt Battery Model.
YOUR PRICE EITHER MODEL **\$179.70**

NATIONAL "HRO" JUNIOR RECEIVER

Has all features of HRO Standard except for tuning meter and crystal filter. Micrometer dial assures ample bandwidth (although not as great as the HRO Standard). Supplied with coils tuning 10 to 30 mc (2 amateur bands). Additional coils listed below. Shpg. wt., 12 lbs.

E10065, 2.5 Volt A.C. Model. Less speaker and power supply..... **\$108.00**
E10066, 6 Volt Battery Model. Less speaker and power supply..... **\$108.00**

COILS FOR "HRO" STANDARD

E1404, 175-400 K.C.	\$16.50
E1405, 500-1000 K.C.	12.00
E1406, 900-2000 K.C.	12.00

COILS FOR "HRO" JUNIOR

E1400, 7 MC to 14.4 MC	\$9.90
E1401, 3.5 MC to 7.3 MC	9.90
E1402, 1.7 MC to 4 MC	9.90

POWER PACK

E10046, For 2.5 Volt HRO Standard or Jr. For 110 V, 50-60 Cycles. Less 80 tube. NET **\$15.90**

P. M. SPEAKER

E10064, 8" P.M. speaker in table cabinet. For use with any model HRO set. NET **\$14.10**

"NATIONAL" DIALS TYPE "B" 4"



A compact dial with a smooth variable ratio drive. Dial scale is read through a window in the black bakelite case.

E1525, Scale 0-100-0, 180°. Rotates in either direction.
E1526, Scale 200-0, 360°, counter-clockwise. **\$1.65**
NET EACH
E1527, Illuminator for dial, with bracket. List, 50c. NET **30c**

TYPE "BM" 3"

Smaller than the "B" dial; similar in appearance, but with fixed ratio vernier.

E1528, Scale 0-100-0, 180°, universal.
E1529, Scale 200-0, 360°, counter-clockwise. EACH **\$1.50**

TYPE "N"



Precision dials, with machine-divided scales and verniers of solid German Silver. Dial is 4" in diameter with a smooth planetary mechanism; 5 to 1 ratio.

E1530, Scale 0-100, 180°, counter-clockwise.	
E1531, Scale 100-0, 180°, clockwise.	
E1532, Scale 150-0, 270°, clockwise.	
E1533, Scale 200-0, 360°, counter-clockwise.	\$4.05

TYPE HRO 1 1/2" DIAL



E1534, New etched silver dial as used on the HRO receiver. Dial is 1 1/2" over 180° clockwise. 1 1/2" diam. for 1/4" shaft. NET **45c**

TYPE "A" 4" DIAL



Smooth "Vulco Vernier" dial, entirely free from backlash. Self-contained mechanism. Ratio 5:1. Black bakelite.

E1536, Scale 0-100, 180° Counter Clockwise.
E1537, Scale 150-0, 270° Clockwise. EACH **\$1.80**

TYPE "O" 3 1/2" DIAL



E1543, Attractive circular-graduated German Silver dial. 3 1/2" diam. Reads 0-100 over 180°. Large shrouded finger-slip knob for easy tuning. Fits all 1/4" shafts. NET **90c**

"HRK" KNOB



Large, full-size tuning knob for use with receivers, transmitters, etc. 2 1/2" in diameter with fluted edge. Easy to use; non-tilting. Fits all 1/4" shafts. E1545, NET **51c**

NATIONAL INSULATORS

AA3 AA5 AA8
E1570, TYPE AA-3. Steatite feeder spreader. 5/8" long; 5/8" dia.
E1571, TYPE AA-5. Aircraft compression type strain insulator. NET EACH **18c**
E1572, TYPE AA-6. Steatite. Length, 1 1/4"; 1/2" dia. NET **21c**

STAND-OFF INSULATORS

E1573, Fig. A. Small Insulante insulators designed for maximum efficiency. Make ideal forms for H.F. and E.H.F. chokes. Metal mounting feet. Type GSI. NET **15c**

E1574, Fig. A, GS2. 2 1/2" high. 1/2" diam. NET **21c**

E1568, Fig. A, GS3. 2 1/2" high. 3/4" diameter. NET **54c**

E1569, Fig. A, GS4. 4 1/2" high. 3/4" diameter. NET **66c**

E1575, Fig. B. A Steatite insulator for mounting pairs of metal chassis bases. GS5 tapped 8-32 each end. GS6 and GS7 tapped 10-24 each end. GS5, 1 1/2" high. NET **15c**

E1576, Fig. B, GS8. 2" high. NET **27c**

E1577, Fig. B, GS7. 3" high. NET **45c**

E1578, Fig. C, GS8. A small Steatite insulator suitable for use in Low Loss I.F. Circuits for coil mountings, etc. Base has 1/4" mounting centers. NET **21c**

H. F. BUSHINGS

Efficient, low-loss Steatite bushings for bringing H.F. leads through partitions or windowpanes for supporting coils, etc.

E1507, XS1. 1 1/2" x 1 1/2". Per Pr. **45c**
E1510, XS2. 1 1/2" x 1 1/2". Per Pair **54c**

XS6 H. F. BUSHING

Small steatite shoulder-type flat bushing, 5/8" diam., 3/8" thick with 1/8" hole. E1509, NET EACH **9c**

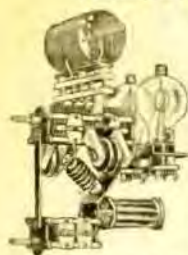
CATHODE-RAY OSCILLOSCOPE TYPE CRM

Graphically displays Xmitter power operating conditions through easily read patterns. Requires: 1-013 tube with 1" screen and 1-6X5 rectifier. Focus, Brilliance, Sweep Amplitude controls on front panel. Built-in power supply, 60 cycle sweep circuit; provision for external sweep. Size: 4 1/2" x 8 1/2" x 8". For 110 V., 50-60 cycles. Shpg. wt., 9 lbs. E10317, Less tubes. NET **\$11.10**
E10318, R.C.A. Tube Kit. **\$4.81**



Hammarlund Precision PRODUCTS

"PA-300" TRANSMITTER FOUNDATION KIT



A new transmitter unit that requires only a screwdriver and soldering iron for assembly. Consists of a push-pull R.F. amplifier designed to use triodes such as 255's, 808's, etc., with power output of from 100 to 300 watts per pair. May be used with any low-power driver stage, or with ID-40 Buffer-Driver listed below. Needs no chassis base; drilled and machined brackets support unit which bolts to panel. Ingenious layout permits short direct leads.

E9570. Foundation Kit Only, NET..... **\$1.95**

E9571. Complete Kit of Parts, Contains: 1-PA-300 kit, 1-MTCD-100B, and 1-MTCD-100C condensers, 2-N10 condensers, 1-CH-500 R.F. Choke, 3-sockets, 1-grid coil form. Less plate coil and tubes. NET..... **\$16.14**

BD-40 KIT

An ingeniously arranged buffer-driver unit designed as companion unit to the PA-300 above. Uses 1-807 or 8K-29 beam tetrode. Small and compact, measuring only 8 1/2 x 5 1/2" overall. E9572. BD-40 Foundation Kit Only. All necessary brackets and hardware. NET..... **\$2.16**

E9573. Complete Kit of Parts, NET..... **7.68**

Less only tube, NET.....
Descriptive literature sent free on request.

I. F. TRANSFORMERS TYPE "T"



Specially designed for experimental and replacement purposes. Double-tuned, with mica compression type condensers on insulative base. Adjustable from top of can. Coils are IITZ-wound and wax-impregnated. Aluminum shield can is 2 1/2" dia., 3 1/4" high. Base mounting by threaded lugs on 2" centers.

Untapped Frequency Center Tapped
E5350 175 E5352
E5351 405 E5353
E5355 405 Beat Oscillator
List, \$1.65. YOUR PRICE..... **99c**

TYPE "ST" MIDGETS

As above but in compact can, 1 1/2" square, by 2 3/4" high. Mtg. centers, 1 1/2".

Untapped Frequency C.T.
E5356 175 E5358 List, \$1.65.
E5357 405 E5359 NET..... **99c**
E5354 202 (For auto. apts.) EACH



"AIR-TUNED" TYPE

For use where absolute stability is necessary. Air-tuned, with IITZ-wound coils. Tune from top. Trimmer condenser mounted on insulative. Provide gain in excess of 200 per stage with unequalled selectivity. Designed particularly for Screen Grid type tubes. Beat Oscillator has tuning lever to vary beat note. All leads RMA color-coded. Can, 2 1/2" dia., 5" high.

Untapped Frequency C.T.
E5360 175 E5363 NET EACH
E5361 405 E5364
E5366 405 Beat Oscillator. **\$2.70**

"ICT" IRON CORE I.F. TRANSFORMERS



A new iron core I.F. transformer which provides maximum gain per stage coupled with extremely sharp selectivity. Core is of high permeability magnesium alloy; rust-proof and non-corrosive. Insulative mounted trimmers. Size 1 1/2" square, 4 1/2" high. Mounting centers 1 1/2". I.F. frequency 465 KC.

E5444. Single stage input. NET EACH
E5445. Single stage output. **\$1.80**
E5446. Two stage input.
E5447. Two stage interstage.
E5448. Two stage output.

HAMMARLUND TRIMMING AND PADDING CONDENSERS

"EC" EQUALIZERS

For balancing, neutralizing and trimming purposes. Mica dielectric; bakelite base. 1 1/2" x 1 1/2". Adjusting screw in center.

E5374. 3-35 MMF. **18c**
List, 30c. YOUR PRICE.....
E5375. 25-80 MMF. **24c**
List, 40c. YOUR PRICE.....

"MEX" EQUALIZER

Extremely small low-loss condenser on a 1 1/4" inch diameter bakelite base. Maintains original capacity setting, resisting moisture, temperature and vibration. With 4-36 mounting studs on 1 1/2" centers.

E5376. List, 30c. NET..... **18c**

TYPE "IBT"

A high grade mica padding condenser on a 1 1/4" inch diameter bakelite base. Maintains original capacity setting, resisting moisture, temperature and vibration. With 4-36 mounting studs on 1 1/2" centers.

No.	Type	Mmf.	List	NET
E5420	IBT-70	10-70	50c	30c
E5421	IBT-140	70-140	60c	36c
E5422	IBT-220	140-220	70c	42c

TYPE "BBT"

Similar to Type IBT above, but on Bakelite base (1 1/2" diameter). Maintain uniform capacity and power factor; not affected by temperature or humidity. Have 1 1/2" mounting centers.

Stock No.	Type	Mmf.	List	NET
E5415	BBT-70	25-70	40c	24c
E5416	BBT-110	70-140	50c	30c
E5417	BBT-220	140-220	60c	36c

TYPE "MICS"

For I.F. tuning, R.F. trimming, and for loading or trimming of oscillator and other circuits, insulative base. 1 x 1 1/2", 1 1/2" mtg. centers.

Stock No.	Type	Mmf.	List	NET
E5429	MICS-70	10-70	\$0.50	30c
E5430	MICS-140	70-140	.60	36c
E5431	MICS-220	140-220	.70	42c
E5432	MICS-1000	600-1000	1.00	60c

"APC" MICRO CONDENSERS

High quality air-dielectric condensers; compact in size. Particularly adaptable to S.W. and Ultra S.W. work. Insulative base. Air gap .015". Will fit 1 1/4" dia. cans. Screwdriver adjustment.

No.	Type	Max. Mmf.	Min. Mmf.	NET
E5324	APC-95	45	3.0	\$0.78
E5325	APC-50	50	3.9	.90
E5326	APC-75	75	4.5	1.02
E5327	APC-100	100	5.5	1.14
E5442	APC-140	140	6.5	1.35

VARIABLE COUPLING IF'S

Type VT. Permits continuously variable selectivity from sharp peak to high fidelity; air-trimmed. I.F. frequency 465 KC. Size, 2 1/2" x 5".

E5378. NET..... **\$3.30**

E5385. Type VTC. Variable coupling mechanism for panel control of up to 4 VT transformers. NET..... **\$1.50**

E5383. Type VTF. Similar to VT, but with fixed coupling. For IF output stage.

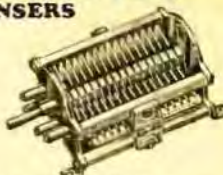
E5384. Type VTF-CT. Center-tapped output IF transformer; to diode detector.

E5387. Type VTO. 465 KC. beat oscillator. For electron-coupled oscillator. YOUR PRICE EACH..... **\$2.70**

TRANSMITTING TYPE CONDENSERS

"MTC"

For high and ultra-high frequency electrolytic units. Aluminum plates, silver-plated rotor contacts and insulative insulation insure complete stability.



No.	Plates	Mmf.	Cap. Voltage Rating	NET
E5630	15	15	.171" 500	\$3.60
E5631	5	20	.070" 3000	1.95
E5632	7	25	.070" 3000	2.10
E5633	11	50	.070" 3000	2.34
E5634	21	100	.070" 3000	3.00
E5635	31	150	.070" 3000	3.66
E5636	5	20	.031" 1000	1.83
E5637	11	100	.031" 1000	1.92
E5638	15	150	.031" 1000	2.16
E5639	25	250	.031" 1000	2.40
E5640	35	365	.031" 1000	2.40

* Polished round-edged plates—.040" thick.
* Polished round-edged plates—.025" thick.
* Standard type plates—.025" thick.

"MTCD" DUAL CONDENSERS

Similar to above. Stators may be connected in series to obtain half the capacity at twice the breakdown voltage.

No.	Plates	Cap. Per Sec.	Plate Spacing	NET
E5641	5	25	.070"	\$3.15
E5642	7	35	.070"	3.45
E5643	11	50	.070"	3.90
E5644	21	100	.070"	5.25
E5645	5	50	.031"	2.70
E5646	11	100	.031"	3.00
E5647	15	150	.031"	3.15
E5648	25	265	.031"	3.60

* Plain edges. Others are rounded.

We can supply the "TC" and "TCD" Series condensers on special order. Send us your order.

"HF" MICRO CONDENSERS

A new series of ultra-high-frequency variables. Very efficient in tuning or trimming critical high frequency circuits. Cadmium-plated plates, insulative insulation. Equipped with special wide front bearing. Noiseless in operation. * Indicates dual-spaced units.

No.	Plates	Mmf.	Mmf.	NET
E5585	5	15.5	2.0	\$0.75
E5586	10	35	3.6	.90
E5587	14	50	4.1	.96
E5588	27	100	5.0	1.14
E5589	37	140	6.7	1.35
E5590	10	30	2.0	1.15
E5591	20	30	5.3	1.11

"HFD" DUAL MICROS

No.	Cap. Per Sec.	List	NET
E5437	50	\$2.75	\$1.65
E5438	100	3.25	1.95
E5439	140	3.75	2.25
E5440	16	3.00	1.80
E5440*	28.5	3.25	1.95

NEUTRALIZING CONDENSERS

New rounded edge, thick aluminum plate type. One-sided fine thread nut for micrometer tuning. Set screw is provided for permanent setting. Has stop to prevent shorting.

E5426. Type N-10. 2 1/2" to 10 mmf. 1/8" to 1 1/2" air gap. Plate dia. 1 1/2". Size, 2 1/2" x 4 1/2". NET..... **\$1.80**
E5428. Type N-15. Same as above, but cap. is 3.2 to 14 mmf. NET..... **\$3.60**
E5427. Type N-20. 3.8 to 14 mmf. 1/8" to 2" air gap. Plate dia. 4". Size, 4" x 5 1/2" x 5 1/2". NET..... **\$3.90**

"CS-3" COIL SHIELD

Very effective as a general purpose shield. Made of heavy aluminum and slotted to afford easy handling. Comes in 2 pieces, top and bottom. Can be used for coils and condensers, etc. Dia. 3" height, 3 1/2". E5425. NET..... **30c**

Hammarlund Precision PRODUCTS

HAMMARLUND CHOKES



MIDGET CHOKES
CH-X

For receivers and transmitters. Adaptable to many uses in even the smallest space. Universal wound. Thoroughly impregnated. Center core is of Isolantite. May be mounted by its own leads in any position. D.C. resistance, 35 ohms. 2.1 MH at 125 MA. $1\frac{1}{2} \times 3\frac{1}{2} \times \frac{1}{2}$ "

E5344. List, 60c. NET 36c



CH-8

Low-loss 8 tub. R.F. choke. Ideal for all short-wave receivers and transmitters. Section wound on compact Isolantite core. Moisture-proof windings are protected by lacquer and cellophane. Equipped with flexible leads and reversible end brackets for universal mounting. D.C. resistance, 70 ohms. Current-rating 125 M.A. Size, $1\frac{1}{2} \times 3 \times 1\frac{1}{2}$ "

E5343. List, \$1.10. NET 66c

X-MITTING CHOKES—CH-500

A heavy-duty choke for parallel feed in high-powered transmitters in 20-40-80 and 160-meter bands. Has universal-wound type on Isolantite core. Inductance, 2½ mh.; D.C. resistance, 5 ohms. 500 M.A. continuous rating. Size: $1\frac{1}{2} \times 3 \times 1\frac{1}{2}$ " dia. x $2\frac{1}{2}$ " long.

E5345. List, \$1.75. NET \$1.05



SHIELDED CHOKES
CH-10-S

completely shielded in aluminum shell, especially suited for use in high-gain circuits. Eliminates circuit instability since there is no stray coupling. Has three impregnated universal-wound plates. Diameter, 1½". Inductance, 10 mh.; D.C. resistance, 65 ohms. 100 M.A. capacity.

E5381. List, \$1.00. NET 60c



RFC-85 CHOKES

High inductance chokes for use in plate circuits of all H.C. and S.W. receivers. Specially wound and impregnated; extremely low distributed capacity for maximum efficiency. Inductance, 85 mh.; D.C. resistance, 215 ohms. Max. current rating, 60 M.A. Burette case is $1\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$ " high and $1\frac{1}{2}$ " in dia.

E5349. List, \$2.00. NET \$1.20

ISOLANTITE SOCKETS STANDARD TYPE



Low-loss Isolantite sockets. Have long leakage paths. With positive front-panel side griping contacts. With mounting pillars. Glazed top and sides. Stub-panel or base mounting. Standard 1½" mounting centers.

E5339. 4 prong. List, 60c. NET, EACH
E5340. 5 prong.
E5341. 6 prong.
E5342. 7 prong (Medium).
E5343. 7 prong (Small).
E5337. 8 prong (Octal). **36c** **45c**



ACORN TUBE TYPE

Designed for the new RCA 955, 956 and 951 Acorn tube types. Low-loss. Glazed Isolantite base. Heat surface resistivity. Silver-plated bronze spring clips. $1\frac{1}{2}$ " in diameter with two mounting holes. $1\frac{1}{2}$ " mtg. centers.

E5338. List, \$1.50. NET 90c

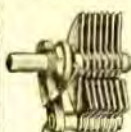


"TS-50" ALUMINUM TUBE SHIELD

Complete isolation is afforded by this shield for the new high-gain RF pentodes. Drawn-in neck completely shielding between grid and plate of tube. Special design affords maximum cooling. $4\frac{1}{2}$ " high, 1½" diameter. $1\frac{1}{2} \times 1\frac{1}{2}$ " mounting centers.

E5398. NET 24c

FAMOUS "STAR" MIDGET CONDENSERS



Popular low-priced midgets for set builders and experimenters. Sizes for short wave tuning, regeneration, variable, etc. Single hole mount. $1\frac{1}{2}$ " dia. x $1\frac{1}{2}$ " high, and up to $1\frac{1}{2}$ " deep behind panel, depending on capacity.

No.	Type	Mmf.	List	NET
E5328	SM-15	15	\$0.85	51c
E5329	SM-25	25	.85	
E5330	SM-50	50	.90	54c
E5331	SM-100	100	1.00	60c
E5332	SM-140	140	1.25	75c

DOUBLE-SPACED "STARS"

Similar to standard "STAR" condensers listed above, but with greater air-gap between adjacent rotor and stator plates, allowing use in low-power transmitter circuits.

E5333. Max. capacity 35 mmf. 60c

E5335. Max. capacity 50 mmf. 75c

List, \$1.00. NET List, \$1.25. NET



"SWK" S.W. PLUG-IN COILS

Efficient, well-designed S.W. coils. Wound on low-loss XP-52 forms. High frequency coil secondary have heavy silver-plated wire. Others have heavy enameled copper wire. For use with 140 mmf. condenser.

4 PRONG COILS: 17-270 METERS. Kit of 4, two-winding coils. \$1.80

E5367. List, \$3.00. NET

6 PRONG COILS: 17-270 METERS. Kit of 4, three-winding coils. \$2.25

E5368. List, \$3.75. NET

INDIVIDUAL "SWK" COILS

4 prong coils have two windings; 6 prong have three windings. For 140 mmf. condenser.

Range	4 Prong	6 Prong
10-20 Meters	E5399	E5389
17-41 Meters	E5390	E5392
33-75 Meters	E5391	E5393
NET	60c	75c
EACH		
66-150 Meters	E5394	E5396
135-270 Meters	E5395	E5397
NET	45c	60c
EACH		

Broadcast Coils: 250-500 Meters

E5369. 4 PRONG, two-winding coil. 75c

List, \$1.25. NET

E5370. 6 PRONG, three-winding coil. List, \$1.50. NET 90c

NET

NEW "SWF" LOW-LOSS COIL FORMS

Threaded low-loss forms of XP-53. Ribbed for air-spacing, with flange grips. Have shell inside for mounting padding condenser. $1\frac{1}{2}$ " dia. x $2\frac{1}{2}$ " long. Natural amber color.

E5371. 4 PRONG } 21c

E5372. 5 PRONG } Ea.

E5373. 6 PRONG } 24c

"TCF" X-MITTING COIL FORMS

Of low-loss XP-53 dielectric. Ribbed for air-spacing; with flange grips. May be base-mounted on brackets supplied or plugged-in. $2\frac{1}{2}$ " dia. x $2\frac{1}{2}$ " long.

E5379. TCF-1, 4 PRONG } 42c

E5380. TCF-5, 5 PRONG } EACH

CF-M COIL FORM

Isolantite coil forms designed for maximum efficiency at ultra-high frequencies. Forms are $1\frac{1}{2}$ " in diameter, 2" long exclusive of prongs, and have holes drilled to permit almost any type of experimental winding. Made in 5-prong type only. Ideal for coils tuning 28 and 50 Mc. bands.

E5382. List, \$1.00. 60c
YOUR PRICE

MIDGET CONDENSERS

High quality midget condensers. Insulated with Isolantite. Brass plates .0225" thick with an .0245" air gap, are securely fastened to the $\frac{1}{2}$ " shaft. Wide bearings at front and rear provide extra good contact. Clockwise rotation. Shaft extends beyond rear to facilitate gauging.



No.	Plates	Min. Mmf.	Max. Mmf.	List	NET
E5300*	5	1.5	20	\$1.40	\$0.84
E5301*	6	2	25	1.50	.90
E5302*	7	2.5	30	1.60	.96
E5303*	8	3	35	1.60	.96
E5304*	11	4	50	2.00	1.20
E5305*	14	5.5	100	2.25	1.35
E5306*	14	7	100	2.25	1.35
E5307*	19	8	140	2.50	1.50
E5308*	19	9	140	2.50	1.50
E5309*	27	10	200	2.75	1.65
E5310*	34	11	260	3.00	1.80
E5311*	43	15	320	3.50	2.10

*Semi-circular plates. All others are Midline.

DOUBLE-SPACED MIDGETS

Have special bearings and Isolantite insulation. Exceptionally efficient at ultra-high frequencies. Air-gap, .0715"

No.	Max. Mmf.	Min. Mmf.	List	NET
E5433	20	2.5	\$2.00	\$1.20
E5436	30	3	2.00	1.20
E5437	38	3	2.25	1.35
E5438	38	7.5	2.25	1.35
E5439	50	5.5	2.75	1.65
E5432*	50	8	2.75	1.65
E5435*	100	16.5	3.50	2.10

*Semi-circular plates. All others are Midline.

DUAL MIDGET CONDENSERS

Rigid, high quality two-gang midget condensers, designed especially to provide added efficiency at ultra-high frequencies. Plates are .0225" brass, with .0245" air-gap. Overall length behind panel, $3\frac{1}{4}$ "



E5434. 50 MMF. PER SECTION. Semi-circular Plates. Minimum capacity 5.5 mmf.

E5435. 50 MMF. PER SECTION. Midline Plates. Min. cap. 5 mmf. \$1.80

List, \$3.00. NET EACH

E5311. 100 MMF. PER SECTION. Midline Plates. Minimum capacity 6 mmf.

E5346. 100 MMF. PER SECTION. Semi-circular Plates. Min. cap. 6.5 mmf. \$2.10

List, \$3.50. NET EACH

E5312. 140 MMF. PER SECTION. Midline Plates. Minimum capacity 7 mmf.

E5347. 140 MMF. PER SECTION. Semi-circular Plates. Min. cap. 8 mmf. \$2.40

List, \$4.00. NET EACH

DOUBLE-SPACED DUAL MIDGETS

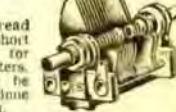
Similar to above, but have air-gap of .0715" between rotor and stator plates. Ideal for 5 meter transmitters and transceivers.

No.	Max. Mmf.	Min. Mmf.	List	NET
E5321	31	6	\$3.50	\$2.10
E5322*	31	6.5	3.50	2.10

*Semi-circular plates. Other is Midline.

BANDSPREAD MIDGETS

For use as bandspread tuning condensers in short wave receivers and/or amateur frequency meters. $1\frac{1}{2} \times 1\frac{1}{2}$ " section may be hooked, and all tuning done with bandspread section.



Stock No.	Tank Cap.	Tuning Cap.	List Price	NET PRICE
E5313	100	18	\$3.00	\$1.80
E5314	100	50	3.25	1.95

CONDENSER COUPLING

Bakelized canvas insulation; brass bushings. Flexible for gauging condensers, etc., without need of exact shaft alignment. For $\frac{1}{4}$ " shafts $1\frac{1}{2}$ " diameter.



E5323. List, 60c. 36c
YOUR PRICE

AMATEUR TRANSMITTERS

POPULAR UTAH TRANSMITTERS



THE UTAH JUNIOR

A complete kit to build a low power CW rig with power output up to 25 watts. Uses 1-6F6 or 6L6 in a crystal-controlled harmonic oscillator, and 1-5Z4 rectifier. Has built-in power supply. Operates on all bands from 160 to 10 meters. Will operate on two or more bands with one crystal. Has tuned antenna coupling. Requires one 2-inch 0-100 MA meter, 12x7x10". E9863. Less tubes, crystal. **\$15.95**
NET

ACCESSORY KIT

Contains: 1-RCA 6L6 and 1-RCA 5Z4 tubes, 1-Triplett 2-inch 0-100 MA meter, and 1-Billey crystal for 160, 80, or 40 meter band. E9857. Accessory Kit. **\$10.00**
NET

5-10-20 X-MITTER KIT



A sensational new 45 watt CW-Phone transmitter kit for use on the Amateur 5, 10, and 20 meter bands. Highly efficient circuit uses two separate final R.F. stages. Complete band-switching permits rapid change of operation to any of the three frequency bands. Flamingo-ray wrinkle-finished cabinet contains entire R.F. unit, speech amplifier-modulator, and dual plate and filament power supplies. Requires: 1-6F6, 2-6L6, 2-6L6G, 2-807, 2-6N7, 1-6J7, 2-866 Jr., 1-83V, 1-5Z3 tubes; one 0-75 and one 0-150 MA Simpson meters; and one or two 7 MC crystals. All necessary parts and cabinet supplied, with complete instructions. Easily assembled in a few hours. Wt. 82 lbs. E9950. Complete, less only tubes, meters, and crystals. **\$69.75**
NET

ACCESSORY KIT

Contains complete set of RCA and Taylor tubes, two Simpson meters, and one Billey H5 7 MC crystal (crystal within 5 KC of specified frequency). E9951. Accessory Kit. NET **\$32.00**



80 WATT CW KIT

An ideal starting rig for the beginner. It's new and up-to-the-minute; uses a 6L6 regenerative crystal oscillator, parallel 6L6's in the RF amplifier, and 1-5Z3 and 2-866 Jr. rectifier. Will safely handle input power up to 80 watts. Attractive steel cabinet, 18x16x10 1/2", is finished in black crystal. Circuit design produces maximum "suck" without excessive power requirements. Easy to assemble; all drilling and punching are already done. Requires one 0-50 and one 0-200 MA meters, 2" size. Complete, ready for assembly, less only tubes, crystal and meters. Wt. 46 lbs. **\$49.75**
E9858. NET

E9558. Accessory Kit containing complete set of RCA tubes, Triplett meters, and one Billey crystal for 160, 80, or 40 meters (within 5 KC). NET. **\$14.75**

50 WATT MODULATOR KIT

For use with 80 watt CW unit, or as driver for 250 watt modulator. Uses 2-6E5, 1-6N7, 1-6J7, 2-6L6, 1-80, and 1-5Z3 tubes. Requires 2 meters: 0-25 and 0-200 MA, 2" size. Has a self-contained power supply. Less tubes and meters. Wt. 57 lbs. **\$49.75**
E9859. NET

E9559. Accessory Kit containing complete set of RCA tubes and Triplett meters for 50 watt modulator kit. NET. **\$12.50**

ANTENNA COUPLER KIT

For use with either the 80 watt CW kit, or with the complete 400 watt transmitter. Will match any type of tuned feeder system. Cabinet, 18x8x9 1/2". Requires 1:0-5 RF ammeter. Supplied with all necessary hardware: coil already wound. Less meter. Wt. 17 lbs. **\$14.95**
E9860. NET

E8893. Triplett 0-5 A. R.F. ammeter. NET. **\$6.53**

500 WATT R.F. AMPLIFIER

Can be driven by the Utah 80 watt CW unit, or any similar exciter unit. Uses 2-T55 and 2-866 tubes. Has a heavy-duty built-in power supply. Requires two 3 1/2" meters, 0-100 and 0-500 MA. Cabinet size, 18x17x10 1/2". No antenna coupling circuit; use Coupling Unit E9860. Less tubes and meters. Wt. 15 lbs. **\$49.75**
E9861. NET

E9561. Accessory Kit of Taylor tubes and Triplett meters. NET. **\$23.75**

250 WATT MODULATOR KIT

For use with the 500 watt RF amplifier above. Uses 2-90Z5 tubes. Has self-contained power supply using 2-866 tubes. Requires two 3 1/2" meters, 0-100 and 0-500 MA. Cabinet as above. Less tubes, meters. Wt. 104 lbs. **\$49.75**
E9862. NET

E9562. Complete set of Taylor tubes and Triplett meters for 250 watt modulator. NET. **\$25.75**

NEW THORDARSON 100 WATT MULTI-BAND TRANSMITTER



An extremely compact, modern 100 watt Multi-Band transmitter in complete, easy-to-assemble kit form. Panels and chassis, finished in black crackle, are milled and drilled. Transmitter consists of two units: R.F. unit and Modulator unit, each with built-in power supply. Complete band-switching for all circuits from front of panel. R.F. unit uses 6L6G oscillator, 6L6G buffer-doubler, and T210 final amplifier; 1-83 and 2-866 Jr. rectifiers. Modulator uses 1-6J7, 1-6F5, 1-6F6, 2-6L6, 1-82, and 1-83 tubes. Complete descriptive literature sent on request.

R.F. UNIT KIT

All necessary parts for the construction of the R.F. unit. Kit includes: Drilled and punched chassis and panel, Thordarson transformers and chokes, hardware, Barker-Williamson turret and coils for 160, 80 and 20 meters, meter, condensers, resistors, wire, coil-forms, and instructions. Less tubes, crystals. Wt. 74 lbs. **\$82.32**
E9565. NET

E9585. Complete kit of tubes for the R.F. unit. NET. **\$9.15**

MODULATOR UNIT KIT

Consists of all necessary parts for the Modulator unit of the Thordarson transmitter. Contains drilled and punched chassis and panel, hardware, transformers, chokes, sockets, meter, condensers, resistors, wire, etc. Less tubes. Wt. 73 lbs. **\$44.10**
E9566. NET

E9586. Complete tube kit for Modulator Unit. NET. **\$6.50**
E10196. Steel Cabinet to hold both R.F. and Modulator units. Black wrinkle finish. NET. **\$10.29**

NEW SPEECH AMPLIFIER

Designed and engineered to provide the Amateur with properly designed speech equipment; this new Thordarson Speech Amplifier Kit is adaptable to any Amateur phone transmitter. Conservatively rated at 15 watts output; sufficient to drive even the largest Class "B" modulator. Properly designed to provide maximum stability and eliminate R.F. feedback and hum. Uses 1-6F5, 2-6C5, 2-2A3, 1-5Z3, and 1-86. Input for crystal mike; 500 ohm line output. Descriptive literature sent on request.

E9852. Kit of all parts for table model, including drilled chassis, transformers, chokes, etc. Wt. 43 lbs. Less tubes. NET. **\$26.90**
Where CHT type units are preferred, add \$5.59.

E9853. Complete kit of parts as above, but for relay rack mounting. Less tubes. NET. **\$28.13**

E9584. Complete Kit of tubes for above. NET. **\$5.85**

HALLICRAFTERS "HT" HAM TRANSMITTER

Designed, developed, and produced by the famous Hallcrafters laboratories. Modern in styling and professional in appearance; built around the latest tubes and most advanced circuits. Conservatively rated power output; will out-perform many 150 to 250 watt home-built rigs. Generously oversized components for utmost dependability. Flexibility and simplicity of operation make it an ideal unit for use by beginner or advanced Amateur. Supplied for operation on 10-20-40 meters, but can be supplied with any three-band combination desired. Accessories required are: Astatic D104 crystal mike, Biss battery, and transmitting key. Write for descriptive literature.

MODEL HT-1

For CW only. Less modulator and accessories. Shpg. wt. 120 lbs. **\$175.00**
E10170. NET

\$17.50 down, 8 monthly payments of \$21.66.

SPECIFICATIONS

OUTPUT: 50 watts Phone, 100 watts CW. RANGE: 10-20-40 meters; single control band-switching. TUBES: 2-6A6 osc. 1st and 2nd doublers, 1-RK47 R.F. amplifier, RECTIFIERS: 2-5Z3, 1-80, 2-866. MODULATORS: 1-6J7, 1-6F5, 4-6L6. Modulation capability 100%. METERS: 4, check all circuits. CONTROLS: Fil. and Plate Switches, Phone-CW Switch, Band-Switch, Gain Control. OUTPUT TERMINALS: From adjustable pickup coils; automatically selected by band-switch. CABINET: Welded steel, 25 1/2" long, 11 1/2" high, 19 1/2" deep. SUPPLIED COMPLETE with tubes, 10-20-40 meter coils, and one 40 meter crystal.

MODEL HT-1

For Phone and CW. Less accessories. Shpg. wt. 145 lbs. **\$195.00**
E10171. NET

\$19.50 down, 8 monthly payments of \$24.13.



- 50 WATTS 'PHONE — 100 WATTS CW
- SINGLE CONTROL BANDSWITCHING
- 100% MODULATION FOR 'PHONE
- FACTORY-BUILT — READY TO WORK
- FAMOUS HALLICRAFTERS QUALITY

Transmitting Equipment

HALLICRAFTERS MARINE TRANSMITTER-RECEIVER



Developed in the famous Hallcrafters Laboratories, this new combination transmitter-receiver is intended for use by the small boat or yacht owner. Operates entirely from a 12 volt storage battery, with a carrier power output of 50 watts. Will provide radio-telephone communication from Ship-to-Ship on any three frequencies in Marine band of 2100 to 2900 KC.

SIMPLE TO OPERATE

Selection of operating frequency is made by front panel switch. Output of receiver is automatically switched from front panel loudspeaker to telephone receiver when handset is lifted from hook. Pressing push-to-talk switch in handset starts transmitter. Single switch turns on all tube filaments; other controls are the receiver volume control, frequency selector switch, and meter switch for checking operation of tuning adjustments. Total power drain is 35 amperes from 12 volt battery when transmitting, 9.5 amperes during standby periods. Vibrator and dynamotor plate supplies are built-in. Available for operation from other DC voltages at slightly higher prices. Entirely self-contained in cabinet 20 3/4" wide, 11 1/2" high, and 10 1/2" deep. Supplied with tubes. Ship. wt., 155 lbs. Write for descriptive booklet.

E10663. Complete, less \$390.00
NET

RTL "COMPACT" TRANSMITTER-RECEIVER



A portable 50-60 MC unit. Transmitter employs 1-20 as input amplifier, 1-19 as Class B Modulator, and 1-17 as push-pull oscillator. Carrier, 2 watts, 8 watts peak. Non-radiating receiver uses 1-34 or 1-1A4 T1P stage, 1-30 super-regenerative detector and the 2 watt audio system of the transmitter. Housed in 12 1/2" x 15" x 5" steel case with carrying handle. Batteries fit in lower compartment. Requires 3 portable type 45 volt "B" batteries, 2 dry cells and 1-4 1/2 volt "C" battery. Weighs only 25 lbs. with all batteries. Weighs less batteries. 1 1/2 lbs. Compact, easy to handle anywhere.

E10192. Less tubes and accessories. \$26.50
NET

E10194. TELESCOPING FLEX-STEEL ANTENNA. For use with the "Compact." Adjustable from 3 1/2 to 9 ft. \$2.60
NET

GORDON DX WORLD CLOCK



A modernistically designed electric clock especially developed for the Amateur and Short-Wave DX fan. Has multiple colored dials which tell the time accurately in GMT and Standard time in any part of the world. Dial face is plainly marked for day and night hour markings. Self-starting genuine Waltham movement for operation from standard 110 V. 60 cycle line.

E10133. NET \$8.82

1939 HOWARD COMMUNICATIONS RECEIVERS



12 TUBE "HAM" MODEL 450A

Complete continuous tuning range covers all frequencies from 540 KC to 65,000 KC in six continuous bands. Features: Illuminated full-vision dial; TRF stage on all but 5 meter band; Air-trimmed IF and RF circuits; Iron-core IF's; Dual IF frequency, 456 and 1560 KC; Calibrated R meter; Full electrical band-spread with separate dial scale; IF and AF main controls; Stabilized built-in power supply; Inductor-tuned tuning system; Antenna input for single wire or doublet with separate input for 5 meter antenna, etc. Attractively finished in telephone black with suede wrinkle panel and satin silver dial and meter. All controls grouped for easy operation; fly-wheeled momentum type tuning dial has separate scales for each band, separate scale for bandspread. Supplied with tubes. Size, 21 1/2" x 11 1/2" x 10 1/2". Ship. wt., 59 lbs. For 110 volt 50-60 cycles.

E10667. Less speaker and crystal. NET \$87.50

E10668. Less speaker, but equipped with crystal for single-signal operation. NET \$97.50

E10669. 8" PM speaker in metal cabinet. NET \$7.95



NEW 9 TUBE MODEL 440

This continuous tuning from 540 KC. to 40,000 KC. in 6 bands. An ideal medium-priced All-Wave Communications type receiver for the Amateur or S.W. DX fan. Ruggedly built with features usually found only in higher-priced receivers: Illuminated dual-dial; main tuning dial calibrated in M.C., finely calibrated band-spread or loading scale. Also has: Calibrated R meter, R.F. stage on all bands, Iron-Core I.F.'s, Air-tuned R.F. circuits, Coaxially mounted I.F. coils with unused coils stored out. Beat Oscillator with pitch control. Crystal filter with plussing control, Stabilized built-in power supply, A.V.C. on-off switch, R.F. and Audio gain controls, Send-Receive switch, etc. Tuning dials are fly-wheeled momentum type. All controls grouped for easy, wireless operation. Cabinet finished in telephone black, with trimmings in satin silver. Supplied with tubes. For 110 volt 50-60 cycles.

E10664. Less speaker and crystal. NET \$66.50

E10665. Complete with Crystal, 1088 Speaker. NET \$76.50

E10669. 8" PM speaker in metal cabinet. NET \$7.95

NEW LOW-COST 6 TUBE MODEL 430

Designed to provide maximum performance for the beginning Amateur or Short-Wave Listener with a limited budget. Has continuous tuning from 540 to 40,000 K.C. in 4 bands. Full vision horizontal dial has calibrated scales; separate band-spread scale and band-in-use indicator. Features: Iron-Core I.F.'s, Beat Oscillator with pitch control, Electrical band-spread, built-in dynamic speaker and power supply, A.V.C. on-off switch, Audio gain control, Send-Receive switch, etc. Small compact cabinet finished in telephone black, trimmed in satin silver. For 110 volts 50-60 cycles.

E10666. Complete with tubes. NET \$29.95



MEISSNER SIGNAL SHIFTER



Every operator of an Amateur transmitter can now have quiet, accurate control of frequency. Will allow quick QSY over the entire band in 10, 20, 40, 80 and 160 meter bands. Output is sufficient to drive 1K2's, 80 J's, 800's, etc. Tuning dial has precision vernier

scale. Can be link-coupled to transmitter for remote control. Equipped with "ON", "Stand-by" and "Automatic" position switch. Construction is exceptionally stable, using 1-6F6, 1-8L6 and 1-80. With 80 meter coils, but less tubes. For 110 V. 60 Cycles. \$39.15
E9899. NET

ADDITIONAL COILS

E5600. 160 meter coils, E5603. 20 meter coils,
E5601. 80 meter coils, E5604. 10 meter coils,
E5602. 40 meter coils. \$2.45
NET, PER SET

LISTENING MONITOR



For Amateur station monitoring, checking quality of emitted signal or phone carrier, or for frequency dial check. (Not a receiver.) Furnished complete with coils for 20, 40 and 80 meter amateur bands. In rugged steel case, 5 1/2" x 10". Requires 1-09 tube, 1-0 V. "C" battery and 1-22 1/2 V. "B" battery (not supplied). \$3.95
E1933. YOUR PRICE

HAMMARLUND "SUPER-PRO"



The world's finest all-purpose communications receiver. Built around a 16 tube superhet circuit that includes every major development in high efficiency receiver design. Simple enough for even the novice to tune. For all Commercial, Marine, Aircraft, Municipal, or Amateur communications work. Main tuning dial with 12 to 1 ratio calibrated in KC and MC. Variable band width of 3 to 16 KC for high fidelity reception; with calibrated control. Uses eight metal and eight glass tubes. Write for FREE Hammarlund catalog for complete data. Available on Time Payments; details on request.

E10141. MODEL SP-110. 15 to 560 meters. With tubes, power supply, and 8" speaker, 110 V., 50-60 cycles.

E10142. MODEL SP-110S. 7 1/2 to 240 meters. With tubes, power supply, and 8" speaker, 110 V., 50-60 cycles. \$238.14
EITHER MODEL, NET

E10143. MODEL SP-110X. Same as Model SP-110, but has built-in crystal filter for extreme selectivity. For 110 V., 50-60 cycles.

E10144. MODEL SP-110SX. Like SP-110S, but has built-in variable selectivity crystal filter. For 110 V., 50-60 cycles. \$255.78
EITHER MODEL, NET

Transmitting Equipment



TYPE T20

A general-purpose triode especially suited to all low-power transmitter circuits. Will furnish efficient performance as R.F. amplifier at all frequencies up to 56 MC. Filament, 7.5 volts at 1.75 A. Plate, 750 volts max. for Class C service; Max. D.C. plate current, 75 M.A. R.F. output, 43 W. **\$2.25**

TYPE T210

A high- μ triode for Zero Bias Class B Audio operation, and for efficient frequency multiplier. Same general characteristics as T20 but with ampl. factor of 62. Class B output, 70 W. per pair. **\$2.25**

TYPE T125

A husky triode with carbon anode and patented tantalum film for higher efficiency. Plate diss., 125 W.; max. plate input, 400 W. Fil., 10 V. at 3.85 A. Plate, 2000 V. D.C. at 200 M.A. R.F. output, Class C 300 W. Ampl. factor, 25. Plate to grid, 4.5 mm. **\$13.50**

TYPE T200

"The Amateur's Power House Tube." Max. input to one tube, 700 W. modulated or 875 W. for CW. 200 W. plate diss. Fil., 10-11 V. at 4 A. Plate, 2500 V. at 350 M.A. max. Ampl. factor, 16.6; driving power required, 20 to 35 W. **\$21.50**

TYPE 822

Recommended for Class B audio use, or for R.F. service up to 30 MC. Plate diss., 200 W.; plate, 2500 V. at 300 M.A. max. Fil., 10 V. at 4 A. R.F. output, 400 W. Class B audio output, 500 W. per pair. Ampl. factor, 27. Driving power required, 29 to 30 W. **\$18.50**

BARKER-WILLIAMSON AIR INDUCTORS



Accurately designed and carefully assembled to provide maximum plate or grid current efficiency. Eliminate bulky home-made coils with high R.F. power loss. Get increased performance with these H.W. coils. All Standard coils tested, stamped. Power ratings are: B, BL and BVL series, 100 W.; BXL and TVL series, 250 W.; T and TL series, 500 W.; HD, HDL, and HDVL series, 1 KW. In ordering BL series coils, specify whether end or center link is desired. Equipped with plug-in with banana plugs. Capacity to resonate at low frequency end of band.

Cat. No.	Type	Cap.	Wire Size	Dia.	NET
"B" SERIES—STANDARD COIL					
E12800	180B	110	18	2 3/16"	\$1.75
E12801	80B	52	12	2 3/16"	1.50
E12802	40B	43	14	2 3/16"	1.50
E12803	20B	40	14	2 3/16"	1.05
E12804	10B	28	12	2 3/16"	1.00
"BL" SERIES—LINKED TYPE CDIL					
E12805	160BL	110	18	2 3/16"	\$2.50
E12806	80BL	52	12	2 3/16"	2.30
E12807	40BL	43	14	2 3/16"	2.05
E12808	20BL	40	14	2 3/16"	1.80
E12809	10BL	28	12	2 3/16"	1.75
"BXL" SERIES—LINKED TYPE CDIL					
E12810	160BXL	100	14	4"	\$2.80
E12811	80BXL	54	14	3"	2.60
E12812	40BXL	51	14	2 3/4"	2.35
E12813	20BXL	45	14	2 3/4"	2.10
E12814	10BXL	35	12	2 3/4"	2.05
"T" SERIES—STANDARD COIL					
E12815	160T	115	12	5"	\$1.85
E12816	80T	60	12	3 3/4"	1.65
E12817	40T	38	12	2 3/4"	1.40
E12818	20T	30	12	2 3/4"	1.15
E12819	10T	25	12	2 3/4"	1.10
"TL" SERIES—LINKED TYPE CDIL					
E12820	160TL	115	12	5"	\$2.85
E12821	80TL	60	12	3 3/4"	2.65
E12822	40TL	38	12	2 3/4"	2.40
E12823	20TL	30	12	2 3/4"	2.15
E12824	10TL	25	12	2 3/4"	2.10
"HD" SERIES—STANDARD COIL					
E12825	160HD	90	10	5"	\$4.25
E12826	80HD	50	10	3 3/4"	3.50
E12827	40HD	35	8	3 3/4"	3.00
E12828	20HD	29	8	3 3/4"	2.75
E12829	10HD	25	4	3"	2.25

Taylor

TRANSMITTING TUBES

The favorite of Amateurs everywhere, these tubes have many exclusive features. Floating carbon anodes on all tubes over 50 Watts rated plate dissipation. All carbon anode tubes can be run at red heat without danger to filament. Buy "TAYLOR" for "MORE WATTS PER DOLLAR." Amateurs everywhere swear by them.

TYPE 866 Jr.

A half-wave mercury vapor rectifier for all medium and low-voltage requirements. Fil., 2.5 V. at 2.5 A. Max. RMS A.C. volts, 1250. Max. D.C. current per pair with choke input, 250 M.A. Standard 4 prong ceramic base. Filament **\$1.00**

TYPE 866

The world's most famous half-wave mercury vapor rectifier tube. Made with the exclusive Taylor multi-strand filament with double the emitting surface of ribbon types. Fil., 2.5 V. at 5 A. Inverse peak volts, 7500; peak current, 6 A. Standard 4 prong base. **\$1.50**

Type	No.	Plate Diss.	Class of Service	NET
203A	E11116	100 W.	B-C	\$12.50
805	E11147	125 W.	B-C	13.50
814	E11106	200 W.	B-C	18.50
841SW	E11110	50 W.	C	18.00
845	E11115	75 W.	A	18.00
HD203A	E11118	150 W.	A-B-C	14.50

WRITE FOR COMPLETE TAYLOR TUBE MANUAL GIVING FULL TUBE DETAILS. SENT FREE ON REQUEST.

TYPE T55

A medium-power triode capable of high efficiency at all frequencies up to 120 MC. Plate diss., 55 W. Max. R.F. output per tube, 168 W. Plate, 1500 V. at 150 M.A. max. Fil., 7.5 V. at 2.75 A. Ampl. factor, 20. Requires a minimum of driving power for maximum output. Floating carbon anode. **\$7.00**

TYPE T40

"The Wonder Tube." Plate diss., 40 W. Max. R.F. output, 80 W., ample to drive a 1 KW amplifier. Fil., 7.5 V. at 2.5 A. Plate, 1400 V. at 115 M.A. max. Ampl. factor, 25. Needs only 10 W. grid drive. **\$3.50**

TYPE TZ40

A zero bias triode. General characteristics same as T40, but ampl. factor of 62. For use as Frequency multiplier or Class B modulators. Class B audio output, 175 W. per pair with only 3 W. grid drive. **\$3.50**

TYPE 805

A high- μ zero bias triode providing up to 450 watts of audio per pair as Class B modulators. Plate diss., 125 W. Plate, 2000 V. at 200 M.A. Class C; 1750 V. at 300 M.A. Class B max. Fil., 10 V. at 3.85 A. **\$13.50**

TYPE 203Z

An improved zero bias version of the always-popular 203A, intended for Class B audio service. Will deliver 300 W. of audio with only 8 W. grid drive. Fil., 10 V. at 3.25 A. Plate, 1250 V. at 350 M.A. Metal plate, 65 W. diss. Suitable for R.F. use up to 15 MC. **\$8.00**

Cat. No.	Type	Cap.	Wire Size	Dia.	NET
"HDL" SERIES—LINKED COIL					
E12830	160HDL	90	10	5"	\$6.25
E12831	80HDL	50	10	3 3/4"	5.50
E12832	40HDL	35	8	3 3/4"	5.00
E12833	20HDL	29	8	3 3/4"	4.75
E12834	10HDL	25	4	3"	4.25
"HDVL" SERIES—SWINGING LINK COIL					
E12835	80HDVL	44	10	3 3/4"	\$4.50
E12836	40HDVL	28	8	3 3/4"	4.00
E12837	20HDVL	25	8	3 3/4"	3.75
E12838	10HDVL	25	4	2 3/4"	3.25
"TVL" SERIES—SWINGING LINK COIL					
E12839	160TVL	95	18	2 3/4"	\$2.25
E12840	80TVL	50	12	2 3/4"	2.15
E12841	40TVL	34	12	2 3/4"	1.90
E12842	20TVL	28	12	2 3/4"	1.65
E12843	10TVL	22	6	2 3/4"	1.60
"BVL" SERIES—SWINGING LINK COIL					
E12844	160BVL	150	18	2 3/4"	\$2.10
E12845	80BVL	70	16	2 3/4"	1.90
E12846	40BVL	40	14	2 3/4"	1.65
E12847	20BVL	40	14	2 3/4"	1.45
E12848	10BVL	35	8	2 3/4"	1.40
E12849	5BVL	25	8	2 3/4"	1.35

B-W COIL ACCESSORIES

Plug-in jack bars with jacks, and base assemblies. TV, HDV, and BVL assemblies include swinging link.

E12850.	Inductance clip	\$0.10
E12851.	Jack bar for HD, HDL, HDVL	1.75
E12852.	Jack bar for T, TL, TVL	1.25
E12853.	Jack bar for BXL coils	1.15
E12854.	Jack bar for B, BL, BVL	.85
E12855.	HDV base assembly	5.00
E12856.	TVL base assembly	4.00
E12857.	BVL base assembly	2.50
E12858.	Model B turret mounting	7.50
E12859.	Pin-turret coil	.65



A high- μ zero bias triode providing up to 450 watts of audio per pair as Class B modulators. Plate diss., 125 W. Plate, 2000 V. at 200 M.A. Class C; 1750 V. at 300 M.A. Class B max. Fil., 10 V. at 3.85 A. **\$13.50**

An improved zero bias version of the always-popular 203A, intended for Class B audio service. Will deliver 300 W. of audio with only 8 W. grid drive. Fil., 10 V. at 3.25 A. Plate, 1250 V. at 350 M.A. Metal plate, 65 W. diss. Suitable for R.F. use up to 15 MC. **\$8.00**



OHMITE R.F. PLATE CHOKES

High efficiency R.F. chokes for all transmitter circuits. Single layer windings on ceramic core with insulated coating. Rated at 1000 MA.

E8250, TYPE 21. For the 5 meter band. Inductance, 5.4 microhenries. D.C. resistance, 85 ohms. 1 1/2" long. Pigtail leads. **15c**

E8251, TYPE 22. For 10 and 20 meters. 35 microhenries. Resistance, 2 ohms. Length, 3"; diam. 1 1/4". With mtg. brackets. **44c**

E8252, TYPE 23. For 20 and 40 meters. 95 microhenries. Resistance, 5 ohms. Length, 6"; diam. 1 1/2". With mtg. brackets. **65c**

E8253, TYPE 24. For 20, 40, 80, 160 meters. 230 microhenries. Resistance, 9 ohms. Size, 6 1/2 x 3/4". With mounting brackets. **88c**

KNIGHT R.F. CHOKES

MIDGET TYPE
Very popular with the Amateur and Experimenters. Inductance, 2 1/2 M.H. D.C. resistance 60 ohms. Capacity, 125 M.A. Universal type winding in five sections on ceramic core. **14c**

E2163, EACH **\$1.25**

HEAVY-DUTY TYPES

E2164, 2 1/2 MH at 1000 M.A. Three section universal-wound. Res., 5 ohms. With mounting brackets. **88c**

E2165, 3 MH at 500 M.A. Five universal-wound sections on ceramic core. Res., 12 ohms. NET **73c**

E2166, 2.8 MH at 1000 M.A. Five tapered-core universal-wound sections. Ceramic core. Res., 5 ohms. NET **88c**

E2167, 5.3 MH at 500 M.A. Same as E2166 but resistance is 12.5 ohms. **88c**

Transmitting Equipment



TYPE RK49

A beam-power tetrode similar to the 6L6, but having a six strong isolantite base. An ideal crystal oscillator, frequency multiplier, or neutralized R.F. amplifier. May be either plate or screen modulated. Fil., 6.3 V. at 0 A. Plate, 400 V. at 95 M.A. max. Power output, 25 W. max. Carbon-nickel plate rated at 21 W. dissipation. **\$210**
E676. NET.

TYPE RK15

A low-power pentode with isolantite base. Fil., 6.3 V. at 0 A. Plate, 500 V. at 50 M.A. max. Carbon-nickel plate, 10 W. dissipation. Power output, 18 W. **\$4-50**
E658. NET.

TYPE RK48

A high-power aligned-grid tetrode with 100 W. plate dissipation and 350 W. power output. Fil., 10 V. at 0 A. Plate, 2000 V. at 180 M.A. Driving power required, 1.0 to 1.8 W. **\$27-50**
E682. NET.

TYPE RK39

A low-power aligned-grid beam-power tetrode with max. R.F. power output of 30 W. Fil., 6.3 V. at 0 A. Plate, 600 V. at 98 M.A. R.F. driving power required, 0.5 W. Isolantite base. **\$3-50**
E672. NET.

TYPE RK43

A dual-triode for use as oscillator or amplifier in portable equipment with dry-cell filament supply. Fil., 1.5 V. at 0.12 A. Plate, 135 V. at 14 M.A. **\$1-50**
E671. NET.

TETRODES

Type	No.	Plate Diss.	Class of Service	NET
RK41	E669	25 W	C	\$ 3.50
RK47	E631	50 W	C	17.50

OHMITE VOLTAGE DIVIDERS

Ideal for transmitting power supplies. Conservatively rated. Have sliding contacts. 100 watt size is 8 1/2" long; 200 watt 10 1/2" long. Hollow ceramic tube permits air circulation to prevent overheating; covered with baked enamel coating.

50 WATTS

No.	Ohms	M.A.	NET Each
E6359	250	447	79c
E6360	500	316	
E6361	750	258	
E6362	1000	224	
E6363	1500	183	
E6364	2000	158	
E6365	3000	142	
E6366	5000	100	
E6367	10000	70	
E6368	15000	57	
E6369	20000	48	
E6370	25000	43	
E6371	30000	41	
E6372	40000	35	
E6373	50000	25	
E6374	100000	12	
E6379	EXTRA SLIDER		1.18

100 WATTS

No.	Ohms	M.A.	NET
E6375	1000	316	\$1.18
E6376	5000	141	
E6377	10000	100	
E6378	15000	81	
E6379	20000	70	
E6380	25000	56	
E6381	30000	51	
E6382	40000	38	
E6383	50000	29	
E6384	75000	16	
E6385	100000	14	
E6386	EXTRA SLIDER		1.62

200 WATTS

No.	Ohms	M.A.	NET
E6387	1000	447	\$1.76
E6388	5000	200	
E6389	10000	141	
E6390	15000	115	
E6391	20000	100	
E6392	25000	89	
E6393	30000	81	
E6394	40000	63	
E6395	50000	49	
E6396	75000	30	
E6397	100000	20	
E6398	EXTRA SLIDER		2.06

RAYTHEON

TRANSMITTING TUBES

TYPE RK20A

A medium-power triode with tungsten filament and isolantite base. Plate dissipation, 40 W. Power output, 84 W. with 1.0 W. driving power. Fil., 7.5 V. at 3.25 A. Plate, 1250 V. at 92 M.A. **\$15-00**
E655. NET.

TRIODES

Type	No.	Plate Diss.	Service	NET
RK10	E650	12W	B-C	\$ 3.50
RK12	E646	25W	B-C	2.50
RK18	E653	40W	B-C	10.00
RK24	E657	1.5W	C	20.25
RK31	E661	35W	B-C	10.00
RK32	E662	40W	B	12.00
RK33	E663	50W	C	12.00
RK34	E664	Dual Triode	B-C	3.50
RK35	E665	35W	C	8.00
RK36	E666	100W	B-C	14.50
RK37	E667	32W	B-C	7.50
RK38	E668	100W	B-C	13.50
RK42	E670	Triode	B	1.10
RK51	E647	60W	C	8.00
RK52	E648	62.5	B-C	8.00
RK100	E677	10W	C	7.00
841	E678	12W	C	3.25
842	E679	12W	A	3.25
864	E680	Preamp.	A	1.00

CLASS OF SERVICE. CLASS A: Audio Amp.; CLASS B: Class "B" Mod. or Class "B" RF Amp.; CLASS C: RF Osc., Buffer, Doubler, or Amplifier.

HANDBOOK OF AMATEUR TUBE USES

71 pages of detailed circuit data, operating curves, tube characteristics, and operating conditions on Raytheon Amateur tubes. **50c**
E709B. NET.

TYPE RK11

A medium-power triode with power output of 55 W. requiring only 3.2 W. grid driving power. For use as oscillator, frequency multiplier, or R.F. amplifier. Fil., 6.3 V. at 3.0 A. Plate, 750 V. at 105 M.A. max. Plate dissipation, 25 watts. Has a thoriated tungsten filament and isolantite base. Plate connection at top cap. **\$2-50**
E645. NET.



TYPE RK3d

A twin-triode for use as audio amplifier. Class C oscillator, frequency multiplier, or R.F. amplifier. Fil., 6.3 V. at 0.8 A. Plate, 300 V. at 80 M.A. max. Isolantite base. **\$3-50**
E664. NET.

TYPE RK47

An aligned-grid beam-power pentode with R.F. output of 120 W. with only 1.5 W. grid driving power. Fil., 10 V. at 3.25 A. Plate, 1250 V. at 138 M.A. **\$17-50**
E681. NET.

TYPE 866

Half-wave mercury vapor rectifier. Fil., 2.5 V. at 5A. Peak inverse voltage, 7500 peak plate current, 1 A.; max. D.C. plate, .5 A. **\$1-50**
E649. NET.

TYPE 866A

Half-wave mercury vapor rectifier with peak inverse voltage rating of 10,000 V. D.C. output current, .5 A. Fil., 2.5 V. at 5 A. **\$4-00**
E686. NET.

PENTODES

Type	No.	Plate Diss.	Service	NET
RK23	E656	10W	C	\$ 4.50
RK25B	E659	10W	C	3.50
RK28	E660	100W	C	34.50
RK44	E673	15W	C	8.50
RK45	E674	10W	B	5.65
RK46	E675	40W	B	21.75
1851	E644	Television		2.10

COTO LO-LOSS INDUCTORS



Designed for maximum efficiency in either high or low power transmitters. Less bulky than copper tubing coils and require smaller space for mounting. Rigid construction with low dielectric losses. Wire protected from oxidation by coat of colorless baked enamel. Equipped with plug-in base with busbars. "T" and "TL" series handle up to 1 KW input; "B" and "BT" coils handle up to 500 watts input; "A" are antenna coils for inductive coupling or pi-section network.



"T" SERIES

No.	Type	Wire Size	No. Turns	Diam.	NET
E22228	160T	12	42	5"	\$2.29
E22229	80T	10	30	4"	1.94
E22230	40T	10	20	3"	1.71
E22231	20T	10	10	3"	1.35
E22232	10T	10	6	2 1/2"	1.29

"TL" SERIES (WITH FIXED LINK)

No.	Type	Wire Size	No. Turns	Diam.	NET
E22110	160TL	12	42	5"	\$3.23
E22111	80TL	10	30	4"	2.88
E22112	40TL	10	20	3"	2.65
E22113	20TL	10	10	3"	2.29
E22114	10TL	10	6	2 1/2"	2.23

"BT" SERIES

No.	Type	Wire Size	No. Turns	Diam.	NET
E22234	160BT	14	36	4"	\$1.76
E22235	80BT	14	34	2 1/2"	1.68
E22236	40BT	14	22	2 1/2"	1.41
E22237	20BT	14	10	2 1/2"	1.21
E22238	10BT	14	6	2 1/2"	1.15

"B" SERIES

No.	Type	Wire Size	No. Turns	Diam.	NET
E22240	160B	14	46	4"	\$1.62
E22241	80B	14	34	2 1/2"	1.56
E22242	40B	14	22	2 1/2"	1.26
E22243	20B	14	10	2 1/2"	1.06
E22244	10B	14	6	2 1/2"	1.00

"BTL" SERIES (WITH FIXED LINK)

No.	Type	Wire Size	No. Turns	Diam.	NET
E22245	160BTL	14	36	4"	\$2.70
E22246	80BTL	14	34	2 1/2"	2.62
E22247	40BTL	14	22	2 1/2"	2.35
E22248	20BTL	14	10	2 1/2"	2.15
E22249	10BTL	14	6	2 1/2"	2.09

"A" SERIES

No.	Type	Wire Size	No. Turns	Diam.	NET
E21190	160A	12	16	5"	\$1.35
E21191	80A	10	12	4"	1.21
E21192	40A	10	8	3"	.97
E21193	20A	10	5	3"	.85

"TVL" SERIES (With Variable Link)

No.	Type	Wire Size	No. Turns	Diam.	NET
E22216	160TVL	12	42	5"	\$3.82
E22217	80TVL	10	30	4"	3.47
E22218	40TVL	10	20	3"	3.23
E22219	20TVL	10	10	3"	2.88
E22220	10TVL	10	6	2 1/2"	2.82

"BTVL" SERIES (With Variable Link)

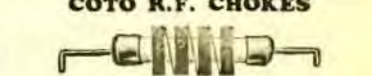
No.	Type	Wire Size	No. Turns	Diam.	NET
E22221	160BTVL	14	36	4"	\$3.29
E22222	80BTVL	14	34	2 1/2"	3.20
E22223	40BTVL	14	22	2 1/2"	2.94
E22224	20BTVL	14	10	2 1/2"	2.73
E22225	10BTVL	14	6	2 1/2"	2.68

STANDARD MOUNTING BASES

Convenient Jack assembly for Coto Inductors. Bar and insulators of Stovall, 2 and 5 Jack combinations. Nickel-plated brass hardware.

No.	Type	For Coils No.	Jack	NET
E2150	CI-8TM	T	3	\$1.12
E2151	CI-8TLM	TL	3	1.18
E2152	CI-6BM	B	2	1.06
E2153	CI-6BTM	BT	2	1.12
E2154	CI-6TLM	BTL, BTVL	5	1.18
E2155	CI-4AM	A	2	1.00

COTO R.F. CHOKES



MIDGET TYPE

CI-11. Inductance, 2.5 mh.; 125 amp.; D.C. resistance, 40 ohms; tapered; nickel-plated end caps with phostals 1 1/2"x3". **35c**

E2158. NET.

CI-12. All features of CI-11. Will pass 250 MA without heating. 2.2 mh.; 18.5 ohms D.C. resistance. Size, 1 1/2"x3". **44c**

E2159. NET.

HEAVY-DUTY TYPE

CI-20. For high power stage. For use on 160, 80 and 40 meter bands. 1/2" core, 3" long. Carries 4 amp.; 3.6 mh.; D.C. resistance, 11 ohms. Size 3"x1 1/2". **73c**

E2160. NET.

CI-21. Maximum impedance on 80, 40 and 20 meter bands. Honeycomb wound; Stovall core. Rated at 6 amp.; 1.1 mh.; D.C. resistance, 6 ohms. Size, 3"x1 1/2". **73c**

E2161. NET.

Transmitting Equipment



RCA DeFOREST TRANSMITTING TUBES

TYPE 807

An exceptionally efficient beam-power transmitting tube especially designed for use as oscillator, frequency multiplier, buffer, or I.F. amplifier stages. Requires only 0.2-watts grid driving power for maximum output. Fil., 6.3 V. at 0.3 A. Plate, 600 V. at 100 M.A. Plate dissipation, 25 W. **E312. NET \$3.50**

TYPE 809

Low-power triode having power output of 55 W. with grid drive of 2.3 W. Fil., 0.3 V. at 2.5 A. Plate, 700 V. at 100 M.A. max. Plate dissipation, 35 W. Will deliver 100 W. audio per inch Class B. **E362. NET \$2.50**

TYPE 802

A low-power pentode for use as oscillator or frequency multiplier. Fil., 0.3 V. at 0.9 A. Plate, 500 V. at 55 M.A. Power output, 8 W. with grid driving power of 0.1 W. Plate dissipation, 10 W. **E307. NET \$3.50**

TYPE 830B

For use as I.F. amplifier or Class B modulator. Fil., 30 V. at 2 A. Plate, 1000 V. at 110 M.A. R.F. power output, 60 W. Class B audio, 175 W. per pair. Plate dia., 40 W. **E314. NET \$10.00**

TYPE 954

Acorn-type pentode for use in U. H. F. receivers or transmitters. Fil., 0.3 V. at 0.15 A. Plate, 250 V. Especially designed for use in receivers at frequencies above 50 M.C. **E354. NET \$5.00**

TYPE 955

The original "Acorn" triode designed for use as a detector in U. H. F. receivers for frequencies above 50 M.C. Fil., 0.3 V. at 0.15 A. Plate, 250 V. max. **E355. NET \$3.00**



GUARDIAN RELAYS MODEL B-100

For use in break-in circuits, D.P.D.T. type. Will provide rapid switching from receiving to transmitting with minimum number of control switches. For fast break-in operation for CW or for push-to-talk circuits for phone transmitters. Exceptionally heavy magnets and return springs for clean high-speed break. Heavy silver contacts. For 110 volt AC. **E570. NET \$4.41**

MODEL K100. For all types of keying circuits. S.P.D.T. type. Pure silver contacts break clean; sensitive return springs; heavy magnets and return springs for clean high-speed break. Heavy silver contacts. For 110 volt AC. **E571. NET \$3.23**

MODEL R100. For R.F. circuits up to 1 KW. and 11 M.C. For coil switching or shunting, cutting condensers in circuits, etc. Completely insulated. S.P.S.T. type. Operates from 110 V. 60 Cycles. **E572. NET \$1.47**

MODEL R-100-C. Same as R-100 above, but S.P.D.T. type. May be used in multiple R.F. circuits for many purposes. **E573. NET \$1.76**

MODEL L-250. Overload relay for use in plate output circuits. Opens primary circuit if 250 M.A. capacity is exceeded. Has push-button reset. **E574. NET \$4.41**

MODEL L-500. Same as L-250 but maximum current is 500 M.A. before primary circuit is opened. Push-button reset. **E575. NET \$4.41**

MODEL L-750. High power (five overloads) relay. Opens primary circuit when maximum drain of 750 M.A. is reached. **E576. NET \$4.41**

MODEL X-100. Adjustable type overload relay. Can be set to open primary circuit at any current load from 150 M.A. up to 3.5 Amperes. Push-type push-button reset. **E577. NET \$5.88**

TRIODES AND PENTODES

Type	Cat. No.	Plate Dia.	Service	NET
203A	E300	100W	H-C	\$15.00
211	E302	100W	A-B-C	15.00
800	E305	35W	H-C	10.40
801	E306	20W	A-B-C	3.45
803	E308	125W	C	34.50
804	E309	40W	C	15.00
805	E310	125W	B-C	13.50
806	E311	150W	B-C	22.00
807	E312	21W	C	3.50
808	E313	50W	H-C	7.75
838	E318	100W	A-B-C	16.00
840	E319	1W	A	6.00
841	E320	12W	A-H-C	3.25
850	E326	100W	C	37.50
852	E327	100W	C	16.40
864	E329	Treamplifier	A	1.00
865	E330	15W	C	12.75
868	E333	Phototube		3.70
917	E350	Phototube		4.75
921	E351	Phototube		3.25
921	E365	Phototube		2.00
922	E366	Phototube		2.00
923	E367	Phototube		2.60
936	E356	Acorn Pentode	C	5.00
1008	E359	20W	C	4.00

RECTIFIERS

Type	Catalog Number	Peak Inv. Volts	Max. Amps.	NET
800	E331	7500	0.5	\$ 1.50
800A	E332	10000	0.5	4.00
872	E334	7500	2.5	14.00
878	E336	20000	0.005	11.00
879	E337	7500	0.007	3.00
884	E368	Gas Triode		2.00
885	E338	Gas Triode		2.00

CATHODE RAY TUBES

TYPE	No.	Screen Size	NET
913	E345	1 inch	\$ 4.00
914	E349	2 inch	7.50
906	E342	3 inch	13.50

CLASS OF SERVICE: CLASS A: Audio Amplifier. CLASS B: Class B Modulator or I.F. Amplifier. CLASS C: I.F. Oscillator or Amplifier.

DUNCO RELAYS

Small, efficient relays for use in all types of remote control circuits. Insulated contacts provide suitable breakdown for use at high voltages. Exceptionally fast action; will follow semi-automatic timing without spillover or break-before resistance silver contacts.



E7550. MODEL RA-1. 2.5 volt 60 cycle coil. May be used as plate-circuit relay in receiver and buffer units, for keying, primary circuits, etc.

E7551. MODEL RA-3. 5.5 volt 60 cycle coil. Also suitable for all purposes but especially adapted to units using 0.3 volt tubes. May be operated from tube filament supply.

E7552. MODEL RO-1. 5 to 8 volt D.C. coil. For use in all types of battery-powered mobile or portable equipment. **\$2.00**

NET EACH

WESTERN ELECTRIC TRANSMITTING TUBES

TYPE 316A

Especially designed for use in ultra high frequency oscillators and amplifiers. 7.5 W. peak output up to 500 MC. reduced output up to 750 MC. Plate, 250 V. at 50 M.A. max. Threaded fil. 2 V. at 5.6 A. **E1146. NET \$10.50**



Type	Stock No.	W.E. Type	NET
300A	E1141	Triode	\$10.10
301A	E1142	Triode	12.50
305A	E1143	Triode	38.50
306A	E1144	Tetrode	30.50
307A	E1145	Pentode	13.65
242C	E1140	Pentode	15.00

Write for complete data book on Western Electric Transmitting Tubes. Indicates individual characteristics of tubes listed above with complete ratings, operating data, special applications for U.H.F. use, etc. Sent FREE on request.

ALLIED can supply any type of transmitting tube made. Write us for complete information.

NEW RCA TRANSMITTING TUBE MANUAL

Completely up-to-date; super-series all previous manuals of this series. Contains complete data, operating conditions, characteristics, and pertinent information on RCA air-cooled transmitting tubes. A handy reference text which should be on every Amateur or Experimenter's bookshelf, 102 pages. **E389. NET \$25c**



RCA X-MITTING TUBE BOOKLET

A 16 page booklet containing condensed tube tables and operating characteristics on 114 transmitting tubes. Will be sent FREE on request with order for RCA tubes. **E397. NET \$5c**

CATHODE RAY TUBE DATA

A complete booklet on the operation of Cathode Ray tube. Detailed data of real value. **E387. YOUR PRICE \$25c**

TELEVISION APPARATUS



R.C.A. TELEVISION KINESCOPIES

Just released! Two brand new cathode-ray tubes designed primarily for television use. Both are of the electro-magnetic-deflection type. The screen produces a picture with a yellowish hue. Technical information upon request.

E370. RCA 1800. 9" Screen. \$60.00

E371. RCA 1801. 8" Screen. \$40.00

NET

E372. RCA 1851. Television pentode metal tube for use in R.F. and I.F. stages in receivers. NET \$2.10

E373. RCA 1852. Television pentode metal tube. For R.F. and I.F. stages in receivers. NET \$1.85

E374. RCA 1853. Television pentode metal tube. For R.F. and I.F. stages of picture amplifiers. NET \$1.85

RCA TELEVISION PARTS

Now available—a complete line of necessary parts for the Experimental Television receiver. Designed to insure maximum efficiency and operation when used with the RCA 1850 and 1801 Kinescope tubes. A complete circular giving detailed descriptions and data on the following parts will be sent free on request. Ask for RCA Television Folder No. 2875.

No. RCA Type	Description	NET
E7560	9B31 Deflection Yoke	\$10.00
E7561	9B32 Power Transformer	12.50
E7562	9B33 Vertical D.P. Reactor	3.00
E7563	9B34 Vertical Ch. Transf.	3.00
E7564	9B35 Horizontal Osc. Transformer	3.00
E7565	9B36 Horizontal D.P. Transf.	9.50
E7566	9B37 Power Supply Capacitor	11.75
E7567	9B38 Power Supply Reactor	4.75
E7568	9B39 Power Transformer	10.00
E7569	9B40 Power Supply Cap.	5.50

THORDARSON TELEVISION TRANSFORMERS

T-16R50. For No. 1801 Kinescope tube and 870 oscillator. 115 V. 60 cycles. Sec. No. 1—2000 or 3000 V. D.C. at 3 M.A. Sec. No. 2—2 1/2 V. at 1.75 amps. (Does not supply fil. voltage. See T-16R55 below.) **E11261. NET \$9.41**



T-16R51. For use with No. 1800 Kinescope and 873 oscillator. Sec. No. 1—6000, 4500 or 3000 V. D.C. 5 M.A. Sec. No. 2—2 1/2 V. at 5 amperes. (Does not supply fil. voltage.) **E11262. NET \$10.88**

NET

T-16F55. Filament transformer for 1800 or 1801 Kinescopes. Fil. 115 V. 60 cycles. Sec. 2 1/2 V. C.T. at 2.1 amperes. **\$6.47**

E11263. NET

Transmitting Equipment



BLILEY MOUNTED CRYSTALS

Cut from the finest raw Brazilian quartz; accented as standard by Amateurs throughout the entire world.

TYPE LD2

A new crystal with many features. Has high power output with frequency drift of less than 1 cycle per megacycle per degree C.; eliminates need for oven equipment. Calibration is within .03%. Specify frequency.

No.	Band MC	NET EACH
E2516	3.57	\$4.80
E2517	1.75	
FREQUENCY WITHIN 5 KC.		
No.	Band MC	NET EACH
E2519	3.57	\$5.90
E2520	1.75	

TYPE BC3

Type BC3. Accurately calibrated X-cut crystal mounted in a molded bakelite holder, having exposed heat-radiating electrode. Fits into 5 prong tube socket. Calibration is within .03%. Specify frequency when ordering.

STOCK NO.	Frequency Within	Band MC	NET EACH
E2525	± 5 KC	7.0	\$3.35
E2526	± 5 KC	3.5	
E2527	EXACT	7.0	\$4.95
E2528	EXACT	3.5	

TYPE CF1 CRYSTAL FILTER

For crystal filter circuits in Single Diode Receivers. Vertical mounting. Sealed holder; plug into 5 prong socket. Holder size, 1 1/2" x 1 1/2". Suitable for 450 KC filters.

E2529. NET	\$5.50
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BLILEY CRYSTAL HOLDERS

Molded bakelite holders for Inlet square crystals. Threaded screw top. Plug into tube socket. Mounts in any position.

E2532. 20-40 meter	95c
E2533. 80-160 meter. EACH	



EIMAC TUBES

Designed for heavy-duty service and long life. Plates and grids of tantalum; envelopes of hard Nouex glass.

Type 35T. A general-purpose triode ideally suited for use as oscillator, buffer, or frequency multiplier. Fil. 5 V. at 4 A. Plate, 500 to 2000 V. Max. plate dissipation, 70 W. Max. Class C power output, 225 W. **E1130. NET.....\$6.00**

Type 100TL. A medium-power high-mu triode for use at any frequency up to 40 MC. Fil. 5 V. at 6.5 A. Plate, 1000 V. to 3000V. Max. power Class C, 300 W. **E1131. NET.....\$13.50**

Type 100TH. General-purpose triode. Same as 100TL, but requires less driving power and lower bias. For diathermy or h.f. use. **E1132. YOUR PRICE.....\$13.50**

Type 250TL. Plate dissipation 250 watts. Excellent for high frequency work. **E1133. YOUR PRICE.....\$24.50**

Type 250TH. Similar to 250TL, but requires less driving power and lower bias. **E1134. YOUR PRICE.....\$24.50**

Type KY21. A mercury vapor rectifier with a control grid for keying purposes. **E1129. YOUR PRICE.....\$10.00**



NEW EIMAC VACUUM TANK CONDENSERS

A new type of vacuum sealed tank condenser for any power from 50 W. to 1 KW. Provides optimum circuit efficiency at any frequency, with peak efficiency of 32,000 V. Compact in size; only 6 1/2" long, 2 1/2" diam. Use in any size rod- or push-pull amplifier for CW or 1 phone. End caps fit standard 60 A. tube clips. **E1209. VCG, 6 Mmf. For high L/C ratio circuits on 7, 14, and 28 MC. NET.....\$7.50**

E1210. VC12. 12 Mmf. NET.	8.50
E1211. VC25. 25 Mmf. NET.	10.50
E1212. VC50. 50 Mmf. NET.	12.50

TYPE B5

Bliley's new low-drift 20 and 40 meter crystals. Less than 1 cycle/MC/°C drift. Rugged holder is made of new molded low-loss material. These crystals replace type LD2 crystals in frequencies listed below.

No.	Frequencies	Within	EACH
E2615	7.0 to 7.3 MC	5 KC	\$4.80
E2616	7.0 to 7.3 MC	Exact	5.90
E2617	14 to 14.4 MC	15 KC	7.50
E2618	14 to 14.4 MC	5 KC	12.00
E2619	14.4 to 15 MC	30 KC	7.50
E2620	14.4 to 15 MC	5 KC	17.50

TYPE HF2

Available in two ranges: for 20 meter operation, and for multiplying into the 10 and 5 meter bands. "C" cut crystal has drift of only 20C/MC/°C (E2621 is 33C/MC/°C); mounted between stainless steel machine-finished electrodes in a holder of molded Vitron G.

No.	Frequencies	Within	EACH
E2521	14.0 to 14.4 MC	15 KC	\$5.75
E2522	14.4 to 15.0 MC	30 KC	
E2523	14.0 to 14.4 MC	5 KC	10.00
E2524	14.4 to 15.0 MC	5 KC	15.00
E2621	28 to 30 MC	50 KC	5.75

VARIABLE FREQUENCY UNIT

TYPE VF-1

Easily adjusted variable crystal. Can be shifted up to 6 KC at the fundamental 3.5 MC frequency. Drift less than 4 C/MC/°C. Plug-in socket mount. **E2530. Within 5 KC of specified 3.5 MC frequency. NET.....\$7.50**

E2531. Exact specified 3.5 MC frequency. NET.....\$10.00



TYPE SMC-100 CRYSTAL UNIT

A new mounted unit which oscillates at either 100 or 1000 KC. Designed for use in test oscillators for all types of alignment or frequency checking. **E2534. NET.....\$7.75**

We can supply all types of Police, General Communication and Broadcast frequency crystals. Write for prices.

HYTRON TUBES

A new and complete line of inexpensive, low-power transmitting tubes. Sturdy construction and precision workmanship. Have tantalum base and plate leads to top cap. HY-40, HY51A, HY51B, and HY57 have graphite anodes.

Type HY-25. Plate dissipation, 25 W. Plate voltage, 750V. Filament, 7.5 V. at 2.25 A. General-purpose triode suitable for use as Oscillator, R. F. Amplifier, or Class B Modulator. **E1240. NET.....\$1.45**

Type HY-40. Plate dissipation, 40 W. Plate voltage, 1000V. Filament, 2.5 V. at 2.25 A. High efficiency triode for use as Oscillator, Amplifier, or Class B Modulator. **E1241. NET.....\$2.75**

Type HY-51A. Plate dissipation, 85 W. Plate voltage, 1000V. Filament, 7.5 V. at 3.5 A. Oscillator, R. F. Amplifier, or Class B Modulator. **E1242. NET.....\$5.00**

Type HY-51B. Plate dissipation, 65 W. Plate voltage, 1000V. Filament, 10 V. at 2.25 A. Oscillator, R. F. Amplifier, or Class B Modulator. **E1243. NET.....\$5.00**

Type HY-57. Plate dissipation, 40 W. Plate voltage, 800 V. Filament, 6.3 V. at 2.25 A. Oscillator, R. F. Amplifier, Doubler, or Class B Modulator. **E1244. NET.....\$3.50**

Type HY-60. Beam-Tetrode. Plate dissipation, 15 W. Plate, 350 V. Filament, 6.3 V. at 6 A. Oscillator, R. F. Amplifier, Doubler, Class AB Amplifier. **E1245. NET.....\$2.50**

Type HY-61. Beam-Tetrode. Plate dissipation, 25 W. Plate, 600 V. Filament, 6.3 V. at 9 A. Oscillator, R. F. Amplifier, Doubler, Class AB Amplifier. **E1246. NET.....\$3.00**

Type 866 Jr. Half-Wave Mercury Rectifier. Max. volts, 1250 (RMS). Max. DC current per pair, 250 M. A. Fil., 2.5 V. at 3 A. **E1247. NET.....\$1.05**



KNIGHT UNMOUNTED TRANSMITTER CRYSTALS

High quality, inexpensive, unmounted X-cut crystals. Accurately ground from the finest quartz available; individually calibrated by a leading manufacturer of fine quartz crystals. Calibration will be within .1% of operating frequency under normal conditions, dependent on type of mounting used. Each one of these fine units has only one frequency; no possibility of spurious frequencies. Specify frequency and closest stock unit will be shipped.

No.	Frequency Kilocycles	NET
E2510.	7000-7300	\$1.95
E2511.	3500-4000	\$1.50
E2512.	1715-2000	\$1.50

NEW KNIGHT CRYSTAL HOLDER

An inexpensive holder for all crystals up to 1 1/4" square and .250" thick. Body of low-loss ceramic material with precision-ground electrodes. Furnished with interchangeable threaded banana plugs and tube prongs. Top plate easily removable. **E2612. For 80 to 160 Meters. Will accommodate crystal blanks from 4000 to 1500 KC. E2613. For 20 to 40 Meters. Ideal for High Frequency crystals. Has high pressure electrodes for maximum power. Each.....95c**

E2614. Mounting bracket of bakelite with two banana plug jacks. Fits either holder above. NET.....27c



BLILEY CRYSTAL HANDBOOK

A complete handbook on frequency control with quartz crystals, which every Amateur should have. Twenty-eight pages explaining theory, use, application, and care of crystals. **E2624. NET.....10c**



TRIPLET THERMO-COUPLE AMMETERS



Ideal for use in amateur transmitters, or wherever currents of radio frequency must be measured. Especially designed for high frequency operation and accurate to 2%. Have replaceable external thermo-couples; will stand heavy overload. Molded bakelite cases. Range mounting type. Model 346 case is 3 1/2" x 2 1/2", mounts in 3/8" hole. Model 341 is 3 1/2" in diam., mounts in 2 1/2" hole. (Voltmeters and Milliammeters to match are listed on page 351.)

MODEL 341	MODEL 346	Amps.	NET EACH
E8890	E8800	0-1	\$6.53
E8891	E8801	0-1.5	
E8892	E8802	0-2.5	
E8893	E8803	0-5	

TRIPLET MODULATION MONITOR

Provides a visual indication of carrier shift and accurately measures percentage of modulation. Accurately calibrated at factory; uses type 76 tube which can be replaced without affecting calibration. By means of easily adjusted inductive coupling this unit may be used with phone rings of any power rating. Tap-till dual meter. Size, 7 1/2" x 6 1/2" x 1 1/2". Wt., 11 lbs. With tube. For 110 V., 50-60 cycles. **E9959. YOUR PRICE.....\$24.33**



NEW "MODULITE" TUBE

Easily coupled to any Amateur phone transmitter; will flash instant warning of overmodulation. Glows green up to 100% modulation, then flashes red. Indicates percentage of modulation; draws no power from modulated stage. **E9984. NET.....\$2.35**



Transmitting Equipment

CARDWELL TRANSMITTING CONDENSERS

MIDWAY SINGLES



Sturdily built, compact, variable condensers for receivers and low-power X-mitters. Aluminum plates and frames are carefully machined and finished. Myalex insulation. Double bearings assure perfect alignment. Shaft, $\frac{3}{8}$ " x 1". Mounting space, 3 1/2".

Cat. No.	Type No.	Cap. Mmf.	Air Gap	NET
E13600	MR-25HS	25	.030"	\$1.62
E13601	MR-50HS	50	.030"	1.68
E13602	MR-70HS	70	.030"	1.77
E13603	MR-105HS	105	.030"	1.83
E13604	MR-150HS	150	.030"	1.98
E13605	MR-200HS	200	.030"	2.07
E13606	MR-300HS	300	.030"	2.18
E13607	MO-165BS	165	.050"	1.98
E13608	MT-30GS	30	.070"	1.95
E13609	MT-35GS	35	.070"	2.10
E13610	MT-50GS	50	.070"	2.34
E13611	MT-70GS	70	.070"	2.67
E13612	MT-100GS	100	.070"	2.94
E13613	MT-150GS	150	.070"	3.20
E13614	MG-35NS	35	.171"	2.60

AIR GAP VOLTAGES: 1000 V. for .030" gap; 1500 V. for .050" gap; 3000 V. for .070" gap; 5000 V. for .171" gap.

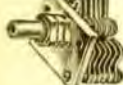
MIDWAY DUALS

Similar to above. For receivers and X-mitters.

Cat. No.	Type No.	Mmf. per Sec.	Air Gap	NET
E13661	MR-25BD	25	.030"	\$2.61
E13662	MR-50BD	50	.030"	2.82
E13663	MR-70BD	70	.030"	2.94
E13664	MR-100BD	100	.030"	3.06
E13665	MR-150BD	150	.030"	3.30
E13666	MR-200BD	200	.030"	3.33
E13667	*MT-20GD	20	.070"	3.60
E13668	*MT-35GD	35	.070"	3.81
E13669	*MT-50GD	50	.070"	4.00
E13670	*MT-70GD	70	.070"	4.20
E13671	*MT-100GD	100	.070"	4.80
E13672	*MT-150GD	150	.070"	4.80

*Rounded Plate Edges.
AIR GAP VOLTAGES: 1000 V. for .030" gap; 1500 V. for .050" gap; 3000 V. for .070" gap.

TRIM-AIR MIDGETS



For all uses where high-quality models are required. Rigid, lock-tite-mounted assembly assures greatest stability and minimum losses. Universal mounting facilities. Can be used as a slight tuning condenser or for low power neutralization. Can easily be ganged.

Cat. No.	Type No.	Cap. Mmf.	Air Gap	NET
E13630	ZR-10AS	10	.030"	\$0.75
E13631	ZR-15AS	15	.030"	.75
E13632	ZR-25AS	25	.030"	.84
E13633	ZR-35AS	35	.030"	.90
E13634	ZR-50AS	50	.030"	.96
E13635	ZU-75AS	75	.020"	1.02
E13636	ZU-100AS	100	.020"	1.05
E13637	ZU-140AS*	140	.020"	1.89
E13638	ZT-30AS	30	.070"	1.11
E13639	ZS-48S	4	.140"	1.11
E13640	ZT-16AS	15	.070"	.93

*Double-bearing; two end plates.

E13742	Mounting Bracket	NET	6c
E13743	Mounting Posts, per pair	NET	8c
E13744	Extra Extension Posts	NET	4c

DUAL TRIM-AIRS

Cat.No.	Type No.	Mmf. per Section	Air Gap	NET
E13641	EU-75AD	75	.020"	\$1.98
E13642	EU-100AD	100	.020"	2.04
E13643	EU-140AD	140	.020"	3.60
E13644	ER-10AD	10	.030"	1.56
E13645	ER-15AD	15	.030"	1.56
E13646	ER-25AD	25	.030"	1.62
E13647	ER-35AD	35	.030"	1.74
E13648	ER-50AD	50	.030"	1.86
E13649	ET-15AD	15	.070"	1.80
E13650	ET-30AD	30	.070"	2.16
E13651	ET-30ADI	Insul. Coupl.	140"	2.46
E13652	ES-15AD	Insul. Coupl.	140"	2.46
E13653	ES-48DI	Insul. Coupl.	140"	2.46

We can supply the complete line of Cardwell condensers for receiving or transmitting requirements. If the particular unit you require is not listed on this page, tell us the Cardwell type number or give us specifications, and we shall be glad to quote prices.

"T" LINE SINGLES

Accurately built, heavy-duty condensers for high-power transmitting purposes. Myalex insulated. With polished extra heavy plates (rounded edges for minimum loss and maximum peak voltage). $\frac{3}{4}$ " shafts, and built-in mounting feet.



Cat. No.	Type No.	Cap. Mmf.	Air Gap	NET
E13655	TJ-150US	150	.168"	\$13.80
E13656	TJ-315US	315	.168"	19.20
E13657	TC-160US	160	.200"	14.40
E13658	TC-200US	200	.200"	16.80
E13659	TC-300US	300	.200"	19.20
E13660	TL-30US	50	.294"	9.60
E13661	TL-80US	80	.294"	13.20
E13662	TL-100US	100	.294"	13.20
E13663	TL-160US	160	.294"	18.00
E13664	TL-200US	200	.294"	19.80
E13665	TZ-40RS	40	.500"	16.80
E13666	TZ-80RS	80	.500"	23.70

"T" LINE DUALS

Cat. No.	Type No.	Mmf. per Sec.	Air Gap	NET
E13667	TJ-150UD	150	.168"	\$19.20
E13668	TJ-200UD	200	.168"	21.60
E13669	TC-100UD	100	.200"	18.60
E13670	TC-150UD	150	.200"	21.00
E13671	TC-200UD	200	.200"	22.80
E13672	TC-250UD	250	.200"	24.00
E13673	TL-50UD	50	.294"	15.00
E13674	TL-70UD	70	.294"	17.40
E13675	TL-100UD	100	.294"	20.70
E13676	TL-150UD	150	.294"	22.40
E13677	TZ-100UD	100	.500"	25.40
E13678	TZ-40RD	40	.500"	25.80

AIR GAP VOLTAGES: 5500 V. for .168" gap; 6000 V. for .200" gap; 8000 V. for .294" gap; 9000 V. for .350" gap; 12,500 V. for .500" gap.



NEW XE-160-70-QX CONDENSER

Nowly developed condenser for multi-band transmitters. Has 2 small and 2 large sections which may be connected in series or parallel to provide correct capacity ranges for all amateur bands. Air gap—100 inches per section.
E13680. List, \$22.00. **\$13.20**
NET PRICE

DISC TYPE NEUTRALIZING CONDENSERS

TYPE ADN. For low capacity tubes such as 808, 854, 1K-30, 7-55, etc. With $\frac{3}{8}$ " Airmag shafts. Cap. range: 0-4 Mmf. Size: 4 1/2" x 2 1/2".
E13681. List, \$3.00. **\$1.80**
YOUR NET PRICE

TYPE BDN. Cap. range: 2-12 Mmf. For such tubes as 806, 854, 1K-38, T-200, etc. With Airmag shafts. Similar to type ADN but heavier construction. 4 1/2" x 4 1/2".
E13682. List, \$5.00. NET **\$3.00**

FLEXIBLE COUPLINGS

TYPE A. Small but efficient coupling. Fits $\frac{1}{4}$ " shafts. No backlash. Insulantite insulated. 1 1/2" diameter.
E13683. NET **36c**

TYPE B. Similar to Type A except that hubs are reversed to give maximum flash-over. E13684. NET **36c**

TYPE C. Heavy-duty unit. 15,000 V. Peak. Airmag insulated. $\frac{3}{8}$ " shaft; removable hub of $\frac{1}{2}$ " shaft. 2 1/2" dia.
E13685. NET **\$1.68**

TYPE D. Same as Type C except that hubs are turned in. E13686. NET **\$1.68**

TYPE E. Similar to Type C but smaller. 1 1/2" diameter. E13687. NET **90c**

TYPE ENF. Medium power inflexible coupling. 10,000 V. Peak. Insulantite insulation. For $\frac{3}{4}$ " shafts. 1 1/2" diameter.
E13688. NET **60c**

TYPE CNF. Heavy-duty inflexible coupling. 10,000 V. Peak. Airmag insulation. Size: 3 1/2" x 2 1/2". For any shaft up to $\frac{1}{2}$ ".
E13689. NET **\$1.92**

"X" LINE SINGLES

Incorporate every advanced feature in condenser design. Myalex insulated. Accurately built. Rigid and vibration-proof. Units rated at 4000 V and over have polished plates with rounded edges.



Cat. No.	Type No.	Cap. Mmf.	Air Gap	NET
E13700	XT-220PS	220	.070"	\$2.70
E13701	XT-440PS	440	.070"	4.62
E13702	XP-60KS	90	.084"	3.20
E13703	XP-165KS	165	.084"	3.70
E13704	XP-290KS	290	.084"	5.50
E13705	XP-330KS	330	.084"	5.68
E13706	XP-240KS	240	.100"	6.08
E13707	XG-25KS	25	.171"	1.10
E13708	XG-50KS	50	.171"	3.30
E13709	XG-110KS	110	.171"	5.20
E13710	XG-18XS	19	.200"	3.30
E13711	XG-40XS	40	.200"	4.60
E13712	XG-100XS	65	.200"	6.10
E13713	XG-100XS	100	.200"	6.10
E13714	XK-55KS	55	.230"	6.60

"X" LINE DUALS

Cat. No.	Type No.	Mmf. per Sec.	Air Gap	NET
E13715	XR-500PD	500	.030"	\$3.90
E13716	XR-80PD	80	.070"	3.30
E13717	XT-210PD	210	.070"	5.22
E13718	XP-90KD	95	.084"	4.50
E13719	XP-165KD	165	.084"	6.60
E13720	XP-325KD	325	.084"	13.20
E13721	XP-240KS	240	.100"	6.08
E13722	NG-50KD	30	.171"	10.80
E13723	NG-110KD	110	.171"	14.40
E13724	NC-40ND	40	.200"	7.80
E13725	NC-75ND	75	.200"	10.20
E13726	ND-160ND	160	.125"	11.40

AIR GAP VOLTAGES: 1000 V. for .030" gap; 3500 V. for .070" gap; 4000 V. for .084" gap; 4250 V. for .100" gap; 4750 V. for .125" gap; 5250 V. for .171" gap; 6000 V. for .200" gap; 6750 V. for .230" gap.

HIGH FREQUENCY NEUTRALIZING CONDENSERS

Especially designed for new low capacity tubes. Myalex insulated. "N" types have bracket for panel mounting; "V" types have a vee insulated mounting feet. Shaded shafts.



Cat. No.	Type No.	Cap. Mmf.	Air Gap	NET
E13728	NA-4NS	4	Adl.	\$2.16
E13729	NA-6NS	6	218"	1.68
E13730	NA-10NS	11	218"	2.00
E13731	NA-16NS	16	218"	2.00
E13732	NA-12ND*	12	218"	3.00
E13733	VZ-9RS	9	Adl.	9.40
E13734	VZ-12RC	12	500"	9.15

*Ganged neutralizer with insulated coupling; data given is per section.

U. H. F. DUALS

Ultra high-frequency, low-loss, dual condensers for 5 and 10 meter bands. Similar to diathermy machines. N¹ type ideal as capacitor for 808's or 35-T's; J¹ and J² types intended for diathermy. HP-200's or as tank capacitors for a meter amplifier.



Cat. No.	Type No.	Cap. Mmf.	Air Gap	NET
E13735	NP-35ND	35	.084"	\$9.60
E13736	JP-48ND	48	.084"	9.60
E13737	JD-28ND	28	.125"	9.75

CENTRALAB SWITCHES

Isolantite Insulated
New transmitter switches with Isolantite insulation for circuit stability and high efficiency. Complete with knob. Ideal as crystal frequency selector, inductance inductance switch, antenna coupling switch, etc. All types have four positions, 90° apart, and adjustable stop. For X-mitters up to 100 watts at potentials up to 1000 V. D.C.



No.	Gangs	Poles	Positions	NET
E1990	1	1	4	\$1.00
E1991	2	2	4	1.59
E1992	3	3	4	2.23
E1993	4	4	4	2.89
E1994	5	5	4	3.59

E1995. Special Dial Plate. Type K-102. For any of the above switches. NET **1.2c**

Transmitting Equipment

E. F. JOHNSON TYPE "N"



NEUTRALIZING CONDENSERS

Developed for use with low C tubes. Plates are polished aluminum cylinders with high maximum to minimum capacity ratio. Has micrometer adjustment; airgap remains constant. Almax 190 insulation. Mount vertically or horizontally.

Cat. No.	Type	Capacity		Air Gap	NET
		Max.	Min.		
E13840	N125	12	2.5	.125"	\$1.91
E13841	N250	12	3	.250"	2.65
E13842	N375	12.75	3.5	.375"	3.53

"G" SERIES CONDENSERS



Designed to provide lowest possible minimum capacity. These condensers are suitable for use with most low C tubes. Plates are polished aluminum with buffed and rounded edges. End plate is of Almax 195. With locking device.

Cat. No.	Type	Capacity		Air Gap	NET
		Max.	Min.		
E13843	50G20	52	5	.045"	\$1.47
E13844	35G20	27	3.5	.045"	1.32
E13845	23G45	23	6.3	.125"	1.32
E13846	13G45	13	4.3	.125"	1.32
E13847	8G45	7.5	3	.125"	1.23
E13848	12G70	12	5.3	.225"	1.71
E13849	6G70	5.5	3	.225"	1.91

FLEXIBLE SHAFT COUPLINGS



For use with any condenser having 1/4" shaft. Flexible phosphor bronze springs. 1" diameter. Ideal for receivers or transmitters.

E6115. Bakelite Type... 22c
E6116. Ceramic Type... 27c

KNIGHT GIANT PANEL FEED-THRU INSULATOR



Made of low-loss ceramic material. Can be used for high voltage feed-thru, stand-off for "tank" circuits, antenna feeder bushings, etc. 4" high, 2" diam.

E6118. With 1/4" 20 screw and nuts. EACH... 32c
E6117. As above but with wing nut. Ea. 35c

MALLORY-YAXLEY PANEL BUSHING



For use with brass or fibre shafting, to mount condensers, etc., away from panel. Fits 1/4" shaft; panels up to 3/8".

E6120. 10 FOR 44c. NET EACH... 5c

Button-Type Feed-Thru Bushing

For use wherever it is necessary to pass voltage or I.F. current through metal panels or chassis. Low-loss ceramic. 3/8" diam., with center hole for 6-32 screw. Fits 1/4" hole.

E6121. PER DOZEN... 20c

TRANSMITTING COIL FORMS



An ideal inductance form for transmitters and for numerous other uses. Bakelite body. 2 1/2" diameter. 3 1/2" long, with molded finger grip rim. Winding space, 3/4". Ribs extending 1/4" insure low-loss air-core winding. Grooved forms are threaded 12 turns per inch.

PLAIN FORMS		GROOVED FORMS	
No.	Prongs EACH	No.	Prongs EACH
E2650	4	E2661	4
E2651	5	E2662	5
E2652	6	E2663	6

38c 53c

JOHNSON SOCKETS



E6140. UX BASE. For type 10, 52 or other UX base tubes. Porcelain insulation; heavy spring contacts. List, 85c.

E6141. 50 WATT socket. Porcelain base with heavy dual phosphor bronze contact springs. Cadmium plated. List, \$1.25. NET 73c

SPEED-X KEYS

NO. 301 AMATEUR'S KEY

A good standard key, sturdily constructed. Moulded bakelite base. Coin silver contacts. Arm and binding posts nickel-plated.

E7961. NET... \$1.26

NO. 320 HEAVY-DUTY KEY

Has 1/4 inch solid coin silver contacts. Well insulated. Black base. All other parts chrome plated.

E7962. List, \$3.25. NET... \$1.91

NO. 310 STANDARD KEY

Skeleton design. Well constructed. Coin silver contacts. Black base with chrome plated parts. Has dual adjustments for tension and lever action.

E7963. List, \$2.50. NET... \$1.47

NO. 300

Well-made low-cost practice key.

E7960. NET... 88c

HI-SPEED AUTOMATIC KEY

NO. 501
A professional key fully adjustable from 8 words per minute to as high as desired. Will hold adjustment at all speeds. Coin silver contacts. Equipped with cord and shoring switch for use in land wire service.

E7964. List, \$17.50. NET... \$10.29

NO. 515 AMATEUR KEY

A durable, heavy duty Speed Key. Sturdy bronze moving parts. Base and casing are covered with brass wrinkles to perfectly match other parts. Other features same as Hi-Speed key above. Less cord and plug; does not have shorting switch.

E7967. List, \$9.25. NET... \$5.44

SPEED-X BUZZER



A professional constant frequency buzzer. Will hold its adjustment. Resistance 2 Ohms. Works on 2 dry cells, or 1 "C" battery.

E7966. NET... 73c

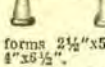
KNIGHT CERAMIC COIL FORMS



Plug-in coil forms of low-loss ceramic for use in receivers or low-power stages of transmitters. Ribbed type with side slot and holes for easy winding. 1 1/2" diameter.

E2655. 4 Prong. NET... 32c
E2656. 5 Prong. NET... 35c
E2657. 6 Prong. NET... 38c

COIL FORMS



Low-loss coil forms of Insulac. Particularly adapted for 20 and 10 meter operation. Threaded for No. 10 wire with plenty of holes for wire and supports. 20 and 10 meter coil 80 and 100 meter coil forms

forms 2 1/2"x5", 4"x5 1/2".
FOR 20 AND 40 METERS
E5696. Less supporting legs... \$0.70
E5697. With supporting legs... .95

FOR 80 AND 160 METERS
E5698. Less supporting legs... \$1.18
E5699. With supporting legs... 1.32

INSULATED GRID CAPS



E6331. Standard size for receiving tubes. Black insulation. NET EACH 6c

E6333. Large size for transmitting tubes such as 800, etc. 11c

FAMOUS "MAC-KEYS"

DELUXE MAC-KEY

The finest of the Mac-Keys. Built on a cast base with black marble finish. Metal parts chrome - finished.

Has patented dot stabilizer; 3/16" silver contacts; circuit closing switch. Built for smooth, non-tiring operation at any speed.

E7973. NET... \$9.50

STANDARD MAC-KEY

Heavy cast base anchors key firmly to table. Contact points perfectly alignable. Vibrationless and stutter-proof. Non-tiring.

E7968. NET... \$7.50

MAC STRAIGHT KEY

A well-balanced, sturdily constructed straight key for use in all types of radio or wire transmission circuits. Perfectly balanced arm with heavy cast base makes setting easy and tireless. Will not slide around.

E7969. NET... \$1.50

MAC OSCILLATOR

An efficient audio oscillator for learning code. In bakelite case. Tone adjustable at 500, 800, or 1000 cycles. Ideal for beginners who find it hard to learn to receive code signals over the air. Also useful as instruction equipment for schools. Supplied with 2-40SG and 1 Ballast tube. Wt., 2 lbs. For 110 V., A.C. or D.C.

E7970. NET... \$5.95

MAC HUMMER

A simple but entirely efficient mechanical audio oscillator, designed for self-instruction of the Morse and Telegraph codes. Will produce a 1000 cycle note as clear as a bell. Requires a 4 1/2 volt "C" battery. Will reproduce up to 100 words per minute.

E7971. NET... \$1.50

MAC PRACTICE SET

A combination of E7969 and E7971 "Straight Key" and mechanical "Hummer" on one buzz base. Excellent for beginners learning the code.

E7972. NET... \$2.95

CODE PRACTICE SET

A signal key and adjustable buzzer on wood base. Reproduces high-pitched code signals. An excellent unit for code classes.

E7973. NET... \$2.00

AMERICAN CODE READER

A new motor-driven device that records code signals up to 100 words per minute on chemically treated paper tape. Operates on 110 V., 60 cycle AC and connects to speaker voice coil of any radio set. Permits recording code transmissions which are easily decoded, a new field of entertainment for the SWL. Requires 1-75 tube.

E10387. NET... \$11.76

E10388. Extra 250 foot roll of paper tape. NET... 25c

WORLD TIME CHART AND SHORTWAVE STATION LIST

Indicates time in 122 countries instantly. Lists 111 Short Wave stations. Valuable for the amateur and SW listener.

E5235. NET... 10c

Transmitting Equipment

PREMAX ANTENNAS

VERTICAL TYPE

Especially designed to offer peak efficiency. Have heavy copper-plate finish for maximum conductivity. Entirely self-supporting; require no guy wires. Fully adjustable to permit setting at exact length for specific operating frequencies.

20 METER ANTENNA

Maximum height, 34 feet; minimum, 7 feet. Self-supporting on massive base insulator with cast flange for lag-screws or bolts. Copper-plated. Ship. wt., 25 lbs.

E10058. NET..... **\$16.76**

10 METER ANTENNA

Adjustable from maximum height of 17 feet to minimum of 7 feet. Fluted steel sections are copper-plated. Heavy porcelain base insulator with cast mounting-flange for lag-screws or bolts. Self-supporting. Ship. wt., 7 lbs.

E10059. NET..... **\$6.17**

HIGH-GRADE 5 METER TELESCOPING ANTENNAS

Vertical type antennas for ultra H.F. use. Telescoping sections of hard aluminum tubing; lock to hold adjustment. For mobile and portable use.

E9183. 1/4 wave 4 section. Less base. For direct mounting. Extends to 52". NET..... **\$1.18**

E9184. 1/4 wave 3 section. With base. Length extended 18"; extends to 52". NET..... **88c**

E9185. 1/2 wave 3 section. Less base. Hinged mast mounting. Extends to 102". NET..... **\$1.12**

E9186. 1/2 wave 3 section. With insulator base. Length, 36"; extends to 102". NET..... **\$1.32**

MIDGET STAND-OFF INSULATORS

Small glazed porcelain units. Inexpensive and efficient insulators for multi-stage rigs.

E6142. 2 inches high. Body 1 1/2". For 10-32 nickel plated brass hardware. NET EACH..... **6c**

E6143. 1 1/2" high. Body 1" with 8-32 nickel plated brass hardware. NET EACH..... **5c**

E6144. 1 1/4" high. Body 3/4" with 8-32 hardware. A tiny unit. NET EACH..... **4c**

JACK TYPE

An assembly of 3" stand-off insulator and light duty jack. For low-power use. Inexpensive and efficient.

E6145. NET EACH..... **8c**

FEED-THRU STAND-OFF INSULATORS

The ideal method of bringing leads through chassis bases, or through sub-panels. Sturdy insulators of glazed porcelain. Universally accepted for transmitter use.

E6112. 3/4" high. 3/8" dia. base. Fits 1/8" hole. EACH..... **7c**

E6111. 1/2" high. 1/4" dia. base. Fits 1/8" hole. EACH..... **10c**

E6110. 1 1/4" high. 3/4" dia. base. Fits 1/4" hole. EACH..... **13c**

JACK TYPE FEED-THRU

Some units as listed above, but fitted with built-in jack on top. Jack fits standard OH plug.

E6113. 1 1/4" high. 3/4" dia. base; fits 1/4" hole. NET..... **17c**

E6114. 7/8" high. 3/4" dia. base; fits 3/8" hole. NET..... **13c**

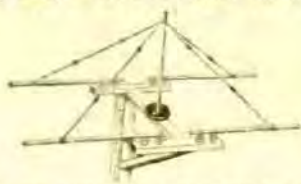
STRAIN INSULATOR

A husky, brown porcelain insulator for bracing up antenna guy wires or supporting wires over long spans. 2 1/2" long, 1 1/2" diam.

E6195. 10 FOR 54c; EA. **6c**

BUILD-YOUR-OWN

'BEAM' TYPE ANTENNA



Do you erode your station with a no-gain skywire with "lunar-as-a-burn" directivity? Increase your antenna efficiency, get power gains from 2 to 7 DB, and your signals up "out-of-the-mud" and get more results with no increase in transmitter power. All you need is a phased or unphased array, or one of the director or reflector type beams (either rotary or fixed), for one signal "week," more QSO's, less QRM, and a saving in input power. Whatever you need, telescoping aluminum tubing, masts, sea-boxes, etc., for fixed or rotating type beam assemblies, ALLIED can supply it. Prices on request.

BASSETT CONCENTRIC CABLE



A completely weatherproof flexible cable for feeding any type of antenna. Impedance and power ratings are indicated by type, i.e., UCF-61-1000 is 61 ohm surge impedance and handles 1000 Watts. Use 61 ohm cable for dipoles, stubs, etc., 13 ohm for director type beams, 33 ohm for vertical Marconi type. Molded rubber end-seal which prevents arcing at antenna end is supplied at \$1.50 net extra.

E2482. BCF-64"1000. Per Foot. NET. **17c**
 E2483. BCF-61-500. Per Foot. NET. **10c**
 E2484. BCF-31-1000. Per Foot. NET. **19c**
 E2485. BCF-13-1000. Per Foot. NET. **5c**
 E2486. BCF-64-100. Per Foot. NET. **5c**

EO-1 TYPE CABLE

Designed to handle any power output up to 2000 watts, 72 ohm surge impedance. Two No. 12 solid copper conductors cellulose and rubber-insulated, with overall weatherproof lead.

No. Per Foot 100 Feet 250 Feet
 E2328 3 1/2c \$2.94 \$6.99

250 WATT LINE

Flexible weatherproof 66 ohm line for use with power input up to 250 watts. Two No. 18 stranded conductors, rubber-insulated, with overall weatherproof lead.

No. Per Foot 75 Feet 250 Feet
 E2324. 1 1/2c 98c \$3.06

LEAD-IN INSULATORS



For use with transmitting or receiver lead-in or feed systems. Vitrified glazed porcelain cones on threaded rod.

E6138. 10" rod with cone insulators. NET..... **53c**

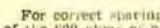
E6139. 15" rod with cone insulators. NET..... **88c**

CARDWELL COAXIAL BEADS

For constructing 1/2" copper or brass concentric line. Aiming 105 beads, 2 1/2" diam. for No. 12 wire. Mounts for 50 feet of line.

E13740. Package of 25 beads. NET..... **\$1.38**

FEEDER SPREADER



For correct spacing of parallel antenna feeders of the 600 ohm or open wire type. Glazed white porcelain. 1/2" wide by 1/2" thick.

E6218. 3 1/2" long. NET EACH..... **3c**

E6219. 6" long. NET EACH..... **14c**

ANTENNA INSULATORS

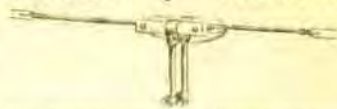
Made of strong white porcelain. Low capacity and long insulating path. All 1" diameter.

E3415. 7 inches long. NET EACH..... **20c**

E3416. 12 inches long. NET EACH..... **29c**

E3417. 20 inches long. NET EACH..... **39c**

JOHNSON "Q" ANTENNAS



The favorite antenna of leading Amateurs. Provides a considerable increase in radiated power over conventional doublet or Zepp antennas. Accurate matching of line and antenna impedance is provided by use of quarter-wave matching section of aluminum tubing. Can be fed by open wire system up to several hundred feet in length. Includes hard-drawn antenna wire, center assembly, 3 coils 1/2" aluminum tubing, "Q" section spacers, and insulators.

E13850. 100. 10 Meter Kit. NET. **\$4.62**

E13851. 200. 20 Meter Kit. NET. **7.20**

E13852. 400. 40 Meter Kit. NET. **13.29**

E13853. 800. 80 Meter Kit. NET. **24.70**

E13854. 50. Special 5 meter antenna with Mycalex spacers and insulators. NET. **\$4.12**

COPPERWELD SOLID ENAMELED ANTENNA WIRE

The ideal wire for use in long, harmonic radiators, or any antenna which must be free from stretch or sag. Steel core with welded copper covering. High conductivity; no corrosion. Available in continuous lengths up to 1500 feet.

Gauge	100 Ft.	NET	200 Ft.	NET
14	E13864	\$0.73	E13865	\$1.45
12	E13867	1.12	E13868	2.23
10	E13870	1.62	E13871	3.23

HARD-DRAWN SOLID ENAMELED WIRE

Hard-drawn copper wire, uniform in size. Enamel coated. High conductivity.

Gauge	100 Ft.	NET	200 Ft.	NET
14	E3455	35c	E3456	\$0.68
12	E3453	53c	E3454	.99
10	E3450	90c	E3451	1.73

SOLID TINNED COPPER ANTENNA WIRE

Medium hard-drawn copper wire with heavy tinned coating. Ideal for use in R.F. circuits for coils, bus wiring, etc.

Cat. No.	Gauge	25 Ft.	50 Ft.	100 Ft.
E2345	14	13c	26c	\$0.50
E2346	12	19c	38c	.75
E2347	10	25c	50c	1.00

SOFT-DRAWN COPPER TUBING

For winding your own inductances. Made of seamless soft drawn copper, annealed. Fits easily. Maximum lengths, 25 feet.

Stock No.	Outside Diam.	PER FOOT	Stock No.	Outside Diam.	PER FOOT
E2475	1/4"	4c	E2478	3/8"	8c
E2476	5/16"	5c	E2479	1/2"	9c
E2477	3/8"	6c	E2480	5/8"	13c

PYREX INSULATORS

Strong, genuine Pyrex glass insulators for all types of antenna installations. Extremely low surface conductivity. High tensile strength.

E3750. 3 1/2" long. For R.F. use up to 250 watts. NET..... **20c**

E3751. 7 1/2" long. For R.F. use up to 1000 watts. NET..... **75c**

BEE-HIVE INSULATOR

For supporting coils, condensers, high voltage leads, etc. Made of brown glazed porcelain, 2" diam., 2 1/2" high. Extra-strong; weatherproofed for outdoor use.

E6190. 10 FOR 84c. EACH..... **9c**

STAND-OFF INSULATOR

Highest quality porcelain; 4" high. Hole at top for supporting or holding wire or cable.

E6191. 10 FOR 95c; EACH..... **10c**

Transmitting Equipment

FAMOUS E. F. JOHNSON INSULATORS

STANDOFF INSULATORS



Made of a superior grade of low absorption high glaze porcelain. Heavy breakage-resistant bases. All hardware is of nickel-plated brass. Types 65, 66 and 67 have cadmium steel bases. Finish is white glaze. "3" indicates jack type.

Cat. No.	Type	Fig.	Body Hgt.	Hardware	NET
E13750	20	A	1 1/2"	10-32	8c
E13751	20J	B	1 1/2"	74 J	9 1/2c
E13752	22	A	1"	8-32	5 1/2c
E13753	22J	B	1"	74 J	7c
E13754	24	A	1 1/2"	10-32	4c
E13755	60	C	4 1/2"	10-20	38c
E13756	62	C	2 1/2"	10-20	21c
E13757	65	D	1 1/2"	10-32	12c
E13758	65J	D	1 1/2"	74 J	13c
E13759	66	D	2 1/2"	10-20	21c
E13760	66J	D	2 1/2"	76 J	25c
E13761	67	D	4 1/2"	10-20	32c
E13762	67J	D	4 1/2"	76 J	41c

PORCELAIN CONES



Made of high-grade, white glaze, low absorption porcelain. Furnished with machine screws, top and bottom, and with cushion washer. Densely threaded for maximum strength. Adaptable to all requirements for mounting coils, condensers, etc., on metal chassis or panels. Require only one hole for mounting. Four sizes available with jack mounting for plug-in coils, etc.

Cat. No.	Type	Fig.	Body Hgt.	Thread	NET
E13765	600	A	3 1/2"	6-32	6 1/2c
E13766	601	A	1"	8-32	8 1/2c
E13767	601J	B	1"	74 J	11 1/2c
E13768	602	A	1 1/2"	8-32	11c
E13769	602J	B	1 1/2"	74 J	14c
E13770	603	A	2"	10-32	15c
E13771	603J	B	2"	74 J	18c
E13772	604	A	3"	10-32	21c
E13773	604J	B	3"	76 J	29c

ALSMAG 196 CONES

Similar to porcelain cones above but of Alsimag 196 for use at high frequencies. With machine screw top and bottom and cork washer.

Cat. No.	Type	Fig.	Body Hgt.	Thread	NET
E13775	500	A	3 1/2"	6-32	12c
E13776	501	A	1"	8-32	18c
E13777	502	A	1 1/2"	8-32	24c
E13778	503	A	2"	10-32	29c
E13779	504	A	3"	10-32	50c

THRU-PANEL INSULATORS



Have high mechanical strength with low leakage paths giving extremely high breakdown voltage ratings. Made of white glaze porcelain. Flat mounting surface and cushion washers eliminate leakage. Supplied with terminals top and bottom, or jack top and terminal bottom.

Cat. No.	Type	Fig.	Top Hgt.	Panel Hole	Hardware	NET
E13780	40	A	1 1/2"	1/8"	10-32	15c
E13781	40J	B	1 1/2"	1/8"	74 J	18c
E13782	42	A	1 1/2"	1/8"	10-32	12c
E13783	42J	B	1 1/2"	1/8"	74 J	15c
E13784	44	A	1 1/2"	1/8"	6-32	9 1/2c
E13785	45	C	1 1/2"	1/8"	10-32	21c
E13786	45J	C	1 1/2"	1/8"	74 J	24c
E13787	4576J	C	1 1/2"	1/8"	74 J	24c
E13788	46	A	2 1/2"	1/8"	10-20	38c
E13789	46J	A	2 1/2"	1/8"	76 J	47c
E13790	47	A	4 1/2"	1/8"	10-20	56c
E13791	47J	A	4 1/2"	1/8"	76 J	65c

LEAD-IN BUSHINGS



Have many applications in transmitter and antenna installations. Type 55 is Alsimag 196; others are white glaze porcelain. Types 59, 51, 62 and 55 have nickel brass rod and nuts.

Cat. No.	Type	Fig.	Hgt.	Diam.	Panel Hole	NET
E13793	50	D	1 1/2"	1 1/4"	1 1/4"	12c
E13794	51	D	1 1/2"	1 1/4"	1 1/4"	18c
E13795	52	D	1 1/2"	1 1/4"	1 1/4"	26c
E13796	53	R	1 1/2"	1 1/4"	1 1/4"	18c
E13797	54	C	1 1/2"	3/8"	2 1/2"	41c
E13798	55	C	1 1/2"	1/4"	2 1/2"	18c

MOUNTING FLANGES

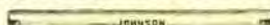
No.	Type	For Bushing	NET
E13800	90	Type 55	15c
E13801	91	Type 54	18c

THREADED BRASS ROD

For use with standoff insulators, through-panel and lead-in bushings. Nickel-plated brass; thread 1/8-20.

E13802	Type 240.	8" long.	NET...15c
E13803	Type 241.	10" long.	NET...18c
E13804	Type 242.	15" long.	NET...24c

ANTENNA INSULATORS



High-grade, wet process, white glazed porcelain. Low moisture absorption; long leakage path. 1" diam.

E13805	Type 167.	7" long.	NET...41c
E13806	Type 112.	12" long.	NET...53c
E13807	Type 120.	20" long.	NET...88c

STRAIN INSULATORS

White glaze low absorption porcelain. Type 32 is for use in light guy wires or receiving antennas. Type 35 is especially designed for R.F. use.

Cat. No.	Type	Fig.	Length	EACH 10 FOR	NET
E13808	32	A	1 1/2"	4c	36c
E13809	35	B	1 1/2"	9c	85c

FEEDEE SPREADERS



For use in all types of feeder lines, either transposed or non-transposed. Made of low absorption white glazed porcelain. Type 31 (Fig. 1) prevents twisting. Others are 3/8"x1/2" brass.

Cat. No.	Type	Fig.	Length	NET
E13810	31	A	1 1/2"	9c
E13811	182	B	3"	9c
E13812	181	A	4"	12c
E13813	188	A	6"	15c

LOW-COST KNIGHT GR TYPE JACKS & PLUGS

Banana type plugs. Promos of spring brass.

E6343.	METAL JACK.		
E6342.	METAL PLUG.		
DOZ.	41c, EACH		4c

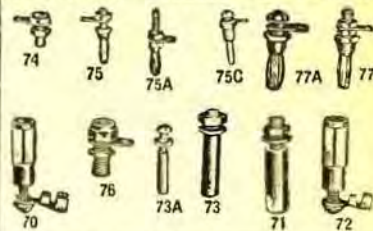
PLUG INSULATED TYPE	JACK
E6345 RED	E6347
E6346 BLACK	E6348

100 FOR \$4.90. 10 ASSTD., 55c, EACH 6c

TRANSMITTING CONNECTORS

E6146.	JACK.	1 1/4" high.	
NET			11c
E6147.	PLUG.	Fig above jack, 1/2" diameter with 10-32 nut; has hole in end. Fits 1/2" diameter tubing.	
NET EACH			3c

JOHNSON JACKS & PLUGS



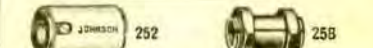
A complete line of highest quality jacks and plugs for every plug-in requirement. Banana type plugs have nickel silver springs; spring above type jacks are nickel-plated brass with phosphor bronze springs. All are accurately machined to assure maximum contact surfaces with freedom from wobble. 77A and 73A plugs have low screw for mounting on ceramic coil forms. Lengths indicated do not include screw thread.

Cat. No.	Type	Length	Thread	NET
E13815	74	1 1/2"	10-28	4c
E13816	75	1 1/2"	6-32	4c
E13817	75A	1 1/2"	6-32	4c
E13818	75C	1 1/2"	6-32	5c
E13819	76	1 1/2"	10-24	15c
E13821	77	1 1/2"	10-28	12c
E13822	77A	1 1/2"	10-32	15c
E13823	70	1 1/2"	10-30	21c
E13824	71	1 1/2"	10-32	8c
E13827	72	1 1/2"	10-32	15c
E13838	73	1 1/2"	10-32	4c
E13839	73A	1 1/2"	10-32	4c

JOHNSON SHAFT COUPLINGS

Flexible insulated shaft couplings with phosphor-bronze springs and absolute freedom from backlash. Insulated with Alsimag 196. Maximum strain to insure protection from washover. Hubs cannot loosen. Quality built to give continuous perfect service.

Cat. No.	Type	Shaft	Diam.	NET
E13825	250	1/4"x1/4"	1 1/4"	47c
E13826	251A	3/8"x1/4"	2 1/4"	82c
E13827	251B	1/2"x1/4"	2 1/4"	82c
E13828	252	3/8"x1/4"	2 1/4"	82c



Solid shaft couplings for use where extension is necessary without flexibility. Type 252 is insulated with Alsimag 196; leakage path 1/8". Type 258 is cadmium-plated.

E13830.	Type 252.	Overall length 1 1/2". 1/8" diam. For 1/4" shaft.	44c
NET			
E13831.	Type 258.	Compression type coupling for 1/4" shaft.	9c

FLEXIBLE SHAFTS

Non-rusting phosphor-bronze flexible shafts with 1/8" hubs. Permit control of condensers, etc., offset or at angles up to 90 degrees. Hubs will not loosen.

E13832.	Type 253.	3" length.	NET. 21c
E13833.	Type 251.	6" length.	NET. 29c

PANEL BEARING & EXTENSION



For use with rigid or flexible shaft couplings. Flat panels up to 3/8" thick. Type 255 is panel bushing only. Of cadmium-plated brass.

Cat. No.	Type	Shaft Length	NET
E13834	255	3"	9c
E13835	256	3"	18c
E13836	257	6"	24c

KNIGHT STAND-OFF INSULATORS

High-grade glazed porcelain construction with deep corrugations. Cadmium-plated brass hardware.

E6148.	5 1/4" high, with base 2 1/2" square.	37c
NET EACH		
E6149.	3 3/4" high, with base 1 3/4" square.	18c
NET EACH		

Transmitting TRANSFORMERS

THORDARSON TRANSFORMERS AND CHOKES



An extremely popular line offering all necessary transformer equipment for dependable service in Amateur Short-Wave equipment. All primaries are for 110 volt 50-60 cycles. Other voltages on special order.

PLATE TRANSFORMERS

No.	Type	D.C. Volts	D.C. M.A.	Fig.	Wt.	NET
E12600	T19P55*	500-400	250	2G	8	\$ 4.41
E12601	T19P50	750-600	225	2G	9	4.70
E12602	T19P57	1000-400†	125-150	2G	9	5.88
E12603	T19P58	1000-750†	150-200	2N	17	7.64
E12604	T19P59	1000-1250	300	2K	26	9.41
E12605	T19P60	1250-1500	300	2K	29	10.88
E12606	T19P61	1500-1750	300	2K	31	11.76
E12607	T19P62	1750-2000	300	2K	34	12.64
E12608	T19P63	1000-1250	500	2K	36	13.52
E12609	T19P64	1250-1500	500	2K	42	17.35
E12610	T19P65	2000-2500	300	2K	42	17.35
E12611	T19P66	1500-1750	500	2K	50	22.05
E12612	T19P67	1750-2000	500	2K	56	24.99
E12613	T19P68	2000-2500	500	2K	62	29.40

* Bias tap at 25 Volts. † Designed for double rectifiers; supply both secondary voltages simultaneously.

FILAMENT TRANSFORMERS

No.	Type	Volts	Amps.	Insul.	Fig.	Wt.	NET
E12614	T50F61	2.5 CT	3.5	1600	2H	1	50.88
E12615	T10F88	2.5 CT	5.25	2000	3C	1 1/2	1.03
E12616	T10F89	2.5 CT	10	2000	3C	2 1/2	1.32
E12617	T10F90	2.5 CT	10	7500	3C	2 1/2	1.76
E12618	T64F83	2.5 CT	10	7400	2N	4 1/2	2.65
E12619	T63F99	5 CT	4	1600	2D	2 1/4	1.91
E12620	T19F91	5.25 CT	4	2000	3C	2 1/4	1.32
E12621	T19F92	6.25 CT	13	2000	3C	4	1.91
E12622	T74F23	5.25 CT	13	1600	2D	4 1/2	2.94
E12623	T74F24	5.25 CT	21	1600	2D	5 1/2	4.12
E12624	T19F97	8.3 CT	3	2000	3C	1 1/2	1.18
E12625	T19F95	10 CT, 2.5	2.5	1600	2D	1 1/2	1.91
E12626	T73F60	6.3 CT	5	1600	2D	3 1/2	2.20
E12627	T19F98	6.3 CT	6	2000	3C	2 1/4	1.62
E12628	T19F99	6.3 CT	10	2000	3C	4	2.06
E12629	T19F93	7.5 CT	4	2000	3C	2 1/4	1.32
E12630	T19F94	7.5 CT	8	2000	3C	4	1.76
E12631	T82F20	7.5 CT	8	1600	2D	4 1/2	2.79
E12632	T19F96	10 CT	8	2000	3C	4	1.62
E12633	T19F96	10 CT	8	2000	3C	4	2.06
E12634	T64F14	10 CT	8	1600	2D	5	2.79
E12635	T79F84	2.5 CT, 5 CT, 8.3 CT	3	1600	2G	4 1/2	2.79

SWINGING CHOKES

No.	Type	Henries	M.A.	Res.	Insul.	Wt.	NET
E12636	T19C35	5-20	200	130	3000	5	\$2.79
E12637	T19C30	5-20	300	105	3000	10	3.52
E12638	T19C37	5-20	400	90	4000	17	5.29
E12639	T19C38	5-20	500	75	4000	26	6.76

SMOOTHING CHOKES

No.	Type	Henries	M.A.	Res.	Insul.	Wt.	NET
E12640	T19C42	12	200	130	3000	5	\$2.79
E12641	T19C43	12	300	105	3000	10	3.52
E12642	T19C44	12	400	90	4000	18	5.29
E12643	T19C45	12	500	75	4000	26	6.76

UNIVERSAL DRIVER TRANSFORMERS

Each unit has five usable ratios permitting the use of several types of driver-modulator tube combinations. Careful choosing proper transformer for use with various tube combinations sent FREE on request.

No.	Type	Cap. Watts	Pri. M.A. Per Side	Ratio 1:2, 1:3, 1:4, 1:5, 2:1, 2:2, 2:4, 2:1, 2:6, 1, 2:8, 1	Pri. to % Sec.	Wt. Lbs.	NET
E12644	T19D01	15	60	1:1, 1:2, 1:4, 1:5, 2:1, 2:2, 2:4, 2:1, 2:6, 1, 2:8, 1	4 1/2	53.53	
E12645	T19D02	15	60	2:1, 3:2, 3:4, 3:1, 3:6, 1, 3:8, 1	4 1/2	3.53	
E12646	T19D03	15	60	4:1, 4:5, 1:5, 1:1, 5:5, 1:6, 1	4 1/2	5.53	
E12647	T19D04	15	60		4 1/2	5.53	

UNIVERSAL MODULATION TRANSFORMERS

Have a wide range of applications when used with the Universal Driver transformers above. Tapped coils permit matching of several tube combinations with each transformer. Matching table sent on request.

No.	Type	Cap. Watts	Pri. M.A. Per Side	Sec. M.A. Par.	M.A. Lbs.	NET
E12650	T19M14	30	75	75	150	\$4.12
E12651	T19M15	60	125	125	250	5.88
E12652	T19M16	160	175	175	330	8.12
E12653	T19M17	250	225	225	450	14.11

STANDARD MODULATION TRANSFORMERS

No.	Type	Pri.	Sec.	Audio	Wt.	NET
E12654	T87M169	1-19	2700	10 W.	1 1/2	\$1.62
E12655	T17M39	1-6A6	3000, 3750, 4500	10 W.	2	2.06
E12656	T64M126	2-46, 59	6000, 10000	40 W.	5	3.53
E12657	T10M21	2-T220	3750, 6600	75 W.	5	4.12
E12658	T19M122	2-809	5000, 7500	100 W.	13	5.88
E12659	T84M170	2-35T, 6L6	2500, 5000, 7500	75 W.	15	5.88
E12660	T14M149	2-T240	2850, 4500, 6500	175 W.	20	9.76
E12661	T82M123	2-805, 822	4000, 6000, 8000	650 W.	47	23.52

GRID MODULATION TRANSFORMERS

No.	Type	Tubes	Sec. Imp.	Sec. M.A.	Watts	Wt.	NET
E12662	T87M73	1-46 or 59	5,000	32	10	2 1/2	\$2.06
E12663	T87M74	2-45 or 2A3	5,000	60	20	3	2.45

THORDARSON C. H. T. MULTI-VOLT SERIES

Engineered and constructed for maximum efficiency under continuous load, these units provide extreme flexibility, excellent regulation, and quiet operation. All units fully shielded. Mounting templates furnished.

MULTI-VOLT PLATE TRANSFORMERS

No.	Type	D.C. Volts	M.A.	Wt.	NET
E12664	T15P11	400-500	300	16	\$ 7.35
E12665	T15P12	500-650	200	19	8.82
E12666	T15P13	600-750	300	31	11.76
E12667	T15P14	750-1000	300	41	14.70
E12668	T15P15	1000-1250	300	51	17.64
E12669	T15P16	1000-1250	500	81	26.46
E12670	T15P17	1250-1500	300	55	19.11
E12671	T15P18	1500-1750	500	96	35.28
E12672	T15P19	2000-2500	300	85	29.10
E12673	T15P20	2000-2500	650	140	49.98
E12674	T15P21	1500-2000			
E12675	T15P22	2500-3000, 1000-1250, 1500-1750	500	129	47.04
			300	76	29.40

MULTI-VOLT POWER TRANSFORMERS

No.	Type	A.C. Volts	Current	Wt. Lbs.	NET
E12676	T15R00	1000 C.T.	150 M.A., 3 A.		
E12677	T15R01	7.5 tap at 6.3, 1000 C.T.	400 M.A., 6 A.	15	\$6.17
E12678	T15R02	6.3 C.T., 1500 C.T.	200 M.A., 10 A.	24	8.82
E12679	T15R03	7.5 tap at 6.3, 800 C.T.	200 M.A., 4 A.	17	7.73
E12680	T15R04	6.3 C.T., 510 C.T.	3 A., 25 M.A.	19	8.06
E12681	T15R05	6.3 C.T., 700 C.T.	125 M.A., 1.15 A.	2 1/2	2.79
		77 V. Bias tap	0		
		5 or 2.5	3 A.		
		6.3 C.T.	2 A. or 5 A.		
E12682	T15R06	6.3 C.T., 725 C.T.	2.25 A., 175 M.A.	10	6.17
		5 C.T.	3 A.		
E12683	T15R07	6.3 C.T., 700 C.T.	280 M.A., 3 A.	10	5.72
E12684	T15R08	6.3 C.T., 860 C.T.	325 M.A., 6 A.	11	6.17
		5 C.T.	4.25 A.	15	8.06

MULTI-VOLT FILAMENT TRANSFORMERS

No.	Type	Volts	Amps.	Insul.	Wt.	NET
E12685	T11F50	7.5 tap at 6.3, 5 V, 2.5 C.T.	6.5	1600	8	\$4.41
E12686	T11F51	10 tap at 7.5, 6.3 C.T.	8	1600	8	4.70
E12687	T11F52	11 tap at 10, 7.5 C.T.	10	1600	13	5.29
E12742	T11F53	2.5 C.T., 10	10	7500	6	3.52
E12688	T11F54	5 C.T., 30	30	10000	16	7.06
E12689	T11F55	5.25 C.T., 22	22	1600	14	5.88
E12690	T11F56	6.3 C.T., 3	3	1600	14	5.88
E12691	T11F57	2.5 C.T., 5 C.T., 10 C.T., 10 C.T.	3, 3, 8, 4	1600	8	3.52
E12692	T11F58	5 C.T., 2.5 C.T., 7.5 C.T., 6.3 C.T., -C.T.	3, 6.5, 3.25, 3, 3	1600	15	7.35
			3	1600	13	6.41

C. H. T. SMOOTHING CHOKES

No.	Type	Henries	M.A.	Insul.	Ohms	NET	
E12693	T15C45	12	200	4000	100	\$ 4.76	
E12694	T15C46	12	300	4000	78	5.88	
E12695	T15C47	12	400	4000	95	7.06	
E12696	T15C48	12	500	10000	86	11.17	
E12697	T15C50	15	650	10000	46	13.52	
E12698	T15C53*	12 Par, -50 Ser	100, 50	1600	272		
E12699	T15C54*	8 Par, 32 Ser	150, 75	1600	184	3.23	
E12700	T15C55*	2 Par, 8 Ser	500, 250	1600	33	3.23	
E12701	T15C56*	2 Par, 8 Ser	700, 350	1600	130	4.12	
					27	107	5.29

*Have two windings which may be connected in series or parallel.

C. H. T. INPUT CHOKES

No.	Type	Henries	M.A.	Insul.	Ohms	NET
E12702	T15C16	5-25	200-20	4000	105	\$ 4.70
E12703	T15C37	5-25	300-30	4000	78	5.88
E12704	T15C38	5-25	400-30	4000	95	7.06
E12705	T15C39	5-25	500-30	10000	86	11.17
E12706	T15C41	5-25	650-50	10000	46	13.52

MULTI-VOLT BIAS TRANSFORMERS

No.	Type	D.C. Volts	M.A.	FIL V.	FIL A.	Wt.	NET
E12707	T10B00	150; 135; 120; 110; 100; 90	200	5	3	6 1/2	\$5.55
E12708	T15B01	275; 240; 225; 200; 175; 150	300	5	3	8 1/2	6.11
E12709	T15B02	300; 450; 400; 350; 300; 275	200	5	3	15 1/2	7.35

Transmitting TRANSFORMERS

THORDARSON X-MITTING TRANSFORMERS

MULTI-MATCH DRIVER TRANSFORMERS

Designed to offer maximum flexibility and efficiency. Have plug-in terminal boards for matching various driver tube combinations. Recessed sub-base legs permit single hole wiring.

Cat. No.	Type	Cap. Wt.	Prl. M.A. Per Side	Ratio Prl. to 1/2 Sec.	Wt.	NET
E12900	T15D76*	15	60	1:1, 1.2:1, 1.4:1, 1.6:1, 1.8:1	7 1/2	\$4.85
E12901	T15D77*	15	60	2:1, 2.2:1, 2.4:1, 2.6:1, 2.8:1	6	4.85
E12902	T15D78*	15	60	3:1, 3.2:1, 3.4:1, 3.6:1, 3.8:1	6	4.85
E12913	T15D79*	15	60	4:1, 4.5:1, 5:1, 5.5:1, 6:1	6	4.85
E12903	T15D80**	30	120	1:1, 1.25:1, 1.5:1, 1.75:1, 2:1	8 1/2	6.76
E12904	T15D81**	30	120	2.25:1, 2.5:1, 2.75:1, 3:1, 3.25:1	8	6.76
E12905	T15D82*	15	60	1:1.25, 1.275, 1.3, 1.325, 1.35, 1.375, 1.4, 1.425, 1.45, 1.475, 1.5:1, 2:1, 2.5:1, 3:1	8 1/2	6.76
E12906	T15D83*	30	120	1:1.25, 1.275, 1.3, 1.325, 1.35, 1.375, 1.4, 1.425, 1.45, 1.475, 1.5:1, 2:1, 2.5:1, 3:1	8 1/2	6.76
E12907	T15D84**	30	120	1:1.25, 1.275, 1.3, 1.325, 1.35, 1.375, 1.4, 1.425, 1.45, 1.475, 1.5:1, 2:1, 2.5:1, 3:1	8 1/2	6.76

*P.P. 45 or 2A3's. **P.P. Par. 2A3's. 500 ohm primary, P.P. 6L6's with inverse feedback.

FREE CHART showing proper Multi-Match Driver and Modulation transformers for various tube combinations sent on request.

MULTI-MATCH MODULATION TRANSFORMERS

Finest quality modulation transformers. Plug-in terminal board permits instant matching of any driver-modulator tube combination.

Cat. No.	Type	Cap. Wt.	Prl. M.A. Per Side	Sec. Ser.	M.A. Par.	Wt.	NET
E12908	T11M74	40	100	80	160	8	5.29
E12909	T11M75	75	145	145	290	9	7.35
E12910	T11M76	125	210	160	320	18	11.47
E12911	T11M77	300	250	250	500	39	17.64
E12912	T11M78	400	320	320	640	51	35.28

FREE ON REQUEST. Complete Thordarson Transmitting component catalog containing modulation tables, Driver-Modulator tube combinations, and complete data on Multi-match transformers.

KNIGHT AMATEUR SPECIALS



For the Amateur who demands extra value for his money, here is the complete line of KNIGHT high-quality transmitter components. Made by a leading transformer manufacturer, these units are especially designed for the intermittent service required of the Amateur transmitter. All conservatively rated; many with top-of-the-line porcelain terminals, fully enclosed air-cooled cases, etc.



PLATE TRANSFORMERS

E11827	050 or 500 D.C. volts @ 200 M.A. Wt.	7 1/2 lbs.	\$3.49
E11828	1250 or 1000 D.C. volts @ 300 M.A. Wt.	2 1/2 lbs.	6.88
E11829	1250 or 1000 D.C. volts @ 500 M.A. Wt.	3 1/2 lbs.	11.11
E11830	1800 or 1500 D.C. volts @ 300 M.A. Wt.	30 1/2 lbs.	10.05
E11831	2500 or 2000 D.C. volts @ 300 M.A. Wt.	42 lbs.	12.30

FILAMENT TRANSFORMERS

E11838	2.5 V. C.T. @ 5.25 A. 2000 Volt Ins. Wt.	1 1/4 lbs.	\$0.79
E11839	2.5 V. C.T. @ 10 A. 2000 Volt Ins. Wt.	2 1/2 lbs.	.92
E11840	2.5 V. C.T. @ 10 A. 1750 Volt Ins. Wt.	2 1/2 lbs.	1.45
E11841	5.25 V. C.T. @ 4 A. 2000 Volt Ins. Wt.	2 1/2 lbs.	1.06
E11842	5.25 V. C.T. @ 15 A. 2000 Volt Ins. Wt.	4 lbs.	1.85
E11843	6.3 V. C.T. @ 3 A. 2000 Volt Ins. Wt.	1 1/2 lbs.	.92
E11866	6.3 V. C.T. @ 6 A. 2000 Volt Ins. Wt.	2 1/2 lbs.	1.45
E11867	6.3 V. C.T. @ 10 A. 2000 Volt Ins. Wt.	4 lbs.	1.85
E11844	7.5 V. C.T. @ 4 A. 2000 Volt Ins. Wt.	2 1/2 lbs.	1.06
E11845	7.5 V. C.T. @ 8 A. 2000 Volt Ins. Wt.	4 lbs.	1.71
E11846	10.0 V. C.T. @ 4 A. 2000 Volt Ins. Wt.	3 lbs.	1.58
E11847	10.0 V. C.T. @ 8 A. 2000 Volt Ins. Wt.	4 lbs.	2.11

INPUT CHOKES

E11832	5-20 H. 200 M.A. 3000 Volt Ins. Wt.	4 1/2 lbs.	\$1.98
E11833	5-20 H. 300 M.A. 3000 Volt Ins. Wt.	9 1/2 lbs.	2.65
E11834	5-20 H. 500 M.A. 3000 Volt Ins. Wt.	25 lbs.	4.76

SMOOTHING CHOKES

E11835	12 H. 200 M.A. 3000 Volt Ins. Wt.	4 1/2 lbs.	\$1.98
E11836	12 H. 300 M.A. 3000 Volt Ins. Wt.	9 1/2 lbs.	2.65
E11837	12 H. 500 M.A. 3000 Volt Ins. Wt.	25 lbs.	4.76

THORDARSON TRANSMITTER MANUAL

E11206. A 52 page book, completely revised, with information on all types of Amateur transmitters. Contains schematic diagrams, parts lists, modulation table, coil data, power supply circuits, etc. **9c**

KNIGHT PLATE TRANSFORMERS



Here is a husky, high quality plate transformer that is ideal for use in the medium power amateur transmitter. Based at 1000-750 Volts A.C. each side of center tap, and conservatively rated at 300 M.A. Fully enclosed in heavy cast aluminum case with glazed porcelain stand-off type terminals. Sturdy construction throughout; built by a leading manufacturer of transmitting type transformers. Exceptionally popular with Amateurs who want a really good unit for medium power R.F. stages or modulators, with good voltage regulation. Primary for 110 volts 50-60 cycles. **\$7.95**

Shpg. wt. 22 lbs. E11006. NET



An outstanding value in a good, husky built plate transformer without fancy dress. Similar to the E11006 unit directly above but increased. Secondary rated at 1000-750-500 volts A.C. each side of center tap at 300 M.A. It's just right for those 750 or 500-ohm modulators for an 800 or 35T buffer or for final R.F. stage. Primary for 110 volts 50-60 cycles. Universal mounting style makes it fit almost any type of power supply layout. Well-insulated throughout; with solder lug terminals. Shpg. wt. 13 lbs. **\$5.85**



For those in low voltage buffer or R.F. stages, for small modulators. In fact for most any low-voltage power work—no can't go wrong on this one. Well-built, heavily-insulated, and rated at 750 volts AC each side of center tap at 200 M.A. Primary, 110 volts, 50-60 cycles. Good power workmanship and materials throughout; uncase to keep the price down, but worth much more than the low price would indicate. A very popular unit with the Amateurs who know value when they see it. Shpg. wt. 8 lbs. **\$2.65**

E11007. NET

KNIGHT HIGH-POWER TRANSFORMER

Every Amateur or Experimenter will find dozens of uses for this high-quality combination plate and filament transformer. Primary, 110 V. 50-60 cycles. Secondary: 1200 V. at 200 M.A.-C.T.; 7.5 V. at 3 A.-C.T.; 5 V. at 3 A.-C.T.; 2.5 V. at 10 A.-C.T. Fully enclosed case type; upright mounting style; with flexible leads. Shpg. wt. 12 lbs. **\$2.89**

E11141. NET

KNIGHT FILTER CHOKES

E11009. Swinging Choke. Especially designed for use as input choke of transmitter or modulator power supplies. Capacity, 200 M.A.; inductance value, 8.00 henries. Fully cased; upright mounting style. Flexible insulated wire leads at bottom. Size: 3 1/2" x 3 1/2" x 1 1/2". Shpg. wt. 6 lbs. **\$2.21**

NET

E11010. Smoothing Choke. For use as second choke in all medium or low-voltage power supplies. Capacity, 200 M.A.; inductance, 20 henries; 20 ohm D.C. resistance. Fully cased; upright mounting style. Flexible insulated wire leads at bottom. Size: 3 1/2" x 3 1/2" x 1 1/2". An efficient filter choke of highest quality at an exceptionally low price. Wt. 6 lbs. **\$2.05**

NET EACH

FILAMENT TRANSFORMERS

E11011. One-amp, upright nominal type, with solder lug terminals. 2.5 Volts at 10 A. for 2-800 or several 2.5 volt tubes. 5000 Volt insulation. Size: 2 1/2" x 2 1/2" x 1 1/2". Wt. 2 1/2 lbs. **NET \$1.15**

E11012. 7.5 Volts at 4 A. and 2.5 Volts at 5 A. Ideal for use in low power multi-stage rigs. Size: 2 1/2" x 2 1/2" x 1 1/2". Shpg. wt. 3 1/2 lbs. **NET \$1.35**

E11013. 6.3 Volts at 6 A. For use with 6L6 or other Beam Power tubes, or several 6.3 tubes in speech-amplifier or R.F. units. Size: 2 1/2" x 2 1/2" x 1 1/2". Shpg. wt. 2 1/2 lbs. **NET \$1.15**

NET

NEW KNIGHT OIL-IMPREGNATED TRANSMITTING CONDENSERS

These hermetically sealed, oil-impregnated filter condensers are real "meat" for any Amateur. No effort has been spared to include every detail of advanced design, quality materials, and careful assembly. Terminals are on glazed porcelain stand-off insulators; heavy mounting feet. May be mounted in any position.

No.	Mfd.	NET	No.	Mfd.	NET
E7988	1	\$1.10	E7994	1	\$1.75
E7989	2	1.50	E7995	2	2.35
E7990	4	1.95	E7996	4	3.95
1500 Volt					
E7991	1	1.45	E7997	1	2.25
E7992	2	1.95	E7998	2	4.25
E7993	4	3.15			

SPECIAL 4 MFD. 1000 VOLT PAPER CONDENSER

A popular size for use in transmitting power supplies. Working voltage, 1000 V. D.C.; 2000 V. test. In metal case. 4 1/2" x 1 1/2" x 2 1/2". Porcelain stand-off type terminals. Will give long, dependable service. An outstanding "ham" buy. Wt. 5 lbs. **E7899. \$1.89**

YOUR NET PRICE

OHMITE CENTER-TAPPED RESISTORS

"Wirewatt" and "Brown Devil" center-tapped resistors especially suited for providing grid return to ground in transmitting tube circuits. Center-tap accurate to plus or minus 1%. All units have 1/2" thinned pinall leads with lug center-tap.

Ohms	No.	EACH	No.	EACH
20	WB270		E8273	
50	WB271		E8274	
100	WB272	21c	E8275	29c

Transmitting CONDENSERS

AEROVOX TRANSMITTING CONDENSERS



"11" SERIES

An extremely popular line of condensers for use where economy is important. Oil-impregnated and sealed in high-melting-point wax. Case is of welded steel with high-tension type pillar terminals equipped with lock nuts and solder lugs. All are supplied with universal bracket for either upright or inverted mounting. Unsurpassed x-mitting condensers.

Cat. No.	Type	Mfd.	Wkg. V.	NET
E13450	1011	1	1000	\$1.08
E13451	1011	2	1000	1.47
E13452	1011	4	1000	1.96
E13453	1511	1	1500	1.42
E13454	1511	2	1500	1.96
E13455	1511	4	1500	3.13
E13456	2011	1	2000	1.71
E13457	2011	2	2000	2.40
E13458	2011	4	2000	4.56
E13459	3011	1	3000	2.45
E13460	3011	2	3000	4.85

HYVOL "09" SERIES

Hermetically sealed in welded steel can. Dielectric is selected paper, oil-impregnated and oil-filled. Recommended for heavy-duty continuous service. With universal upright or inverted mounting bracket. Will give dependable lasting service even under the most rigorous operating conditions.

Cat. No.	Type	Mfd.	Wkg. V.	NET
E13462	609	1	600	\$1.62
E13463	609	2	600	2.06
E13464	609	4	600	2.64
E13465	1009	1	1000	1.76
E13466	1009	2	1000	2.36
E13467	1009	4	1000	3.94
E13468	1509	1	1500	1.94
E13469	1509	2	1500	2.94
E13470	1509	4	1500	4.12
E13471	2009	1	2000	2.64
E13472	2009	2	2000	3.23
E13473	2009	4	2000	5.29
E13474	2509	1	2500	4.70
E13475	2509	2	2500	7.64
E13476	3009	1	3000	2.06
E13477	3009	2	3000	8.82

PORCELAIN CASED MICA CONDENSERS



Especially designed for high-frequency use. Hermetically sealed in glazed porcelain case. Minimum power loss at full load without heating. Size: 4" x 3" x 3/4". Mounting centers. Well-built, dependable condensers.

Cat. No.	Cap. Mfd.	Wkg. Volts	NET
E13480	.00005	12500	\$2.20
E13481	.0001	12500	2.20
E13482	.00025	12500	2.20
E13483	.0005	12500	2.50
E13484	.001	7000	2.20
E13485	.001	12500	2.50
E13486	.001	3500	3.20
E13488	.0015	12500	3.23
E13489	.0015	7000	2.79
E13487	.0015	3500	3.35
E13491	.002	12500	3.35
E13492	.002	10000	3.09
E13493	.002	7000	3.09
E13494	.002	5000	2.79
E13490	.002	3500	2.50
E13496	.003	12500	4.70
E13497	.003	10000	4.12
E13498	.003	7000	3.23
E13499	.003	5000	3.23
E13500	.003	3500	2.94
E13501	.005	10000	5.59
E13502	.005	7000	4.12
E13503	.005	5000	3.82
E13504	.005	3500	3.53
E13504	.01	7000	5.59
E13505	.01	5000	4.70
E13506	.01	3500	4.12
E13507	.02	3500	5.14
E13508	.02	2000	4.12
E13509	.1	2000	6.47

HYVOL "05" SERIES

Increasingly popular for all transmitter requirements. These units have pure linen paper dielectric, impregnated and filled with "Hyvol" oil. All voltage ratings are conservative for continuous operation. Hermetically sealed in round aluminum containers. Terminals equipped with lock nuts and solder lugs are adequately insulated by means of high-tension pillars. May be mounted upright or inverted by means of clamping ring supplied.



Cat. No.	Type	Mfd.	Wkg. V.	NET
E13510	605	1	600	\$1.47
E13511	605	4	600	1.75
E13512	605	4	600	2.13
E13513	1005	1	1000	1.59
E13514	1005	2	1000	1.97
E13515	1005	4	1000	2.85
E13516	1505	1	1500	1.68
E13517	1505	2	1500	2.29
E13518	1505	4	1500	3.99
E13519	2005	1	2000	1.09
E13520	2005	2	2000	1.79
E13521	2505	1	2500	2.23
E13522	2505	2	2500	4.12
E13523	3005	1	3000	5.00

MOLDED MICA CONDENSERS

Suitable for all voltage or R.F. bypass requirements. Highest quality, selected mica dielectric in molded bakelite case with screw terminals.



TYPE 1650-1000 VOLTS

Cat. No.	Cap.	NET EACH	Cat. No.	Cap.	NET
E13525	.00005		E13530	.001	79c
E13526	.0001		E13531	.002	80c
E13527	.00015	24c	E13532	.01	68c
E13528	.00025		E13533	.02	\$1.09
E13529	.0005		E13534	.05	2.26

TYPE 1651-2500 VOLTS

E13535	.00005		E13539	.002	79c
E13536	.0001	41c	E13540	.006	\$1.03
E13537	.0005		E13541	.01	1.65
E13538	.001	53c	E13542	.02	2.32

TYPE 1652-5000 VOLTS

E13543	.00005	53c	E13547	.001	88c
E13544	.0001		E13548	.002	\$1.52
E13545	.00025	62c	E13549	.006	2.06
E13546	.0005	75c	E13550	.01	2.41

SANGAMO MICA TRANSMITTING CONDENSERS



Accented by Amateurs everywhere for all types of transmitter and receiver circuits. Ideal for use as by-pass condensers, in R.F. circuits, as coupling condensers, etc. Bakelite cases; finest ruby mica dielectric. Accurate to within 10%. With machine screw terminals.

1000 V. DC TEST			2500 V. DC TEST		
No.	Mfd.	NET	No.	Mfd.	NET
E7650	.00005	50.24	E7672	.00005	\$0.41
E7651	.0001	.24	E7673	.0001	.41
E7652	.00015	.24	E7674	.0002	.41
E7653	.0002	.24	E7675	.00025	.41
E7654	.00025	.24	E7676	.0005	.41
E7655	.0005	.24	E7677	.001	.53
E7656	.0005	.24	E7678	.002	.79
E7657	.001	.29	E7679	.004	.91
E7658	.0015	.29	E7680	.005	1.03
E7659	.002	.29	E7681	.006	1.31
E7660	.002	.29	E7682	.008	1.32
E7661	.003	.35	E7683	.01	1.65
E7662	.004	.35			
E7663	.005	.41			
E7664	.006	.50			
E7665	.008	.59			
E7666	.01	.68			
E7667	.015	.73			
E7668	.015	.73			
E7669	.02	1.09			
E7670	.025	1.35			
E7671	.03	1.47			
E7672	.05	2.26			
E7673	.05	2.26			
E7674	.05	2.26			
E7675	.05	2.26			
E7676	.05	2.26			
E7677	.05	2.26			
E7678	.05	2.26			
E7679	.05	2.26			
E7680	.05	2.26			
E7681	.05	2.26			
E7682	.05	2.26			
E7683	.05	2.26			
E7684	.05	2.26			
E7685	.05	2.26			
E7686	.05	2.26			
E7687	.05	2.26			
E7688	.05	2.26			
E7689	.05	2.26			
E7690	.05	2.26			
E7691	.05	2.26			
E7692	.05	2.26			
E7693	.05	2.26			
E7694	.05	2.26			
E7695	.05	2.26			
E7696	.05	2.26			
E7697	.05	2.26			
E7698	.05	2.26			
E7699	.05	2.26			
E7700	.05	2.26			

We can also supply 2500 and 5000 Volt Sangamo condensers with "dead" terminals on one side, suitable for panel mounting at no additional cost. Specify when ordering.

CORNELL-DUBILIER

"TJ" SERIES FILTER CONDENSERS

Always a favorite with builders of transmitting equipment, these new "TJ" units represent increased value at no extra cost. Hermetically sealed in non-corrosive steel containers. Selected dielectric impregnated in Dylanol. Voltage ratings are conservative. Universal bracket supplied for upright or inverted mounting.



Cat. No.	Mfd.	Wkg. Volts	NET
E13550	1	600	\$1.62
E13551	2	600	2.06
E13552	4	600	2.65
E13553	1	1000	1.76
E13554	2	1000	2.36
E13555	4	1000	3.94
E13556	1	1500	1.94
E13557	2	1500	2.94
E13558	4	1500	4.56
E13559	1	2000	1.65
E13560	2	2000	2.23
E13561	4	2000	3.82
E13562	1	2500	2.29
E13563	2	2500	3.09
E13564	4	2500	4.70
E13565	1	3000	2.06
E13566	2	3000	2.65
E13567	4	3000	3.23
E13568	1	3000	3.82
E13569	2	3000	4.85
E13570	4	3000	8.82

"TL" SERIES

Especially designed for heavy-duty service in transmitter or power audio amplifier power supplies. Hermetically sealed in inverted type round aluminum containers; ideal for use where space is limited. Diameter of can is only 1 1/2". Dielectric is selected paper, impregnated and filled with Dylanol. Single hole mount with stud and lock nut.

NOTE: WE CAN SUPPLY ALL C.D. transmitting condensers not listed here, on a special order. Write for complete catalog.

Cat. No.	Mfd.	Volts	NET
E13575	2	600	\$1.32
E13576	3	600	1.62
E13577	4	600	1.76
E13578	1	1000	1.32
E13579	2	1000	1.62
E13580	3	1000	1.76
E13581	4	1500	2.06

GENERAL ELECTRIC PYRANOL TRANSMITTING CAPACITORS

Attractive, durable transmitting capacitors of the best quality. These condensers will give exceptional service and long life. Filled and treated with Pyranol, a non-inflammable, non-explosive sealed substance of unusual dielectric qualities. Hermetically sealed, with porcelain lead-out bushings. Equipped with mounting clamps for easy upright mounting.



No.	Model	Mfd.	Volts	NET
E5400	23F1	1	600	\$1.61
E5401	23F2	2	600	2.06
E5402	23F4	4	600	2.65
E5403	23F10	1	1000	1.76
E5404	23F11	2	1000	2.35
E5405	23F13	4	1000	2.94
E5406	23F20	1	1500	2.06
E5407	23F21	2	1500	2.94
E5408	23F23	4	1500	4.12
E5409	23F30	1	2000	2.65
E5410	23F31	2	2000	3.23
E5411	23F33	4	2000	5.29
E5412	23F39	1	2500	4.70
E5413	23F40	2	2500	7.64
E5414	23F41	4	2500	10.58

G. E. Pyranol Transmitting Capacitors are available in voltage ratings up to 5000 volts D.C. Write for complete listing.

Transmitting Equipment

INSTRUMENT DIALS



2 1/2 INCH DIALS
E5733. 325 Degrees.
E5734. 180 Degrees.
NET EACH **73c**

Chrome silver dials with grained satin finish and enameled black numerals and calibrations. Ideal for dressing up transmitters, test equipment, etc. Heavy black knob offers a real way for 3/8 inch shaft. Read 0-100 in choice of either 325 or 180 degrees rotation. Complete with vernier marker.

4 INCH DIALS
E5735. 325 Degrees.
E5736. 180 Degrees.
NET EACH **\$1.03**



CHROME-SILVER PLATES WITH POINTER KNOBS

Handsome professional dial plates housed in silver-grain anodized aluminum with calibrations clearly etched in black. Calibrated 0 to 100. Flared finger grip pointer knob is 1/2 inch diameter. Excellent for use with all standard receiving and transmitting condensers.

2-INCH DIAL PLATES
E5670. 180 Degrees. NET EACH **52c**
E5671. 325 Degrees. NET EACH **52c**
3 1/2-INCH DIAL PLATES
E5672. 180 Degrees. NET EACH **71c**
E5673. 325 Degrees. NET EACH **71c**
4-INCH DIAL PLATES
E5674. 180 Degrees. NET EACH **91c**
E5675. 325 Degrees. NET EACH **91c**

DIAL PLATES ONLY (LESS KNOB)

No.	Dia.	NET	325 DEGREES	No.	Dia.	NET
E5741	2"	28c	E5744	3 1/2"	28c	
E5742	3 1/2"	48c	E5745	3 1/2"	48c	
E5743	4"	57c	E5746	4"	57c	

VERNIER MARKERS

Attractive dial markers for accurate tuning. Chrome silver with satin grain finish.

Cat. No.	Dial Size	Degrees	NET EACH
E5747	2"	325	15c
E5748	2 1/2"	180	15c
E5749	2 1/2"	325	15c
E5752	4"	180	15c

FINGER GRIP KNOBS

Molded of high quality black bakelite; for 3/8" shaft. Has an attractive, professional appearance. Flared rim gives positive grip. Stippled with flange, with pointer, or plain.

WITH POINTER
E5475. 1 1/2". FIG. A. 23c
E5476. 1 1/2". FIG. A. 28c
E5477. 2 1/2". FIG. A. 34c

WITH FLANGE
E5478. 2 1/2". FIG. B. 28c
E5479. 3". FIG. B. 37c

LESS POINTER
Like Fig. A, but less pointer.
E5480. 1 1/2". EACH. 17c
E5481. 1 1/2". EACH. 23c
E5482. 2 1/2". EACH. 28c

NAVY KEY KNOBS

Molded of black insulating. For easy keying. 5/8" diameter. 1 1/2" dia. at lower shaft. 3/8" screw. Relieves finger fatigue.
E5730. NET **9c**

JOHNSON HANDLE INDICATORS

Attractive tuning indicators which give that much desired Commercial appearance to Amateur transmitters. Handle molded of one-piece black bakelite. Scale is black and silver etched metal.
with zero at left. Fit any 3/8" shaft; Type 200 also fits 1/2" shaft.
E13860. Type 204. Indicator with 4" diam. scale. NET... **59c**
E13861. Type 206. Indicator with 6" diam. scale. NET... **73c**

METAL NAME PLATES



STANDARD SIZE

High quality name plates designed to give your equipment a professional appearance. Made of brass with characters and borders chromium-plated; backgrounds are etched dull black. Available in 104 different markings, among which are the following: Microphone, Pilot, Tuner, Oscillator, Transmitter, 1st Buffer Grid, Power Amp. Plate, Antenna, Plate Voltage, Pilot, Ammeter Voltage, Key, Receiver, A.C. Input, Modulator Plate, Gain Control, Input, etc.

Write for free complete list of name plates available. Standard size plate is 1 1/2 x 3 inches. This size is especially suited for Sound and Test Equipment. Furnished complete with self-tapping machine screws. SPECIFY MARKING DESIRED WHEN ORDERING.

E2885. NET EACH **6c**

DE LUXE SIZE
Similar to above but larger: 2 1/2 x 3 1/2. Especially designed for transmitters, etc. WRITE FOR COMPLETE LIST OF AVAILABLE PLATES.

E2888. NET EACH **10c**

JACK MARKERS

Made of aluminum with background etched dull black. Borders and letters raised and highly polished. Hole, 3/16" dia.

E2878. "Phones."
E2879. "Microphone."
E2880. "Mike Cur."
E2881. "Phonograph."
E2882. "Plate Cur."
E2883. "Grid Cur."

AC-DC DIAL PLATES

Graduated tuning dial is marked 0-100. Volume plate has etched arrow. 1 1/2" diameter. Bronze finish.

E5677. Tuning dial. EACH **9c**
E5678. Volume. EACH **9c**

SWITCH PLATES

Toggle-switch plates, attractively finished in etched aluminum with black background. Diameter, 1 1/2".

E4106. "MICRO-PHONO."
E4107. "OFF-ON."
NET EACH **7c**

METAL DIAL PLATES

Attractive black dial plates with etched aluminum finish. Suitable for use on amplifier panels, etc. Also useful for test equipment. Measure 2 1/2" x 1 1/2" wide. For 300° rotation.

E4100. "Record." 0-10.
E4101. "Microphone." 0-10.
E4102. "Gain." 0-10.
E4103. "Tone." 0-10.
E4104. "Master Gain." 0-10.
E4105. "Plain." 0-10.

COTO CONTROL WHEEL

Combines pointer and dial in a single attractive control. Wheel is molded black bakelite fitted with aluminum pointer. Fits 3/8" shaft. Dial scale is black-finished aluminum with polished aluminum markings. Two pins attach handleplate. Gives professional appearance.

Nameplates available as follows: OSCILLATOR; ONC. PLATE; BUFFER; BUFFER PLATE; TROUBLE; DOUBLE PLATE; BUFFER; DIST. PLATE; GRID; PLATE; TANK; NEUTRALIZE; PWR. AMP; GRID; PWR. AMP. PLATE; ANTENNA. Specify name plate desired when ordering complete control.

E2665. 3/4" Control Wheel. **\$1.47**
With name plate. NET **1.18**
E2666. 3/4" Control Wheel Only. **1.18**
With pointer. NET **1.18**
E2667. 2 1/4" Control Wheel. **1.18**
With name plate. NET **1.18**
E2668. 2 1/4" Control Wheel Only. **.88**
With pointer. NET **.88**

RELAY RACKS & PANELS

Designed for Transmitters or Public Address Systems. Heavy channel iron construction assures maximum rigidity and keeps all units in alignment. Heavy wrought steel base is drilled for floor mounting. Accurately drilled for mounting screws every 1/4 inches. Standard size to accommodate 19 inch panels with holes spaced 18 1/2". Shipped in knock-down form. Complete with necessary nuts and bolts for mounting. Will make professional appearing Transmitter or Public Address Installations.

38 1/2 INCH RACK
E12510. Shipped knock-down. Complete with hardware. Weight, 26 lbs. NET **\$8.70**

73 1/2 INCH RACK
E12511. Shipped knock-down. Complete with hardware. Weight, 40 lbs. NET **\$10.70**

PAR-METAL CABINETS

Completely enclosed cabinets that give a professional appearance to transmitters. Heavy sheet steel with ample ventilating louvers. Hinged door at rear. Drilled at 1 1/2" multiples for standard 19" relay rack panels.

Cat. No.	Size	Space	Shpg. WT.	NET
E12595	48x24x13 1/2"	3 1/2"	75 lbs.	\$20.87
E12596	66x36x13 1/2"	6 1/2"	120 lbs.	27.64

PANELS FOR RELAY RACKS

All 19" wide, 3/8" thick. Drilled at multiples of 1 1/2". Fit racks or cabinets above.

Size Ht.	Black Wrinkle Steel	Black Wrinkle Electrolyt	Grey Wrinkle Steel
1 1/2"	E12550 50.42	E12560 50.64	E12570 50.46
3"	E12551 56	E12561 53	E12571 50
5 1/2"	E12552 50	E12562 1.27	E12572 54
7"	E12553 55	E12563 1.55	E12573 68
8 1/2"	E12554 59	E12564 1.83	E12574 84
10 1/2"	E12555 73	E12565 2.11	E12575 1.05
12 1/2"	E12556 82	E12566 2.46	E12576 1.15
14 1/2"	E12557 95	E12567 2.73	E12577 1.35
15 1/2"	E12558 1.10	E12568 3.03	E12578 1.55

RELAY RACK BRACKETS

Provides easy mounting of chassis bases and sub-panels to relay rack panels. Made of sturdy auto body steel with black crystalline anodized finish. Will absolutely prevent sagging of shelves.

E12580 5" Base. PER PAIR **38c**
E12581 8" Base. PER PAIR **59c**
E12582 11" Base. PER PAIR **75c**

METER PANELS

Heavy steel, black crystalline meter panels. Slotted to fit standard relay racks. 5 1/2" x 19 1/2"

Cat. No.	No. of Holes	Meter Size	NET
E12583	5	2"	\$1.30
E12584	3	2"	0.95
E12585	5	3"	1.44
E12586	3	3"	.97

UNIVERSAL METAL CABINETS

Sturdy multi-purpose black crystalline-finished cabinets. Will serve many purposes, such as for P.A. amplifiers, transmitters, etc. Properly ventilated. Will take chassis up to 13" x 17"

E12588. SINGLE UNIT. Size, 8 1/2" x 19 1/2" x 13". Will take one 8 1/2" x 19 1/2" panel. Has door on top only. **\$5.14**

E12589. DOUBLE UNIT. Size, 17 1/2" x 19 1/2" x 13". Will take two 8 1/2" x 19 1/2" slotted panels. Has doors on top and back. **\$9.11**

E12590. TRIPLE UNIT. Size, 26 1/2" x 19 1/2" x 13". Will take three 8 1/2" x 19 1/2" slotted panels. Equipped with rear door only. **\$9.70**

E12591. QUADRUPLE UNIT. Size, 35 1/2" x 19 1/2" x 13". Will take four 8 1/2" x 19 1/2" panels. Equipped with rear door only. **\$11.61**

CHASSIS BASES

REFER TO COMPLETE CHASSIS BASE LISTINGS ON PAGE 134 for chassis bases for all purposes and for complete listings of sizes. We can also supply special chassis bases, formed, punched or drilled to order for all special requirements. Prices and information on page 134.

KNIGHT "Build Your Own" KITS

THE 1939 SERIES OF FAMOUS KNIGHT "BUILD-YOUR-OWN" KITS

A wide range of new easy-to-build kits for the beginner as well as for the advanced experimenter. New receivers, transmitters, electrical gadgets and 60 latest circuit diagrams of modern, easy-to-wire kits.

All KNIGHT kits can be assembled in a minimum amount of time. Chassis bases are punched and drilled; only the standard tools are required for assembly. Even the beginner can build these sets successfully.

1939 SUPER-GAINER SHORT-WAVE KIT



An extremely efficient, easy-to-build four tube short-wave receiver capable of seven tube performance. Regenerative first and second detectors provide high degree of selectivity and sensitivity. Features: Handwired tuning, dual-regeneration, iron-core IF transformer, adequate shielding, operation either from batteries or A.C. power pack. Properly handled, this little set will provide knife-like tuning of CW signals closely approaching single signal action. Complete kit includes punched and drilled chassis base and panel, all necessary resistors, condensers, sockets, cable, diagrams, etc. Requires 1-6F5, 1-6A6, 1-6L7 and 1-6F6. Shpg. wt., 10 lbs.

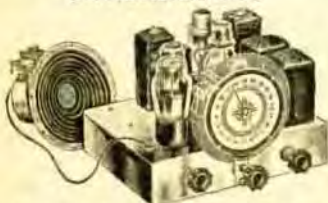
E9829. Complete Kit of Parts with 80 meter coils, less tubes. \$14.50

E9835. Set of 8 Coils. Cover the 10, 20, 40, and 160 meter bands with adequate overlap for short-wave broadcast band coverage. \$3.40

E9836. Broadcast Coil Kit. Set of 4 coils to cover the 540 to 1500 KC Broadcast band. NET \$1.70

E9837. A.C. Power Supply Kit. Output, 240 V., D.C., and 6.3 V. at 1.6 A. Includes punched chassis base, chokes, transformer, condensers, sockets, cable, diagrams, etc. Requires 1-80 tube (not supplied). Wt., 10 lbs. \$4.35

4 TUBE BROADCAST & S. W. PORTABLE KIT



This newly developed, economical, battery-operated portable uses the latest low-drain tubes. The B. C. band (200 to 550 meters) or the S. W. band (16.5 to 55 meters) is selected by means of a rotary switch. Tuning is simplified with high ratio 4" airplane dial. Superhet circuit, IF regeneration and IF-5G pentode output give real loudspeaker reception on DX. An ideal set where electrical power is not available, at the beach, picnic camp, ball-park, or on a bicycle or auto. Any single wire or doublet aerial will serve. Uses 1C1-G converter, 1D5-G IF amplifier, 1H4-G grid-leak detector, and IF-5G output. Required three 45-volt "B" batteries will last 6 months in average service, and two low-powered dry cell "A" batteries will operate set 40 hours. Supplied with punched and drilled chassis, speaker, construction diagram, and all parts; less only tubes and batteries. Shpg. wt., 8 lbs.

E9868. Complete Kit. \$14.35

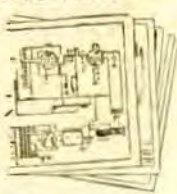
E9883. Battery Kit. Consists of 3 portable 45 V. "B" and 2 1 1/2 V. Burgess dry cells. NET \$3.99

E9884. Tube Kit. Matched set of four Raytheon tubes: 1-1C7G, 1-1D5G, 1-1H4G, and 1-1F5G. NET \$3.95

E12545. Combination Portable Cabinet and Carrying Case. Will house both set and batteries conveniently. NET \$3.45

"BUILD-YOUR-OWN" WIRING DIAGRAMS

Clear, easy-to-read diagrams with complete matched parts lists. Enables you to build your own receivers, transmitters, amplifiers, power supplies, and meters, using latest type tubes and modern efficient circuits. Carefully designed and capable of "factory-built" performance.



- E1758. 2 Tube DX'er S.W. Battery Set.
- E1759. 2 Tube "Ocean Hopper."
- E1760. 4 Tube A.C. Broadcast TRF.
- E1761. 4 Tube A.C.-D.C. Broadcast TRF.
- E1762. 4 Metal Tube "Super-Gainer."
- E1763. 5 Tube A.C. Broadcast Super.
- E1765. 5 Tube Skip-Band A.C. Super.
- E1766. 6 Tube Broadcast Battery Super.
- E1767. 6 Tube All-Wave Super.
- E1781. 6 Tube 6 Volt Skip Band Super.
- E1768. 5 Meter Battery Transceiver.
- E1750. 5 Meter A.C. Transceiver.
- E1769. Volume Expander for Radio or P.A.
- E1770. Crystal Set.
- E1771. 3 Watt Amplifier and Power Supply.
- E1751. 4 Watt A.C.-DC Amplifier.
- E1772. 5 Tube 2 Band (Police and B.C.) A.C.-D.C. TRF.
- E1773. 6 Tube 2 Band (S.W. and B.C.) A.C. Super.
- E1774. 5 Tube Ham. Super.
- F1752. Photo-Electric Cell Unit.
- F1778. Noise Silencer.
- F1782. Coil Winding Data.
- E1779. Electric Fence Control.

EACH DIAGRAM 5c
(To cover handling and mailing)
CHOICE OF 6 OF ABOVE DIAGRAMS. 20c

Schools—colleges—radio clubs. Write for our attractive quantity prices for wiring diagrams.

BUILDER'S HANDBOOK

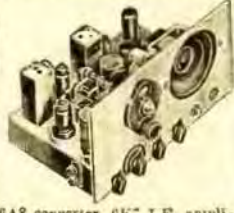
A new and different booklet prepared by ALLIED'S engineers to aid the experimenter and builder. Tells how to select suitable circuits, read diagrams, lay-out and punch chassis base and parts correctly place and wire radio parts, and efficiently operate radio receivers and transmitters. Includes socket lay-out information, coil-winding data, and ten other valuable chapters. Shows schematic and material diagrams of beginner and advanced sets, transmitters, fence controls, photo electric relay, etc. Size, 8 1/2 x 11".



E1753. NET 10c

5 TUBE HAM SUPER KIT

Here is a new high performance superhet for the beginner - amateur. Designed to provide maximum performance with simplified operation and low cost. Easy to assemble and wire from the complete diagrams supplied.



Uses five metal tubes: 6A8 converter, 6X7 I.F. amplifier, 6C5 regenerative second detector, 6F5 pentode output, and 5Z4 rectifier. Has built-in power supply, panel speaker, headphone jack, hand-head, stand-by switch, and iron-core I.F. transformers. Regeneration is smooth, noiseless and easy to handle. Coils are furnished for 20, 40, 80 and 160 meter bands. This efficient little superhet can be assembled in a few hours. Kit contains all necessary parts with punched and drilled chassis base and panel and diagrams. Wt., 15 lbs.

E9843. Less tubes. \$19.25

NEW KNIGHT METAL TUBE "OCEAN HOPPER"



A.C. OR BATTERY OPERATED

An extremely efficient, easy-to-build receiver of modern design. Uses two metal tubes, 1-6J7 and 1-6C5. Features full broadcast tuning; electron-coupled detector for maximum stability; shielded chassis construction; ultra-smooth noiseless regeneration control, non-critical antenna input and real signal "sock". May be operated from dry batteries or from special A.C. power supply listed below. Requires 6.3 volts at 6 3/4 A. 90 to 135 volts for plate supply. Will tune from 16 to 195 meters with coils listed below. Kit contains all necessary parts for building this receiver: punched and drilled metal chassis base and panel, sockets, condensers, resistors, wiring diagram, etc. Coils, batteries or A.C. power supply, tubes and headphones are extra. Shpg. wt., 8 lbs.

E9844. Complete Kit of Parts. \$6.40

YOUR PRICE \$1.25

E9845. Coil Kit. Set of four coils for the Metal Tube "Ocean Hopper." Tune 16 to 195 meters. NET \$1.25

E9846. A.C. Power Supply Kit. Contains punched and drilled chassis base, transformer, chokes, condensers, etc. Requires 1-1V tube (not included). NET \$4.90

F9847. 3 Watt Utility Amplifier and Power Supply Kit. Uses 1-6F5, 1-6F6, and 1-5Z4. Supplies field excitation for 2500 ohm field dynamic speaker. Supplies 0.3 volts A.C. and 250 volts D.C. for tuner unit. Kit contains all parts, chassis base, etc. Less tubes \$4.95

1939 2-TUBE DX-ER KIT

The 1939 version of the most popular low-priced kit for the short-wave beginner. Features: Superheterodyne, and radio stage. Uses two economical type 30 tubes in an advanced circuit employing high gain regenerative live detector and transformer-coupled audio stage. Has vernier tuning control, regeneration control, and rheostat knobs on front panel. Operates from one or two dry cells and two "B" batteries. Kit contains all parts, including drilled masonite panel and lumberboard. Coil kit and accessories are extra.



E9873. Shpg. wt., 7 lbs. NET. \$3.98

E9839. Tube and Battery Kit. 2-30 tubes, 2-1 1/2 volt dry cells and 2-45 volt "B" batteries. Shpg. wt., 25 lbs. NET \$3.15

E2908. Brandes 2400 ohm head-phones. NET \$1.59

E5565. Coil Kit. Set of four low-loss coils covering 16 to 217 meters. Shpg. wt., 2 lbs. NET 85c

AUDIO AMPLIFIER KIT

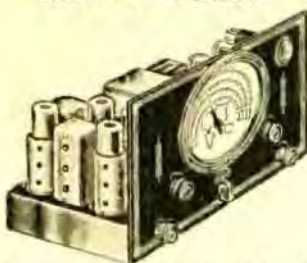
E9840. For use with Two Tube DX-er. Uses a type 35 tube (not supplied). Will operate small magnetic speaker. Includes all parts. Wt., 3 lbs. NET \$1.15

E9841. Tube and battery kit for audio amplifier. Contains 1-23 tube, 1-22 1/2 V. "C" and 1-45 V. "B" battery. Wt., 13 lbs. NET \$2.20

Quality

RECEIVER KITS

THE NEW BROWNING "83" ALL-WAVE RADIO



An easy-to-build 10 tube all-wave kit for the experimenter. S.W. fan, and active hum. Includes the completely wired, adjusted, and traced Browning HL-1 Tuner with coils designed for maximum signal and absolute minimum internal noise. Tunes 13 to 550 meters continuously in 4 full bands (no skips). Extremely high signal-to-noise ratio. Sensitivity is less than 1 m.v. on all bands. Has a 7 1/2" full-vision four-scale dial marked in MC; 15 to 1 tuning ratio for easy station logging. Built-in selector and triple-tuned band-pass 450 KC IF transformers provide needed selectivity on the crowded low bands and permit real DX work. Diode detection, phase inversion, and push-pull audio output assure high fidelity. Supplied complete including drilled cadmium-plated chassis and attractive black crackle panel. With diagrams and detailed instructions, quickly and easily assembled and wired. For 110 v. 50-60 cycles A.C. operation. Shpg. wt. 20 lbs. **E10683. Complete kit, less only tubes, speaker and cabinet. \$44.75**

E10686. TUBE KIT. Includes: 2-6K7G, 1-6A8G, 1-6J16G, 1-6C5G, 1-6F5G, 2-6F6G, 1-6B5, and 1-80 BA tubes. NET. \$7.25

E10684. METAL CABINET. Attractive black crackle finish. Hinged cover. NET. \$5.30

E10685. WRIGHT-DECOSTER SPEAKER to match. Shpg. wt., 10 lbs. NET. \$5.65

MEISSNER TRF TUNER KIT



A high fidelity tuner kit for P.A. work and home receivers where the utmost in quality is desired. It uses Ferrocoat coils tuned by a 4 gang condenser. The self-contained power supply has an extremely low hum level. Calibrated 1" illuminated dial. Phone jack on front panel for P.A. monitoring. Requires 2-6K7, 1-6J16, 1-6F5G, 1-6F6, and 1-80 BA tubes. Shpg. wt., 20 lbs. **E10690. NET. \$22.78**

E10691. Front Panel. 73c

E10692. Cabinet of black crystal-finished steel. 8 3/8" x 8 3/8" x 12 1/2". NET. \$2.79

NEW MEISSNER PHONOGRAPH OSCILLATOR



A self-powered, compact mono oscillator designed to provide excellent phono reproduction when used with any radio and a high impedance magnetic or crystal phono pickup. Easily assembled and wired. Connects to radio set antenna and ground posts; radio or phono may then be selected at the turn of a switch. Uses 6J7 oscillator and 2Z23 rectifier. Supplied complete with drilled chassis and instructions (less tubes). For 110 Volts A.C. or D.C. operation. Shpg. wt., 8 lbs. **E10630. NET. \$6.76**

NEW MEISSNER COMPLETE RECEIVER KITS

A selected group of high quality, laboratory-approved Meissner receiver kits. Guaranteed to be mechanically and electrically correct and to operate efficiently when assembled and wired.

14 TUBE 5 BAND "TRAFFIC MASTER"



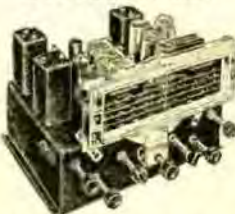
A remarkable distance-getting communications receiver superhet kit. Complete coverage from 9.25 to 565 meters with better than 1 mv. sensitivity on all bands. Incorporates electrical bandspread, accurately calibrated 7" slide-rule fly-wheel dial, air-tuned coils with shielded switch assembly, mono-unit crystal filter for panel control, built-in noise silencer, BFO with pitch adjustment, "R" meter, A.V.C., 3.5 watts audio, headphone jack, stand-by switch. For 110 V. A.C. Shpg. wt. 40 lbs. **E10636. Complete Kit. Less tubes, panel, cabinet, and speaker. NET. \$80.26**

E10639. Tube Kit. 2-6K7, 1-6K8, 2-6J7, 2-6H6, 1-6J7, 2-6C5, 1-6C8G, 2-6Y6, and 1-5Y4G Raytheon tubes. NET. \$10.20

E10637. Front Panel. Black crackle-finished steel. NET. \$2.35

E9531. 12" Dynamic Speaker. NET. \$3.69

8 TUBE "COMBINATION" SUPERHET KIT



A highly efficient, low-priced 4 band kit designed to tune continuously from 7.1 to 555 meters. Ideal as a high-fidelity home receiver or for ham communication work. Features: Calibrated 7" slide-rule dial, air-tuned coil assembly, B.F.O., iron-core I.F.'s, A.V.C. separate I.F. and A.F. gain controls. Supplied complete with assembled, wired, and aligned R.F. assembly. Complete instructions. For 110 volts A.C. Less tubes, panel, cabinet, and speaker. Shpg. wt., 22 lbs. **E10631. NET. \$33.81**

E10632. Tube Kit. 2-6K7, 1-6J7, 1-6L7, 1-6C5, 1-6Q7, 1-6V6, and 1-5Y4G Raytheon tubes. NET. \$5.80

E10633. Front Panel. NET. \$2.06

E9262. 8 1/2" Dynamic Speaker. NET. \$2.25

6 TUBE BATTERY SUPERHET

New easy-to-build, economical 6 volt battery-operated set. Broadcast model covers 530 to 1660 K.C. Features I.F. stage, single battery operation, calibrated full-vision 7 1/2" slide-rule dial, iron-core I.F.'s, A.V.C., tone control, 1.1 watt audio output. Requires 2-6K7, 1-6A8, 1-6Q7, 1-6G6G, and 1-6X5. Less tubes, panel, cabinet, and speaker. **E10635. Broadcast Model. NET. \$22.78**

E10628. Broadcast and S.W. Model. Covers 530-1660 K.C., and 5.35-18.8 M.C. NET. \$26.90

E9523. 8" P.M. Speaker. NET. \$3.29

MEISSNER "HOW TO BUILD" INSTRUCTION BOOK

Complete instructions and full data on 211 Meissner kits. Has pictorial and schematic diagrams and chassis layouts of sets from 4 to 14 tubes. A.C.-D.C. models, phono/oscillator, noise silencers, etc. 120 pages. Wt. 1 lb. **E5681. NET. 48c**

The complete Meissner 41 page catalog features 27 kits, valuable coil information, and a listing of builders' accessories. Write for your FREE copy of this book. Ask for E5682.

LOW-COST 4 TUBE A.C.-D.C. T.R.F. KIT

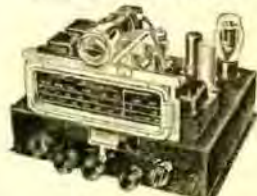


An easily built, compact, metal tube receiver with surprising sensitivity and tone quality. Ideal as a spare set for bedroom, kitchen, office, etc. For broadcast reception, 530 to 1660 K.C. Has remote airplane dial, shielded antenna and I.F. coils. Uses a 6K7 I.F. amplifier, 6J7 power detector, 25A6 pentode output, and 2B26 rectifier. For 110 volts A.C. or D.C. The complete kit includes all parts, instructions, and pictorial and schematic diagrams. May be quickly assembled and wired even by the novice. Shpg. wt. 9 lbs. **E10640. Complete Kit, less chassis, tubes, and speaker. NET. \$7.20**

E10641. Punched and drilled chassis. 7 1/2" x 9 1/2". NET. \$1.32

E9533. 5" P.M. Speaker. NET. \$1.89

7 TUBE A.C. "UTILITY" SUPERHET KITS



These unusually efficient receivers can easily be constructed by anyone, using only a screw-driver, pliers, and soldering iron. Available in four models designed for outstanding performance in their respective fields. New circuit uses 6K7 R.F. amplifier, 6A8 translator, 6K7 high-gain I.F. amplifier, 6Q7 2nd detector, A.V.C., and 1st audio, 6V6 as a class A output with 4.25 watts, 5Y4G rectifier, and 6G5 magic eye. All models feature R.F. on all bands, 3 gang precision condenser, full-vision 7 1/2" slide-rule dial, high-gain iron-core I.F. transformer, tone control, and (except on broadcast model) separate sensitivity and A.F. controls. Supplied complete with all coils, tuning condenser, chassis, controls, knobs, switches, resistors, condensers, transformers, wire, hardware, etc. Instructions with schematic and pictorial diagrams included. Less panel, cabinet, tubes, speaker. Wt., 18 lbs. **E10643. Broadcast Band Model (530-1660 K.C.). NET. \$20.43**

BROADCAST & SHORT WAVE KIT E10644. Covers the broadcast and interesting 18.8 to 18.8 M.C. bands. Tunes the active 20 and 40 meter ham bands and 1.5 M.C. permits European reception. NET. \$22.78

BROADCAST, POLICE, & S.W. KIT E10645. Tunes 537-1770 K.C., 1.75-5.4 M.C. and 5.2-18.5 M.C. A good set. NET. \$24.55 for the DX fan. NET. \$24.55

LONGWAVE, BROADCAST, & S.W. KIT E10646. An unusually versatile model. Times broadcast (530-1680 K.C.); weather reports, ships-at-sea, foreign stations (135-370 K.C.); and S.W. amateur and foreign stations (5.3-18.5 M.C.). NET. \$24.55

E10647. Front Panel for E10643. NET. \$1.09

E10648. Front Panel for all other above sets. Black crackle-finished. NET. \$1.09

E10649. Cabinet for any of above sets. Black crackle-finished steel. NET. \$2.65

E10629. Tube Kit for any of above sets. 2-6K7, 1-6A8, 1-6Q7, 1-6V6, 6G5, and 1-5Y4G Raytheon tubes. NET. \$5.25

E9262. 8 1/2" Dynamic Speaker. NET. \$2.25

LATEST "Build Your Own" KITS

"POPULAR MECHANICS" BUILD-YOUR-OWN KITS

Here is an extensive selection of complete kits of matched parts for building the most popular circuits described in recent issues of Popular Mechanics Magazine. Matched parts lists which are included with the "K" number blueprints are also available separately. For best results build these splendid Popular Mechanics circuits with ALLIED approved parts.

"PUSH-BUTTON" TWO TUBE



AC-DC SET

"Popular Mechanics" R-258. An economical, easy-to-build loud-speaker radio for use in bedrooms, boys' rooms, kitchen, office or den. Any one of five local stations is tuned in by pushing a button. The sixth button silences the set. Has separate volume control. Uses

6P7 G, 25A7 G. Has 3-inch P.M. speaker. For 105-130 volts A.C. or D.C. operation. Attractive walnut cabinet, drilled chassis, blueprint, but less tubes. Shpg. wt., 10 lbs. **E9516. NET \$1095**

ONE TUBE FLASHLIGHT SET



"Popular Mechanics" R-252. A complete matched kit of parts for this popular set. The new high-gain circuit uses a single 45 tube; two pen-light cells serve as "B" batteries, and a simple flashlight cell as "A". Plug-in coils cover all short-wave bands. Complete kit includes all parts, drilled panel, tube, batteries, and blueprint. Less headphones. Wt., 6 lbs. **E9517. NET \$455**

NEW "LITTLE GIANT" 4 TUBE AC-DC KIT



"Popular Mechanics" R-250. A new efficient compact broadcast set. Traveling men, tourists, students, etc., will find this the ideal set. Also fine as portable "second set" for the home. Uses 1-6C6, 1-6D6, 1-25B5, 1-25Z5, and 1-K45B ballast. Works from any 110 volt A.C. or D.C. supply. Kit contains all necessary parts and complete instructions. Less one tube and cabinet. Shpg. wt., 9 lbs. **E9518. NET \$865**

NOISE SILENCER KIT



No longer need your reception be disturbed by static, motor noise or other forms of interference. This new kit will effectively eliminate noises of practically every type. Works with any short-wave or all-wave superhet having one or two 465 or 456 KC.I.F. stages. Noise silencer incorporates an extra I.F. stage. Supplied complete with all necessary

parts, instructions and 1-610, 1-617, 1-4K7, and 1-617 RCA metal tubes. Black crinkle-finished base measures 5 1/2" x 11 1/2", and has all holes drilled. Wt., 6 lbs. **E9869. DE LUXE MODEL \$765**



KNIGHT AUTO RADIO KIT

Build your own auto set for better tone quality, selectivity, and tuning ease, and real economy in cost. Compares favorably with the finest, high-priced commercial sets. Supplied with control panel to match any car. For city and country use. Kit contains every part needed: drilled chassis, attractive cabinet, assembly and mounting hardware, and complete instructions. Uses new 6 tube circuit: 6D6 I.F. amplifier, 6A7 pentagrid oscillator, 6D6 I.F. amplifier, 6Q7 2nd detector, 1st audio, and AVC, 4I for 3 watts output, and 0Z4 rectifier. Incorporates local-distance switch, tone control, iron-core antenna coil. Listens I.F. coils. Heavy-duty 6 1/2" Utah speaker assures superb tone quality. No suppressors needed. Specially made and year of car. 1- Complete with tubes. Shpg. wt., 22 lbs. **E9394. YOUR PRICE \$2095**

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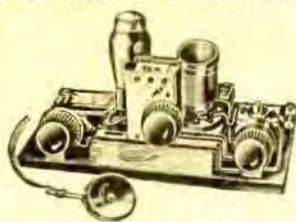
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TRANSMITTER & SHORT WAVE KITS

KNIGHT ONE TUBE ALL-WAVE BATTERY KIT



Compact and simple to build. A one-tube battery-operated receiver which brings in under-grounds, amateurs, broadcast stations and lots of distant stations. All terminals are color-coded and no wiring diagram is necessary. Has wood base. Uses a type 30 low drain tube. Complete kit includes all parts, hose, hardware, wire, 2 coils for 190 to 550 meters, earphone and clear instructions. Less tube and batteries. Wt., 4 lbs.

E9830. Kit of parts as described above. **YOUR PRICE... \$4.45**

E9831. Tube and Battery Kit. Consists of 2-1/2 V. dry cells, 1 45 V. "B" battery and 1-30 tube. Wt., 15 lbs. **NET... \$1.75**

E5565. Short-Wave Coil Kit. 4 coils cover 10-211 meter range. **NET... 85c**

AUDIO AMPLIFIER KIT

E9832. A two-stage audio amplifier. Will produce more than enough volume for magnetic speakers. Uses 2-50 tubes. Complete kit less tubes and batteries. Wt., 4 lbs.

NET... \$1.45

E9833. Tube and Battery Kit. Contains 2-30 tubes and 1-45 V. "B" battery. Wt., 11 lbs. **NET... \$1.75**

NEW 10c "BUILD-YOUR-OWN" RADIO PROJECTS

Complete construction information on 50 most popular R.W. receivers and transmitters featured recently in "Short Wave and Television." Average size, 11" x 7". Each project includes wiring diagram, illustrations, and list of matched parts.

- 43350. Switch-Band-2 Receiver.
- 43351. Beginner's 2 Tube Receiver.
- 43352. Portable Superhet Four.
- 43353. 4 Band, 3 Tube Superhet.
- 43354. Fixed-Band 8 Tube Super.
- 43355. 5 Tube Superhet for Ham and Fan.
- 43356. Twin-Pentode Receiver.
- 43357. Short-Wave Preselector.
- 43358. Regenerative 2 Tube.
- 43359. S.W. & T. Communications Set.
- 43360. Band Switching 2 Volt Set.
- 43361. Multi-Band 2 Receiver.
- 43362. VS-5 Metal Tube Superhet.
- 43363. Beginner's 2 Tube Super.
- 43364. 7 R.F. 3 Fan Receiver.
- 43365. Inexpensive "Forty-Niner."
- 43366. 5-Meter Superhet.
- 43367. 2-Volt Super DX-1.
- 43368. Ultra-High Wizard-6.
- 43369. High Gain, Metal-Tube Set.
- 43370. World-Wide 10-Meter Converter.
- 43371. DeLuxe 3 Tube.
- 43372. Octode Metal Tube 3.
- 43373. 3-in-1 Reflex Set.
- 43374. 100 Watt QRM Dodger.
- 43375. 5-Meter Mobile Station.
- 43376. H-G-M Medium Power Transmitter.
- 43377. 306 All-Band Transmitter.
- 43378. 25 Watt Modulator. Using 3ST's.
- 43379. C-O-M 150 Watt Transmitter.
- 43380. 1-Meter Receiver and Transmitter.
- 43381. 200 W. X'mitter. Pen-Tet Exciter.
- 43382. 10 and 20 Meter Transmitter.
- 43383. Wizard 1-Tube 50 W. Transmitter.
- 43384. "Oscillodyne" 1-Tube Wonder Set.
- 43385. "Twintex" Receiver.
- 43386. Improved 3-Tube Duerle Set.
- 43387. "Go-Get 'Em 2" Receiver.
- 43388. 1-Tube Electric "Oscillodyne."
- 43389. 2 to 5 Meter, 2-Tube Speaker Set.
- 43390. 3-Tube Battery S.W. Set.
- 43391. Brief-Case S.W. Receiver.
- 43392. Pocket Short-Wave Receiver.
- 43393. "Cat-Box" 1-Tube "Catch-All."
- 43394. "Dnat Wave" S.W. Battery Set.
- 43395. 1-Tube "53" Twintex Receiver.
- 43396. Portable MiniDyne S.W. Set.
- 43397. Ham-Band "Pee-Wee" 2-Tube.
- 43398. Duo-Amplidyne 1-Tube.
- 43399. Mono-Coil-2, Battery Set.

YOUR PRICE EACH 12 FOR \$1.00

KNIGHT TRANSMITTER & TRANSCEIVER KITS 5 METER TRANSCEIVER BEGINNERS' TRANSMITTERS



TWO-WAY 56-60 MC AMATEUR PHONE KIT BATTERY MODEL

Popular 5 meter phone transmitter and receiver. Easy to build and operate. Ideal for visible distance work. Uses a single 10 tube as push-pull anti-coupled, grid modulated oscillator. For reception same tube acts as push-pull super-regenerative detector. Uses simple 3/4 or 1/2 wave rod as antenna. Kit contains all necessary parts for building classic model shown above. **Slugg. wt., 8 lbs. NET... \$5.40**

TUBE AND BATTERY KIT

Consists of one Raytheon 19 tube, two Burgess No. 5008 portable "E's" and two Kalbit dry cells. **Slugg. wt., 16 lbs. NET... \$3.50**

A. C. MODEL

Similar to above model, but uses a 6A6 triode tube. Requires 6 volts A.C. or D.C. for filament and 70 to 110 volt plate potential. Can use with power supply below or with user pack providing 200 to 300 volts fused with 10,000 ohm 20 watt series resistor. For visible distance transmission. Parts are properly placed to eliminate body capacity. Complete with instructions, less only tube and power supply. **NET... \$5.71**

E9547. NET... \$5.71

E475. Raytheon 6A6 tube. **NET... 90c**

POWER SUPPLY

A well-designed power supply kit which provides 6.3 volts A.C. at 1.5 amp. and 250 volts at 10 M.A. Supplied with 10,000 ohm series resistor for use with A.C. transceiver. May also be used to furnish power to S.W. sets, amplifiers, etc. For 195-130 volts, 50-60 cycle A.C. **Slugg. wt., 10 lbs. NET... \$4.59**

E9548. Less tube. **NET... \$4.59**

E450. Raytheon 80 tube for above. **NET... 41c**

PORTABLE CASE

Durable, leatherette-covered slitt case for the Knight transmitter. Bottom holds batteries or power supply. **Slugg. wt., 7 lbs. NET... \$3.75**

E9897. NET... \$3.75



UNIVERSAL 5 METER HANDSET

A compact lightweight combination earphone and microphone handset. Contains 2000 ohm earphone and high output, single button 200 ohm microphone. With 6 foot cord. **Slugg. wt., 2 lbs. NET... \$5.88**

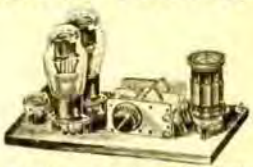
E2513. NET... \$5.88

CATHODE RAY TUNING UNIT

An inexpensive visual tuning indicator using the new Electron-Ray tube. Quickly and easily installed in any Broadcast, All-Wave or Short Wave set having AVC, but which is not equipped with visual tuning device. Requires 6.3 or 2.5 volts for filament. Complete assembly with mounting brackets, color-coded cable and instructions, less tube. **Wt., 2 lbs. NET... 73c**

E481. Raytheon 6E5 tube for receivers using 6.3 V. tubes. **NET... 77c**

E490. Raytheon 2E5 tube for receivers using 2.5 V. tubes. **NET... 77c**



10 WATT TRANSMITTER

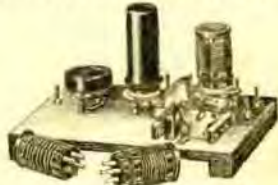
Patented after the beginner's transmitter described in the ARRL "How to Become an Amateur" book. Designed in breadboard style with all major parts mounted on top. Requires a minimum of assembly and wiring work and can be completed in two hours. Uses 2 type 47 tubes in a push-pull crystal-controlled circuit which will deliver up to 10 watts output. Complete kit of parts is provided with detailed wiring diagrams and instructions. All parts are of good quality. The completed transmitter may be used with any type of antenna. Kit contains all parts, baseboard and instructions. **Less tubes, crystal and key. NET... \$2.60**

E9541. NET... \$2.60

E9542. ACCESSORY KIT. Contains 2 Raytheon type 47 tubes, key and 80 meter crystal and crystal holder. **NET... \$4.80**

E9543. POWER SUPPLY KIT. Will supply 2.5 volts for filaments and correct plate voltage for the above transmitter. Supplied complete, less only 523 tube. For 110 volt 50-60 cycles. **NET... \$5.35**

20 WATT TRANSMITTER



Advanced type 6L6 Beam-Power transmitter for C.W. Stable crystal oscillator circuit may be used with any antenna. Rated at 20 watts, quickly and easily assembled and wired in breadboard style. Simple condenser tunes all bands; supplied with 3 plug-in coil forms for 20, 40 and 80 meter coverage with proper transformer. Kit contains baseboard, tuning condenser, tube sockets, RF chokes, wire, diagrams, etc. Less tube, crystal, and key. **Slugg. wt., 8 lbs. NET... \$3.60**

E9544. NET... \$3.60

E9545. ACCESSORY KIT. Contains Raytheon type 6L6 metal tube, key, 80 meter crystal and crystal holder. **NET... \$4.45**

E9546. POWER SUPPLY KIT. Well-filtered unit supplies correct plate and screen voltages and 6.3 V. for tube filaments of the above transmitter. For 110 volts, 50-60 cycles A.C. Complete, less only 523 tube. **Slugg. wt., 12 lbs. NET... \$5.05**

NEW PHOTO CELL KIT

Highly sensitive, low-price photo-cell kit. May be used for starting and auto stopping motors, controlling bells and lights, for signaling a l.a.r.m. and a thousand other applications. Increase or decrease of light intensity controls auto. Self-powered for 110 volt AC or DC operation. Uses G-M sensitive photo-cell and type 43 pentode as rectifier and amplifier. Quickly adjusted for greatest sensitivity with 2,000 ohm control. Sensitive relay is of the SPDT type. Easily assembled and wired as illustrated. Offers a real education in the photo-cell field; definitely not a toy. Kit includes all parts, photo-cell, Raytheon type 43 tube, and instructions. **Slugg. wt., 5 lbs. NET... \$5.85**

E9595. NET... \$5.85

NEW COILS FOR ALL PURPOSES

LATEST TYPE MEISSNER COILS FERROCART IRON-CORE I. F. TRANSFORMERS



A new development in IF transformers. Incorporate a finely powdered iron core with each particle insulated from the others resulting in a higher Q. Core and winding losses are reduced to a minimum. Gain and selectivity are nearly twice that of air-core types. Ideal for replacements or original installations. Double-tuned from top; mica insulated; 1 3/4" square; 3 1/2" high. With instructions.

Freq.	Input No.	Interstage No.	Output No.
175 KC	E5800	E5804	E5808
456 KC	E5801	E5805	E5809
1500 KC	E5802	E5806	E5810

EACH **\$1.18**

IRON-CORE BAND EXPANDING I.F.'S



An iron-core I.F. transformer with sharp selectivity for efficient C.W. or foreign reception. A tap provides broad band-width for high-fidelity local-attention reception. Electrically variable; no shafts or gain controls are needed. Two of these units may be used to provide almost single-signal selectivity. Mica-tuned type. Size, 1 1/2" x 1 3/4" x 3 1/2".

E5768. 2 Position. Sharp selectivity and Broad for High Fidelity. NET **\$1.76**

E5769. 3 Position. Sharp selectivity. Broad for High Fidelity. Medium for average use. NET **\$2.06**

UNIVERSAL ADJUSTABLE FERROCART COILS



A unique line of coils that permit exact duplication of defective R.F., Antenna or Oscillator coils in any set. Inductance is continuously variable over a wide range to permit accurate tracking with old coils. Its receivers requiring the replacement of only one or two coils. Fully shielded; easily mounted in small space. Simple screw-driver adjustment. Size, 1 1/2" x 1 3/4" x 2 1/2".

E5795. Antenna Coil. NET **\$1.18**
E5796. Oscillator Coil. EACH
E5797. R. F. Coil.

MEISSNER COIL DOPE



This high-grade IF lacquer assures you permanently efficient coils. Absolutely in line with any frequency, thick drying. E7522. NET **29c**

PENTAGRID OSCILLATORS



Compact, thoroughly impregnated oscillator coils particularly designed for use with Pentagrid tubes. Easy to mount; bakelite base with lug terminals. For use with 365 mmf. TIF type variable condenser and a padder. Coils are duo-lateral wound to minimize distributed capacity. Wax-impregnated to prevent moisture absorption.

E5822. 175 KC. Use 900 mmf. padder. NET
E5823. 456 KC. Use 350 mmf. padder. EACH **56c**

E5820. 175 KC. Use 900 mmf. padder. NET
E5821. 456 KC. Use 350 mmf. padder. EACH **38c**

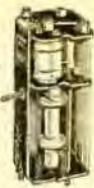
PRESELECTOR



A high-gain shielded band-pass preselector unit for the broadcast band. Tunes 540-1700 KC with 365 mmf. condenser. Mounted in square aluminum case. 1 3/4" x 1 3/4" x 2". E5782. YOUR PRICE **89c**

"ALIGN-AIRE" FERROCART IRON CORE I. F.'S

A new line of high-efficiency IF transformers having iron-cores. Will greatly increase gain, selectivity and sensitivity of either old or new sets. Tuned with air-dielectric condensers affording maximum stability. No frequency drift under normal changes of temperature. Finest Litz wound coils; completely shielded; with apad lug mountings. Can size, 2x2x4 1/2". Double top tuned.



Freq.	Input No.	Interstage No.	Output No.
175 KC	E5825	E5828	E5831
456 KC	E5826	E5829	E5832
1500 KC	E5827	E5830	E5833

E5834. Television special. Tunes 1900-5000 KC. NET **\$2.94**

HIGH GAIN THREE PI I.F. TRANSFORMERS

New type IF transformers with three pi windings on primary and secondary. Exceptionally high gain. For best results, only one should be used in a receiver. Double-top-tuned. Case measure 1 3/4" x 1 3/4" x 3 1/2". E5812. 456 KC Input. NET **\$1.09**
E5813. 456 KC Output. NET **1.09**



BEAT FREQUENCY OSCILLATORS

Especially designed units for use in incorporating beat-frequency oscillators in all-wave or short-wave receivers not already so equipped. Will provide "beat-note" tuning for locating weak signals, or for code reception. Can size 1 3/4" square x 3 1/2". With pitch control knob on top. Mica-insulated trimmer. E5773. 175 KC. NET
E5774. 456 KC. EACH **\$1.03**
E5774. 1500 KC. EACH



UNIVERSAL REPLACEMENT COMPOSITE OSCILLATORS

A compact, efficient combination oscillator assembly and 1st IF transformer, for use in circuits where first detector is also used as oscillator. Tunes from top. For use with any 370 mmf. TIF type condenser. Measures 2x2x3". Supplied with diagram. E5798. 175 KC. EACH
E5799. 456 KC. EACH **\$1.76**



MIDGET SOLENOID COILS

Midwest efficient midget solenoid type coils, wound with enamelled wire on a special tubing. Ideal for replacement in midband TRF sets. Primaries are adjustable. Unshielded. Tapable coils enable amateur and police reception. For use with 370 mmf. condenser. 540 to 1000 KC. E6588. SET OF 2 COILS. YOUR PRICE **29c**
E6589. TAPPED FOR 2400 KC. 1-Antenna coil and 1-RF coil. YOUR PRICE **35c**



REPLACEMENT PRIMARY WINDINGS

Replacement high-impedance primary windings for use where extreme economy is necessary; for both Antenna and RF coils. The dimensions given below are the outside diameters of the coils which which these windings may be used. E7516 1 1/4" | E7519 3/4"
E7517 1" | E7520 3/4"
E7518 7/8" |
NET EACH **15c**



STANDARD I.F. TRANSFORMERS

Standard high-gain IF transformers of superior design. Ideal for replacements and new set building. Lattice-wound primary and secondary tuned by mica-insulated compression type condensers from top of can. RMA color-coded leads. Aluminum case measure 1 1/2" square and 3 1/2" high.



Freq.	Input No.	Interstage No.	Output No.
175 KC	E5835	E5838	E5841
456 KC	E5836	E5839	E5842
1500 KC	E5837	E5840	E5843

EACH **69c**

CENTER-TAPPED OUTPUTS
E5783. 175 KC. NET **69c**
E5784. 456 KC. EACH

NEW MILLER IRON CORE R.F. COILS

Small size R.F. coils, especially desirable for use in auto or other sets where a high-gain coil of small physical size is required. In aluminum shield case measuring 1 1/2" diameter and 2" high. For use with 370 mmf. tuning condensers. E6584. Antenna Coil. } EACH **88c**
E6585. R.F. Coil. }
E6586. Oscillator Coil (465 KC). } **88c**
(Use 400 mmf. pad.) YOUR PRICE



10 K.C. FILTER COIL

For use in the load circuit of a diode or infinite impedance detector, to eliminate 10 KC whistle in wide-range broadcast receivers. Attenuation to 10,000 times, approx. 30 db. Size: 1 1/2" square, 2 1/2" long. E6587. NET **\$1.32**



HIGH GAIN T.R.F. COILS

Bank wound with Litz wire, permitting unusual sensitivity and uniform gain over entire wave band. Round shielding can 2 1/2 in. high, 1 1/2 in. diameter. Use with 370 mmf. condenser. Covers 1760 to 510 KC. Low impedance primaries. E5844. ANTENNA COIL. } EACH **31c**
E5845. R.F. COIL. Same size and mounting as above. NET EACH
E5846. 4 TUBE KIT. Contains 1 Ant. Coil and 1 R.F. COIL. NET **60c**
E5847. 3 TUBE KIT. Contains 1 Ant. Coil and 2 R.F. COILS. NET **89c**
(All kits include schematic diagrams.)



FULLY SHIELDED

E5844. ANTENNA COIL. } EACH **31c**
E5845. R.F. COIL. Same size and mounting as above. NET EACH
E5846. 4 TUBE KIT. Contains 1 Ant. Coil and 1 R.F. COIL. NET **60c**
E5847. 3 TUBE KIT. Contains 1 Ant. Coil and 2 R.F. COILS. NET **89c**
(All kits include schematic diagrams.)



UNSHIELDED TYPE

Similar to coils listed above but not equipped with shield can. Supplied with mounting bracket and dowel with screw and bolt; permits mounting in any desired position. 3/4" diam. by 2 1/4" long. E5777. Antenna Coil. } EACH **29c**
E5778. R.F. Coil. }
E5779. 4 Tube Kit. Contains 1 Antenna Coil and 1 R.F. COIL. NET **56c**
E5780. 5 Tube Kit. Contains 1 Antenna Coil and 2 R.F. COILS. NET **83c**
(All kits include schematic diagram.)



ANT. & R.F. COILS

High-gain fully shielded coils; for use with screen grid tubes. High impedance primaries. If F. coil has primary at 90°. For 370 mmf. condenser. With coupling rings. 1 3/4" dia. 3" high. Tune 540 to 1000 KC. E5848. Antenna Coil. } EACH **54c**
E5849. R.F. Coil. EACH



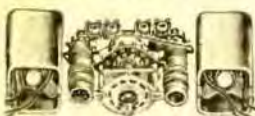
NOISE SILENCER I.F. TRANSFORMER

A close-coupled IF transformer, single-tuned, with center-tapped secondary, especially designed for use in the popular noise silencer circuits. Mica-tuned; coded leads. Each unit supplied with wiring diagram. E5693. 456 KC. NET **81c**



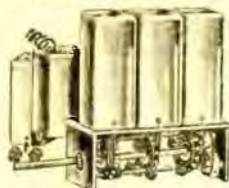
COILS · COIL FORMS · COIL KITS

SKIP-BAND COIL ASSEMBLY



Enables you to build a sensitive receiver tuning from 5.7 to 18 M.C. and 540 to 1580 K.C. Coil assembly is completely wired and ready to install. Kit contains: 3 band antenna coil and 2 band oscillator coil mounted on a band-change switch; padding condensers; 2-456 KC IF transformers. Requires a 2 gang 370 mmf. tuning condenser. Diagram is included.

\$3.74
E2707. NET



GEN-ERAL COIL ASSEMBLY

Antenna, RF and Osc. coils, assembled and wired with 4 point wave change switch. Tunes 140 K.C. to 18 M.C. in four bands with 420 mmf. 3 gang condenser. Includes 2-456 KC IF transformers and diagram.

E2709. COMPLETE KIT as described above. NET

\$10.19

E2710. Less I.F. transformers. YOUR PRICE

\$8.92

NOTE: Coil assembly above will perfectly match the DeJong unit E2705 listed on page 130.

TWO BAND COILS



Efficient Short-Wave and Broadcast coils for the serviceman and experimenter. Shielded types are complete with mica-dielectric trimmers. Use with 456-465 KC IF systems. For 365 mmf. T.R.F. variable condensers.

BROADCAST AND POLICE

Cover 67-200 meters and 193-555 meters.

SHIELDED	Antenna	UNSHIELDED
E7500	R.F.	E7503
E7501	Oscillator	E7504
E7502		E7505
NET		NET
EACH	97c	EACH
		67c

BROADCAST AND SHORT-WAVE

Cover 15.8-51.7 meters and 181-565 meters.

SHIELDED	Antenna	UNSHIELDED
E7507	R.F.	E7510
E7508	Oscillator	E7511
E7509		E7512
NET		NET
EACH	97c	EACH
		67c

E7514. DUAL ADJUSTABLE PADDING CONDENSER. Each section 180-620 mmf. The correct series inductor for the oscillator coils listed above. NET

32c

E7575. 3 GANG 2 POSITION SWITCH. For use with coils listed above. For making front-of-panel band changes. NET

88c

THREE BAND COILS

Similar to 2 band coils above, but have 3 band coverage. Trimmer condenser bank mounted on one side for ease of adjustment. Supplied in two popular wave groups. Fully shielded. Well-built for dependable reception.

BROADCAST, POLICE & S.W.

For use with 450 mmf. Condenser. Range: 170-555; 36-171; 16.2-57.7 meters.

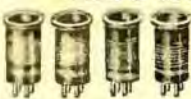
E5910.	Antenna	EACH
E5911.	R.F.	\$1.47
E5912.	Oscillator	
E5761.	Padding Condenser Kit	\$0.73
E5776.	3 Gang 3 Position Switch	1.18

LONG-WAVE, BROADCAST & S.W.

Suitable for use with a 365 mmf. variable condenser. Three-band coverage as follows: 210-700; 190-565; 16.1-51.7 meters.

E5114.	Antenna	EACH
E5915.	R.F.	\$1.47
E5916.	Oscillator	
E5762.	Padding Condenser Kit	\$0.88
E5776.	3 Gang 3 Position Switch	1.18

PLUG-IN COILS



Space-wound coils for use with 140 mmf. condensers. Forms are smooth bakelite, 1 1/2" diameter and 2 1/4" high; rim-top for easy handling.

4 PRONGS-2 WINDINGS

E5565. Short-Wave Coil Kit. 4 coils cover range from 16 to 217 meters.

85c

E5566. Broadcast Coil Kit. 2 coils cover range from 190 to 550 meters.

65c

E5567. Ultra Short-Wave Coil. Covers range from 9.5 to 21 meters.

35c

6 PRONGS-3 WINDINGS

E5568. Short-Wave Coil Kit. Primary, secondary and tickler windings. Cover 16 to 200 meters; 4 coils in kit.

\$1.35

E5569. Broadcast Coil Kit. 2 coils cover 190 to 550 meters. NET

85c

E5570. Ultra Short-Wave Coil. Covers 9.5 to 21 meters. NET

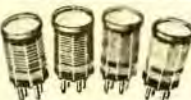
38c

BAND-SPREAD COILS

5 prong coils complete with ceramic base band-setting condenser mounted on top. Spread crowded amateur bands over large part of dial. For use with 140 mmf. condenser.

No.	Meters	Range-MC	NET EACH
1920	30	14.0-11.4	45c
1921	40	7.0-7.3	
1922	80	3.5-4.0	
1923	160	1.7-2.0	
1924	Kit of 4 coils		\$1.70

BAKELITE RIBBED TYPE



1 1/2" diameter and 2 1/4" high; molded ribs for low-loss winding; rim handles. Uniform windings for use with 140 mmf. condenser.

4 PRONGS-2 WINDINGS

E5574. Short Wave Coil Kit. Set of four coils covers range of 16 to 217 meters. Grid and tickler windings. NET

\$1.18

E5575. Broadcast Coil Kit. 2 coils cover 190 to 550 meters. NET

94c

E5576. Ultra Short-Wave Coil. Covers 9.5 to 21 meters. NET

45c

BAKELITE COIL FORMS

RIM TYPE

Low-loss, with high dielectric strength. Molded rim handle for easy grip. 1 1/2" diameter and 2 1/4" high.

No.	Prongs	EACH
1930	4	10c
1931	6	
1932	2	
1934	5 (750)	18c
1935	8	

SMALL RIBBED TYPE

Genuine molded bakelite; 1 1/2" diameter, 2 1/4" high. Have molded ribs for low-loss winding.

No.	Prongs	NET EACH
E5577	4	12c
E5578	5	
E5579	6	

LARGE RIBBED TYPE

Large ribbed coil forms of molded bakelite for winding low-loss coils. 1 3/4" diameter with 2 1/2" winding space. Have molded rim at top for easy handling.

No.	Prongs	NET EACH
E2695	4	17c
E2696	5	
E2697	6	

BAND-SWITCHING COILS

Covers from 16 to 550 meters. Two or more units are easily ganged. Has 4 prong base for easy mounting. Complete with pointer knob, dial plate and diagrams. For 140 mmf. condenser.



E5661. List. **\$4.50. NET**

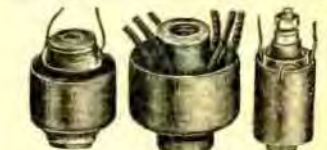
SPECIAL VALUE

GIANT RIBBED COIL FORMS

High-grade ribbed coil forms. 3" high x 1 1/2" dia. Ideal for amateurs and experimenters who wind their own coils. Easy to drill. Can be wound for all bands to match any receiver.

E2629. 4 PRONG. **11c**
E2634. 6 PRONG. NET EACH

E2639. 4 PRONG COIL KIT. Above coil forms wound for general coverage from 16 to 36, 32 to 64, 57 to 115, and 107 to 217 meters. YOUR PRICE (4 COILS) **89c**



REPLACEMENT MAJESTIC I. F. TRANSFORMER COILS

Will fit in original Majestic shield cans without change. Well-constructed. Thoroughly impregnated; moisture-proof. Wound of double-coated enameled wire on paper tubing. Coils are supplied less tuning condenser and can.

Cat. No.	Majestic Part No.	Model	EACH NET
E7150	4425	15. 15B, 150	\$0.35
E7151	8981	15. 15B, 150	.40
E7154	6506	55	.40
E7158	6250	200	.40
E7160	6110	210	.40
E7161	6123	210	.40
E7162	6127	210	.40
E7163	7812	300, 310, 330	.42
E7169	10119	460	.40
E7169	10254	460, 800	.48
E7169	11014	800	.48
E7175	7187	Primary coil used as IF plate coil in Models 290, 300, 310, 330, 460, 520 and 800	.40

COIL ASSEMBLIES IN CANS

Cat. No.	Part No.	Model	EACH NET
E7190	4128	15. 15B, 150	\$1.35
E7191	4384	15. 15B, 150	.88
E7193	10110	460	.85
E7194	10843	500	1.25
E7195	3008	20	1.45
E7196	3060	20	1.75
	3097		
E7197	4439	60	1.75

BELMONT COMPOSITE IF AND OSCILLATOR COIL

E5793. For Models C-19, 50C, Viking 51C. Also exact duplicate for many Silvertone sets. Fits same holes as original coil.

YOUR PRICE **\$2.35**

CROSLY UNTUNED I.F. COIL

E5794. Exact duplicate for Models 122, 123, 124, 125, 126. No redrilling necessary.

YOUR PRICE **73c**

We can supply exact duplicate, or adequate replacement coils for any set. When ordering, state name, model and type of set, where coil is used, bands covered, condenser type, tubes used, etc. Cost depends on coil specs. Send old coil for quotation or remit with deposit for replacement.

THREE CIRCUIT TUNER

Tuner has primary, secondary and variable tickler windings. Designed for use with a 350 mmf. variable condenser. Pig-tail tickler connections assure positive contact at all times.



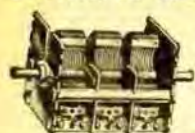
TAPPED FOR SHORT WAVE

Both the three circuit tuner and the R.F. coil are tapped for short wave as well as standard broadcast reception.

E1704. Tuner. YOUR PRICE **78c**
E1705. R. F. Coil to match Tuner. **48c**
NET

VARIABLE CONDENSERS & CHOKES

UNIVERSAL GANG CONDENSERS



A tuning condenser of truly universal application. Has $\frac{1}{4}$ " shaft extending out from both ends. Clockwise or counter-clockwise application in a single unit; solid, bar type construction; front and rear ball-race bearings; high end plates; high-grade low-loss bakelite insulation; rotor grounding springs for each section. High-quality units in every detail.

WITH DOUBLE-END SHAFTS AND REVERSIBLE TRIMMERS

Easy ganging of 2 or more, 2 or 3 gang units permits obtaining 4, 5, 6 or more ganged sections. Either end may be used as front, providing either clockwise or counter-clockwise rotation. Slotted end plates for complete alignment of all circuits. Trimmers may be located on either side, or may be removed entirely. $\frac{1}{4}$ " shaft can be increased to $\frac{3}{8}$ " by using E4586 bushing below.

1 GANG CONDENSER

Each section has a maximum capacity of 370 MPM. Plates are provided at front, rear and bottom for bracket or spade bolt mounting. End plates $2\frac{1}{2}$ " x $3\frac{1}{2}$ ".

E4134. YOUR PRICE **\$1.29**

3 GANG CONDENSER

Identical to the model described above except that it has three 370 MPM sections instead of two. End shields; $2\frac{1}{2}$ " x $3\frac{1}{2}$ ".

E4137. YOUR PRICE **\$1.81**

NEW MEISSNER 3 GANG VARIABLE CONDENSERS

These precision-built three-gang variable condensers are rigidly constructed to give the very highest quality performance possible. Counter-clockwise rotation increases the capacity.

E5763. 365 MMF. With trimmers... **\$2.35**
E5764. 365 MMF. Less trimmers... **2.22**
E5765. 410 MMF. Less trimmers... **2.22**
E5766. 450 MMF. Less trimmers... **2.26**



TRIMMER CONDENSERS

A new small-size trimmer condenser, ideal for balancing, trimming, neutralizing, antenna coupling, etc. Of sturdy construction on low-loss bakelite base measuring $\frac{3}{8}$ " x $\frac{3}{8}$ " x $\frac{1}{16}$ ". Full-plate type, with high grade mica dielectric, 3-30 mmf. 8 m a l enough to mount inside coils or directly to coil terminals.

E2949. NET EACH **6c**
LOTS OF 10 **50c**
E2947. Ceramic Type. Has porcelain base instead of bakelite. Low-loss. Measures $\frac{3}{8}$ " x $\frac{3}{8}$ " NET **8c**

TRIMMER AND PADDING CONDENSERS



For HF, 1F, and Oscillator circuits. First quality mica-insulated; isolantite base. Screw driver adjustment. May be substituted for fixed mica condenser to increase maximum capacity. Solder lug type connectors.

Insulated, bakelite flexible shaft coupling. Permits tandem operation of condensers, etc. For $\frac{1}{4}$ " shafts.

Type A			Type B		
No.	MMF	NET	No.	MMF	NET
E6430	35-120	16c	E6490	20-90	14c
E6431	80-225	19c	E6491	50-180	16c
E6432	210-390	22c	E6492	100-300	19c
E6433	350-600	24c	E6493	170-410	27c
E6434	395-735	27c	E6494	260-600	30c
E6435	520-960	30c	E6495	300-675	33c
			E6496	325-850	38c

MEISSNER "ALIGN-AIRE" UNITS

3600 degrees of micrometer tuning. Air dielectric and ceramic insulation. Dust- and moisture-proof. Metal case. $\frac{3}{8}$ " diameter; 1 1/2" long. E5757. 5-25 MMF. NET **53c**
E5758. 25-50 MMF. NET **59c**
E5759. 40-100 MMF. NET **73c**
E5760. 1-12 MMF. Bakelite body measures $\frac{3}{8}$ " diameter and 1 1/2" long. NET **21c**

CONDENSER COUPLING



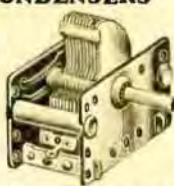
Insulated, bakelite flexible shaft coupling. Permits tandem operation of condensers, etc. For $\frac{1}{4}$ " shafts. E4149. NET **21c**

KNIGHT COMPACT PRECISION CONDENSERS

SINGLE TYPE

General-purpose compact single unit condensers. Low-loss bakelite insulation. Measure $3\frac{1}{4}$ " x $1\frac{1}{2}$ " x $1\frac{1}{2}$ " deep. $\frac{1}{4}$ " x $1\frac{1}{2}$ " shaft. Very rigid, sturdy construction throughout. Condenser closes to the right. Capably increases clockwise.

E4115. 100 MMF.
E4116. 150 MMF.
E4117. 240 MMF.
E4118. 370 MMF.
E4118. 450 MMF.



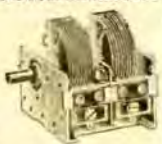
NET EACH **72c**

E4121. .0005 MFD. A very popular type used extensively in Short-Wave and All-Wave set building. NET **75c**

370 MMF. GANG CONDENSERS

New, easy-to-mount compact condenser assemblies of superior design and precise construction. Trimmers are mounted on both sides. Plates slotted for accurate alignment. Maximum capacity, 370 mmf. Clockwise rotation. $\frac{1}{4}$ " shaft extends 1 1/2". For shields measure $2\frac{1}{2}$ " x $1\frac{1}{2}$ ". Can be used as tuning condensers in popular radio magazine set-builders kits.

E4141. 2 GANG... **89c** | E4143. 3 GANG... **\$1.29**



150 MMF. GANG CONDENSERS

Compact short-wave gang condensers. Ball-bearing pivots. Trimmers may be mounted on either side or removed. $3\frac{1}{2}$ " x $1\frac{1}{2}$ " overall measurements. These units are ideally suited for use in Short-Wave receivers either as original equipment or for replacement work.

E4119. 2 GANG... **95c** | E4120. 3 GANG... **\$1.45**

SHAFT FITTINGS

For Every Purpose



COUPLINGS and EXTENSIONS

Couplings are designed for extending shafts of volume controls, condensers, etc., or for ganging single units, even when shafts are not of same diameter. Extenders are for decreasing or increasing shaft diameter and for extending shaft length.

SIZE	KIND	INSULATED	BRASS
$\frac{1}{4}$ " x $\frac{1}{4}$ "	Coupling	E4570	E4576
$\frac{1}{4}$ " x $\frac{1}{2}$ "	Coupling	E4571	E4577
$\frac{1}{4}$ " x $\frac{3}{4}$ "	Coupling	E4572	E4578
$\frac{1}{4}$ " x $1\frac{1}{2}$ "	Ext.	E4573	E4579
$\frac{1}{4}$ " x $2\frac{1}{2}$ "	Ext.	E4574	E4580
$\frac{1}{4}$ " x $3\frac{1}{2}$ "	Ext.	E4575	E4581

Assorted Per 10 **85c** | Assorted Per 100 **85.25** | NET EACH **9c**

BRASS AND FIBRE SHAFING

For extensions or replacement, $\frac{1}{4}$ " dia. E4582. Brass, 6" long. EACH **10c**
E4583. Brass, 12" long. EACH **19c**
E4584. Fibre, 6" long. EACH **10c**
E4585. Fibre, 12" long. EACH **19c**

SPLIT BUSHING

For increasing shaft diameter from $\frac{1}{4}$ " to $\frac{1}{2}$ " brass, $\frac{1}{4}$ " I.D. - $\frac{7}{8}$ " O.D. - $\frac{1}{16}$ " long. E4586. Per 10, **35c**. EACH **5c**

PANEL BEARING ASSEMBLY

For use with rigid or flexible couplings for mounting volume controls, condensers, rheostats, etc., at a distance away from the panel. Use these units for reducing body capacity in GHz receivers and transmitters. Made of brass. Takes panels up to $\frac{1}{4}$ " thick. For $\frac{1}{4}$ " shafts. E5727. Overall length 3". NET **18c**
E5728. Overall length 6". NET **24c**
E5729. Bearing only. NET **9c**



USL MIDGET CONDENSERS

A small, well-built condenser, ideal for Short Wave use. $\frac{1}{4}$ " shaft extends $\frac{1}{2}$ " from front of condenser. $\frac{1}{4}$ " bushing allows rigid mounting on panels up to $\frac{3}{8}$ " thick. Single hole mount; fits $\frac{3}{8}$ " hole. Overall size with plates open, $1\frac{1}{4}$ " x $1\frac{1}{4}$ ".



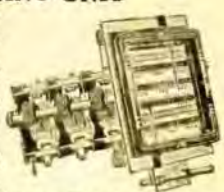
No.	Plates	Min. Mmf.	Max. Mmf.	NET
E4125	3	3	15	35c
E4126	5	4	30	38c
E4127	7	5	45	41c
E4128	9	6	60	44c
E4132	12	6	80	47c
E4129	15	7	109	48c
E4130	18	8	125	50c
E4130	20	8	140	52c

DOUBLE-SPACED MIDGETS

E4123. 11 6 35 **55c**
E4124. 14 7 50 **75c**

DE-JONG BAND-SPREAD TUNING UNIT

3 gang electrical band-spread tuning unit assembly for the custom-builder. Equipped with universal type gold-foil dial scale. Individual calibrations may be made in ink on dial face. Ball bearings on both main and band-spread sections. Wipers on both sections. Insulated with Isolantite. Max. cap., .000150; min. cap., .000014; effective cap., .00014; max. band-spread cap., .000033. Dual slide-rule dial, $5\frac{1}{2}$ " W x $9\frac{1}{4}$ " L. Main sec. ratio, 10:1 in 180°. Electrical band-spread ratio, 85:1 in 180°. Overall dimensions of condenser with both sections open wide, $3\frac{1}{2}$ " L x $3\frac{1}{4}$ " H. x $3\frac{3}{8}$ " W. Supplied complete with gold-finished metal enclosure, mylar nonbreakable window, 2 pilot light sockets. Shpg. wt., $\frac{1}{2}$ lbs. Matches Gen-Ital units on page 129.



E2705. Type 450. List, **\$17.50**. NET **\$10.29**

RADIO FREQUENCY CHOKES AIR-CORE

Compact, silk-covered wire, R.F. chokes. High impedance. Lattice-wound type. Thoroughly impregnated for trouble-free service. Shielded or unshielded.

Unmounted	MH	Shielded
E5605	2 1/2	E5613
E5606	5/2	E5614
E5607	6	E5615
E5608	8	E5616
E5609	16	E5617
E5610	30	E5618
E5611	60	E5619
E5612	80	E5620
EACH		EACH
		27c
		33c
		42c
		47c

FERROCART [Iron Core]

New High-Q R.F. chokes may be used in place of air-core chokes for higher efficiency. Provide greater gain and selectivity in the tuned or untuned plate load circuits.

No.	MH	NET	No.	MH	NET
E5785	2 1/2	34c	E5789	30	49c
E5786	3 1/2	34c	E5790	60	57c
E5787	5 1/2	37c	E5791	80	65c
E5788	10	43c	E5792	125	85c

POLARIZED

A new efficient, popular-priced R.F. choke. Sectionalized winding construction minimizes distributed capacity. Thoroughly impregnated against moisture. Has metal mounting feet.



No.	MH	NET
E5629	2.5	21c
E5629	3.3	
E5629	5.5	
E5625	10	
E5624	30	
E5623	60	
E5622	80	

NET EACH **21c**

PHOTO CELLS - AUTO RADIO DIALS

PHOTO-ELECTRIC CELL BURGLAR ALARM



An efficient, low-priced, easily installed Burglar Alarm System. A new application of Photo-Electric Cells. In operation, a beam of light is broken when the intruder moves across the room, through a window, or through a door. Breaking the beam causes a loud buzzer to sound. Can be used in houses, garages, stores, etc., wherever a low-cost, high-efficiency alarm system is required. Alarm will sound even if power lines are cut. For 110 volt. 60 cycle. Complete except for light source. **E1232. NET \$25.70**

INVISIBLE LIGHT SOURCE

The development of this "black-light" invisible light source makes burglar alarm above doubly effective; the intruder is not aware of its presence until he actually trips the alarm. Operates over a distance of 50 ft. **E1233. Light Source Only. NET \$6.60**

EBY P.E. EQUIPMENT

PHOTO CELL



A new type of photo cell designed for long life and maximum sensitivity. Ideal for light-controlling circuits, and for general experimental purposes. Entire unit is shock-proof and moisture-proof. Unaffected by continuous exposure to lights of strong intensity, and will operate on voltages as high as 250 volts without damage to cell. Response curve covers visual spectrum, and extends far into infra-red. Measures 1 1/4" dia., 3/8" high. **\$3.18**

E4032. NET \$3.18

ELECTRIC EYE HANDBOOK

E4033. 32 pages of new material pertinent to photo electric cells; gives hints and diagrams on adaptations of Electric Eye. **NET \$3.50**



SENSITIVE RELAYS

Designed for direct, or for full or half-wave rectified current circuits, where the operating power is small. Ideal for photo cell equipment, vacuum tube amplifier circuits, etc., due to the low power necessary to make contact. Sterling Silver contacts carry 2.5 Amps. at 115 V. A.C. or 1.5 Amp. at 115 V. D.C. **\$4.15**

E4045. 1000 ohm coil.
E4046. 2500 ohm coil.
E4047. 5000 ohm coil.
E4048. 10000 ohm coil. EACH.

EXPERIMENTAL KIT

Necessary parts for building various Electric Eye circuits. Includes the Eby Electric Eye; sensitive relay; tube and vacuum sockets; resistors; condensers; circuits and information. Get acquainted with this interesting field. **\$9.55**

E4049. NET \$9.55

PHOTO CELL AND RELAY



An efficient light-controlled instrument with many valuable uses. Contains a sensitive photo-cell and quick-acting relay. Can be used to actuate automatic door opening mechanism, for grading and counting packages on production lines, for controlling lights or for a host of other applications. Size 2 1/4" x 1 1/2" x 5". Suitable light source is listed below. With photo-cell. This unit together with light source makes a complete Photo Electric control assembly. For 110 V., 60 cycles. **\$14.70**

E1230. NET \$14.70

PHOTO CELL LIGHT SOURCE

E1231. A ruggedly built light source for use with the above or similar photo-cell relay units. Operates from 110 Volt 60 cycle mains. Uses standard 6-8 watt 32 C.P. auto bulb. Light beam is projected by means of brass tube fitted with high grade optic lens. Size 2 3/4" square, 5 1/2" high. With bulb. **\$5.88**

NET \$5.88

STAR UNIVERSAL AUTO-RADIO CONTROL

FITS ALL CARS—FITS ALL RADIOS

A truly Universal Auto-Radio remote control assembly. Included in this unit are such desirable features as: clockwise or counter-clockwise operation; self-contained ratios for every application, 6:1, 8:1, 10:1, 12:1, and 15:1; thumb-screw calibration adjustment; pointer and shaft adjustment for every panel thickness; edgewise dial; pre-assembled back plate to match every panel opening—no re-drilling, cutting, or filing necessary; provisions for tone control assembly; no backlash. Use your old cables and shafts. It is only necessary to purchase correct panel to match your car (and switch where necessary) to make a de-luxe installation. Complete with detailed instructions. **\$2.06**

E5880. Control Unit Less Switch. NET \$2.06

ACCESSORIES FOR ABOVE CONTROL

E5881. Type S-1. On-Off Switch. Completely wired. Ready to install where ever necessary. **NET \$5.90**

E5882. Type T-1. Three Stage Tone Control. (Without "On-off" switch.) **NET \$1.18**

E5883. Type T-2. Variable Tone Control. (100,000 ohms.) Without "On-off" switch. Mounts on control unit E5880 above for control of tone from front of panel. **NET \$1.18**

E5884. Type ST-1. 3 stage Tone Control and "On-off" switch. **NET \$1.76**

E5885. Type ST-2. Variable Tone Control (100,000 ohms) and "On-off" switch. **NET \$1.76**

E5886. Type S-2. 2 stage Sensitivity Control for local-distance selection. **NET 29c**

E5887. Type G-6. 20:1 ratio gear. For some special applications. **NET 9c**

STAR DASH-MOUNT PANELS

Select dash panel to match your car from listing below. Order panel with E5880 etc. above, to make a complete assembly. Knobs to match included in price of panel.

No.	Car Model and Year
E5850	Buick 1938
E5851	Chevrolet 1935-36
E5852	Chevrolet 1937
E5853	Chevrolet 1938
E5854	Cord 1935
E5855	Dodge 1937
E5856	Dodge 1938
E5857	Ford Std. & De Luxe '31
E5858	Ford Std. & Early '36
E5859	Ford Std. & Late '36
E5860	Ford De Luxe Early '36
E5861	Ford De Luxe Late '36
E5862	Ford Standard '37
E5863	Ford De Luxe '37
E5864	Ford 1938

WE CAN SUPPLY PANELS FOR ANY CAR. WRITE FOR COMPLETE LIST.



AUTO RADIO REMOTE CONTROL ACCESSORIES

CABLE FITTINGS



No.	Type	No.	Type
E1820	0	E1827	7
E1821	1	E1828	8
E1822	2	E1829	9
E1823	3	E1830	10
E1824	4	E1831	11
E1825	5	E1832	12
E1826	6	NET EACH	6c

WE WILL ASSEMBLE CABLES in any desired length with any of the fittings shown, at a net charge of 35c plus material costs as listed. Give lengths of both cable and housing and specify fittings desired. Send cash with order.

PHOTO-ELECTRIC CELLS CETRON CE-3

E1135. A quality photo-electric cell suitable for many applications. Will replace W.E. type for sound film work. Flexible leads with phone tin connectors. Cathode plate is 1 1/2" in. Requires an average ionizing voltage of 185 Volts.

CE-1 CELL

E1136. For projecting cells in Acme, Simplex, Edco, Mexiola, RCA Photo-homes, Coasters, etc. 4 prong plug-in type base. 3/8" high, with cathode area of .34"

CE-2 CELL

E1137. A shorter, wider cell, with cathode area of .133". For use with Argus, Restone, De Vry, Hall Range, Parent, and Universal type projection equipment. Height, 2 1/2". 4 prong base. **\$5.40**

YOUR NET EACH ABOVE.

CABLE AND HOUSING

The exact cable and housing used by leading factories. Housing Parkerized to prevent rust.

CABLE ONLY		
120"	150"	NET
E1850	E1854	\$0.24
E1851	E1855	.29
E1852	E1856	.36
E1853	E1857	.42
E1854	E1858	2.89
E1855	E1859	5.65
E1856	E1870	
E1857	E1871	Lengths over 16c
E1858		
E1859		
E1894		
36 inches.	Per Foot	

HOUSING ONLY		
120"	150"	NET
E1860	E1864	\$0.18
E1861	E1865	.24
E1862	E1866	.26
E1863	E1867	.31
E1864	E1873	2.59
E1865	E1874	5.00
E1866	E1875	Lengths over 12c
E1867		
E1868		
E1869		
E1899		
36 inches.	Per Foot	

HOUSING ENDS

Exact duplicate end-fittings for cable housings.			
E1834. Type A.	E1837. Type D.	EACH	
E1835. Type B.	E1838. Type E.	6c	
E1836. Type C.	E1839. Type F.	6c	
E1841. Type H.	For Motorola .130" housing.		
E1841. Type H.	For Motorola .150" housing.		
NET EACH		18c	
E1842. Type G.	Casing chuck for Motorola.		
NET		9c	

CABLE GEAR FITTINGS

For most popular auto radio cable assemblies.			
E1844. Type P5.			
E1845. Type G1.	Each	15c	
E1846. Type G2.			
E1847. Type G3.			
E1848. Type P4.			
NET		24c	

TUNING DIALS • PILOT LIGHTS

VALUES IN MODERN DIALS



11 1/8" LONG SLIDE-RULE

Beautiful new, giant type Slide-Rule dial. 11 1/8" long x 3 1/2" wide overall. Requires 3/4" x 9/16" opening in panel. 4 band calibrations, 55 to 150; 0 to 100; 100 to 0; 150 to 55. Easy-to-read numerals on gold. For 3/8" or 1/2" shaft. Ratio 10:1. Complete with non-breakable escutcheon and 2 pilot light sockets. Shpg. wt., 2 lbs. **\$3.82**

E4185. NET



9 1/4" LONG SLIDE-RULE

A fine value in a new Slide-Rule dial. 9 1/4" long x 5 5/8" wide overall. Requires 7/8" x 1" opening in panel. Universal scale calibrated in KC and 10 to 1 ratio. With escutcheon and 2 pilot light sockets. Wt. 2 lbs. **\$2.65**

E4184. NET



KURZ-KASCH VERNIER DIALS

A durable and attractive dial always popular with builders and experimenters. Made of polished black bakelite. Universal scale reads 0-100-0. Has smooth, positive friction-drive vernier action; no backlash. Available in two sizes, both to fit 3/8" shaft. Ideal for all equipment requiring a smooth, free-tuning panel-mount dial. 4-inch dial has tuning ratio of 13 to 1; 3-inch size has 9 to 1 ratio.

E6201. 4" Diameter. NET. **45c**
E6200. 3" Diameter. NET. **38c**



3 1/4" INCH MODERN-ISTIC DIAL

An attractive modernistic square type airplane dial with handsome bronze escutcheon. Positive non-slip friction drive. For 3/8" shaft, but supplied with 3/16" to 1/4" reducer for use on condensers with 1/4" shaft. Tuning ratio of 10-1 assures sharp easy tuning. Universal scale with any clockwise or counter-clockwise condenser. Complete with two pilot light brackets. Shpg. wt., 1 lb. **\$1.05**

E4180. NET EACH



2 3/8" INCH AIRPLANE DIAL

A smooth, positive-action friction-drive dial, with a tuning ratio of 6 to 1. Dual translucent dial calibrated with a universal scale, 0-100 and 100-0, protected by convex glass bezel. With escutcheon and pilot light socket. Fits 3/8" shaft. **\$1.05**

E4175. NET



4 INCH AIRPLANE DIAL

A high quality translucent dial with universal scale. Positive friction drive. Tuning ratio 9 to 1. Dial pointer travels with condenser. Will fit 3/8" shaft. With two pilot light sockets, escutcheon plate and bushing for 3/8" shaft. **\$1.05**

E4181. NET



3 1/8" INCH AIRPLANE DIAL

A positive-action, smooth-tuning dial. Dual translucent universal scale with glass bezel. Tuning ratio 6 to 1. Pointer travels with condenser. Has bushing to fit 3/8" or 1/4" shafts. With pilot light socket and escutcheon. **83c**

E4182. NET

6 3/4" LONG SLIDE-RULE

Attractive, new Slide-Rule dial. 6 3/4" long by 3 1/2" high, overall. Requires panel opening 3 1/2" x 9 1/2". Universal scale in KC and MC. With bushing for 3/8" or 1/2" shafts. 6 to 1 ratio. With escutcheon and pilot light socket. Shpg. wt., 2 lbs. **\$2.06**

E4183. YOUR NET PRICE

MIDGET SLIDE-RULE

Compact new dial, only 4 1/2" x 2 1/2" overall. Panel opening required, 4 1/2" x 1 1/2". Universal scale; 4 to 1 ratio. Fits 3/8" or 1/4" shaft. With escutcheon and pilot light socket. Wt., 2 lbs. **\$1.62**

E4179. YOUR NET PRICE

6 1/2" BAND-SPREAD DIAL

A beautiful dial with Divide-A-Meter two-speed planetary drive providing bandspread equivalent to 1 1/2" feet over 180° to 1 ratio over 360°. For use with 365 or 420 mf. condensers. Fits 3/8" or 1/2" shafts. Ideal for replacing old dials in sets taken as "trade-ins" which can then be resold at excellent profits. With 7/8" bezel, bronze escutcheon, and brackets. Shpg. wt., 3 lbs. **\$3.97**

E4190. YOUR NET PRICE

5 1/8" INCH AIRPLANE DIAL

A large handsome dial with glass-protected pyralite face. Two scales, 0-100 and 100-0 for clockwise or counter-clockwise condensers. Dual pointers; 10-1 tuning ratio. For 3/8" shaft with split bushing for 1/2" shafts. Wt., 2 lbs. An excellent dial value. **\$1.39**

E4177. NET

MOLDED DIALS

Attractive black bakelite dials with large calibrations in white. Easy grip 2" knob on 3" dial; 2 1/2" knob on 4" dial. E4196 and E4198 fit 3/8" or 1/2" shafts. Others fit 1/4" shafts.

3 INCH DIALS: E4195. 0-100. NET 23c
4 INCH DIALS: E4198. 0-100. NET 26c



DIAL LITE COLORING KIT

Easily applied transparent colors. For use on pilot and dial light bulbs. Kit contains one bottle each: Green, Blue, Red and Yellow; with a bottle of solvent for cleaning bulbs. **29c**

E2998. NET PER KIT

110 VOLT CANDELABRA PILOT LIGHT

1" candelabra pilot light assemblies for use on 110 volts, AC or DC. Ideal for panel installations on transmitters, control panels, etc. Single hole mount. Bulbs removable from front of panel. Chrome finished. Supplied less 110 volt bulb. **54c**

E6462. Red.
E6463. Green.
E6464. Amber. EACH
E6465. 110 Volt Mazda Bulb for above. 15c

EVEREADY MAZDA PILOT LIGHT BULBS

Genuine Eveready Mazda pilot light bulbs. Famous for quality and dependable long life. These lamps are made to operate from the voltages indicated. Excellent for all pilot lamp requirements. Will give long continuous service in standard sets and devices.

STOCK No.	Lamp No.	Volts	Amperes	PRICE EACH	PER 10
E1250	41	2.5	.50	9c	\$0.54
E1252	43*	2.5	.50	10c	.59
E1251	42	3.2	.35	12c	.71
E1253	40	6.8	.15	9c	.54
E1257	50†	6-8	.20	10c	.59
E1258	51*†	6-8	1.0	7c	.41
E1260	55*†	6-8	.50	7c	.41
E1259	49*	2.0	.06	22c	1.15
E1255	44*	6.8	.25	9c	.54
E1256	46	6.8	.25	9c	.54

*Indicates miniature bayonet base. †Indicates small round bulb.

BULB FOR RCA-VICTOR RE-32

S11. A 115 volt bulb; special for RCA-Victor RE32. 10 watt. **20c**

E6449. NET EACH



PILOT LIGHT SOCKETS

Miniature base pilot light sockets for all radio requirements. Highest quality construction. With silver-plated lugs for easy soldering. Spring contact in the socket holds lamp firmly in place.

E6380. Type A.
E6381. Type B.
E6382. Type C.
E6378. Type D. Bayonet Shell Type.
E6379. Similar to type D, but mounting clip reversed. **5c**

10 Lots, 40c. 100 Lots, \$3.50. EACH

JEWELLED PILOT LIGHT BRACKETS

Visual indicators for use on power amplifiers, relay racks, etc. Sockets mounted on bracket takes regular pilot light bulbs. Single hole mounting. Serves as a definite means of knowing when your equipment is "on." Complete with Jewel. **15c**

Miniature Base No.	Bayonet Base No.	Color	NET EACH
E6388.	E6387.	RED.	15c
E6389.	E6388.	GREEN.	
E6390.	E6391.	AMBER.	

JEWELS FOR PILOT LIGHTS

Attractive colored jewels with mounting nuts for panel use. Easy to mount on panels up to 1/4 inch thickness. Requires 1/8" hole. Have 1/16" threaded shank. 1 1/2" long.

E6384. Red. EACH 10c
E6385. Green.
E6386. Amber. EACH

AMEROD MARKED JEWELS

New 1/2" dia. jewels with letter or number markings for Xmitters, test equipment, etc. Mount in 1/8" hole. Amerod face diffuses light. **12c**

E6303. Lettered A to Z. Specify letter.
E6304. Numbered 0 to 9. Specify number.
NET EACH PER LETTER

JUMBO JEWEL BRACKET

1 1/2" removable jewel. Permits front-of-panel bulb replacement. Miniature base. Mounts in 1/8" hole. **24c**

E6294. Red. EACH
E6295. Green.
E6296. Amber.

1" JEWEL BRACKET

For transmitters, test equipment panels, etc. Standard bulb replaceable from front. 1 1/2" long; requires 1" hole. With miniature or bayonet base. A colors available. **54c**

Bayonet	Miniature	Color	EACH
E6300.	E6297.	RED.	54c
E6301.	E6298.	GREEN.	
E6302.	E6299.	AMBER.	

TUNING KNOBS and DIALS

FINE BAKELITE KNOBS



Conservative designs in very attractive bakelite. All will fit $\frac{1}{8}$ " shafts. Listed in popular sizes. Type "C" is push-on type. All others have set screws. Types B and D are especially adapted to midjet set knob replacements. Types A and B may be assorted for 10 lot price. Types A, B and D are deep walnut in color. Type C is blackish brown.

Stock No.	Fig. No.	Diam.	NET EACH	10 FOR
E6206	A	1 1/8"	6c	50c
E6207	B	1 3/8"		
E6209	C	1 1/2"		
E6210	D	1 3/4"		
E3514	B	1 1/8"	4c	30c
E2917	C	1 1/2"	5c	40c

MODERNISTIC TYPES



Similar to above except not as deep. All have set screws and will fit $\frac{1}{8}$ " shafts. For use with ultra-midjet and midjet sets. All are walnut-colored except C which is black. All four types may be included in your assortment for 10 lot price.

No.	Type	Diam.	EACH	10 FOR
E6202	A	1 1/8"	6c	45c
E6203	B	1 3/8"		
E6204	C	1 1/2"		
E6205	D	1 3/4"		

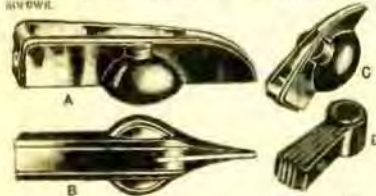


POINTER KNOB

Black $1\frac{1}{2}$ " bakelite knob. White pointer arrow engraved on face. Fits $\frac{1}{8}$ " shaft. E6208, 10 FOR 40c. EACH **5c**

STREAMLINED BAR KNOBS

Modern knobs for test instruments, amplifiers, transmitters. White engraved pointers (see Fig. D). Fit $\frac{1}{8}$ " shafts. Recused set screws.



Cat. No.	Fig.	Size	NET EACH	12 FOR
E6171	B	1 1/4"	9c	95c
E63760	C	1 1/2"		
E63762	D	1 3/4"		
E63761	A	1 1/8"		
E6173	B	1 1/4"	12c	\$1.25
	A	1 1/8"	10c	1.05

AUTOMATIC TUNING KNOBS

A new selection of four-tuning knobs for sets with automatic tuning. Of bakelite. Type A has recessed top and push-on spring. Type B is push-on self-locating type without recess. All are $\frac{3}{16}$ " dia. x $\frac{1}{16}$ " high with standard $\frac{1}{8}$ " shaft.

WITH RECESS E3754, Black. E3755, Walnut. 12 FOR 30c. 100 FOR \$1.99. NET EACH **3c**

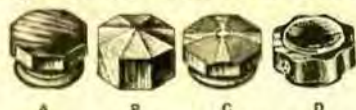
SELF RECESS E3780, Black. E3781, Walnut. 12 FOR 30c. 100 FOR \$1.99. NET EACH **3c**



GEAR REDUCTION UNIT

6 TO 1 ratio. For use with any condenser not equipped with reduction gear. Has double-driven gear and anti-backlash spring $\frac{1}{8}$ " drive shaft. Vise-grip set screw holds condenser firmly. E4111, For $\frac{1}{8}$ " shaft. E4108, For $\frac{3}{16}$ " shaft. EACH **35c**

GENUINE WOOD KNOBS



Genuine wood knobs, beautifully made and finished. For $\frac{1}{8}$ " shafts. All have sure-grip design. Brass bushing inner side set-screw. Buy several assortments and have them on hand when you need them.

No.	Fig.	Width	Wood
E3765	A	1 1/8"	Walnut
E3766	B	1 3/8"	Maple
E3767	C	1 1/2"	Walnut

YOUR PRICE EACH PER 10 **8c** 70c

No.	Fig.	Width	Wood
E3768	A	1"	Walnut
E3769	B	1 1/4"	Walnut
E3770	C	1 1/2"	Maple
E3771	D	1 3/4"	Walnut
E3772	(Plain Top)	1"	Walnut
E3763	C	1 1/2"	Walnut
E3764	D	1 3/4"	Walnut

YOUR PRICE EACH PER 10 **9c** 76c

1 SPEED PLANETARY DRIVE

Used as auxiliary speed reducer on many controls. Mounts on condenser, back of panel, or on dial knob shaft. Slow ratio 7 to 1; fast ratio 1 to 1. Fits $\frac{1}{8}$ " shaft.

E3756, NET **88c**

PLANETARY DRIVE KNOBS

For drive unit listed above. Large knob fits $\frac{7}{16}$ " high speed shaft; small one fits $\frac{1}{8}$ " slow speed shaft. E3757, Walnut. E3758, Black. PAIR **12c**

DIAL DRIVE RUBBERS

Box of 24 assorted dial-drive friction rubbers in eight different types. Used in such sets as RCA, Atwater Kent, Stewart Warner, Emerson, etc. E6107, NET **88c**

DIAL BELT KITS

Woven fabric radio dial belts; exact duplicates of originals used in Crosley, Emerson, RCA, Sinton, Zenith, etc. Assortment of 25 belts will service more than 30% of all replacements.

E6108, Box of 25 Belts. List, \$7.25. NET **\$3.82**

BRAIDED SILK DIAL CORD

Durable dial cable of pure braided silk, with water-proof finish. Flexible, non-kinking. Easy to install. Length NET E6080 5 ft. \$0.22 E6081 25 ft. .80 E6082 50 ft. 1.50 E6083 100 ft. 2.75

PHOSPHOR BRONZE DIAL CABLE

The 42 Stranded Cable is made up of 6 individual cables each consisting of 7 strands of the finest grade of phosphor bronze wire, around central linen core. The 16 Braided Cable is made up of 16 strands of fine bronze wire woven together. Minimum stretch.

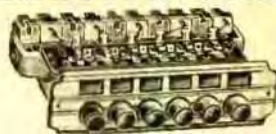
42 STRANDED		NET	16 BRAIDED		NET
E6070	5 ft.	\$0.20	E6074	5 ft.	6c
E6071	25 ft.	.74	E6075	25 ft.	22c
E6072	50 ft.	1.39	E6076	50 ft.	36c
E6073	100 ft.	2.50	E6077	100 ft.	59c

EXACT DUPLICATE DRIVE CABLE - BANDS - BELTS

Exact duplicates in size, material and design of the originals. We can supply any type of cable, band or belt on special order. Send in Stock No. Model NET

Model	NET	Brunswick	NET	Majestic (Cont.)	NET
E6085	30	E6104	21, 21, 31	E6096	71, 79
E6086	33	E6105	15, 22	E6097	52, 64
E6087	35, 37	E6106	15, 22	E6103	180
E6088	44				Phico
E6089	46	E6093	40s, 60s, 804	E6098	All
E6090	55	E6094	601, 602, 607	E6100	RCA
					16, 17, 18,
E6092	All	E6095	Majestic		25, 27, 29,
					80, 82, 86,
					21c

PUSH-BUTTON TUNERS



KNIGHT SELECT-O-MATIC TUNING UNIT

A new, entirely automatic push-button tuning unit for use with sets having two gang condensers. Sets not now equipped with push-button tuning can easily be modernized by installing this tuner. Tuning is accomplished through a series of padding condensers which are easily set to frequency of desired stations. Five station buttons for automatic tuning will cover any five popular local stations; sixth button is release for conventional dial tuning. Overall dimensions: 5 1/2" wide, 3 1/2" deep, 1 1/2" high. Bronze escutcheon measures 5" wide x 1 1/2" high. With push-on knobs, station call-letters, hardware, and full instructions. E4191, NET **\$3.25**

KNIGHT MECHANICAL TUNER

A new push-button tuner especially suitable for radio set builders. Uses mechanical method of push-button tuning. Offers mechanical tuning of any six H.C. or S.W. stations. Easily installed in any radio. Fits standard $\frac{1}{8}$ " shaft. Size: 6 1/2" x 2 1/2". With escutcheon, station letters, instructions, etc. Shpg. wt. 5 lbs. E6577, NET **\$3.53**

MEISSNER REMOTE CONTROL

Convenient Remote Control push-button tuning unit for any radio set. Times any 7 stations. Completely assembled and wired. To install, connect to ant. and gnd. posts of set, and plug into wall outlet. Walnut cabinet, 5 1/2" x 9 1/2" x 1 1/2"; self-contained volume control. Will fit 15' cable and tubes. Shpg. wt. 6 lbs. E5751, For 110 Volts, A.C. or D.C. E5753, For 220 Volts, A.C. or D.C. NET EACH **\$15.58**

MEISSNER TUNER

Push-button tuning for any TRF or Superhet A.C. or D.C. set. Seven buttons provide automatic tuning of any seven stations; eighth button is release for manual tuning. Requires only setting of trimmer condensers. Positive in operation; has special low-drift, mica-insulated trimmers. Overall dimensions: 6" x 2 1/2" x 1 1/2". Supplied complete with escutcheon, station call-letters, mounting hardware, and instructions. E5752, NET **\$4.41**

RADIO-BUILDERS' SUPPLIES



QUALITY METAL CHASSIS BASES

ALLIED now offers the most complete line of high quality chassis bases available anywhere. Each unit has re-interced or spot-welded corners for heavy-duty service. All are folded on four sides with the exception of those marked "A", which are folded on sides only, with ends open. Template is lead-coated auto-body steel; Cadmium-plated and Black wrinkle-finish bases are also steel. See Chassis Forming Service below for sizes not listed.

Size Inches	Template		Electralloy		Cadmium-Plated		Wrinkle Finish	
	No.	NET	No.	NET	No.	NET	No.	NET
4 1/2 x 8 1/2 x 1 1/2	E12400	\$0.29	E12418	\$0.71	E12450	\$0.54	E12435	\$0.54
7 x 9 1/2 x 2	E12401	.40	E12419	.76	E12451	.58	E12436	.58
7 x 12 x 2	E12402	.45	E12420	.83	E12452	.60	E12437	.60
7 x 13 x 2	E12403	.48	E12421	.89	E12453	.62	E12438	.62
7 x 17 x 3	E12404	.50	E12422	1.05	E12454	.63	E12439	.63
7 x 17 x 3	E12405	.65	E12423	1.23	E12455	.73	E12440	.73
7 x 23 x 3	E12406	.69	E12424	1.27				
7 1/2 x 19 1/2 x 3 1/2	E12407	.40	E12425	.76				
8 x 11 x 2 1/2	E12408	.42	E12426	.82	E12456	.74	E12441	.74
8 x 17 x 2	E12409	.53	E12427	1.25	E12457	.68	E12442	.68
10 x 11 x 2 1/2	E12410	.53	E12428	1.10	E12458	.68	E12443	.68
10 x 12 x 3	E12411	.77	E12429	1.12	E12459	.89	E12444	.89
10 x 14 x 3	E12412	.57	E12430	1.20	E12460	.85	E12445	.85
10 x 17 x 3	E12413	.75	E12431	1.45	E12461	1.08	E12446	1.08
10 x 23 x 3	E12414	.85	E12432	1.69	E12462	1.13		
13 x 17 x 3	E12415	.89	E12433	1.72				

CRYSTAL-FINISHED CABINETS



Sturdy steel cabinet with hinged lids. Front and back panels, or bottom, easily removed. Ideal for receivers, transmitters, monitors, frequency meters, etc. Supplied knocked-down.

No.	Lgth.	Wth.	Ht.	NET
E9700	9"	5"	6"	\$1.45
E9701	10"	8"	7"	1.85
E9702	10"	8"	10"	2.00
E9703	12"	8"	7"	2.13
E9704	12"	11"	8"	2.43
E9705	14"	8"	7"	2.53
E9706	18"	12"	9"	3.42

PANELS FOR ALL RADIO PURPOSES

Here is a complete selection of panels in a wide range of sizes and materials for every radio need. Sizes not listed will be cut to order (see prices below). Electralloy and Aluminum panels are 1/16" thick and have natural finish; Hard Krubber and Bakelite panels are 3/16" thick and have polished finish; finished panels are 1/8" steel with black wrinkle enamel finish; Masonite panels 3/8" thick are supplied in smooth black finish resembling bakelite.

Size In.	Electralloy		Aluminum		Rubber		Bakelite		Finished		Masonite	
	No.	NET	No.	NET	No.	NET	No.	NET	No.	NET	No.	NET
7x10	E9731	\$0.40	E9741	\$0.42	E9768	\$0.69	E9758	\$0.79	E9750	\$0.32	E9781	\$0.26
7x12	E9732	.45	E9742	.50	E9769	.82	E9759	1.00	E9751	.38	E9782	.30
7x14	E9733	.53	E9743	.60	E9770	.98	E9760	1.15	E9752	.44	E9783	.34
7x16	E9734	.60	E9744	.67			E9761	1.27			E9784	.38
7x18	E9735	.68	E9745	.80	E9771	1.22	E9762	1.40	E9756	.59	E9785	.43
7x19	E9729	.71	E9778	.82							E9789	.48
7x21	E9736	.78	E9746	.85	E9772	1.42	E9762	1.59	E9757	.76	E9785	.48
7x24	E9737	.89	E9747	.98	E9773	1.58	E9763	1.85			E9790	.52
7x30	E9738	1.10	E9748	1.23	E9775	1.98	E9766	2.25			E9791	.64
8x18	E9730	.77	E9778	.89			E9776	1.55	E9753	.59	E9786	.47
9x15	E9740	.70	E9780				E9777	1.44	E9755	.56	E9787	.46
24x36			E9743	4.55							E9792	2.75
36x36	E9739	5.29									E9793	3.85

Special Sizes 1c PER INCH SQ. IN. 1c PER SQ. INCH. 1 1/2c PER SQ. INCH. 1 3/4c PER SQ. INCH. 3c PER SQ. INCH.

ORDERS FOR SPECIAL PANELS MUST AMOUNT TO A 75c MINIMUM; MASONITE TO 50c.

SPECIAL VALUE CHASSIS BASES



Ideal chassis bases for experimenters and set builders. They have cutouts, slots and holes for mounting various parts. Include punched holes for tube sockets. Size of the A.C.-D.C. model is 10 1/2 x 14 1/2 x 1 1/2. Stamped from heavy gauge steel. Shpg. wt., 1 lb.

- E9721. 5 or 6 Tube. A.C. Base. 10 1/2 x 14 1/2 x 1 1/2. NET **15c**
- E9717. For A.C.-D.C. Sets. NET **10c**
- E9719. Bracket for volume control for A.C.-D.C. set. NET. 3c

CHASSIS MADE TO ORDER

We will promptly form and punch any chassis to your specifications. Charges for this service are as follows: Drilling small holes up to 1/8" - 20c per dozen; holes over 1/8" to 1 1/2" inclusive - 10c each; holes larger than 1 1/2" or cut-outs of special design are priced slightly higher. Transformer cut-outs - 25c each; cutting notches and forming chassis, 35c. Minimum charge is 95c. This does not include the chassis base (or metal for it). Blank chassis bases of sheet Electralloy and Aluminum are listed on this page. Please send full scale drawing with dimensions and hole sizes clearly marked. Chassis bases are made up on final sales basis only and are not subject to return. A deposit of 95c must accompany order.

COIL SHIELD CANS

Heavy-gauge non-magnetic metal shield cans, with beautiful baked black crackle finish. These tin shields are available in two shapes and a variety of sizes. All are furnished with spade bolts for mounting. Ideal for repair jobs or original construction.



A popular type of coil shield can.

NO.	SIZE	NET
E5283	1 1/2" x 1 3/4" x 2 1/2"	15c
E5284	1 3/4" x 2" x 2 1/2"	18c
E5285	1 3/4" x 2 1/4" x 2 1/2"	19c
E5286	2" x 2 1/4" x 2 1/2"	29c

ROUND CANS

Well-made; attractively finished.

E5287	1 1/2" dia. x 1 3/4" h.	10c
E5288	1 3/4" dia. x 2" h.	15c

METAL TUBE GRID CAP SHIELD

A necessity where metal tubes are used in high-gain circuits. Fits firmly over grid cap. Slot is provided to pass grid lead.



E5290. Per doz. 40c. NET EACH **5c**

GRILL CLOTH

Finest tapestry material, with artistic design of interwoven black and gold. For use behind speaker grills. Specify size. Furnished only in 1, 2, 3, or 4 ft. widths, any length.



E2916. Square Foot **18c**

WRINKLE-FINISH VARNISH

An attractive, modern wrinkle-finish for all metal chassis, panels, etc. Air drying; applied with brush or spray. 3/4 pint.



- E1955. Black. EACH
 - E1956. Brown. **24c**
 - E1957. Green.
 - E1958. Silver Gray.
- PER PINT EACH **\$1.18**
Specify color when ordering.

CRYSTALLIZING LACQUER

Will cover any metal surface with crystalline finish. Can easily and quickly be applied to chassis bases, panels, etc. with brush or spray-gun. Dries in 20 minutes. 2 oz. cans.



- E1950. Black. } EACH
- E1960. Gray. } **24c**
- E1952. Brown. }
- E1951. Black. } **73c**
- 8 oz. can. NET.....
- E1953. Black. } **\$1.32**
- 1 pt. can. NET.....



REPAIR CEMENT

For repairing coils and speaker cones. Kit consists of one can of cement, one can of thinner and a handy brush.

E2930. NET **34c**

FORM-FITTING TUBE SHIELDS

Space-savers. Replace old shields; a pair for spray-shield type tubes. Body consists of two snug-fitting identical half shields with cap and base assuring perfect fit. A clamp and grounding clip are furnished for the large size bulbs.



- E5255. For short tubes with grid caps, as 1A6, 2A7, 3E, 7E, 89, etc.
- E5256. For short tubes without grid caps, as 6Y5, 12A5, 27, 30, 31, etc.
- E5257. For long tubes with grid caps, as 6CG, 6D6, 57, 58, etc.
- E5258. For long tubes without grid caps.

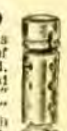
NET EACH **5c**
LOTS OF 10 **45c**

For S14 and 5T14 Bulbs

- E5253. For S14 straight side tubes such as 1A6, 2A7, 3E, 7E, etc.
 - E5254. For S14 dome-shaped tubes such as 2A1, 3E, 2A5, 61A, 26, 45, 71A, etc.
- NET EACH **5c**
LOTS OF 10 **45c**

VENTILATED 3 PIECE SHIELD

For 5T12 bulbs, such as 55, 57, 2A7, etc. Made of aluminum; well-ventilated, with curved-in neck to hold tube. Shell measures 1 1/2" dia. 3 1/2" high. 4 1/2" high overall with cap which is slotted for grid lead. With base and cap.



- No. Mfg. Centers EACH
 - E5260. 1 1/2" h. } **9c**
 - E5261. 1 3/4" h. }
 - E5262. 1 1/2" h. }
- LOTS OF 10 **75c**
LOTS OF 100 **\$6.50**

BAKELITE TUBING

High grade smooth polished bakelite tubing. Natural finish. Excellent insulating properties. Has 3/4" inch wall. Listing below gives inside diameter.



No.	Dia.	PER FOOT	PER INCH
E6471	1"	34c	3c
E6472	1 1/4"	45c	4c
E6473	3/8"	53c	5c
E6474	2 1/4"	61c	6c
E6475	3"	74c	7c
E6476	3 1/2"	80c	8c

We can supply bakelite tubing in practically all sizes and for all purposes; write full details and we shall quote at once.

SOCKETS • PLUGS • CONNECTORS

FAMOUS AMPHENOL TUBE SOCKETS



CLIP-TITE SOCKETS

Made of molded bakelite. May be mounted in any position. Special universal adapter plate with each socket permits quick replacement of any wafer socket.

No.	Prongs	EACH
E4524	4	7c
E4525	5	
E4526	6	
E4527	7S	
E4528	7M	10 FOR 65c
E4529	7S-7M	9c
E4530	8 Octal	
E4531	9 Prong	10 FOR 85c



"MIP" SOCKETS

Strongest sockets made. Sturdy cadmium-plated steel plate is molded directly into solid bakelite body. Withstands higher breakdown voltage. 1 1/2" mfg. centers.

No.	Prongs	EACH
E4506	4	6c
E4507	5	
E4508	6	
E4509	7S	
E4510	7M	10 FOR .54c
E4511	8	EACH .7c
E4512	9	10 FOR .65c
E4513	11 9c
	 12c



CHASSIS TYPE

For chassis hole mounting. With tempered steel locking ring. Molded bakelite with cadmium-plated contacts. Minimum low resistance contact.

No.	Prongs	EACH
E4532	4	6 1/2c
E4533	5	
E4534	6	60c
E4535	7S	
E4536	7M	8c
E4537	7	
E4538	Comb.	10 for 72c
E4539	9	



STEATITE

The ideal socket for Short-Wave receivers and transmitters. New low-loss design of glazed steatite. With universal mounting plate. Silver-plated contacts. A very popular high-quality socket.

No.	Prongs	EACH
E4541	4	24c
E4542	5	
E4543	6	10 for \$2.16
E4544	7S	
E4545	7M	Octal
E4547	7	



ABOVE CHASSIS

Mounted in heavy aluminum shell, which raises the socket 1/4" above chassis and completely shields socket connections. 4 wiring entrances. Sturdily designed and constructed for sure tube connection.

No.	Prongs	EACH
E4522	4	7c
E4523	5	
E4548	6	10 for 65c
E4549	7S	
E4626	7M	9c
E4627	7S	
E4628	8	10 for 85c
E4629	9	

GENUINE EBY SOCKETS



BAKELITE TYPE

One-piece molded black bakelite construction. For baseboard or sub-panel mounting. Sturdy contact guides. 1 1/4" mounting centers.

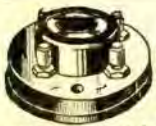
No.	Prongs	EACH
E4000	4	18c
E4001	5	
E4002	6	24c
E4003	5 and 6	
E4004	7M & 7S	26c
E4005	7M (R55)	
E4006	8 Octal	



ISOLANTITE TYPE

Low-loss isolantite sockets which are especially effective on high frequencies. With large, positive rust-proof side-gripping contacts. Oval holes for 1 1/4" to 1 3/4" mounting.

No.	Prongs	EACH	PER 10
E4015	4	29c	\$2.70
E4016	5		
E4017	6	32c	2.97
E4018	7S		
E4019	7M	35c	3.14
E4014	8 Octal		



BASE MOUNT SOCKETS

A molded bakelite socket for panel or baseboard mounting. Rugged diameter, with nickel-plated knurled binding posts.

No.	Prongs	EACH	PER 10
E4515	4	21c	\$1.95
E4516	5		
E4517	6	24c	2.16
E4518	7M		
E4519	7S	26c	2.38
E4520	8 Octal		

PLUG CAP

E3443. Parallel blade type with finger-grip. Brown bakelite. NET **5c**

CUBE TAP

E3409. Made of brown bakelite. Blades hold securely at all times. NET **7c**

HOWARD B. JONES PLUGS AND SOCKETS

These heavy-duty, multiple-contact plugs and sockets are made of molded bakelite with heavily armored metal caps. Excellent for Public Address use. Equipped with metal cable clamps in top of cap.



No.	Contacts	NET
E4588	2	36c
E4589	3	44c
E4590	4	52c
E4591	5	61c
E4592	10	69c
E4593	12	77c

No.	Prongs	EACH
E4594	2	39c
E4595	3	49c
E4596	4	59c
E4597	5	70c
E4598	10	79c
E4599	12	89c

WAFER TYPE SUB-PANEL SOCKETS

High grade wafer type sub-panel tube sockets of laminated bakelite construction. Sturdy and reliable with fully insulated top. Contacts are full-finishing type, self-aligning, and of one piece construction for low resistance connection. Make side-wiring contact with tube prongs. Center rivet securely holds laminations together. Each socket has hole locating ring for quick and easy tube insertion.



STANDARD SIZE

No.	Prongs	EACH	PER 10
E4020	4	5c	45c
E4021	5		
E4022	6		
E4023	7M		
E4024	7S		

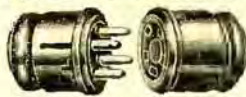
MIDGET SIZE

No.	Prongs	EACH	PER 10
E4026	4	5c	45c
E4027	5		
E4028	6		
E4029	7M		
E4030	7S		

FOR ALL OCTAL BASE TUBES

Similar to sockets above but has 8 holes to fit octal base glass and metal tubes. 1 1/2" mounting centers. E4031. 10 FOR 55c. YOUR PRICE EACH **6c**

SHIELDED CABLE CONNECTORS



Insulated steel cap screws over Clip-Tite socket (see plug); provides perfect electrical shielding. Has rubber grommet in end to protect cable. Assures perfect connection. Diam. 1 1/4"; only 1 1/4" long.

MALE		FEMALE	
No.	Prongs	No.	Prongs
E1630	4	E1635	4
E1631	5	E1636	5
E1632	6	E1637	6
E1633	7S	E1638	7S
E1634	8 Octal	E1639	8 Octal
E1629	9 Prong	E1619	9 Prong
E1624	11 Prong		
10 FOR \$1.35		10 FOR \$1.35	
NET		NET	
EACH 15c		EACH 15c	



TWO PIECE CONNECTORS

Connectors of two piece molded bakelite construction. Sure grip handles; sturdy contacts and pins. For microphones or speaker plugs.

MALE		FEMALE	
No.	Prongs	No.	Prongs
E1807	4	E1813	4
E1808	5	E1814	5
E1809	6	E1815	6
E1810	7M	E1816	7M
E1811	7S	E1817	7S
E1812	8 (Octal)	E1818	8 (Octal)
NET		NET	
EACH 18c		EACH 24c	



LOCKING TYPE METAL SLEEVES

Cadmium-plated steel shells; designed to slip over connectors listed above and screw together.

E1640. Set, 2 pieces. **15c**

Same as above, except that female section has flange to fit under Clip-Tite socket. E1783. Set of 2 pieces. **15c**



CABLE TYPE CONNECTORS

For connecting extension cables together. Cables cannot pull apart; rounded lock securely with threaded ring. In drawn steel shell. Octal type has guide key.

MALE		FEMALE	
No.	Prongs	No.	Prongs
E4550	4	E4556	4
E4551	5	E4557	5
E4552	6	E4558	6
E4554	8 Octal	E4560	8 Octal
10 FOR \$6.55		10 FOR \$6.55	
NET		NET	
EACH 73c		EACH 73c	
E4555. 12 Prong		E4561. 12 Prong	
NET \$1.18		NET \$1.18	

CHASSIS TYPE

Female cable connectors. Contacts provide positive connection.

No.	Prongs	EACH
E4562	4	73c
E4563	5	
E4564	6	
E4566	8 Octal	
E4567	12	Per 10. \$6.55
		EACH. \$1.18

HEAVY-DUTY RUBBER HANDLE PLUGS

Molded bakelite plugs and sockets mounted in unbreakable rubber handles. These plugs and sockets prevent wire breakage. 2 1/2" handles.

PLUGS		SOCKETS	
No.	Prongs	No.	Prongs
E4035	4	E4040	4
E4036	5	E4041	5
E4037	6	E4042	6
E4039	7S	E4043	7M
NET		E4044	7S
EACH 15c		NET	
		EACH 23c	

BAKELITE MALE CONNECTOR PLUG

A sturdy neat two piece molded bakelite connector plug for speaker connections, etc.

No.	Prongs	EACH
E1800	4	15c
E1801	5	
E1802	6	
E1803	7M	
E1804	7S	
E1805	8 (Octal)	

SPEAKER PLUGS

Molded speaker plugs with prongs securely fastened in. Each individual connector is protected with molded insulation to prevent shorts from pushed-back braided. Make fine speaker to chassis connections.

No.	Prongs	EACH
E1790	4	7c
E1791	5	
E1792	6	
E1793	7S	
E1795	8 Octal	
		10 FOR 65c

Quality SWITCHES • JACKS • PLUGS



H & H TOGGLE SWITCHES

Underwriters approved; rated at 3 amps.—125 V., 1 amp.—250 V., Oxidized bronze finish. Threaded stem, 1/16" dia. Supplied with two locknuts. Have libre insulation and solder lug connections. For sets, meters, lamps, etc.

SINGLE POLE SINGLE THROW (2 LUGS)

No.	Stem	EACH	PER 10
E5450	3/8 in.	19c	\$1.80
E5451	1/2 in.	22c	2.05
E5452	1 in.	25c	2.10

SINGLE POLE DOUBLE THROW (3 LUGS)

No.	Stem	EACH	PER 10
E5453	3/8 in.	22c	\$2.05
E5454	1/2 in.	24c	2.20
E5455	1 in.	26c	2.40

DOUBLE POLE SINGLE THROW (4 LUGS)

No.	Stem	EACH	PER 10
E5456	3/8 in.	26c	\$2.40
E5457	1/2 in.	30c	2.70
E5458	1 in.	30c	2.80

DOUBLE POLE DOUBLE THROW (6 LUGS)

No.	Stem	EACH	PER 10
E5459	3/8 in.	39c	\$3.70
E5460	1/2 in.	43c	4.05
E5461	1 in.	45c	4.25



TOGGLE SWITCH PLATE

An inexpensive "on-off" plate for any toggle switch. Has 1/32" shaft hole. Bronze finish.

E5467. NET EACH **2c**
PER DOZ. 18c



H & H ROTARY SWITCHES

Positive contact rotary type power switches rated at 3

amps.—125 V., 1 amp.—250 V. Steel-cased. Shaft is 3/16" long, 1/8" diameter. Threaded stems for panel mounting. Shrouded with locknuts. Underwriters approved.

E5466	Single Pole, Single Throw, 3/8" Stem.	NET 14c
E5462	Single Pole, Single Throw, 1/2" Stem.	NET 17c
E5463	Single Pole, Double Throw, 3/8" Stem.	NET 22c
E5464	Double Pole, Single Throw, 3/8" Stem.	NET 35c
E5465	Double Pole, Double Throw, 3/8" Stem.	NET 40c

H & H ON-OFF PUSH-BUTTON SWITCHES



S.P.S.T. metal plunger type. Press plunger and circuit locked closed; press again and circuit opens. Will handle 250 V. at 3 A.

Threaded stem 1/2" long with lock nuts. Ideal for test equipment.

E5720. EACH **27c**
10 FOR \$2.43

BAKELITE BUTTON TYPE

Same as metal plunger type above, but fitted with concave snap-on bakelite button in red or black.

E5721. RED. **35c**
E5722. BLACK. EACH **35c**
10 FOR \$3.15



EBY SLIDE-TYPE SWITCHES

Slide-type switch with silver-plated bronze contacts. Phenolic insulation.

E4171. S.P.S.T. NET 24c
E4172. S.P.D.T. EACH **29c**
E4173. D.P.S.T.

MIDGET KNIFE SWITCHES



For panel or base mount. Nickel-plated blades and contacts; bakelite base. Reliable switches.

E6515	S.P.S.T.	1/2"x1 1/4"	11c
E6516	S.P.D.T.	3/8"x1 1/4"	15c
E6519	D.P.S.T.	1"x1 1/4"	21c
E6517	D.P.D.T.	1"x1 1/2"	24c

MIDGET PORCELAIN KNIFE SWITCHES



Neat and compact, mounted on glazed porcelain base. Screw terminals.

E1275	S.P.S.T.	1"x2 1/4"	10c
E1276	D.P.S.T.	1 1/2"x2 1/4"	17c
E1277	S.P.D.T.	1"x2 1/4"	12c
E1278	D.P.D.T.	1 1/2"x2 1/4"	19c
E1279	3 P.D.T.	2 1/2"x2 1/4"	49c

MIDGET BAKELITE KNIFE SWITCHES



Suitable for many uses in experimental work. These switches have bases of polished bakelite with blades and low-resistance contacts of nickel-plated brass.

No.	Pole	Throw	NET
E4160	Single	Single	\$0.32
E4161	Single	Double	.38
E4162	Double	Single	.44
E4163	Double	Double	.50
E4164	3	Single	.88
E4165	4	Single	.94
E4166	5	Single	1.29
E4167	4	Double	1.32
E4168	5	Double	1.32

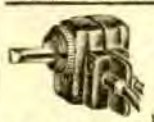


PUSH-BUTTON SWITCHES

Cadmium-plated contacts. Non-corrosive. Fully insulated. Bakelite knob. 1/2" hole mounting.

Locking type makes contact with knob pushed in. Non-locking type with knob pushed in; returns to open when knob is released.

Locking Type	Non-Locking Type	NET EACH
E8960	S.P.S.T.	E8964 53c
E8961	D.P.S.T.	E8965 71c
E8962	S.P.D.T.	E8966 59c
E8963	D.P.D.T.	E8967 88c



G. E. ROTARY A. C. SWITCH

With 8" insulated lugs.

Rated 3 amps., 125 volts. Shift extends 1/2 in. Underwriters' approval E2915.
10 Lots, 80c. EACH **9c**

NEW FEDERAL ANTI-CAPACITY SWITCHES



The original Anti-capacity switches in new improved types. Springs and contacts of silver-plated phosphor bronze. Phenolic insulation.

E4155	D.P.S.T.	NET EACH
E4156	D.P.D.T.	\$1.65
E4157	4 P.D.T.	\$1.90



TEST BUZZER BUTTON

Pearl button held in by spring clasp. Has many uses.

E3977. NET **12c**

YAXLEY GANG SWITCHES

For test equipment and general radio and laboratory work. Switches have 1 fixed and 1 adjustable stop. Rigidly built. Have laminated bakelite insulation and phosphor-bronze springs. 2 gang switches are spaced 1/2"; 3 gang are 1" between gangs. Notched 2" shaft may be easily shortened. Require 3/16" mounting hole. Complete with bar knob, but less dial plate.



SINGLE GANG SWITCHES

Shorting Type	Non-Shorting Type	Poles	Pos.	List Each	NET EACH
E11950	E11955	1	1-6	\$1.00	\$0.59
E11951	E11956	1	1-11	1.15	.68
E11952	E11957	2	1-5	1.25	.73
E11953	E11958	3	1-3	1.35	.79
E11954	E11959	4	1-2	1.45	.85

TWO GANG SWITCHES

E11960	E11965	2	1-6	\$1.60	\$0.94
E11961	E11966	2	1-11	1.75	1.03
E11962	E11967	4	1-5	2.00	1.18
E11963	E11968	6	1-3	2.10	1.23
E11964	E11969	8	1-2	2.25	1.32

THREE GANG SWITCHES

E11940	E11943	3	1-6	\$2.20	\$1.29
E11941	E11944	3	1-11	2.35	1.38
E11942	E11945	6	1-5	2.50	1.47



YAXLEY 17 POINT TAP SWITCH

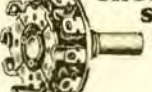
For multiple switching. Arm shorts between contacts. Laminated bakelite; phosphor-bronze springs. 2" notched shaft. Size, 1 1/2" x 1 1/2". With knob; less dial plate.



YAXLEY SWITCH PLATES

For switch, tone or volume control use. Have 3/8" center hole.

E11993. NET **79c**



SHORT WAVE SELECTOR SWITCHES

Designed for the new sets having two in five wave bands. Self-wiping contacts of shorting type. Bushing 3/8" dia. With 3/8" x 1/2" steel shaft. Laminated bakelite insulation. With nut and lock washer.

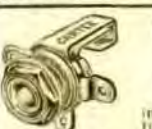
No.	Gangs	Poles	Pos.	NET
E4070	1	5	5	\$0.38
E4071	1	4	2	.38
E4072	1	2	5	.64
E4073	2	4	5	.94
E4074	3	4	5	1.15
E4075	4	5	5	1.58

INDUCTANCE SWITCHES



A well made compact switch. Used in test equipment, etc. Nickel-plated type with pointer knob. 3/8 in. hole mtg.

No.	Points	EACH
E8950	3	38c
E8951	5	45c
E8952	7	45c
E8953	9	45c
E8954	12	45c



MIDGET SHORT JACKS

3/8 in. mounting, heavy bakelite insulators.

E8982. No. 1. Open Circuit. Output type. **14c**
NET
E8983. No. 2A. Single Closed Circuit type. **14c**
NET



CARTER FLAT PLUG

Popular flat plug. Only 1/16 in. dia. 3/8 in. thick. Ideal for wall plate connection. Cord tips held tightly by screws. Polarity shown. Molded bakelite.

E8956. YOUR PRICE **38c**

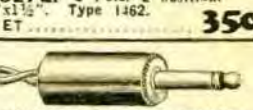


CENTRALAB TONE SWITCHES

Fines tone switches for use in any circuit. 2 to 8 shaft 3/8" x 2 1/4"

may be cut to any length; milled flat. Shorting type teeth. Current capacity, 1 amp. at 0 volts.

E3270. 1 Pole, 2 position. 1"x1 1/2". Type 1460. **29c**
E3271. 1 Pole, 3 position. 1 1/2"x1 1/2". Type 1461. **29c**
E3272. 2 Pole, 2 position. 1"x1 1/2". Type 1462. **35c**
NET



DOUBLE PHONE PLUG

Molded black bakelite. Hard-wear brass nickel-plated. Takes 2 sets of cord tips. **19c**



FLAT TYPE PHONE PLUG

Automatic, nothing to take apart; just push in cord tips and plug is ready for use. **12c**



SWITCH LOCK

For automobile radios, etc. Key withdraws only in locked position. Nickel-plated 3/8 inch body diameter. Switch is not grounded. Has tumbler lock. With two keys. Single pole, two terminals. Controls one circuit. **49c**

E2905. NET **49c**

JACKS · PLUGS · CLIPS · CONNECTORS

BINDING POSTS

EBY JUNIOR

Insulated posts with non-removable standardized lugs. Dia. $\frac{3}{16}$ " Screw is $\frac{1}{8}$ " long.

E4050. Ant. 10c
E4051. Gnd. 10c
E4052. Inset. 10c
E4056. Plain. 10c
E4053. Output. 10c
E4054. 10c
E4055. 10c

List. 10c. NET EACH. 10c
PER DOZ. \$1.10

COMBINATION

Top section will receive any standard banana type wire; screw part will take phone tip or wire. 1/2" long top.

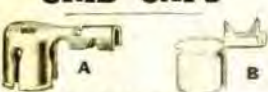
E6325. RED. 7c
E6326. BLACK. 7c
Doz. 75c. EACH. 7c

EBY TWIN

Consists of standard Ant. and Gnd. Eby posts mounted on laminated or molded bakelite strips. 2 in. long. $\frac{3}{16}$ in. wide. Insulated posts.

E4058. Molded bakelite strip. NET. 35c. 21c
E4059. Laminated bakelite strip. NET. 25c. 14c

GRID CAPS



STANDARD

Secure contact spring plug. Type A is for standard tubes; Type B is for four metal tubes.

E6334. Type A. 1c
E6335. Type B. EACH. 8c
12 FOR. 8c

COMBINATION

Reversible type cap designed to fit glass and metal tubes. Flare 11" leads with standard phone tin.

E6328. Red. 12c
E6329. Black. EACH. 12c

INSULATED

Well-made spring tip in a slip-on colored composition insulating sleeve. $\frac{3}{16}$ inch wide leads. Will fit all glass tubes. Make sure contact.

STANDARD For 866 TUBE
E6330. RED. E6332. 11c
E6331. BLACK. E6333. 11c
PER DOZ. 65c. PER DOZ. \$1.25.
NET. NET
EACH. EACH. 11c

BATTERY BINDING POST

Quickly adapts the wire directly behind the rubber of the battery. Has a sliding screw for connecting lead wire.

E6341. NET. 18c

PLUG BUTTONS

Plated brass buttons for covering or drilled holes in panels, chassis, etc., of any metal up to $\frac{1}{8}$ " thickness. Fits at base as one firm grip.

No.	Size Dia.	Each	TEN
E3964	$\frac{1}{8}$ "	2c	15c
E3965	$\frac{1}{4}$ "	2c	20c
E3966	$\frac{3}{8}$ "	3c	24c
E3967	$\frac{1}{2}$ "	3c	24c
E3968	$\frac{3}{4}$ "	5c	42c

TWIN JACKS



LAMINATED TYPE

FIG. A. Of laminated bakelite construction, with anti-rust contact springs. Easy to mount. Ideal for headphones, phonograph or speaker connections. 2" x $\frac{1}{2}$ ".

E4061. SPEAKER. 6c
E4062. PHONO. 6c
E4063. PLAIN. 6c
10 FOR 55c. EACH. 6c

TRIPLE TIP JACKS

Laminated bakelite. For microphones, speakers, etc.

E4068. Plain. 7c
10 FOR 61c. EACH. 7c

MOLDED TWIN JACKS

FIG. B. Of molded bakelite; attractive, durable. 2" x $\frac{1}{2}$ ".

E4064. Speaker. 15c
E4065. Phono. 15c
E4066. Plain. EACH. 15c

SHORTING TYPE

Particularly designed for use in point-to-point analyzers. Circuit automatically closes when coil files are removed. Suitable for mounting wire. Resembles FIG. B.

E4067. YOUR PRICE. 18c



MOUNTING STRIPS

Handle insulated strips to support resistors, junction connections, etc., on metal chassis to prevent grounding and shorting.

NO.	LUGS	EACH	TEN
E6305	2	3c	22c
E6306	3	3c	24c
E6307	4	5c	34c
E6308	5	5c	44c
E6309	6	5c	44c

TERMINAL STRIPS

Bakelite strips with support lugs. Wire mounted on these strips. General purpose terminal strip.

No.	Term.	Each	TEN
E6311	12	9c	\$0.70
E6312	12	12c	1.05
E6313	12	15c	1.35
E6314	12	19c	1.65
E6315	12	23c	1.95
E6316	12	27c	2.25
E6317	12	31c	2.55
E6318	12	35c	2.85
E6319	12	39c	3.15
E6320	12	43c	3.45
E6321	12	47c	3.75

INSULATED TIE

Has a built-in screw. Provides a convenient tie point for resistors, bypass capacitors, etc. Tag with hole for easy mounting.

E6513. 10 FOR. 19c
LOTS OF 100. \$1.10



FAHENSTOCK CLIPS

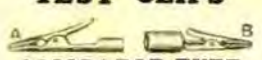
E6320. Single, 1" long. 11c
NET PER DOZ. 11c
E6321. Single, $\frac{3}{4}$ " long. 10c
NET PER DOZ. 10c
E6322. Double, $\frac{1}{2}$ " long. 26c
NET PER DOZ. 26c
E6323. Double, $\frac{1}{4}$ " long. 25c
NET PER DOZ. 25c

Rubber Handle Cap

Unbreakable soft rubber attachment plug. Fits over brass blades. Approved type.

E3978. NET. 4c
Per 10. 35c

TEST CLIPS



ALLIGATOR TYPE

Long, thin-insulated clips easy to get into tight places. Handy for all test instruments. Back of clip fits all banana plugs. Size 1 1/2" long.

E6317. FIG. A. 2" long. Per Doz. 38c.
100 Lots. \$3.15
NET EACH. 4c

E6318. FIG. A. 2 1/4" long. Per Doz. 54c.
100 Lots. \$4.25.
NET EACH. 5c

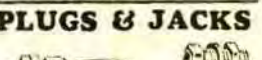
INSULATED TYPE

FIG. B. 2 1/2" long. E6337. RED. 7c
E6338. BLACK. 7c

Per Doz. 80c. EACH. 7c
FIG. B. 3 1/2" long. E6339. RED. 10c
E6340. BLACK. 10c

Per Doz. \$1.08. EACH. 10c

PLUGS & JACKS



BANANA TYPE

E6342. FIG. A. New type plug, with lined spring-brass plug-in prong. Ideal for use with any test equipment. 1 1/4" long.

Per Doz. 38c. 4c
100 Lots. \$3.15. EACH. 4c

E6343. FIG. B. Nickel-plated lines jack to fit above plug. Complete with lug and nut. 1 1/4" long.

Per Doz. 38c. 4c
100 Lots. \$3.15. EACH. 4c

INSULATED TYPE

PLUGS JACKS
FIG. C FIG. D
E6345. RED. E6347
E6346. BLACK. E6348

Per 100 Ass'd., \$4.55.
Per 10 Ass'd., 48c.
NET EACH. 6c

SPLIT TYPE BANANA PLUGS

FIG. A. New type plug with split groove, giving much tighter contact between plug and jack. Will mount on wider range of jacks service than any other plugs.

E6350. Doz. 38c. 4c
100 Lots. \$2.95. EACH. 4c

INSULATED TYPE

E6351. RED. FIG. B. 8c
E6352. BLACK. FIG. B. 8c

Doz. 85c. EACH. 8c

BABY BANANA PLUGS AND JACKS

A new small banana plug and jack in a size especially for coil mountings. Made of hard brass, nickel-plated.

E6354. PLUG. Per Doz. 38c.
Per 100. \$3.15. 4c
NET EACH. 4c

E6355. JACK. Per Doz. 38c.
Per 100. \$3.15. 4c
NET EACH. 4c

INSULATED TYPE

PLUGS JACKS
E6357. RED. E6359
E6358. BLACK. E6360

Per Doz. 57c. 6c
Per 100. \$4.55. 6c
NET EACH. 6c

TIP JACKS



E6362. FIG. A. Nickel-plated

tip jacks requiring a minimum of panel mounting space. Fit on a 2-wire phone or speaker cord line ready for positive connection. Requires only $\frac{1}{4}$ " mounting hole. Will fit panels up to $\frac{3}{4}$ " thick. Wt. 2 oz.

Per Doz. 30c. EACH. 3c

E6363. FIG. B. Heavy spring contact with positive action. Short, compact type for limited space. Requires $\frac{1}{4}$ " mounting hole. Will fit panels up to $\frac{3}{4}$ " thick.

Per Doz. 30c. EACH. 3c

INSULATED TYPE

New type wire-grid contacts for smooth positive action. Insulated head and shoulder washer. Ideal for use on metal chassis or panels for headphones or speaker output, or for test equipment. FIG. C.

E6364. RED. EACH
E6365. BLACK. EACH
Per Doz., 57c. 6c
100 Lots. \$4.55. 6c

Banana Plug or Tip Jack

FIG. D. A new insulated jack arranged to take either standard phone tips, or the new popular banana type plugs. Insulated head and shoulder washer. $\frac{1}{4}$ " high.

E6367. RED. EACH
E6368. BLACK. EACH
Per Doz., 85c. 8c
100 Lots. \$6.50. 8c

Yaxley Colored Tip Jacks

2 in a package. Bakelite caps, one red, one black, insulated type. Fits $\frac{3}{16}$ " hole. Spring contact with solder lug connections. Takes standard cord tin.

E4069. Per set of 2. 15c
List. 25c. NET. 15c

IMP PLUGS

E6370. FIG. A. A budget plug with screw-on solderless connection. Fits all standard tip jacks.

Per Doz. 25c. 4c
100 Lots. \$2.85. 4c
NET EACH. 4c

INSULATED TYPE

E6371. RED. EACH
E6372. BLACK. EACH
Per Doz., 57c. 6c
100 Lots. \$4.55. 6c

CORD TIPS

FIG. A. Practical new design. Hole in side allows a quick and easy connection to be made; just insert wire and apply solder to lead.

E6373. Per 100. 72c. 8c
E6374. Per 10. 72c. 8c

FIG. B. Standard size tin, $\frac{1}{4}$ " long. Solderless screw-on connection. Of nickel finished brass.

Per 100. \$2.45. 3c
E6375. EACH. 3c

FIG. C. Standard nickel-plated brass cord tips; will fit any regular tip jack.

E6376. Per 100. 50c. 6c
E6377. Per 10. 50c. 6c

FUSES · BATTERY CLIPS · HARDWARE

MUELLER BATTERY CLIPS



Strong channel construction. No solder required. For screw or lug connections. 5 and 10 amp. types cadmium-plated; balance lead-coated steel.

MESH TEETH TYPE
E6500, PEE-WEE. 1 1/2" long. 5 amp. No. 45. 7 lb. spring. Jaw spread, 3/8".

EACH, 4c. Box of 10... **29c**
E6501, PEE-WEE. 2" long. 10 amp. No. 48H. 10 lb. spring. Jaw spread, 1/2".

EACH, 5c. Box of 10... **32c**

NEW WEE-PEE-WEE TYPE



E6509, No. 88. 1 1/2" long. Jaw spread, 3/8". Ideal for close-wound coils.

EACH, 8c. Box of 10... **59c**
E6510, No. 85 clip with rubber insulator. Per Pair, 1 Red, 1 Black. NET, 24c.

Box of 10 (5 pair) ... **88c**



GRIP TEETH TYPE

E6502, 2 1/2" long. No. 21A. 17 lb. spring. Spread, 1".

EACH, 8c. Box of 10... **59c**
E6503, 4" long. No. 21A. 10 lb. spring. Spread, 1 1/4".

EACH, 16c. Box of 10... **\$1.08**
E6504, 6" long. No. 11A. 13 lb. spring. Spread, 1 1/4".

NET EACH... **42c**

SOLID COPPER CLIPS

For H.F. work. Non-toxic. 1 1/2" long. 10 amp. Spread 3/4".

E6480, Type 45-C. **54c**



ALLIGATOR CLIPS

Small clips with slender elongated jaws. Screw terminals; with barrel ends to fit banana plugs.

E6477, EACH... **6c**
100 Lots, \$3.43. Per 10... **39c**

RUBBER INSULATORS

For above clips. Protect against electric short. Finished in pairs of 1 red and 1 black.

No. For Clip Per Pair 5 Pairs
E6485 45. 10c \$0.14 \$0.52
E6486 48B. 17. 63
E6487 21A. 34. 1.37
E6488 21A. 59. 2.30
E6489 11A. 1.19. 4.10
E6481 85. .08. .28

SPECIAL VALUE BATTERY CLIPS

Exceptionally low priced, high quality battery clips with heavy non-corrosive finish. Have strong springs and will give long, dependable service.

E6400, 1 1/2" long. Jaw spread, 7/8". 10 for 25c. **3c**

E6401, 2" long. Jaw spread, 1". 10 for 28c. **3c**

E6402, 2 1/2" long. Jaw spread, 1 1/4". 10 for 42c. **5c**

E6403, 3 1/2" long. Jaw spread, 1 1/2". 10 for 60c. **7c**

LITTELFUSES FOR TEST INSTRUMENTS

Designed especially for the protection of delicate instruments. Glass encased units, 1x1/4". High-speed action with short time lag. For use on A.C. or D.C. up to 250 volts.



Cat. No.	Rat. IRR Amps.	Max. Load M.A.	Aver. Res. 5 M.A. Load	NET EA.	NET PER DOZ.	Use to Protect Milliam-		
						Voltmeters Ohms per Volt	All Magnetic Types	Therm-Couple Types
E6241	1/200	5	500	18c	\$1.95	Over 1000	Galv.	0-5
E6230	1/100	10	110	12c	\$1.32	1000	Up to 0-1	0-10
E6232	1/30	25	20			500-1000	0-10	0-25
E6232	1/10	60	0			100-500	0-25	0-50
E6233	1/8	100	1.5			0-75	0-115	
E6234	1/8	100	3.0	9c	\$1.00	20-100	0-75	0-115
E6235	1/4	200	0.2			10-20	0-150	0-200
E6236	3/8	300	0.0			3-10	0-250	0-300
E6237	1/2	400	2.5			3-5	0-350	0-400
E6238	3/4	600	4.0	6c	65c		0-500	0-600
E6239	1	1000	24			0-750	0-1000	
E6240	2	2000	14			0-1500	0-2000	

LITTELFUSES FOR RADIO AND AMPLIFIER

For use in 105-120 volt primary line. Underwriters' approved. 1 1/4 x 1/4".

Cat. No.	Amp.	Volts	NET EA.	NET PER DOZ.
E6242	1	250	5c	50c
E6243	1 1/2	250	5c	50c
E6244	2	250	5c	50c
E6245	3	250	5c	50c



FUSE MOUNTINGS

Black molded bakelite mountings for Test Instrument Littelfuses. Have single hole mount.

E6250, PER DOZ., 50c. EACH... **9c**

E6251, Panel type mounting. PER DOZ., \$1.30. EACH... **12c**

E6255, "Never Back" mounting. Size: 1 1/4" x 1/4". PER DOZ., \$1.30. EACH... **12c**



METAL-COVERED MOUNTINGS

These metal-covered 3AG fuse mountings are designed for use on the new metal tube radio sets. Approved by the underwriters. Cadmium-plated shell with bakelite base. Size, 3/8" x 1/4" x 3/16" mounting screws spaced at 2 1/4" mounting centers.

E6257, EACH... **12c**
PER DOZ. \$1.30



SOLDERING LUGS

No.	Style	No. Screw Size	PER BOX OF 100
E7045	1	6, 8	18c
E7046	2	6, 8	
E7047	3	6, 8	
E7048	4	6, 8	
E7049	5	6, 8	18c
E7018	4	10	
E7023	4	1/4"	

TUBULAR RIVETS

For replacement and repair work. May be used with any standard flat tool. Tool listed on page 141 is ideal. Much faster than screws and nuts.

E6393, PER 100 PER 25... **10c**
E6394, PER 100 PER 25... **11c**
E6395, PER 100 PER 25... **15c**

EYELETS FOR ABOVE

Designed to fit above rivets.

No.	Size	PER 100 PER 25
E6396	3/8"	28 10c
E6397	1/2"	29c 11c
E6398	5/8"	38c 15c

EXTRACTOR FUSE POST

A compact, molded bakelite fuse holder. Underwriters' approved. Designed to hold type 3AG fuses. Will take panels up to 3/4" thick. Requires 3/4" mounting hole.

E6259, NET... **24c**
E6259, For Test Instrument Littelfuses above. NET EACH... **24c**

FUSE CLIPS

Single hole mount for 1/4" x 1/4" or radio tubular fuses.

E6253, EA... **2c**
PER DOZ. ... **15c**

FUSE RETAINER

Cadmium plated sensitive metal container for fusing a fuse. Used extensively for auto sets. Takes No. 1-5 fuses.

E6252, EACH... **8c**
PER DOZ. ... **80c**

SHAKEPROOF WASHERS

Sturdy, efficiently designed steel washers that cannot come loose. Indispensable for glass, workmanlike connections. Make use of them where you need secure connections.

E7088, For 5-32 screws. E7089, For 8-32 screws. 100 for 25c. PER 25... **7c**

RUBBER BUMPER FEET

These rubber feet have standard 6/32 screw. Provide steady, solid footing in cabinets, etc., without marring other furniture.

E7092, NET EACH... **2c**
PER 100... **18c** PER 50... **75c**

SWITCH POINTS AND STOPS

Solid brass. Heavily nickel-plated with 1/4 in. x 6-32 nut.

Switch points. E7003, PER DOZ. **8c**
Switch stops. E7004, PER DOZ. **8c**

BUSS QUALITY FUSES

TYPE 3AG

Tubular fuses. Completely made. Size is 1 1/4 in. x 3/8 in. Protect radio sets, test instruments, etc.



No.	Amp.	No.	Amp.
E6010	1 1/2	E6015	5
E6011	2	E6016	10
E6012	3	E6017	15
E6013	4	E6018	20
E6014	5	E6019	25

Box of 3... **14c**
PER HUNDRED... **\$2.65**

Fractional Sizes

E6020, 1/4 Amp. Box of 5. **45c**
E6021, 1/2 Amp. Box of 5. **45c**
E6022, 3/4 Amp. Box of 5. **45c**
E6023, 1 Amp. Box of 5. **45c**

CADMIUM-PLATED MACHINE SCREWS

Standard thread, good quality.

6-32 ROUND HEAD

No.	Length	Gross
E7010	3/8"	16c
E7011	1/2"	17c
E7012	5/8"	20c
E7013	3/4"	24c
E7014	7/8"	31c
E7015	1"	35c
E7016	1 1/8"	35c
E7017	1 1/4"	95c

8-32 ROUND HEAD

E7019, 3/8" length... **23c**
E7020, 1/2" length... **28c**
E7021, 5/8" length... **32c**
E7022, 3/4" length... **52c**

METAL TAPPING SCREWS

Cut their own threads in metal as they are turned in by screw driver. May be used with all sheet metal up to No. 16 gauge.

SIZE 6
E7035, 30c
E7036, 32c
E7037, 35c
E7038, 37c
E7039, 40c

SIZE 8
E7041, 34c
E7042, 36c
E7043, 38c
E7044, 40c

ORNAMENTAL HEAD SCREWS

Socket head; statutory finish; size 8-32 (1/4" head dia.)

PER 100 PER 25 PER 10 PER 5
E7000, 1" length... **8c**
E7001, 1 1/4" length... **9c**
E7002, 1 1/2" length... **10c**

LUG SCREWS

For mounting shield cans, etc. Cadmium plated, 6-32 thread.

E7007, PER 100, 33c. PER 10, NET... **5c**

HEXAGONAL NUTS

Standard 1/4" nuts, accurately machined from cadmium-plated steel. Shp. wt. 1/4 lb.

E7005, 6-32. **18c**
E7006, 8-32 PER 100... **18c**

ESCUTCHEON SCREWS

These long wood screws fit every type of escutcheon plate.

E7040, Gross... **29c**

RACK SCREWS & WASHERS

Standard 10/32 thread screws with oval heads for use in racks and panels. Length: 3/4".

E7090, 12 for... **3c**
E7091, Rack top washers for above screws, 12 for... **3c**

QUALITY TOOLS & HARDWARE

RADIO HARDWARE



ALL-PURPOSE ASSORTMENT

An indispensable item for the serviceman, experimenter, etc. This beautifully finished metal case has 12 compartments containing assorted machine screws, nuts, slide bolts, self-tapping screws, rubber grommets, knob set screws, rivets and eyelets, nuts, plain and fibre washers, etc.—for every need.

E7094. NET \$1.76

1000 PIECE HARDWARE ASSORTMENT



A bargain assortment that will prove invaluable to any serviceman or experimenter. Contains rivets, screws, washers, brackets, soldering lugs, etc.—1,000 pieces of useful hardware.

E7008. YOUR PRICE .95c

SCREW ASSORTMENTS



For all radio service and set-building needs. Each kit contains 85, 6-32 screws of assorted lengths.

E7031. No. 1 Kit. 85 round-head screws. E7032. No. 2 Kit. 85 flat-head screws. EACH KIT 23c

FIBRE WASHER ASSORTMENT



A large variety of shouldered and plain fibre washers. Very useful. 100 in box.

E7033. PER BOX. 26c

BRACKET ASSORTMENT



Consists of 28 popular-sized angles and brackets for radio work.

Nickel-plated brass. Shpg. wt., 1 lb. **E7009. YOUR PRICE .24c**

SET SCREW ASSORTMENT



Handy replacement set screws for knobs. Consists of 120 assorted sizes, 6-32, 8-32, 10-32, 12-32.

From 1/4" to 3/4", 1 1/2" diameter. Nickel-plated brass cabinet. **E7093. \$1.32**

INSULATED GROMMETS



Prevent wires from fraying or breaking. Well-made new type bushings.

Stock No.	Fits Hole	Inside Diam.	Per Doz.
E7024	1/8"	3/16"	52c
E7025	3/16"	1/4"	53c
E7026	1/4"	5/16"	70c
E7027	5/16"	3/8"	82c

RUBBER GROMMETS

For insulating holes in metal chassis plates. For metal stock about 1/8 in. thick.

Stock No.	Fits Hole	Inside Diam.	Per Doz.
E7028	1/8"	3/16"	9c
E7029	3/16"	1/4"	19c
E7030	1/4"	5/16"	21c

NEW AC-DC ELECTRIC SPEED DRILL

Here is a high-quality electric speed drill at a remarkably low price. Very rugged construction, yet light in weight and easy to handle. The efficient motor is designed for long life. The sturdy chuck assembly will accommodate up to and including a 1/2" drill. Pistol-grip handle has a thumb-controlled switch. High speed drills on page 14 are ideal for use with this drill. 1500 R.P.M. Drills 3/8" from corners. For 110 V. A.C. or D.C. With 7 foot cord, Wt., 4 1/2 lbs.



E2110. NET \$7.45

Triple A. C. Extension



Handy triple electric outlet. Of live rubber. With 10 foot cord. Special plug provides added outlet. **E3422. NET 48c**

A.C. TRI-EXTENSION



A small, handy, three-way extension tap of molded bakelite. A steel plate fastened on back reinforces construction. Has a foot approved brown rubber cord and bakelite handle cap. A very useful item. **E3426. NET 24c**

EAGLE INDICATING FUSES



New type fuse which shows "OK" in window when fuse is good; "OK" vanishes when fuse blows.

Stock No.	Amp.	Price
E3995	10 Amp.	5 FOR 20c
E3996	15 Amp.	
E3997	20 Amp.	
E3998	25 Amp.	
E3999	30 Amp.	

FRICTION TAPE



Made of good quality fabric impregnated with adhesive of heavy composition. With high insulation qualities. Easy to apply; will not dry out.

E7705. 2 oz. roll. NET .6c
E7706. 4 oz. roll. NET .9c
E7707. 8 oz. roll. NET .17c

SCOTCH ELECTRIC TAPE

A tough, flexible, electric tape with extremely high insulation rating. Neutral paper backing with touch sensitive adhesive coating. Will stick to any surface 1/2" wide 10 Yard Roll.

E7708. YOUR PRICE .29c

ANGLE BRACKETS WITH TAPPED HOLES



Ideal for assembling chassis, cabinets, etc. Have 1/8" x 8-32 tapped hole and our 3/8" diameter plain hole. Cadmium-plated steel.

No.	Size	10 For
E1663	1 1/2"	16c
E1664	2"	23c
E1665	2 1/2"	

CABLE CLAMPS



The 3/4" size fits 1/4" cable; 1" size fits 1/2" cables. Made of heavy-gauge steel, cadmium-plated. Have a No. 6 mounting hole.

E1666. 3/4" long. 6c
E1667. 1" long. 10 for. 54c
E1668. 100 for. 54c

POLISHING HEAD OUTFIT



A complete polishing kit for home or shop. By using a 3/8" to 1/2" horse-power motor, it makes an efficient outfit for polishing, grinding, buffing, sawing, or drilling. Consists of polishing head and chuck, saw table and guide, cotton buff, wire brush, saw, emery stone, leather belt, polishing compound, and 1 steel drill. Head has a two-speed pulley. Chuck has a capacity of 7/8". The 4-spring controlled cam-hardened chuck jaws hold drill in dead center. The two steel flanges are rolled flat so as to hold stones, scratch brushes, etc., squarely against material being worked. Finished in red enamel. Wt., 8 lbs. **E2111. Complete Outfit. NET \$3.35**

TOUCH-UP SPRAYER

Ideal for painting panels, cabinets, furniture, autos, etc. This sprayer is designed to operate efficiently from a very low pressure source such as a spare automobile tire. It is equipped with an air-tight brass valve, an adjustable brass spray tip, a rubber hose, and a pump air.



E2113. NET 59c

TAP AND DIE SET



Supplied with the most popular size dies for general purpose use. Wooden box contains three cutting dies—1/8", 3/16", and 1/4"—with plug and hand taps to match; a tap wrench; and a die holder. All parts are of the finest tool-tempered steel, showing long life. Shpg. wt., 3 lbs. **E2114. S.A.E. Thread. E2115. U.S.S. Thread. YOUR PRICE \$1.25**

RADIO REPAIR LITE



A handy tool designed to save time and trouble. It provides plenty of light where you want it. Fourteen size. Operates from 110 volts A.C. or D.C. **E1668. NET 88c**

MORRIS COIL WINDER



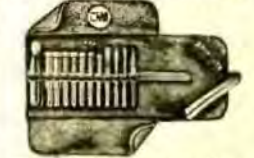
Will wind Honeycomb, Solder Web, Solenoid coils, etc., in different widths and diameters and will handle wire of different gauges. Makes precision coils that equal factory accuracy. Has recorder with adjustable pointer for counting number of turns. An ideal machine for the experimenter or small factory. Shpg. wt., 4 lbs. **E9302. NET \$4.35**

RADIO TOOL CHEST



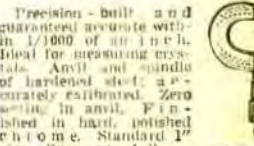
This handy chest contains 10 handy, sturdy tools for the service man or set builder. Consists of: 3" and 5" screwdrivers, scriber, reamer, countersink, pliers, center-punch, socket wrench sets for hexagon and knurled nuts, and 3 hexagon nut wrenches from 1/4" to 3/4". An ideal tool set for the radio serviceman, experimenter, amateur, etc. Shpg. wt., 2 lbs. **E7691. NET \$2.25**

SPINTITE WRENCH SET



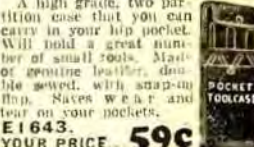
This extra-line quality kit is a very useful and necessary part of the serviceman's and experimenter's equipment. It will meet the need of any repair job and when rolled up, can be conveniently carried in a toolbox or analyzer compartment. Outfit includes: 4 screwdrivers with 3/8", 1/2", and 5/8" blades; 1 universal handle and chuck; 7 spintite hexagon wrenches: 3/16", 1/4", 5/16", 3/8", 1/2", 5/8", and 3/4"; 1 reamawl. Complete in durable leatherette roll. Shpg. wt., 3 lbs. **E2116. NET \$4.05**

G-L MICROMETER



Precision-built and guaranteed accurate within 1/1000 of an inch. Ideal for measuring cross-holes. Anvil and spindle of hardened steel; accurately calibrated. Zero setting in anvil. Finished in hard, polished chrome. Standard 1" size. Shpg. wt., 1 lb. **E7736. NET 98c**

POCKET TOOL CASE



A high grade, two partition case that you can carry in your hip pocket. Will hold a great number of small tools. Made of genuine leather. Double sewed, with snap-on flap. Saves wear and tear on your pockets. **E1643. YOUR PRICE 59c**

BLOW TORCHES • PLIERS • SCREW DRIVERS

SCREWDRIVERS



NON-SKID SCREWDRIVER

Shock-proof, with ribbed points. Handy fountain pen style with clip. American-made.
E7712. 3-inch blade. **12c**
 10 for \$1.08. Each
E7711. 2-inch blade. **11c**
 10 for 99c. Each
E7710. 1½-inch blade. **10c**
 10 for 90c. Each



FIRM-GRIP SCREWDRIVERS

Forced chrome-vanadium alloy steel blades, accurately ground to fit screw slot; tough; hammer-proof. Amberite handles. American-made.
E7715. 3 INCH BLADE. **30c**
YOUR PRICE
E7716. 6 INCH BLADE. **38c**
YOUR PRICE
E7717. 8 INCH BLADE. **42c**
YOUR PRICE



INSULATED BLADE TYPE

10,000 volt insulated 5-inch screwdriver. Red and black composition handle. High quality steel blade insulated almost entire length. American-made.
E7718. YOUR PRICE **14c**

MIDGET SET SCREWDRIVER



Especially shaped to fit into set screws of knobs, and to balance trimmers. Overall length, 4½". Specially hardened blade, 2¼" long. Transparent amber handle 2¾" long x ¾" diam. Complete with pocket clip.
E1604. 10 for 81c. EACH **9c**

HANDY LOW COST SCREWDRIVER KIT

A popular kit of three screwdrivers in the most useful sizes. Comes in convenient leatherette holder for shop wall mounting. Each screwdriver has insulated handle and finger guard. Blades measure 5½", 3¾", 2¾". American-made. This is one of our most popular tool kits. A very fine value.
E7719. NET PER SET **38c**

FLEXIBLE SHAFT SCREWDRIVER

Here is a screwdriver that will eliminate a lot of damaged knuckles. Special flexible shaft allows its use in many awkward places where another screwdriver couldn't reach. Has insulated movable screw locator, fluted molded handle. 5¾" long.
E7739. YOUR PRICE **88c**

GRIP-IT SCREW HOLDERS

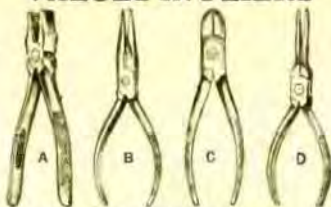
A simple easy attachment that will make any screwdriver a screw-holding type. Simply slip on the holder that fits your screwdriver, and it is ready for work. In sets of 3 sizes to fit all screwdriver requirements.
E5470. Set of 3. **15c**
 NET PER SET



MUELLER SNAPPER

May be used to start nuts and screws in out-of-the-way places; serves as test clip in inaccessible spots, or may be used as a prod contact. Consists of universal clip mounted in a long insulated tube. Push-button on the top opens and closes clip. American-made.
E6483. RED. **38c**
E6484. BLACK. EACH

VALUES IN PLIERS



KRAEUTER PLIERS

The new, famous Kraeuter pliers. With new non-slagging industrial finish, the secret of long-lasting quality tool. Scientifically heat treated and hardened. American-made.

- E7807.** Type A. 6 Inch Electrician's Type. YOUR PRICE **96c**
- E7806.** Type B. 6 Inch Needle-Nose Side Cutter. YOUR PRICE **\$1.01**
- E7808.** Type C. 4½ Inch Diagonal Cutters. YOUR PRICE **98c**
- E7805.** Type C. 6½ Inch Diagonal Cutters. YOUR PRICE **\$1.15**
- E7803.** Type D. 6 Inch Needle-Nose Pliers. YOUR PRICE **91c**

RADIO PLIERS

Well-made handy pliers for radio and electrical work. Made of fully-polished forged tool steel. Diagonal cutting type (2½" long) has hardened and tempered cutters with knurled gun-metal finish handles. Thin nose type (6" long) are nickel plated. Stoutly built to give lasting service. Excellent tool values. American-made.

- E7800.** Diagonal Cutting. YOUR PRICE EACH **32c**
- E7801.** Thin Nose Type. YOUR PRICE EACH

SPECIAL LONG NOSE SIDE-CUTTING PLIERS

High quality, inexpensive pliers, carefully made of hardened steel. Long thin nose for reaching into hard-to-get-at places. Knives are well fitted, and are ground to make clean easy cut. Overall length, 5 inches. Particularly useful in radio construction and repair work. Every serviceman, experimenter, and amateur can use these pliers to good advantage.
E7802. YOUR PRICE **38c**

NEW MIDGET UTILITY PLIERS

The handiest, strongest little pliers available. Made of chrome vanadium steel. Have four adjustments up to ¾", and will reach those hard-to-get-at places which are practically impossible to reach with any other tool. Really indispensable for your tool kit. American-made.
E7709. NET **25c**

END WRENCH SET

A handy little wrench set with many handy uses. Cadmium plated; cannot rust. Wrenches are ¾"x5, 1, 1½"x5½, and 2"x7 with alligator jaw. American-made.
E2078. Complete set of 3 wrenches. NET **10c**

WIRE STRIPPER

This efficient, time-saving tool strips insulation from wire easily and cleanly. Has a cutting edge made of tempered steel. Ship. wt. 1 lb. American-made. A handy little tool.
E7722. NET **9c**

LENK BLOW TORCHES

HI-HEAT BLTORCH

This heavy-duty blow torch assures perfect results. Features flame control, shut-off valve, and non-clogging burner. Fool-proof in design and construction; self-cleaning type. Generates a 1,000° F. flame from asbestos-filled drip-cup. Produces a 2000° F. flame. The tank is of heavy gauge seamless drawn brass, with funnel shaped bottom for easy filling. Height 7½ inches; diameter at base 3 inches. Two models are available, either for alcohol or gasoline fuel.
E6224. Type 104. Uses gasoline. **\$1.18**
 List, \$2.00. YOUR PRICE
E6223. Type 105. Uses alcohol. **\$1.32**
 List, \$2.25. YOUR PRICE



MODEL 24 BLTORCH

Entirely automatic in operation. Uses alcohol for fuel. Has copper heat conductor for quick generation of gas. Made of nickel-plated brass. Solid leakproof base. Ideal for shop use. Handy size. 3½"x1½" inches.
E6222. YOUR PRICE **69c**



IMP GASOLINE HAND TORCH

Entirely automatic gasoline hand torch. Flame temperature is over 2000° F. Has printing cup for quick action. No pumping or blowing necessary. Ideal for use where a fusing or brazing heat is required.
E6226. YOUR PRICE **69c**



CABINET REPAIR KIT



Here is a practical, inexpensive repair kit that will meet any emergency or do any cabinet repair job. With this versatile kit you can repair dents, scratches, or ticks on wood, plastic or bakelite cabinets, knobs, etc. Complete kit consists of: an assortment of 8 shades of cellulose sticks; bottles of light and dark oil stain; metal shading lacquer; polish; Magic Scratch Remover; alcohol lamp; spatula; touch-up brushes; steel wool; sandpaper; and wiping cloth. In handy box. Ship. wt. 4 lbs.
E7648. NET **\$1.91**

RCA CABINET REFINISHING KIT

For refinishing scratched, dented or dented furniture, linoleum, concrete base 1½"x4½" x 10" tall; 1 can cleaning oil; 1 can of Volvulene for rubbing; assorted sizes shellac; 2-plugs, aniline stain powder; 3-touch-up brush; 1-spatula; 1-rubbing block; instructions. Ship. wt. 5 lbs.
E7618. NET **\$2.90**



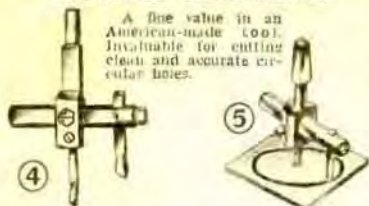
HANDY SCRATCH REMOVER

Handy scratch remover for use in touching up small scratches on work brought in for servicing. One end has fibers for building up scratches. The other end is combination polish and stain.
E7600. NET **22c**



QUALITY TOOLS FOR EVERY PURPOSE

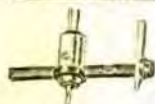
CIRCLE CUTTERS



A fine value in an American-made tool. Invaluable for cutting clean and accurate circular holes.

Designed to cut large holes accurately and quickly. May be used in slow speed drill press or ordinary hand brace. Type No. 5 is designed for heavy-duty work. Type No. 4 is a standard professional entry, heavy but compact; Junior type is for light work on soft materials. Will cut holes in wood, bakelite, hard rubber, tin, sheet metal, etc.

- E7731, No. 4.** Cuts holes $\frac{1}{2}$ to 1" in diam. NET... **\$1.25**
E7730, Junior. Cuts holes $\frac{1}{4}$ to $\frac{1}{2}$ " in diam. NET... **78c**
E7732, No. 5. Square shank. Cuts holes 1 to $1\frac{1}{2}$ " diam. NET... **\$1.88**
E7733, No. 5. Round shank. NET... **\$1.88**
E7735. Extra entry blades for No. 4 and No. 5. Hardened tool steel. EACH... **24c**



ICA ALL-PURPOSE CIRCLE CUTTER

An improved circle cutter that cuts holes from $1\frac{1}{4}$ " to 2". High quality hard steel. Hexagon shaft fits either brace or drill chuck. Easy adjustment of enter. Cuts in wood, bakelite, etc.

- E7723, YOUR PRICE**... **\$2.35**
E7727, Extra Drill. NET... **21c**
E7728, Extra Cutter. NET... **29c**



MULTI-PURPOSE CUTTING TOOL

A handy all-around cutting tool for the carpenter or set builder. Suitable for counter-sinking, beading, drilling, or cutting holes $\frac{3}{16}$ " drill used as file, will cut holes from $\frac{1}{8}$ " dia. to 2" dia. May be used in drill press or hand brace, or as tool in lathe.

- E7724, NET**... **\$1.62**
E7725, Extra Drill. NET... **21c**
E7726, Extra Cutter. NET... **29c**



GOODSELL-PRATT HAND DRILL

Highly versatile with solid steel frame and shaft, speed, on gears. Equipped with three-jawed chuck holding any size drill up to $\frac{1}{2}$ ". Large gear, not enclosed. Motorized finished in two-tone lacquer. Solidly built to give good service. A rare value in a good American-made tool. Length, 10 $\frac{1}{2}$ " in. Ship. wt., 2 lb.

- E7721, YOUR PRICE**... **81c**



ASSORTED DRILL SET

A real value. High quality twist drill set containing the popular sizes necessary for radio and other work. Set consists of 10 high speed drills, ranging from $\frac{1}{16}$ " to $\frac{1}{2}$ " sizes in $\frac{1}{16}$ " and $\frac{1}{8}$ " size graduations. American-made.

- E7734, NET**... **39c**
E7720, High-Speed Drill Set. NET... **95c**

VOLUME CONTROL WRENCH

A new wrench designed to tighten volume control nuts on any hexagon nuts measuring $\frac{1}{4}$ " across flats. Handle $1\frac{1}{2}$ " dia. & $3\frac{1}{2}$ " long in of amber-colored unbreakable plastic. Shank is of cadmium-plated or $\frac{1}{2}$ " inches in case-hardened steel.

- E1601, YOUR NET PRICE**... **59c**

NEW CHASSIS GUARDS



A practical, new, low-cost aid to efficient radio servicing. Protects tubes, dial, tuning mechanism, etc., while chassis is being worked on. Adjustable clamps fit any chassis and are easy to apply. Provides firm, steady contact with chassis is held rigidly in place in any position, yet all parts are easily accessible. Every service shop needs several pairs of units.

- E1602, NET PER PAIR**... **\$1.71**

ACRO CHASSIS CRADLE

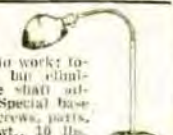


An absolute necessity for efficient radio servicing. Permits placing any radio set chassis in any position to make adjustment to tubes and other mounted parts. Chassis is held firmly in place by several mechanical clamps.

Ideal for adjusting test chassis wiring. Adjustable base permits accommodating chassis of any size up to 21" long. Of cold-rolled heavy steel construction. With clamps. Ship. wt., 5 lbs.

- E1617, YOUR PRICE**... **\$4.75**
E1618, Extra Set Clamps. NET... **\$2.70**

NEW RADIO BENCH LAMP



Made especially for radio work; focuses light where needed in dimly-lit areas. Has flexible shaft adjustable to any position. Special base compartments for knobs, screws, parts, etc. Less bulb. Ship. wt., 10 lbs.

- E1603, NET**... **\$2.45**

QUALITY PUNCHES

SOCKET AND CONDENSER PUNCHES

Punches clean round holes in sheet metal (chassis base, panels, etc.). Easy to use, saves time; no pre-drilling necessary. Made of highest grade rustless hardened steel to give lasting service. New gun-point center opening lets cut through without drilling; outer edges cut clean, accurate holes. All punches are die-reamed and oil-tempered. These punches are all American-made.

- E1645, For 1" Holes.** NET... **95c**
E1646, For 1" Holes. NET... **95c**
E1647, For 1" Holes. NET... **95c**
E1648, For 1" Holes. NET... **95c**
List. \$3.00, YOUR PRICE EACH... **\$1.55**
SET OF 3 PUNCHES... **\$6.98**

- E1644, DUPLEX SOCKET PUNCH.** Holes $\frac{1}{8}$ " and $\frac{1}{16}$ " duplex. NET... **\$2.59**

CLIPTITE SOCKET PUNCHES

Designed to cut holes for "Clit-Tite" tube sockets. Flexible, long, low profile socket.

- E1641, 12" Standard.** NET... **\$2.94**
E1642, 12" 7M and 7C. NET... **2.94**



ICA RIVET & EYELET PUNCH SET

A universal tool for setting any size rivet or eyelet. Heavy rust-free tool has hexagon shank, may be changed in size. Setting tools of hardened steel produce clean, factory-like job.

- E1616, NET**... **\$1.32**

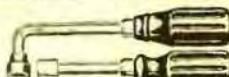


ICA SQUARE HOLE SHEARING PUNCH

A hammer is the only tool necessary with this punch. Permits cutting any size odd square hole (square, rectangular, hexagon, etc.) on panels or chassis of any metal up to No. 11 gauge thickness. Ideal for enlarging or punching square, round holes, etc.

- E7729, YOUR PRICE**... **\$5.58**

SOCKET WRENCHES

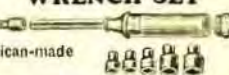


SPIN-TYPE WRENCHES

A complete selection of high grade hexagonal socket wrenches for every radio requirement. Sockets are of hardened tool steel designed to spin surely. Shafts are of heavy cadmium-plated steel with ribbed ease-to-grip wooden handles. All set to fit for working into tight places. Sizes listed will handle all standard nut sizes used in radio work. American-made.

Nut Size	6" Straight	9" Straight	6" Offset
E2055	E2062	E2069	
E2056	E2063	E2070	
E2057	E2064	E2071	
E2058	E2065	E2072	
E2059	E2066	E2073	
E2060	E2067	E2074	
NET	NET	NET	
EACH	10c	12c	
Set of 6	52c	Set of 6	62c

HOLLOW HANDLE WRENCH SET



Ideal for shop and tool box. Hollow handle holds all sockets. Sizes: 1/4", 3/8", 1/2", 5/8", 3/4", 7/8", 1" and 1 1/4". Handle heavily laminated for good gripping surface. White metal finish.

- E7737, YOUR PRICE**... **54c**

LOCK-SOCKET WRENCH SET AND SCREWDRIVER

A set of 11 sockets in assorted sizes to handle 1/4", square and round nuts. Consists of 1-1/4" hex socket mounted on 3/4" straight extension; 5 hex sockets in 1/4", 3/8", 1/2", 5/8", 3/4" and 7/8" sizes, 2 square sockets in 1/4" and 3/8" sizes, 1 round nut socket, 1 "L" shaped extension 4" long and 1 screwdriver wrench handle. Patented locking device holds tools ready to handle.

- E5516, YOUR PRICE**... **79c**

SOCKET WRENCH SET



A set of five detachable sockets of fine wrought steel, complete with wrench handle. In popular sizes: 3/8", 1/2", 5/8", 3/4" and 7/8" in.

- E7690, YOUR PRICE**... **36c**

FLEXIBLE SHAFT SOCKET SET

Flexible laminated steel shaft will bend around corners. Permits handling of nuts which are inaccessible to ordinary tools. Has rustproof lined wood handle, 10" long, equipped with six hexagon sockets, sizes 1/4", 3/8", 1/2", 5/8", 3/4" and 7/8". National markets easily interchangeable.

- E7738, NET**... **\$1.76**

RADIO CHASSIS PUNCHES

These new punches make or enlarge holes in any metal used in radio work without distorting metal. Consist of two-point punch driven by 3/8" dia. square end drill screw and die to any part metal. In operation, drill pilot hole and follow by turning screw with wrench until hole is cut through. Or high-grade, heat-treated tool steel.

- E1661, 1 1/2" Punch with die and screw.** NET... **\$1.88**
E1662, 1 3/4" Punch with die and screw. NET... **\$2.14**

SOLDERING IRONS and ACCESSORIES

COMPLETE WITH 2 SCREW-ON TIPS



KNIGHT SOLDERING IRON 55 WATT MODEL

A well-designed high quality KNIGHT 55 watt iron suitable for every service use. Has a dependable wire-wound element in a ceramic tube. Heats up quickly; stays hot. Two types of tips are supplied with iron to handle all work from fine soldering to tinning of chassis bases. Tips are $\frac{3}{8}$ and $\frac{1}{2}$ inch in diameter. $1\frac{1}{2}$ " long. The well-shielded handle remains cool even when iron is continuously used. Equipped with 5 foot heater cord and rubber plug. This KNIGHT iron is an outstanding value at our price.

E6005. YOUR SPECIAL PRICE

65c

100 WATT KNIGHT SOLDERING IRON

A high quality all-purpose iron. Has $\frac{3}{8}$ inch diameter removable (screw-on) copper tip. With black insulated handle and 6 foot heater cord. You get your money's worth in this fine iron.

E6006. YOUR SPECIAL PRICE

97c



DRAKE SOLDERING IRONS

Underwriters Tested and Approved. A sturdy dependable iron for all shop or service requirements. With an "Easy-Grip" non-tiring wood handle. Heating elements are of highest-grade nichrome wire wound on genuine amber mica; reaches soldering heat quickly. Removable plunger type tip with set screw adjustment. With 6 foot approved cord and 1/2" iron stand.

E2203. 80 WATT. Length 13"; tip diameter $\frac{3}{8}$ ". Wt. 1 1/2 lbs.
List, \$3.15. YOUR PRICE **\$1.85**

E2204. 100 WATT. Length 12 1/2"; tip diameter $\frac{3}{8}$ ". Wt. 1 1/2 lbs.
List, \$3.75. YOUR PRICE **\$2.20**

E2205. 200 WATT. Length 14"; tip diameter $\frac{3}{8}$ ". Wt. 2 lbs.
List, \$7.50. YOUR PRICE **\$3.95**



AMERICAN BEAUTY IRONS

E2000. Type 3138. Adapted for production work on radio, ignition, telephone, etc. 100 Watt; 16 oz.; length 12 1/2"; tip dia. $\frac{3}{8}$ ". 6 foot cord. Wt. 1 1/2 lbs.
List, \$7.20. YOUR PRICE **\$5.85**

E2001. Type S-76. Light and compact. Heats quickly. Screw type removable tip. 50 Watt; 6 oz.; length 11 1/2"; chisel point tip $\frac{3}{8}$ ". With 6 foot cord.
List, \$4.50. YOUR PRICE **\$3.45**

E2002. Extra $\frac{3}{8}$ " tip for Type 3138 iron. NET **39c**

E2003. Extra tip for Type S-76 Soldering Iron. NET **21c**



DRAKE HEAT CONTROL

A new variable heat control that will regulate the heat of your soldering iron. Protective shield prevents fire and accidental burns. A convenient toggle switch, mounted on the base of the stand, instantly selects the heat required for your work. Will keep any soldering iron up to 150 watts at constant desired heat. For 115 Volts A.C. or D.C. Shpg. wt. 3 lbs.

E2208. Type 300H. NET **\$2.35**

E2207. Type 300. Same as above, but without shield. NET **\$2.06**



7-INCH SOLDERING IRON HOLDER

A sturdy, well-built soldering iron holder measuring 7 inches long. Solidly constructed. Useful in the shop, lab, or on service calls. Prevents scorch or burned surfaces.

E2206. YOUR PRICE **15c**

KESTER SOLDERS

Compounded of the highest grade tin and lead. Flux filling assures perfect bondment joints free from corrosion. Aluminum solder absolutely holds aluminum. Save money—buy the handy one or five pound spools.



Quantity Per Tin	ACID CORE		ROSIN CORE		ALUMINUM	
	No.	NET	No.	NET	No.	NET
1 lb. spool	E6176	17c	E6178	17c	E6180	17c
5 lb. spool	E6175	\$2.60	E6177	\$2.60	E6179	\$1.89

KESTER SOLDERING PASTE

A new improved soldering paste. Does a clean, non-corrosive job of soldering. This iron quality makes it ideal for radio work.

E6181. PER TIN **12c**
10 for **\$1.05**

KESTER TINNING BLOCK

Cleans and "tins" soldering irons of coppers very quickly. Replaces ordinary sal ammoniac. Won't etch or corrode.

E6185. 1/4 lb. NET **25c**
E6186. 1/2 lb. NET **43c**
E6187. 1 lb. NET **65c**

ICA SOLDERING IRONS

A well-designed, practical soldering iron. Heating element is of the highest quality resistance wire. Will heat in three minutes. Handle remains cool even after the iron has been on for hours. Plunger type tip is easily removed for cleaning or replacement. With cord and plug. Snap-on soldering iron holder supplied free.

E5520. 60 WATT. Developed for radio work. Shpg. wt. 2 lbs.
List, \$3.75. YOUR PRICE **\$1.98**

E5522. 85 WATT. A good general-purpose iron. Shpg. wt. 2 1/2 lbs. List, \$4.41
List, \$4.50. YOUR PRICE **\$2.41**

E5521. 115 WATT. Heavy Duty type; has $\frac{3}{8}$ " plunger type tip of adjustable length. Shpg. wt. 2 lbs.
List, \$5.50. YOUR PRICE **\$2.95**



MARVEL ELECTRIC SOLDERING IRON

A high quality soldering iron, ideal for general radio and light soldering work. Has a Nichrome wire element, mounted in a twin sleeve porcelain tube. Equipped with a good quality 2-inch copper tip. With brown-finished, stay-root handle and 3 foot Underwriters' approved flexible cord. Only 10 inches long. For 110 volt A.C. or D.C. operation. Easy to use; retains heat efficiently.

E6008. NET EACH. YOUR PRICE **28c**
YOUR PRICE PER DOZ. **\$3.05**

NEW INSTANTOT 6 VOLT SOLDERING IRON

Heats instantly from a 6 volt storage battery. Ideal for auto mechanics, farmers, servicemen. No wires to short or tangle. Complete with extra heating elements, battery post protector, acid-core solder, etc.

E6009. NET **\$1.31**

GARDNER RADIO SOLDER ROSIN CORE

A dependable, rosin-core solder developed especially for delicate electrical and radio work. Pure rosin-core assures freedom from corrosion. Can hold about 3 oz.

E6183. PER CAN **12c**
E6184. 1 LB. SPOOL **52c**

JACKSON SOLDERING IRONS

A high grade line of electric soldering irons. Elements are wound on amber mica insulation over steel core. Squidged with plunger tip. Both types are finished with a foot cord. Shpg. wt., 1 1/2 lbs. each.

E6000. 75 Watt. With $\frac{3}{8}$ " copper rod tip with set screw. Nickel-plated tube. YOUR PRICE **\$1.76**

E6001. 100 Watt. With $\frac{3}{8}$ " copper tip. 12 1/2" long, with removable black handle. YOUR PRICE **\$2.40**



MAGIC STYLUS SOLDERING PENCIL

A new, small, easy-to-handle soldering tool. Ideal for soldering small parts in hard-to-get-at corners. Heats quickly. Insulated handle with cork finger guard provides cool handling always. Tip is easily removed for cleaning or replacement. With 5 ft. cord. Underwriters' Approved.

E6150. 110 VOLT A.C. OR D.C.
E6151. 6 VOLT D.C. (Storage Battery.) NET EACH **72c**

25 WATT 3 TIP PENCIL

An extra-heavy-duty soldering pencil. Has $\frac{1}{4}$ " tip. Brass-wound, mica-covered element. Complete with three tips, 6 foot rubber cord, and stand.

E6004. NET **88c**

"HOTSPOT" IRONS

These are inexpensive, well-built soldering irons. Ideal for both radio service and construction work. Come to full heat quickly; heat is concentrated at the tip, where it is needed most. Will solder cleanly and effectively. Approved by the Underwriters' Laboratories. With bakelite handles and chrome finish. Complete with heavy-duty A.C. line cord and unbreakable soft rubber line plug.

E2201. 75 WATT. Shpg. wt. 1 lb. List, \$2.50. NET **\$1.47**

E2200. 100 WATT. Shpg. wt. 1 1/2 lb. List, \$3.75. NET **\$2.20**

E2202. 150 WATT. Shpg. wt. 2 lbs. List, \$4.50. NET **\$2.65**

SOLDERING IRON TIPS

High quality replacement plunger type copper tips. Make your soldering iron as good as new.

No.	Size	NET EA.
E61997	$\frac{3}{8}$ " x 2 1/2"	28c
E61998	$\frac{1}{2}$ " x 3 1/2"	38c
E61999	$\frac{3}{8}$ " x 3 1/2"	43c

INTERFERENCE ELIMINATORS · FILTERS



NOISE-ELIMINATING FILTERETTES

NOISE MANUAL

A helpful manual published by the Tobe Deutchmann Corp. Contains full information on man-made electrical noises and how to prevent them from reaching the radio set. Will pay for itself on your first service call.

E8449. NET. **29c**



MODEL 7 AC-DC POWER LINE FILTER

An easily installed Tobe capacity type line filter which will effectively eliminate line noises. Plugs into electric light socket of wall receptacle. Receiver plugs into top of filter unit. Materially reduces disturbing radio interference from power line. For 110 volt lines. Shpg. wt., 1 lb.

E8406. **59c**



RAZOR FILTERETTE

A practical filter unit to reduce interference from electric razors. Enjoy early morning programs, time signals, etc., without the disturbing buzz of your razor. Just plug unit in wall receptacle and plug razor in other end.

E8402. NET. **59c**



FILTERETTE JUNIOR

A simple yet thoroughly efficient filter unit for appliances such as vacuum cleaners, wash cyclers, drink mixers, hair dryers, blurring machines, sewing machines, etc. Convenient to attach.

E8403. NET. **73c**



JA FILTERETTE

A light-weight filterette for attachment to appliances such as electric drills, barber clippers, etc. Appliance cord must be cut and JA installed as permanent equipment.

E8407. NET. **\$1.03**



MODEL RF-2

Designed to eliminate noises coming from the power line. Effective filtering is attained through combining capacity and inductance in one carefully engineered unit. For installation between set and power line. For use on any line where voltage does not exceed 130 volts.

Shpg. wt. 2 pounds. E8405. NET. **\$2.79**

SPRAGUE INTERFERENCE ELIMINATION CONDENSERS AND CHOKES

E11455. Type IF-11. Dual Condenser. For large motors. **\$1.47**

E11456. Type IF-50. Individual Units. Oil-filled. For small motors requiring high capacity units. **\$1.03**

E11457. Type IF-33. Tubular Condenser. For fractional horsepower motors used in mixers, fans, etc. **44c**

E11458. Type IF-21. Tubular Condenser. Similar to IF-43 but higher capacity. **59c**

E11459. Type CH-1 Choke. Will carry up to 10 amps. Metal case; self-mounting. Can be used on 1 HP motor. **79c**

E11460. Type CH-2 Choke. Will carry up to 20 amps. For larger motors. **\$1.62**

NOISE-ELIMINATION BOOK
E11453. Covers the Interference Elimination problem from A to Z. Used by National Radio Institute as reference book in teaching how to locate interference and how to clear it up after it is found. Shows which unit to use for different filter problems. FREE on request with orders for Sprague Interference filters.

RADIO NOISE CAN BE ENDED!

Noise enters a radio set either from the aerial or from the power lines. To determine which, connect the aerial post of the set to the chassis or ground. If the noise stops, an all-wave antenna such as those listed on pages 144-147 should be installed. However, if the noise persists, a power line filter should be selected from the types listed below. If uncertain of choice, write for additional information on noise elimination.

AEROVOX FILTERS



TYPE IN-24 ELIMINATOR

- Eliminates power line interference
- Completely factory-built
- Simple one-minute installation

Completely eliminates all power line noises. Greatly reduces man-made static from electric motors, vacuum cleaners, elevators, and other interfering electrical devices that cause more than 75% of radio disturbances. Provided with inductance as well as capacitance for thorough filtering action. AeroVox Interference Eliminator through a real noise-free background for increased radio enjoyment. No tools needed—just plug in. Complete with cord and plug. Size: 4 1/2" x 2 1/2" x 3 1/2". Shpg. wt. 3 lbs. E6953. List. \$4.75. NET. **\$2.79**

TYPE IN-28 FILTER

For direct use with radio set or on small appliances causing interference. Plugs in between connection cord and outlet. Ideal for use where ground is some distance from point of application. Has convenient mounting bracket for attachment to body of appliance. Size: 1 1/2" x 1 1/2". Shpg. wt., 1 lb. E6955. NET. **44c**



TYPE IN-29 FILTER

An efficient filter especially suited for use in reducing interference from sources which are variable in character but strong in intensity. Ideal for eliminating noise caused by electric razors and other vibrating devices. Plug in between connection cord of device and electrical outlet. Measures: 1 1/2" x 2 1/4". Shpg. wt., 1 lb. E6956. NET. **44c**



TYPE IN-30 FILTER

A medium-duty filter, similar in appearance and general design to Type IN-29, but provided with inductance in addition to capacitance for elimination of more intense interference. May effectively be used either at source of interference or at radio set. Plugs in directly between attachment cord and outlet. Measures: 1 1/2" x 2 1/4". E6957. NET. **73c**



E6958. TYPE IN-31. Similar to above but for elimination of more serious interference. Size 1 1/2" x 2 1/4". NET. **88c**

TYPE IN-27 FILTER

For use between radio set and electric outlet in cases where interference is relatively small. Also suitable for application directly to small appliances which are sources of low intensity interference. Size: 1 1/2" x 1 1/2". E6954. NET. **29c**



INTERFERENCE ANALYZER

A clever device indicating immediately which of above filters is needed to eliminate specific noises. Plugs into outlet ahead of interfering device. Rotary selector picks proper filter combination. In metal case. 5 1/2" x 5 1/2" x 8". For A.C. or D.C. Shpg. wt., 6 lbs. E6959. YOUR NET PRICE. **\$7.35**



TACO H-F ALL-WAVE LINE FILTERS

A composite filter containing three complete filter circuits. Covers short-wave, and ultra-short-wave as well as the standard broadcast bands. It is choice filter system which would ordinarily enter the set through the power line. Equally efficient when installed on the interference-causing device. Operates on either A.C. or D.C. devices drawing not more than 200 watts at 110 volts. Measures only 4 1/4" x 3 1/2". Easily installed without tools. Equipped with bakelite receptacle and attachment cord with unbreakable rubber plug. Handsome brown-finished metal case. Shpg. wt., 5 lbs.



E7903. Model 100. List. \$7.50. YOUR PRICE. **\$4.41**

E7906. Model 101. Same as above but for use on 220-250 Volts A.C. or D.C. YOUR PRICE. **\$4.41**

MILLER ALL-WAVE LINE NOISE FILTER

- Capacitive Inductance circuit used
- Duo-lateral R. F. choke coils
- Complete line-noise elimination

Positive results are obtained by use of complete filter circuit. Oil condenser give long life. Duo-lateral chokes are used for greatest filtering. May be used on small interfering devices or on the radio itself. Plug radio or appliance into filter, and filter into outlet. For 110-220 volt A.C. or D.C. Max. current 2 amps. Shpg. wt., 1 1/2 lbs. E7213. List. \$4.00. YOUR NET PRICE. **\$2.35**



CONTINENTAL FILTERNOYS

Free your radio reception from annoying interference caused by electrical appliances. Efficient Filternoys units eliminate or materially reduce "man-made" static caused by vacuum cleaners, refrigerators, electric shavers, mixers, motors, etc. These filters are of highest quality construction, easy to use and easily installed. For 110-120 Volts, A.C. or D.C.

E7218. Type R01DH. Plug-in type for use between radio and power outlet. Will carry 5 amperes. **59c**

E7219. Type F01DH. Plug-in type for elimination of noise from motors using less than 300 watts. **59c**

E7220. Type R01H. Rejection type for use where neutral power wire is grounded. Plugs in. 5 amp. capacity. **47c**



DUPLEX FILTERVOLT

This noise eliminator converts single wall outlets into filtered dual outlet. Radio set and any electrical appliance may be plugged in to same source. Efficiently eliminates noise caused by shavers, fans, mixers, etc. Easy to install—simply plug in to wall outlet. E5563. List. 85c. **49c**



FILTERVOLT NOISE FILTER

An efficient new filter to eliminate moderate noise interference from all types of electrical appliances. Suitable for installation directly ahead of radio set or at source of noise disturbance. Assures enjoyable, noise-free radio performance. E5564. List. \$2.85. NET. **\$1.44**



RCA-VICTOR ANTENNA SYSTEMS & ACCESSORIES



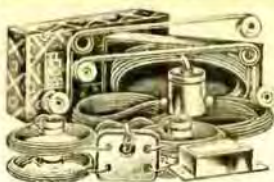
NEW RCA-VICTOR MASTER ANTENNA

A new and extremely efficient noise-reducing antenna that provides adjustable rejection for noise emanating from electric appliances. Set containing transformer permits individual setting for elimination of noise from oil burners, refrigerators, electric razors, etc. The complete assembly consists of a balanced doubler and a transmission line with parallel counterpoises. Will greatly increase overall set performance on any frequency from 230 to 25,000 K.C. No. 9852 is equipped with low-impedance transformer for use with all 1939 RCA sets having built-in amplifier. No. 9815 with coupler can be used on any set having conventional antenna-ground lead. An ideal receiver demonstration antenna offering actual noise reduction to fit the individual installation. A really remarkable advance in antenna design—especially ideal for use in locations that are noisy. Shipping wt., 3 lbs.

E7546, No. 9852, Model MA, Less coupling transformer, NET... \$2.94

E7547, No. 9815, Complete with set coupler, NET... \$4.09

E7548, No. 9816, Receiver coupler only, NET... \$1.15



RCA "SPIDER-WEB" ALL-WAVE ANTENNA

New communications type antenna system designed for peak efficiency. Consists of a series of dipoles with high efficiency low-impedance transmission line. Functions as a "T" type antenna below 4000 K.C. and as a multiple-tuned doubler from 4000 to 25,000 K.C. Easy to install; fits in four square with 12 foot vertical clearance. This unique antenna features greatest signal pickup on every band, including in those stations with maximum noise rejection. Factory-assembled. Includes: 6 coils of 7x22 stranded antenna wire; 2 ladders; 1 coil of lead-in wire; receiver and antenna coupling transformer; 1 1/2" diameter 2 antenna transformer connection, complete instructions. Shipping wt., 10 lbs.

E7580, No. 9885, List, \$8.95, NET... \$5.26

HIGH-FREQUENCY KIT

E7581, No. 9689, This kit when added to the Spider-Web increases range to cover from 25 to 70 M.C. Shipping wt., 2 lbs. NET... 88c



IMPROVED RCA "MAGIC-WAVE" ANTENNA SYSTEM

A new All-Wave Antenna system offering many new features for improved radio reception. Any antenna may be from 30 to 150 feet in length. As many as 10 sets may be used with no serious loss in signal efficiency. New magnetic core in antenna and receiving transformers give high efficiency from 500 to 25,000 K.C. and good noise reduction. Antenna coupling unit has built-in lightning arrester. Transmission lines may be twisted. The complete kit is factory-wired for the most efficient results. Consists of: Receiver and Antenna Coupling Transformers; 30 feet of Antenna Wire; 45 feet of transmission cable; 2 feet of ground wire; 3 porcelain insulators and 1 ground clamp. Shipping wt., 10 lbs.

E7540, No. 9812, List, \$5.95, NET... \$3.50

E7548, No. 9816, Antenna Coupler only, with built-in lightning arrester, NET... \$1.15

E7532, No. 9814, Distribution Transformer, Use one for each 4 additional sets, NET... \$1.76

E7533, No. 9813, Set Coupler only for each additional set on one antenna, NET... \$1.47

RCA POPULAR PRICED NO. 395 ANTENNA SYSTEM



A new RCA Antenna System that will increase the performance of any set. Exceptionally low impedance. Will operate with any type of set, Broadcast, Short-Wave, Long-Wave or All-Wave. Fully assembled and ready to install. Has improved signal pickup; high signal-to-noise ratio; transmission line and receiver coupler help eliminate noises. Consists of: 25 foot coils antenna wire, 2 strain insulators, 4 foot transmission line, 1-junction box, 1-receiver coupler, 2 coupling links, 2-rod-knobs, 1-ground screw and complete instructions. Requires little space; span is only 40 feet. Shipping wt., 5 lbs.

E7596, NET... \$2.32

E7530, No. 12855, Receiver Coupler Unit Only, YOUR PRICE... 44c

ADDITIONAL TRANSMISSION LINE FOR RCA ANTENNAS

E7534, No. 9816, 60 foot roll, For use with No. 395, No. 9815, or No. 9812 antenna, NET... 88c

E7535, No. 11817, 75 foot underground cable for No. 9812 antenna, NET... \$1.88

E7544, No. 12429, 45 Ft. underground Line for No. 9812 or No. 9885 Antenna, NET... \$1.18

E7545, 90 Ft. underground Line for No. 9812 or No. 9885 Antenna, NET... \$2.20

ANTENNA INSULATORS AND ANTENNA EQUIPMENT

PORCELAIN INSULATORS

Glazed porcelain; corrugated for minimum leakage.

E6192, 2 1/2 inches long, 10 FOR 20c, 100 FOR \$1.85, EACH... 2 1/2c

E6193, 4 inches, 10 LOTS, 45c, EACH... 5 1/2c

E6194, 5 inches, 10 FOR 85c, EACH... 9c

GLASS INSULATORS

Absolutely climateproof. Extremely efficient; designed for great strain. 3 in. long. Inexpensive sturdy insulators.

E6196, 10 FOR 27c, 100 FOR \$2.50, NET EACH... 3c

PYREX INSULATORS

Strong fused insulators, with low power loss and low surface conductivity. Climate proof.

E3750, 3/8" long, For Receiving Aerials, EACH... 20c

E3751, 1 1/2" long, Will handle up to 250 watts, NET EACH... 75c

AIRPLANE INSULATOR

Streamlined strain insulators, made of low-loss glazed white porcelain. Ideal for hooking up antenna guy wires. Size 1 1/2"x3/4". Weight, 3 oz.

E6217, 10 FOR 20c, EACH... 3c

STRAIN INSULATOR

An extremely sturdy strain insulator for use in guy wires or supporting wires for antenna installations. Made of finest glazed porcelain, 2 1/2" long and 1 1/2" diam.

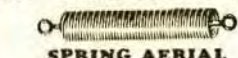
E6195, 10 FOR 54c, NET EACH... 6c

EYE WALL INSULATOR

White glazed porcelain ring mounted in sturdy galvanized screw eye. For fastening lead-in wires to wall. Strains on distributor will hold up indefinitely.

E3403, 3 INCH, 10 FOR 21c, NET EA... 2 1/2c

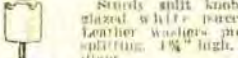
E3404, 7 INCH, 10 FOR 32c, NET EA... 3 1/2c



SPRING AERIAL

Especially desirable where space is limited. Easy to erect. Is non-directional. Stretch of 15 to 30 ft. With two fibre end insulators.

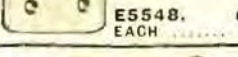
E3433, YOUR PRICE... 11c



PORCELAIN NAIL KNOBS

Sturdy and knob of glazed white porcelain. Leather washers prevent splitting. 1 1/2" high, 1 1/2" diam.

E3418, 10 for 18c, 100 for \$1.65, EACH... 2c



CROSSOVER INSULATOR

Designed for use with double-doubler antenna systems. Made of low-loss ceramic.

E5548, EACH... 7c

PORCELAIN TUBES

Thinly, non-absorbent porcelain, flanged at end. Inside dia. 5/8".

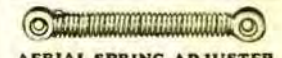
E6212, 3" Long, 10 for 18c, EACH... 2c

E6213, 6" Long, 10 for 24c, EACH... 3c

TRANSPPOSITION BLOCKS

Made of glazed ceramic material. Currently designed to prevent twisting of twisted lead-in; reduces electrical loss to minimum. 2 1/2" x 1 1/2", Wt. 3 oz.

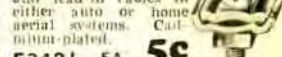
E6215, 10 FOR 40c, EACH... 5c



AERIAL SPRING ADJUSTER

Provides antenna sag. Powerful, compression type spring surface. With porcelain insulator end ring. Especially suited for doublet type antenna to prevent swaying.

E3419, List, 50c, NET... 29c



AERIAL CONNECTOR

For connecting aerial and lead-in cables in either auto or home aerial systems. Can be built-in place.

E3421, EA... 5c

INSULATED STAPLES

Saddle type insulated staples. Sturdy, durable, and very useful. Packed 100 to the box.

E3975, Per Box of 100, 1 for 1.00 (10 Boxes)... 95c

NOTE: FOR ADDITIONAL LISTINGS OF STAND-OFF INSULATORS AND OTHER ANTENNA EQUIPMENT, SEE PAGES 118-119



All-Wave

ANTENNA KITS & EQUIPMENT

ALL-DIRECTIONAL AERIAL

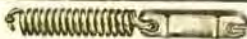


Increases the selectivity and sensitivity of any set. An unusually efficient antenna of new design. Permits absolutely All-Directional reception. Will materially improve reception on short wave bands; makes possible improved efficiency on standard broadcast band. May be quickly installed with a screwdriver. Eliminates all mast, poles, long aerials, dangling wires, etc. Requires only a very small space for mounting. Wt., 4 lbs. **E10010. List, \$2.75. YOUR PRICE \$1.95**

PREMAX TELESCOPING STEEL MASTS

Sturdy, neat-appearing, weatherproof aerial supports. Made of substantial steel tubing, combining strength with light weight. Finished in baked green enamel. Each section is 3 1/2 feet long. Base fittings are adjustable to fit any roof. Additional sections may be added. Excellent quality; built for lasting service.

No.	Lnth. Ext.	Wt.	NET
10001	3 1/2 ft.	3 lbs.	\$0.59
10002	7 ft.	6 lbs.	1.18
10003	10 ft.	8 lbs.	1.76
10004	13 ft.	11 lbs.	2.35
10005	16 ft. sectional extension to increase height of any of above masts. Wt. 3 lbs. Each		59c



TENSION INSULATOR

A double-purpose insulator which holds antenna tight by means of a heavy spring. May be used with any antenna. Wt. 1/2 lb. **E11297. YOUR PRICE 7c**



KNIGHT STANDARD ALL-WAVE ANTENNA

An efficient, All-Wave Antenna at a remarkably low price. Will provide maximum signal strength in any locality with greatly reduced noise-level. May be used with any radio set having input for either single or double wire lead-in. Special type transmission line cancels out noise interference and may be extended for several hundred feet without affecting performance of set. Easily installed and connected.

COMPLETELY ASSEMBLED

Antenna consists of two 30 foot coils of No. 16 stranded copper wire completely assembled with a porcelain insulator and 50 feet of special transmission line. Also supplied are: 2-glass porcelain insulators; 1-3" porcelain screw-ere; 1-nail knob; 1-doublet lightning arrester; 1-doublet lead-in strip, and instructions. **NET \$3.89. \$1.21**

GUY WIRE

A 50-foot coil of special galvanized steel wire. Tough, non-stretching. Annealed for easy handling. For use with masts at left. **E11298. NET 15c**

ADJUSTABLE ANCHOR

Specialty designed adjustable anchor for keeping guy wires tight. Rustproof steel. **E11299. NET 9c**



KNIGHT DE LUXE ALL-WAVE ANTENNA

IDEAL FOR THESE SETS:

- Crosley Philco R.C.A.
- Knight Zenith Grunow

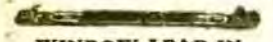
or for any set with standard or doublet input.

This is one of the finest factory assembled All-Wave antenna systems available. It utilizes the famous doublet principle to provide maximum efficiency. The special transmission cable cancels out noise, thus permitting clear, interference-free reception. A proper impedance match between antenna and receiver is assured through the use of a two-position coupling transformer. The Knight De Luxe Antenna is quickly and easily installed. The 60 foot overall length makes it well-adapted for locations where space is limited. The Knight De Luxe Antenna is designed to give best results in the Broadcast as well as Short-wave bands. Coupled to any set having input for either single or doublet type.

COMPLETELY ASSEMBLED

This Antenna Kit is completely assembled at the factory. It consists of 2-50-foot rolls of stranded aerial wire, 1-60-foot length of transmission cable, 1-crossover inductor, 1-impedance matching transformer, 2-glass insulators, 2-porcelain nail knobs, 1-cerwall insulator, and 1-double window lead-in. Shpg. wt., 4 lbs. **E3391. NET \$1.95**

AERIAL ACCESSORIES



WINDOW LEAD-IN

Fits between eash and sill. Fabenock connector on each end. Duro insulated braid. **E3428. 10 inch. 5c**
E3427. 12 inch. 4c
Per 100, \$2.85. **NET EACH**



DOUBLE-WINDOW LEAD-IN

Designed for use with any two-wire lead-in, or transmission line. Completely insulated; with screw terminals; 12" long. **E6198. YOUR PRICE 9c**



MUELLER CLAMP

Durable and rigid because of chamfered construction. Case-hardened screw. Cadmium plated. **E6508. Lots of 100, \$4.25. 46c**
EACH 6c

GRIPPER GROUND CLAMP

This heavy-duty clamp may be used on any pipe or rod up to 1 1/2" in diameter. Pointed screw assures positive contact through paint or rust. **E3599. 3c**
10 lots **25c**

KNOC-OUT GROUND CLAMP

An efficient and easily attached clamp which makes sure contact. Makes a neat and efficient installation. **E3429. Per 10, 35c. NET EACH 4c**



NEW COR-NEX DELUXE CONNECTOR

Eliminates unsightly wiring and makeshift window lead-in for home radio receivers. Can be used with sets having input for either single or doublet type lead-in. Increases efficiency of set by providing noise-free lead-in connections. Installation requires only a few minutes' time with simple tools. Incorporates built-in efficient lightning arrester for complete set protection. Requires only one 3/8" hole through wall or mouliding. A necessity for all modern installations. **E3388. NET \$1.47**



PLATED GROUND RODS

Pop up radio reception by eliminating flimsy and makeshift ground connections. Made of copper-plated steel, 3/8" diam., with screw clamps for lead-in. Shipped by express. Shpg. wt., 4 and 6 lbs. **No. Feet EACH 10 FOR**
E10000 4 28c \$2.65
E10006 6 38c 3.60

MOLDING STAPLES

For use in fastening lamp-cords, radio set cords, etc., close to floor or wall molding. Slits behind molding, holding wire tightly; eliminates unsightly trailing wires. Will not mar varnished surface. Plated and rust-proof. **E3405. 10 FOR 7c**
50 for **25c**
100 for **40c**

LIGHTNING ARRESTERS



ELECTROSTATIC ARRESTER

Combination lightning and static arrester. Incorporates choke coil and condenser acting as noise and static reducer and filter. Affords maximum protection against fire hazard. A really effective device that improves radio reception. **E5533. List, \$1.00. YOUR PRICE 43c**



APPROVED PORCELAIN ARRESTER

A high grade dependable air gap type arrester. Porcelain construction. An unusual value. **E3425. 12 FOR 75c. EACH 7c**



NEW DOUBLET ARRESTER

Two arresters combined in one single unit. May be used indoors or outdoors for any two-wire lead-in or transmission line. Black porcelain case; weather-proof. Weight, 1 lb. **E5549. YOUR PRICE 17c**



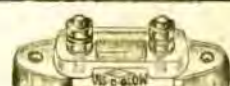
ALL-WAVE DOUBLET COUPLER

May be used with any type of All-Wave or Short-Wave receiver. Designed to couple low-impedance transmission lines from any doublet or balanced-type antenna system to the radio set. Aids in reducing noise level. Housed in aluminum shield with nickel-plated terminals. **E5519. NET 39c**



BABY BAKELITE ARRESTER

Absolutely dependable, safe, weatherproof type. Bakelite construction. Extremely compact to fit anywhere. Approved by the Underwriters' Laboratories. **E6199. 10 FOR 80c. 9c**
100 FOR \$7.25. EACH



VIS-O-GLOW ARRESTER

Uses neon element and operates on low voltage. Sensitive and will carry heavy discharges. Offers real protection. Shpg. wt., 1 lb. **E3407. NET 59c**
E3408. Duplex Type. For doublet antennas. Shipped wt., 1 lb. NET 82c



STORM KING ARRESTER

A new improved type lightning arrester that will provide positive protection. Absolutely assures against dangerous static discharges. Duplex type for use with doublet aerials, or any aerial using a two-wire lead-in. Screw type terminals; weatherproof; for indoors or outdoors. **E3432. NET 53c**

AERIALS • AERIAL ELIMINATORS

TACO ALL-WAVE AERIALS

MODEL 210 DE LUXE SELF-SELECTING

A new self-selecting all wave aerial, electrically and mechanically designed to render highest possible efficiency. The use of dual precision-built transformers assures perfect matching to any Broadcast, Short-Wave or All-Wave receiver. Entirely eliminates interference, and provides maximum signal pickup, even in noisy locations. Aerial length is only 60 feet. Consists of: 1—Antenna



Transformer; 1—Receiver Transformer; 2—30 foot coils stranded aerial wire; 75 foot weather-proof transmission cable, all factory-assembled and soldered; 1—insulating screw-eye; 2—nail knob; 2—porcelain insulators, and complete installation instructions. Shpg. wt., 4 lbs. **\$3.97**
E8416. List, \$6.75.
YOUR PRICE

MODEL 510 STANDARD ALL-WAVE AERIAL

This high quality, factory-assembled antenna is designed to eliminate interference on the broadcast band and all short wave bands. Matches all sets and provides superior signal-to-noise ratio in any location. Consists of: 1—Antenna Transformer; 1—Set Transformer; 2—30 foot coils stranded aerial wire, and 60 foot transmission cable, all completely assembled at factory and ready for installation; 1—screw-eye; 2—nail knob; 2—glass insulators, and complete instructions.

E8417. List, \$4.50. **\$2.65**
YOUR PRICE
E8418. MODEL 510L. Same high quality kit as S18 above but less set coupler. NET **\$2.00**



NEW MODEL 165 PEAK BAND AMATEUR ANTENNA

Designed to render maximum efficiency when used with present-day communication receivers. Overall space for erection is only forty feet. Antenna is automatically converted to a true 5 wave doublet in the 10, 20, and 40 meter Amateur bands. Unusual efficiencies obtained through use of High-Q traps. Will provide increased signal gain even in noisy localities; in low noise level areas, set coupler may be omitted. Consists of: Antenna flat-top with 50 foot transmission line and supporting insulators; 2—14 MC and 2—30 MC wave-traps; 2—line pins for 7 MC; 2—rod insulators; and 1 set coupler. With instructions for easy installation.

E8419. Model 165 Antenna complete. **\$5.00**
NET
E8420. Set of 2 wave-traps for above 20 MC. NET \$1.18
E8421. Set of 2 wave-traps for above 14 MC. NET 1.18
E8422. Set of 2 leading coils for 7 MC. NET .88

MODEL 320 MASTER ANTENNA SYSTEM

A multiple antenna system for Hotels, Apartment Buildings, etc. Designed to provide noise-free reception to as many as 25 receivers. Kit contains: 1—80 foot and 1—20 foot coil of 7x20 tinned copper aerial wire; 1—Transformer unit; 1—70 foot coil transmission line; **\$3.53**
3—7 inch insulators; 1—insulating sleeve.

E8423. MASTER FOUNDATION KIT. NET \$1.47
E8424. Exposed wiring set coupler, Ivory finish. NET
E8425. Exposed wiring set coupler, Aluminum finish. NET 1.18



DX LIFETIME AERIALS

Efficient non-directional antennas, fully-assembled. Designed to increase selectivity and reduce interference. Especially suitable for successful short wave reception. Convenient form makes installation easy anywhere. Built of 7/24 stranded enamel copper wire with zinc spacer rings. Assembled with two porcelain insulators and with 25 feet of rubber-covered lead-in wire soldered on.

No. 60 Length, 50 ft. 6 spacer rings. Contains 250 ft. wire. Shpg. wt., 4 lbs. **\$2.79**
E9135. YOUR PRICE
No. 20 Length, 20 ft. 5 spacer rings. Contains 100 ft. wire. Shpg. wt., 2 lbs. **\$1.75**
E9137. YOUR PRICE



No. 46 DOUBLET SYSTEM

A new doublet type cage antenna designed for noise-free Short-Wave reception. Ideal for use with any All-Wave or Broadcast set. Consists of: 2—30 ft. cage aerials completely assembled with 25 ft. twisted lead-in. Each cage has 2 spacer rings and contains 100 ft. of wire. Should be used with any All-Wave Coupler for maximum efficiency. Weight, 4 lbs. **\$3.59**
E9138. YOUR SPECIAL PRICE

MEISSNER WAVE TRAPS

Interference created by powerful local stations, cross modulation, creak and long wave signals, can readily be eliminated by using these units. They are simply installed in series with the aerial lead-in wire, near the receiver, and then tuned to the interfering signal.

DUAL UNIVERSAL MODEL

Will eliminate unwanted, interfering signals in the broadcast, police and I.P. channels. Dual controls tune from 100 to 700 K.C. and from 650 to 1500 K.C. Iron-core construction provides a high "Q" which results in very sharp tuning. The attenuation is -10 DB. Easily adjusted. No tools required.

E5679. **\$1.55**
NET



FOR BROADCAST BAND

Covers from 400 K.C. to 1600 K.C. Available for the following ranges:

E5652. 400 to 700 K.C. EACH
E5653. 650 to 1000 K.C. EACH
E5654. 950 to 1600 K.C. **73c**

FOR AMATEUR BAND

Covers Amateur bands, also 450 K.C.
E5655. 20 Meter Band EACH
E5656. 40 Meter Band EACH
E5657. 80 Meter Band EACH
E5658. 160 Meter Band **73c**
E5659. 456 K.C. Model

RCA UNIVERSAL WAVE TRAP

Traps out interference occurring between 350 and 1700 K.C. Eliminates annoying creak signals, strong local stations, blurring and broad tuning. Will not interfere with short wave reception. It is quickly and easily attached to any radio set. Has differential mounting. Completely shielded. Assures interference-free radio reception.



E7599. **\$1.56**
NET



AERIAL ELIMINATOR and ANTENNA TUNER

This new device operates as a noise reducer when used with an outside aerial. May also be used by itself as an indoor aerial. Easily installed; works with any receiver; will improve reception; increases volume on weak stations.

E5554. **\$9.00**
List, \$1.00. NET **59c**



DYNATROL FILTER and INDOOR ANTENNA

Combination indoor aerial and line noise filter. Plugs into light socket. May be used with regular aerial to gain increased program. Reduces noise and improves set sensitivity.

E5518. **\$3.00**
List, \$1.50. NET **83c**

DOUBLE-TUNED AERIAL ELIMINATOR

This carefully designed unit will help to increase the selectivity of a radio. Ideal for A.C. sets to increase program and distance reception. Compact and efficient; eliminates noise. Easy to install. Has movable arms to match impedance of receiver.

E2750. **\$9.00**
List, \$1.00. NET **59c**

NOISE-REJECTING TACO SET COUPLER

A new Taco variable impedance antenna-matching unit. Designed to provide an accurate match between any antenna transmission line and the input circuit of any radio set. Quickly and easily adjusted by means of top knob. With wire leads for set connecting; screw terminals for antenna lead-in. In aluminum case. Wt., 1 lb.

E8415. List, \$2.50. **\$1.47**
YOUR PRICE



TOBE WINDOW POLE ANTENNA

This new antenna provides signal pickup far superior to the ordinary indoor aerial. Quickly and easily attached to any window sill or frame; extends a full eight feet from the inside. Ideal for temporary use; requires no tools to install. Has snap-type lead-in strip. Bracket permits either semi-rigid or horizontal installation. Live zero-rod wire insulation. Pushed in back into black. Shpg. wt., 2 lbs. **\$1.15**
E10482. NET

RECEIVER MATCHING TRANSFORMER

A compact and well-made unit for matching the transmission line of any doublet aerial to any All-Wave or Short-Wave receiver. Provides a very efficient match between antenna and receiver. Works with any transmission line to eliminate noise and increase signal strength on all bands. Has changeover switch for all-band operation. Will give effective results in increased sensitivity and signal pickup. **\$1.00**
E5545. List, \$1.50. NET **81c**



Belden RADIO PRODUCTS



BELDEN MAGNET WIRE

Famous Belden quality magnet wire. Highest grade soft-drawn copper wire with uniform insulation. Will not dry out or crack. Each spool is one continuous length, uniformly drawn. Standard B & S gauge. Ideal for winding chokes, coils, etc. Supplied on convenient metal spools. Noted everywhere as absolutely the finest quality magnet wire you can buy.

PLAIN ENAMELED

1/2 LB. SPOOLS		1/4 LB. SPOOLS	
No.	Size	Feet	NET
33900	14	39	\$0.28
33901	18	63	.28
33902	18	101	.28
33903	20	169	.28
33904	22	254	.28
33905	24	402	.29
33906	26	610	.33
33907	28	1013	.36
33908	30	1610	.40

1/4 LB. SPOOLS		1/2 LB. SPOOLS	
No.	Size	Feet	NET
33909	32	1275	.25
33910	32	2030	.30
33911	36	3220	.38
33912	38	5120	.52
33913	40	8140	.72

DOUBLE COTTON

1/2 LB. SPOOLS		1/4 LB. SPOOLS	
No.	Size	Feet	NET
33950	18	96	\$0.33
33951	20	150	.36
33952	22	225	.39
33953	24	362	.46

1/4 LB. SPOOLS		1/2 LB. SPOOLS	
No.	Size	Feet	NET
33959	30	280	.30
33960	30	450	.36
33961	32	665	.40
33962	32	1065	.53
33963	36	1675	.63

DOUBLE SILK

1/2 LB. SPOOLS		1/4 LB. SPOOLS	
No.	Size	Feet	NET
33980	18	100	\$0.48
33981	20	160	.50
33982	22	252	.55

1/4 LB. SPOOLS		1/2 LB. SPOOLS	
No.	Size	Feet	NET
33987	24	196	\$0.33
33988	26	310	.40
33989	28	400	.48
33990	30	775	.53
33991	32	1207	.69
33992	34	1785	.94
33993	36	2685	1.27

NEW BELDEN AERIALS

NO. 8302 CLEAR-CHANNEL ALL-WAVE DOUBLET SYSTEM



A newly developed All-Wave Doublet Antenna system by Belden designed for maximum efficiency in all-wave reception. Twisted pair low-loss transmission line and maximum coupling features produce clear-channel reception with remarkable response in all frequencies from 400 to 22,000 K.C., with no dead spots. Uses new Belden-engineered iron-core transformer coupler to match aerial to any all-wave set. Completely factory-assembled, ready to install. Kit includes: 2-30 foot coils 7x24 Belden bare copper aerial wire; 1-45 foot coil twisted-pair transmission wire; 1-antenna junction box; 2-porcelain insulators; 1-iron-core receiver coupler; 1-25 foot coil ground wire; 1-6" stand-off insulator; 2-porcelain nail-on knobs; hardware, etc. Complete with instructions. Easy to install. Shpg. wt. 6 lbs. E2401. List, \$3.50. YOUR NET PRICE **\$2.06**

NO. 8301 3-WIRE TRANSMISSION LINE TYPE

New improved Belden antenna system of the 3-wire transmission line type in which one wire of the three functions as ground and eliminates need for lightning arrester. Has new Belden iron-core transformers for I.C. band and air-core transformer for S.W. band. Complete factory-assembled kit includes: 1-60 foot coil 7x22 Belden aerial wire; 1-45 foot coil 3-conductor transmission cable; antenna coupler; receiver transformer; porcelain insulator; nail-on knobs; 6" stand-off insulator; ground clamp, etc. With full instructions. Shpg. wt. 7 lbs. E2402. List, \$5.25. NET. **\$3.09**

CELANESE-WRAPPED PUSH-BACK WIRE

Finest grade radio hookup wire. Celanese push-back insulation, covered overall with lacquer, colored braids. Solid conductor in No. 20 tinned copper; stranded in 10-strand No. 30 tinned copper. 25 foot spools.

Solid		Stranded	
No.	Color	No.	Color
22450	Red	22455	Red
22451	Blue	22456	Blue
22452	Green	22457	Green
22453	Black	22458	Black
22454	Yellow	22459	Yellow

NET EACH **18c** NET EACH **20c**

No. 15 Stranded Low-Loss Wire

For service and experimental work in A.V.C. and A.F.C. circuits. For use where leakage must be low. Made up of 16 strands No. 30 wire. 1/4" rubber covering. 6300 V. insulation. 25 ft. spools.

No.	Color	NET EACH
22395	Red	17c
22396	Blue	
22397	Green	
22398	Black	
22399	Yellow	

No. 14 Stranded
Similar to above but especially suited for heavy-duty use. Number 14 conductor is made up of 41 strands of Number 30 copper wire. E2460, 25 foot spool. **34c**
Black. NET E2461, 25 foot spool. **34c**
Red. NET

No. 10 Double Braid

Double braid, waxed push-back wire with Number 20 tinned conductor. 25 foot coils.

Solid		Stranded	
No.	Color	No.	Color
22920	Red	22925	Red
22921	Blue	22926	Blue
22922	Green	22927	Green
22923	Black	22928	Black
22924	Yellow	22929	Yellow

EACH **11c** EACH **12c**

All-Rubber Cord Sets
The modern safe cord for replacement on lamps, radios, etc. Small soft rubber plug and brown No-Fray cord. 7 1/2 ft. approved cord ends "Corlids." **23c**
E2447, Each. **\$2.06**
PER 10. **\$2.06**
E2448, Same as above but 12 ft. long. NET EACH **28c**

GLAZED COTTON MULTIPLE CABLE



For permanent installation of switches, remote controls, transmission lines, etc. Conductors of No. 20 tinned copper are in heavy wax, rubber sheath, and color-coded plastic braids with abrasion-proof woven braided overall.

No. Conductors	Per Ft.	100 Ft.
2381	2 1/2c	\$1.30
2382	3 2/2c	2.11
2383	4 3/2c	2.94
2384	5 4/2c	3.58

RUBBER-COVERED MULTIPLE CABLE

For P.M. or electro-dynamic speakers and for power supply lines. Individual conductors rubber covered, cotton wrapped and an overall jacket of heavy, flexible rubber.

No. Conductors	Per Ft.	100 Ft.
2390	2 2/2c	\$2.11
2391	3 3/2c	2.67
2392	4 4/2c	3.22
2393	5 5c	4.07



DOUBLET ARRESTER

For complete protection with any doublet antenna system. Sturdy brown porcelain case. E2409, NET. **18c**

EXTENSION CORDS

Flexible braid-covered cords with phone plug and connector.

E5555	20 Ft. Cord.	NET 35c
E5556	30 Ft. Cord.	NET 51c
E5557	50 Ft. Cord.	NET 76c
E5558	Extra Connector.	.8c

LEAD-IN-WIRE

ALL RUBBER
Stranded conductor, covered with special rubber insulation to allow easy stripping and soldering.

No.	Size	Length	NET
E2422	14	50 ft.	\$0.38
E2423	14	250 ft.	1.75
E2424	16	50 ft.	.46
E2426	16	100 ft.	.46
E2425	16	250 ft.	1.13
E2431	18	100 ft.	.36

SHIELDED
Heavy rubber insulation over stranded conductor. Overall shield of tinned braided copper. Ideal for shielded lead-in use. Weatherproof.

No.	Size	Length	NET
E2427	14	50 ft.	\$1.05
E2428	14	250 ft.	4.63
E2429	16	50 ft.	.73
E2430	16	250 ft.	3.16

MATCHED IMPEDANCE TWISTED PAIR LEAD-IN

66.4 ohm twisted pair transmission line. Two No. 18 conductors covered with color-coded rubber and weatherproof outer braid. Designed to match most all-wave antennas and receivers. **98c**
E2324, 75 Foot Coil. **\$6.31**
E2325, 500 Foot Coil. **\$6.31**



FOR ADDITIONAL LISTINGS OF CABLE AND WIRE FOR TRANSMISSION LINES, AERIALS, ETC., SEE PAGE 118.

AERIAL WIRE

BELDENAMEL
High conductivity aerial wire. Ideal for all types of Broadcast All-Wave and Short-Wave aerials. Belden enamel insulation protects the wire from corrosion and atmospheric conditions indefinitely.

7x22 ENAMELED	
E2410, 75 ft.	
List, 63c. NET	37c
E2411, 100 ft.	
List, 82c. NET	48c
E2412, 150 ft.	
List, \$1.23. NET	72c
E2413, 1000 ft.	
List, \$7.90. NET	\$4.60

7x10 ENAMELED
E2415, 100 ft. **75c**
List, \$1.30. NET.
E2416, 1000 ft. **\$7.50**
List, \$13.00. NET.

SOLID ENAMELED
E2418, No. 10. **96c**
100 ft. NET.
E2419, No. 12. **55c**
100 ft. NET.
E2420, No. 14. **38c**
100 ft. NET.

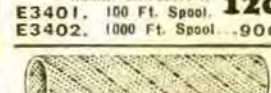
BAKELITE ARRESTER
Underwriters' approved. Provides positive protection. Sturdy and compact. Bakelite body. E2403, 10 for \$1.15. EA. **13c**

FARM PLANT WIRE
Weatherproof single conductor wire for use with Windchaser or Power plants. Solid copper conductor, triple cotton-covered. For battery charging, use as follows: At 75 foot distance from charger to battery, use No. 6; at 50 feet, No. 8; at 25 feet, No. 10; at 15 feet, No. 12. For a single 6 volt 25 watt lamp: 150 feet from battery, use No. 8; 75 feet, No. 10; 50 feet, No. 12; 30 feet or less, No. 14.

No.	Size	100 Ft.	Per Ft.
E2490	6	\$5.25	5 1/2c
E2491	8	4.50	5c
E2492	10	2.10	3 1/2c
E2493	12	2.65	3c
E2496	14	1.25	1 1/2c

LITZ WIRE

Superior quality for low-loss coil winding. 10 strands No. 28 high conductivity copper wire, white double-silk covered. **12c**
E3401, 100 Ft. Spool. **12c**
E3402, 1000 Ft. Spool. **.90c**



COPPER SHIELDING

No.	Diam.	Open	Per 50 Ft.	Per Ft.
E3595	3/8 in.		\$0.95	3 1/2c
E3596	1/2 in.		1.10	3c
E3597	3/4 in.		1.65	4c
E3598	1 in.		2.35	6c

AERIAL WIRE AND EQUIPMENT

SPECIAL VALUE AERIAL KITS



DE LUXE AERIAL KIT

An exceptionally fine kit. Will improve reception on all radio sets. Contains 100 feet of 7-strand copper aerial wire; 40 feet of rubber-covered lead-in wire; 25 feet of ground wire; 4 porcelain insulators; 2 ground wire insulators; 1 lightning arrester; 1 window lead-in strip; 1 adjustable ground clamp. Easily installed in any location by following the complete, easy instructions packed with each kit. Shipping Wt., 4 lbs. **E3486. NET 63¢**

STANDARD AERIAL KIT

A real value in a complete aerial kit. Includes all materials for a "Marconi type" antenna for use with any receiver. Consists of 100 feet of 5-strand copper aerial wire; 25 feet of rubber-covered lead-in wire; window lead-in strip; two porcelain insulators; two nail brackets; and an adjustable strap-type ground clamp. Conveniently boxed. Complete instructions are included. Shipping Wt., 4 lbs. **E3485. YOUR SPECIAL PRICE 37¢**

ALL-PURPOSE LEAD-IN WIRE

RUBBER COVERED LEAD-IN WIRE



Stranded Wire

Stranded No. 18 rubber-covered lead-in wire. Flexible and easy to work.

No.	Ft.	10 for	EACH
E3479	25	\$0.95	\$0.10
E3480	50	1.80	.19
E3481	100	3.32	.34
E3482	250	7.53	.85
E3482	1000		3.16



Solid Wire

High quality No. 10 rubber-covered lead-in wire. Weatherproof.

No.	Ft.	10 for	EACH
E3475	25	\$1.14	\$0.12
E3476	50	2.18	.23
E3477	100	4.27	.45
E3467	100	10.65	1.11
E3478	1000		4.24



SHIELDED LEAD-IN

For broadcast use. No. 18 stranded shielded wire with tough braided rubber covering; 1 1/2 in. of woven flexible copper braid over all.

E3492.	50 Ft.		
YOUR PRICE			49¢
E3494.	100 Ft.		
YOUR PRICE			96¢
E3499.	250 Ft.		
YOUR PRICE			\$2.38



COMBINATION LEAD-IN AND AERIAL WIRE

10 strands of No. 30 copper wire, insulated with Gutta Percha. Free-strapping. Non-corrosive. An all-purpose wire for aerial, lead-in and set hookup.

No.	Length	NET
E3471	25 Ft.	\$0.12
E3470	50 Ft.	.23
E3469	100 Ft.	.44
E3466	250 Ft.	1.05
E3468	1000 Ft.	4.05



FLEXIBLE INDOOR ANTENNA WIRE

For A.C. D.C. and midset sets. Moisture-proof woven cotton covering. May be inconspicuously installed under rugs or around moldings. **E3483. 100 Foot 37¢**
E3484. 25 Feet 12¢

TWISTED PAIR SHIELDED LEAD-IN

For all wave lengths. W. aerials. No. 20 twisted pair copper conductors; weather-proof insulation with closely woven copper shielding overall.

E2487.	50 Ft. Coils.	\$0.85
E2488.	100 Ft. Coils.	1.62
E2489.	250 Ft. Coils.	3.82



WEATHERPROOF TWISTED PAIR

Low impedance transmission line for use with non-inductive aerials. Two No. 22 stranded copper conductors, rubber-covered. Platinized braid overall.

E2434.	50 Ft. Coils.	\$0.47
E2432.	100 Ft. Coils.	.90
E2437.	250 Ft. Coils.	2.10



RUBBER TWISTED PAIR LEAD-IN

For all noise-reducing aerial systems including dummies or double doubler antennas. Low impedance No. 18 twisted pair rubber-covered stranded wire. **E3488. 50 Feet \$0.45**
E3489. 100 Feet .88
E3491. 250 Feet 2.10

TWISTED LAMP CORD



Approved by the underwriters. No. 18 1/2 rubber insulation with black cotton braid. For extension or A.C. line cords. **E3592. Per foot. 1 1/2¢**
NET
E3593. Per 100 Ft. \$1.30
NET

E3590	1	20¢
E2901	5	24¢
E2902	6	28¢
E2903	7	38¢
E2904	9	49¢

BATTERY CABLES

Well-made. For battery, speaker and analyzer connections. Cotton braided overall. Wires are color-coded for easy identification. Attractively labeled quality cables.

4 1/2 Foot Cables		
No.	Conductors	NET
E2900	1	20¢
E2901	5	24¢
E2902	6	28¢
E2903	7	38¢
E2904	9	49¢

AERIAL WIRE VALUES

Exceptionally high-quality hand drawn copper wire. Has high conductivity and very little stretch. Stranded wire will not corrode. Ideal for all types of aerials: single wire, doublet, or two-type for All-Wave, Short-Wave, or Broadcast sets. Nevertheless, take advantage of these low prices to increase your aerial wire profit.



STRANDED ENAMELED

7 STRANDS No. 22	
Excellent for All-Wave aerials.	
E3444. 50 ft.	23¢
10 for \$2.18. EACH	
E3445. 100 ft.	45¢
10 for \$4.27. EACH	
E3446. 200 ft.	90¢
10 for \$8.54. EACH	

7 STRANDS No. 26

A fine value in a tight wire.	
E3447. 50 ft.	14¢
10 for \$1.25. EACH	
E3448. 100 ft.	26¢
10 for \$2.40. EACH	
E3449. 200 ft.	51¢
10 for \$4.75. EACH	

7 STRANDS No. 30

Heavy-duty wire for long life.	
E3434. 50 ft.	36¢
YOUR PRICE	
E3441. 100 ft.	71¢
YOUR PRICE	
E3442. 200 ft.	\$1.42
YOUR PRICE	

SOLID ENAMELED

Hand drawn enameled stranded copper wire for x-raying and rotoxing.

No.	Gauge	Feet	Ex.
E3450	10	200'	\$0.90
E3451	10	200'	1.73
E3452	10	200'	4.15
E3453	12	200'	.53
E3454	12	200'	.99
E3455	14	200'	.35
E3456	14	200'	.68

STRANDED BARE

7 STRANDS No. 22	
Standard size for all aerials.	
E3435. 50 ft.	
10 for \$1.61. EACH	17¢
E3436. 100 ft.	
10 for \$3.13. EACH	33¢
E3437. 200 ft.	
10 for \$6.26. EACH	66¢

7 STRANDS No. 26

An excellent buy in thin wire.	
E3438. 50 ft.	8¢
10 for 76¢. EACH	
E3439. 100 ft.	15¢
10 for \$1.42. EACH	
E3440. 200 ft.	30¢
10 for \$2.84. EACH	

7 STRANDS No. 30

Heavy wire for added strength.	
E3472. 50 ft.	
10 for \$2.99. EACH	31¢
E3473. 100 ft.	
10 for \$5.79. EACH	61¢
E3474. 200 ft.	
10 for \$11.58. EACH	\$1.22

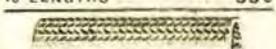
PHOSPHOR BRONZE

Standard aerial wire. Has high conductivity; non-stretching. Used commercially on ships.

No.	Size	Ft.	NET EA.
E3460	7x22	100	\$1.10
E3461	7x22	200	2.10
E3462	7x21	100	.75
E3463	7x21	200	1.40
E3464	7x26	100	.60
E3465	7x26	200	1.10

FLEXIBLE SPAGHETTI

For insulating line bay wire, and telephone and telegraph plant leads. Fine synthetic tubing impregnated with varnish. **E2895. Black. Per 30' Lgth. 6¢**
E2896. Yellow. 55¢
E2897. Red. 55¢
E2898. Green. 55¢
10 LENGTHS



GIANT SPAGHETTI

Black cambric tubing, 1/2 in. diameter, with oil varnish. 3/4" inside diameter. 30' long. **E2899. NET. 15¢**
10 LENGTHS FOR \$1.25

CORD SET

Underwriters' approved cord for radios, amplifiers, etc. 6 foot cord with rubber plug. **E3498. YOUR PRICE 14¢**



ANALYZER CABLE

For use in resistance or impedance test equipment, test panels, tube testers, etc. Tinned, stranded copper conductors with individual rubber and color-coded braid covering. **E1670. 8 CONDUCTOR. 10¢**
E1671. 9 CONDUCTOR. 10¢
Has 2 No. 10 and 5 No. 20 wires. PER FOOT. **9¢**
E1671. 9 CONDUCTOR. 10¢
Has 2 No. 10 and 7 No. 20 wires. PER FOOT. **10¢**

HANDY CORD LAMP CORD

Rubber-jacketed flexible cord; each conductor is No. 18 stranded copper wire, separately insulated in tough rubber sheath that splits down center when pulled apart. Fine for lamps, radios, etc.

E3410. Brown.	PER FOOT
E3412. Black.	1¢
E3413. Gray.	
E3414. Ivory.	
E3414. Green.	
PER 100 FEET	\$1.15

RUBBER SERVICE CORD

Round flexible weather-proof cable. No. 18 (16/30) stranded wire conductors, each rubber covered and coated with cotton wrapping and outer five rubber sheath.

E2435. 2 COND.	
100 Ft. \$2.95. PER FT.	3¢
E2436. 3 COND.	
100 Ft. \$3.75. PER FT.	4¢

TEST-LEAD WIRE

Extra-flexible No. 18 test lead wire. Ideal for repairing without test-lead leads or for making new test equipment. Made of 41 strands of No. 24 tinned copper wire, with waxed cotton wrapping, covered by 1/32" wall of rubber.

E2385. RED.	
E2386. BLACK.	
5 FOOT COILS, EACH	6¢
E2387. RED.	
E2388. BLACK.	
PER FOOT	1 1/2¢

HOOKEP & MAGNET WIRE - CABLES



SINGLE COTTON ENAMELED MAGNET WIRE

An exceptionally high-grade magnet wire. Properly annealed for easy handling. Cotton wrap over enamel gives adequate insulation. Each spool holds one continuous, uniformly drawn and insulated length, H. & S. gauge.

1 LB. SPOOLS			1 LB. SPOOLS		
No.	PL.	NET	No.	PL.	NET
E3354	39	\$0.23	E3367	78	\$0.41
E3355	49	.24	E3368	98	.42
E3356	62	.25	E3369	124	.43
E3357	78	.26	E3370	176	.44
E3358	98	.27	E3371	198	.45
E3359	124	.28	E3372	248	.48
E3360	156	.29	E3373	312	.52
E3361	194	.30	E3374	392	.55
E3362	245	.31	E3375	490	.58
E3363	386	.35	E3376	772	.67
E3364	468	.38	E3377	936	.70
E3365	603	.41	E3378	1204	.73
E3366	938	.46	E3379	1876	.83

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, motor and transformer coils, rewinding power transformers and chokes. For shops, schools, laboratories, etc. Standard H. & S. Gauge. We can supply magnet wire in all sizes and types of insulation in larger quantities than listed below. Write for attractive prices which will save you money on quantity purchases of magnet wire.



PLAIN ENAMELED

1 LB. SPOOLS			
No.	Size	PL.	NET
E3520	14	38	\$0.20
E3521	16	63	.23
E3522	18	101	.24
E3523	20	139	.25
E3524	22	213	.26
E3525	24	402	.27
E3526	26	640	.31
E3527	28	1013	.34
E3528	30	1602	.38
E3529	32	2543	.43
E3530	34	4042	.45
E3531	36	6410	.56

DOUBLE COTTON

1 LB. SPOOLS			
No.	Size	PL.	NET
E3533	14	36	\$0.25
E3534	16	61	.27
E3535	18	90	.30
E3536	20	130	.33
E3537	22	234	.36
E3538	24	362	.43
E3539	26	558	.52
E3540	28	842	.61
E3541	30	1321	.79
E3542	32	1889	.90
E3543	34	2746	1.14
E3544	36	3801	1.40

DOUBLE SILK

1 LB. SPOOLS			
No.	Size	PL.	NET
E3546	18	49	\$0.26
E3547	20	78	.29
E3548	22	120	.30
E3549	24	190	.31
E3550	26	310	.37
E3551	28	436	.45
E3552	30	775	.50
E3553	32	1247	.65
E3554	34	1828	.89
E3555	36	2668	1.17
E3556	38	3877	1.45
E3557	40	5326	2.75

CABLES FOR EVERY PURPOSE

MULTI-CONDUCTOR CABLES



COTTON BRAID OVERALL

No. 18 stranded conductors, each covered with rubber jacket with brown cotton braid over all. Any length.

No.	Cond.	Per 10 Feet	NET
E3500	1	15c	\$1.25
E3501	2	25c	2.05
E3502	4	32c	2.85
E3503	6	41c	3.50
E3504	6	46c	4.25
E3505	7	52c	4.50
E3495	8	56c	4.95
E3496	9	60c	5.50



WOVEN SHIELDING OVERALL

Tightly woven overall shielding of fine tinned copper wire. Each is No. 18 conductor, insulated with rubber jacket. Any length.

No.	Cond.	Per 10 Feet	NET
E3507	2	3c	\$2.45
E3508	3	3 1/2c	3.00
E3509	4	4 1/2c	3.75
E3510	5	5c	4.35
E3511	6	6c	5.25
E3512	7	7c	6.15



TELEPHONE WIRE

For telephone and multiple speaker installations. High-grade No. 19 solid tinned copper. Has 35c rubber insulation with glass cotton braid overall.

E2494.	2 Conductor.	100 Ft.	500 Ft.	1000 Ft.
		\$1.70	\$8.10	\$15.40
E2495.	3 Conductor.	100 Ft.	500 Ft.	1000 Ft.
		\$2.15	\$10.15	\$19.40

HEADPHONE AND SPEAKER CORDS

Copper tinsel inner conductor covered with closely woven cotton braid. Tips are hardy attached.

SINGLE CORDS	
E2932.	4 foot cord. Tips on one end; spades on other. For speakers.
E2933.	4 foot cord. Tips on both ends.
NET EACH	8c
10 for 75c.	100 for \$7.15.
DOUBLE CORDS	
E2934.	Spades on one end. Tips on other. 5 foot cord.
E2935.	Tips on both ends. 5 foot cord.
NET EACH	19c
10 for \$1.75.	100 for \$16.95.

HIGH-IMPEDANCE MICROPHONE CABLE



For Crystal, Sound Cell, Dynamic, Velocity, & Velotron Mikes

Low capacity, high-impedance microphone cable. Shielded and rubber-jacketed. Conductor is of fine stranded No. 20 copper, extremely flexible. Low loss. *E2480 is No. 20 stranded copper for hard usage over short distances. 1 per 10'.

SINGLE CONDUCTOR

No.	Capacity	Per Ft.	100 Ft.
E2499	21 mmf.	4c	\$3.45
E2497	20 mmf.	3 1/2c	3.22
E2481	36 mmf.	2 1/2c	2.31
E2469*	27 mmf.	4c	3.37

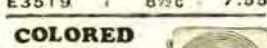
DOUBLE CONDUCTOR

E2498	30 mmf.	6c	\$4.10
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CARBON MIKE AND UTILITY CABLE

Heavy rubber jacket over tinned copper shielding. Ideal for outdoor and heavy duty service.

No.	Cond.	Per Ft.	100 Ft.
E3514	2	3 1/2c	\$2.70
E3515	3	4c	3.75
E3516	4	5c	4.90
E3517	5	6 1/2c	6.85
E3518	6	7c	6.85
E3519	7	8 1/2c	7.55



COLORED RUBBER HOOK-UP WIRE

Stranded tinned No. 20 copper wire with flexible rubber insulation easy to skin. In 5 colors. Use a different color to identify each circuit.

15 FOOT COILS

	NET EACH
E3572.	Red.
E3573.	Green.
E3574.	Blue.
E3575.	Black.
E3576.	White.

10 FOR \$1.04.
E3577. 1000 FT. ROLLS. SPECIFY color. NET \$3.55

NO. 16 STRANDED

E2744.	Red.
E2745.	Black.
25 Foot Coils, Each	21c

NO. 14 STRANDED

E2746.	Red.
E2747.	Black.
25 Foot Coils, Net Each	31c

NO. 12 STRANDED

E2748.	Red.
E2749.	Black.
25 Foot Coils, Each	48c

HANDY MAGNET WIRE SPOOLS

Quality magnet wire available in small quantities on handy marked spools. Double cotton, double-silk and enamel types. Steel spool permits rewinding. Keep an assortment on hand. YOUR PRICE ANY SPOOL.

DOUBLE COTTON			DOUBLE SILK			PLAIN ENAMEL		
No.	Size	Feet	No.	Size	Feet	No.	Size	Feet
E2755	14	21	E2770	14	19	E2785	14	25
E2756	16	33	E2771	16	25	E2786	16	40
E2757	18	42	E2772	18	31	E2787	18	45
E2758	20	60	E2773	20	42	E2788	20	55
E2759	22	81	E2774	22	60	E2789	22	133
E2760	24	110	E2775	24	83	E2790	24	200
E2761	26	148	E2776	26	101	E2791	26	292
E2762	28	168	E2777	28	119	E2792	28	420
E2763	30	192	E2778	30	141	E2793	30	500
E2764	32	216	E2779	32	163	E2794	32	805
E2765	34	242	E2780	34	190	E2795	34	1150
E2766	36	266	E2781	36	216	E2796	36	1500
E2767	38	294	E2782	38	243	E2797	38	1980
E2768	40	324	E2783	40	276	E2798	40	2130

YOUR PRICE ANY SPOOL. Lots of 10 Assorted. NET \$1.30

PUSH-BACK HOOK-UP WIRE

This tinned push-back hook-up wire is of the highest quality. Only evenly-drawn pure copper wire is used. Available in both solid and stranded wire. The stranded wire is made up of carefully twisted individual strands with a tensile strength that gives them unusual flexibility.

FIVE DIFFERENT COLORS

This wire is double cotton covered with non-flammable damp-proof braid which makes back-wiring available in five distinctive colors. Use a different color for each circuit or ready identification. Buy in quantities of our attractive low prices.

No. 20 SOLID 25 FOOT ROLLS		No. 20 STRANDED 25 FOOT ROLLS	
PER ROLL	PER ROLL	PER ROLL	PER ROLL
E3560.	Black.	E3580.	Black.
E3561.	Yellow.	E3581.	Yellow.
E3562.	Red.	E3582.	Red.
E3563.	Green.	E3583.	Green.
E3564.	Blue.	E3584.	Blue.

10 FOR 93c. 10 FOR 93c.

100 FOOT ROLLS		100 FOOT ROLLS	
PER ROLL	PER ROLL	PER ROLL	PER ROLL
E3565.	Black.	E3585.	Black.
E3566.	Yellow.	E3586.	Yellow.
E3567.	Red.	E3587.	Red.
E3568.	Green.	E3588.	Green.
E3569.	Blue.	E3589.	Blue.

10 FOR \$3.35. 10 FOR \$3.80.

1000 FOOT SPOOLS		1000 FOOT ROLLS	
PER ROLL	PER ROLL	PER ROLL	PER ROLL
E2870.	Black.	E3394.	Black.
E2871.	Red.	E3395.	Red.
E2872.	Green.	E3396.	Green.
E2873.	Blue.	E3397.	Blue.
E2874.	Yellow.	E3398.	Yellow.
E2875.	100 FT. ROLLS. SPECIFY COLOR.	E3399.	100 FT. ROLLS. SPECIFY COLOR.

1000 FT. NET \$3.35. 1000 FT. NET \$3.60.

NO. 14 SOLID 25 FOOT ROLLS

High-voltage insulation. Ideal for transmitter, power packs, etc.		Heavier wire especially suited for use in filament circuits, etc.	
PER ROLL	PER ROLL	PER ROLL	PER ROLL
E2870.	Black.	E3394.	Black.
E2871.	Red.	E3395.	Red.
E2872.	Green.	E3396.	Green.
E2873.	Blue.	E3397.	Blue.
E2874.	Yellow.	E3398.	Yellow.
E2875.	100 FT. ROLLS. SPECIFY COLOR.	E3399.	100 FT. ROLLS. SPECIFY COLOR.

NET EACH \$1.02. NET EACH \$2c.

AUTO RADIO ACCESSORIES

LATEST AUTO RADIO AERIALS KNIGHT AERIALS

HINGE TYPE



Here is the new type flexible hinge-whip antenna that is proving so very popular. Good-looking, made of the highest grade steel. Very low-priced. Easily attached to hinge pin of any car door without drilling. Provides good signal pickup. 40" long. Has 21" lead-in. Chrome plated finish.

E10450. NET..... **59c**

E10481. BUMPER POLE TYPE. 3' to 8' telescoping rod. Easily attached to rear bumper of any car. NET..... **\$1.55**

BUICK-OLDS RUNNING-BOARD INSULATOR KITS



E10451. FOR 1937-38 BUICK. For installation under both running boards. Makes antennas out of running boards by clever method of insulation. Includes 8 insulators. Ioon-shielded lead-in. Instructions, etc. Shpg. wt. 7 lbs.

NET..... **\$2.94**

E10452. FOR 1937-38 OLDSMOBILE. Same as above, but for Oldsmobile 1937 and 1938 models. Easy to install. NET..... **\$2.94**



CARFLO AUTO AERIAL "FITS ANY CAR TOP"

A new development in auto antennas. Absolutely non-directional design gives increased signal pickup and clarity, greater efficiency, and less noise. Constructed of one-piece seamless drawn copper tubing. Wt. 3 lbs.

E10470. Polished Chromium. NET..... **\$2.95**

WARD AUTO AERIALS THE "FLEXOR"



Highly efficient. Fits door-hinge of any car. Drawn from Mol-en-acc steel with polished chromium finish. Flexible—will not break. Easy to install; will increase the signal pickup and improve reception. Complete with 37" lead-in and mounting bracket.

E10383. NET..... **\$1.62**

A two-section coil antenna for use on any automobile. Made of rustproof Mol-en-acc. Vacuum cup mounting—requires no drilling. Length collapsed is 28 1/2". Extended, 49 1/2". Easily and quickly installed. Avoids optimum signal pickup. With lead-in.

E10386. NET..... **\$1.73**



THE "FISHPOLE"

Consists of flexible, telescoping 8 foot steel rod with insulating bracket and lead-in wire. Easily attached to any rear bumper. Complete isolation from motor noise permits better signal pickup with less possibility of interference from ignition system. With 12 foot lead-in. Wt. 2 lbs.

E10382. NET..... **\$1.76**



LONG-RANGE TWINS

A new dual-section unilerac antenna with signal pickup equalizing that of roof type aerials. Sealed in rubber; absolutely weather-proof. No drill mounting. With 66" shielded lead-in cable. Shpg. wt. 7 lbs.

E10381. NET..... **\$2.35**



"REDHEAD" SENIOR AUTO ANTENNA

A scientifically designed, welded, vibration-proof running-board antenna of remarkable efficiency. Strong signal pickup with minimum of ignition interference. All-metal construction; completely insulated with an overall rubber cover waterproof and rust-resisting. Easy to install. No springs, wire, etc., to rattle or loosen. Has set screw connection for antenna lead-in. Length, 46"; width, 8". Wt. 7 lbs. A highly efficient aerial.

E10473. NET..... **\$1.47**

I.C.A. AUTO AERIALS

EAGLET TWIN

A modern doublet type auto antenna providing maximum signal pickup with less noise. Full triple chromium-plated for lasting beauty. Easily installed with vacuum cup mounting. Fits all metal top cars.

E10475. Open Windshield Cars. NET..... **\$2.50**

E10476. For Cars with Permanently Closed Windshield. NET..... **\$2.65**



MOTO-WHIP

A new adjustable auto antenna for all cars. Easily installed without drilling car top. Maximum length, 62". Increases signal pickup. Has snap-type adjustment; full chrome-plated. With lead-in.

E10477. NET..... **\$1.22**



HINGE TYPE

An efficient telescopic antenna that is easily attached to the hinge pin of any car door without drilling. Extends from 27" to 54". Chrome-plated. Lead-in enters through car door opening. With lead-in wire and bracket.

E10478. Fig. A. NET..... **\$1.47**

E10464. Fig. B. One piece tapered aerial. 50" long. With lead-in wire. NET..... **\$1.62**

E10465. Fig. C. Three piece telescoping. 33 to 86". With lead-in wire. NET..... **\$2.06**



SIDE-COWL TYPE

May be mounted on the cowl of any car. The triple chromium plating positively prevents rust. Lower end black enameled. Sturdy molded insulators. Non-telescopic, 60" total length. With 40" of lacquered lead-in wire.

E10466. Fig. A. NET..... **\$1.18**

E10467. Fig. B. Extends 35 to 68". With special lead-in connector. NET..... **\$1.62**

E10468. Fig. C. Extends 30 to 90". With special lead-in connector. NET..... **\$2.35**



EXTRA DISCOUNTS

You may deduct an additional discount of 10% on any of the I.C.A. aerials listed above if ordered in lots of ten or more. Your order may consist of one type or an assortment.

R.C.A. AUTO ANTENNA

Based on a fundamental principle which assures maximum results with any auto radio. Noise from nearby sources is eliminated by cancellation effect caused by shape of antenna. A necessity on new all-steel and turret-top cars. Universal mounting brackets. Shpg. wt. 4 lbs.

E10483. RCA No. 9605. NET..... **\$1.53**



KNIGHT AUTO RADIO SUPPRESSORS

Efficient carbon type suppressors for use on any automobile engine. Will cut out practically all ignition interference. Cut shows halitite type. Ceramic units are white.

Bakelite No.	Ceramic No.
E6990. A. Spark Plug Type.	E7180.
E6991. B. Distributor Type.	E7181.
E6992. C. Cable Type.	E7182.
E6994. E. Short Type.	E7183.
E6996. F. Elbow Type.	E7184.

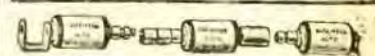
SET OF 5..... 55c
SET OF 7..... 75c
SET OF 9..... 94c

YOUR PRICE, EACH **12c**

E6995. D. Special 50,000 ohm. Ford V8 Break Type. For 1933-1935 models.

E6999. D. Special small type, 50,000 ohm. For 1936, 1937 and 1938 Fords.

YOUR PRICE, EACH **12c**



LOW RESISTANCE WIRE-WOUND SUPPRESSORS

Extremely effective in eliminating motor noise. Positively will not affect operation of motor; has low resistance—50 ohms. Bakelite cases.

E5560. Plug type. Fig. A.

E5561. Distributor type. Fig. B.

E5562. Elbow type. Fig. C.

10 FOR \$2.50, EACH **27c**

AUTO RADIO FILTERS

SINGLE CAPACITORS

Metal-cased compact by-pass condensers for use on generators, ammeters, horns, etc., to eliminate noise.

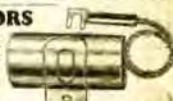
E2942. 1/4 MFD. Round metal container 3/8" x 1". Single lead with lug. For horn. EACH..... **15c**

E2943. 1/2 MFD. Round metal container 3/8" x 1". Single lead with lug. For coil. EACH..... **19c**

E2944. 1 MFD. Round metal container 1 1/8" x 1 1/2". Single lead with lug. For generator. EACH..... **24c**

E2945. 1 MFD. 1 1/4" x 2 1/4". Heavy duty for use near main.

For generator. EACH..... **32c**



DOME LIGHT FILTER

A 1/2 mfd. condenser and 2 amp. choice in a round insulated container, 3 1/2" x 3 1/2". With 3 flexible leads.

E2941. EACH..... **31c**

E2938. Ammeter & Gas Gauge Filter. A-5 mfd. condenser in insulated case with two flexible insulated leads. NET..... **29c**



FORD V-8 CONDENSER

Especially designed to fit the Ford V8 distributor-head. Special bracket assembly matches distributor head bolts. Installed in all Ford V8 cars with radios.

E5921. For 1934-35 V8 Fords. EACH..... **26c**

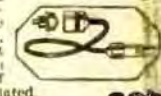
E5922. For 1936-37 V8 Fords. Slightly different shape. NET..... **26c**



SPRING-TENSION CONNECTOR FOR AUTO AERIAL LEAD-IN

A specially designed spring tension lead-in connector that assures positive contact. With 12" shielded, flexible lead and bayonet connector. Can be used on any type aerial. Made of brass, heavily chromium plated.

E5507. NET..... **29c**



REPLACEMENT PARTS FOR SPEAKERS



EXACT DUPLICATE FIELD COILS

Select your field coil from the following listing and from the Universal coils shown below. We can also supply field coils other than those listed. If possible send sample with a diagram, or specify exact measurements and resistance and we will supply as quite normally.

No.	Set or Speaker	Ohms	NET
E2990.	Apex 20 (1 1/2" x 2 1/2")	5,000	\$1.47
E2950.	Apex 20 (1 1/4" x 2 1/2" x 1 1/2")	11,500	1.62
E2951.	Apex 26A (1 1/4" x 2 1/2" x 1 1/2")	11,500	1.62
E2952.	Apex 20" (Speaker 2 1/8" 1 1/2" x 1 1/2")	11,500	1.62
E2953.	Apex 20" (Speaker 2 1/8" 1 1/2" x 1 1/2")	11,500	1.62
E2954.	Apex 27 (1 1/4" x 2 1/2" x 1 1/2")	11,000	1.62
E2955.	Apex NA (1 1/2" x 2 1/2" x 1 1/2")	6,000	1.62
E2991.	Apex 30B (1 1/2" x 2 1/2" x 1 1/2")	6,070	1.62
E2961.	Beach 505, 515	1,500	1.65
E2993.	Brushwick 16	2,100	2.35
E2994.	Crosley 260	10,000	2.25
E2964.	Magnavox "D7, D8"	2,500	3.82
E2965.	Majestic G1	1,100	3.15
E2966.	Majestic G2	2,700	3.15
E2967.	Majestic G3	2,700	3.15
E2969.	Majestic G5	7,050	3.15
E2997.	Majestic (111)	710	1.59
E2981.	Philco 20	2,100	1.18
E2982.	Philco 80, 87, 95, 99	2,100	1.18
E2970, 90, 77		2,200	2.65
E2970.	Philco 70	5,500	1.18
E2984.	Stewart Warner 350	10,000	4.70
E2985.	Stow Warner (120)	10,000	2.35
E2989.	Victor R122, 43, 75	2,500	2.79

UNIVERSAL FIELD COILS FOR AC-DC FIELDS



For magnet 5" and 6" speakers. 1" inside dia.; 2" outside dia.; 3/4" high. Supplied with 2 gaskets for fitting any pole-piece.

E2690.	1,000 Ohm.	E2693.	2,500 Ohm.
E2691.	1,500 Ohm.	E2694.	3,000 Ohm.
E2692.	2,000 Ohm.		

List, \$1.50. NET EACH

88c

FOR GENERAL REPLACEMENT

With the following coils you can now service practically any type of speaker on the market. Coils have 2 windings which may be connected either in series or parallel to obtain the resistance values shown below. Sizes are as follows: Type 1—inside diameter 1 1/2", outside diameter 2 1/2", length 1 1/2"; Type 2—inside diameter 1 1/2", outside diameter 2 1/2", length 1 1/2"; Type 3—inside diameter 1 1/2", outside diameter 2 1/2", length 1 1/2"; Type 4—inside diameter 1 1/2", outside diameter 2 1/2", length 1 1/2". With complete instructions. Average ship. wt., 1 1/2 lbs.

PARALLEL RESISTANCE RANGE

Ohms	Type 1 No.	Type 2 No.	Type 3 No.	Type 4 No.
375-460	E2670	E2675	E2680	E2685
460-690	E2671	E2676	E2681	E2686
675-825	E2672	E2677	E2682	E2687
1000-1100	E2673	E2678	E2683	E2688
1225-1375	E2674	E2679	E2684	E2689

SERIES RESISTANCE RANGE

1,200-1800	E2670	E2675	E2680	E2685
2,500-2750	E2671	E2676	E2681	E2686
2700-3300	E2672	E2677	E2682	E2687
3600-4400	E2673	E2678	E2683	E2688
5000-5500	E2674	E2679	E2684	E2689

List, \$3.10 NET EACH

\$1.82

CENTERING SHIMS



3-Holed centers for centering and adjusting speaker coils on all diameters. Flexible and tough. Kit includes: 1 shims—.002; 4 shims—.0025; 4 shims—.010; 4 shims—.0125. In handy leather case.

E2999. YOUR PRICE **36c**

EXACT DUPLICATE SPEAKER CONES

Duplicate replacement cones accurately designed and carefully constructed to match the originals. One piece seamless material is used, noted for enduring, non-resonant quality. An accurately wound voice coil is attached to each cone. Cones are precisely finished by oriented process to secure excellent tonal quality and long life. Voice grille size also exact duplicates of the originals in all specifications. For improved tonal quality, replace your old speaker cones with these reliable exact duplicates.

If the cone you require is not listed below, your cost can be generally determined by the following schedule: 5" to 6" cones—\$1.10; 7" to 9" cones—\$1.50; 10" to 12" cones—\$1.95. Cones 13" and over will be duplicated at a cost not to exceed \$2.75. Please send in your old cone with remittance. If the entire speaker is sent in for cone installation, add 75c to above prices to cover installing and cleaning.



Catalog No.	For Model	Outer Dia., in.	YOUR PRICE
E9350.	Albione 62-190, 62-181 (Overhaul)	8	\$1.32
E9351.	Albione 62-177, 62-175, 62-176, 62-178	6 1/2	1.03
E9352.	Albione 62-198, 62-175, 62-176	5 1/2	.88
E9353.	Albione 62-256, 62-263	5	.88
E9361.	A. K. 17, No. 15142, 41, 46, 55, 60, 64, 66, 67, 68, 69, 70, 71, 72	10 1/2	1.32
E9362.	A. K. 17, No. 15142, 41, 46, 55, 60, 64, 66, 67, 68, 69, 70, 71, 72	10 1/2	1.32
E9365.	Brush 505, 501, 604A, 600	6 1/2	1.03
E9369.	Crosley M45, Mod. 202, 19, 23	8 1/2	1.47
E9370.	Crosley 515 (Magnavox)	5 1/2	.88
E9355.	Deley 510	7 1/2	.88
E9370.	Deley 613A, 610	5 1/2	.88
E9360.	Deley 610, 613A, (Holo D17)	6	1.03
E9431.	General Electric A64, A65, A66	8	.73
E9432.	General Electric A52, A53	6 1/2	.59
E9358.	General Electric 601, 608, 610, 626, 610A, 610B, 670	12	1.18
E9366.	Grimow 450, 600, 602, 801, 812	7 1/2	1.32
E9442.	Grimow 500, 521, 601, 670, 750	8 1/2	1.47
E9375.	Jensen D7, D8	11 1/4	1.82
E9377.	Jensen D9 (Outside Spider)	11 1/4	1.70
E9379.	Jensen D15	8 1/2	1.32
E9380.	Jensen D16	8	1.32
E9384.	Jensen J1, J2, Stewart 200A	6 1/2	1.03
E9433.	Jensen F12 (Belmont 580), (Emerson 200A)	5	.88
E9434.	Jensen F12 (Motorola 70), (Kudette 8)	6	1.03
E9435.	Jensen FM 12	12	1.81
E9389.	Jensen FM 80	5	1.32
E9412.	Magnavox D7, D8, D9, 80, 100, Sparrow 77, 841, New ready 30, 40, Beach 20A, Kelt-lux 525	8 1/2	1.62
E9450.	Magnavox 102, 102, (Zenith 627, 1102, 811, 819)	11 1/2	1.82
E9386.	Majestic G1	9	.97
E9387.	Majestic G2	9	.97
E9388.	Majestic G3	10	1.32
E9390.	Majestic G5, 68, 69, 70, 71, 72	9	1.71
E9395.	Majestic G10B	14	1.18
E9396.	Majestic G11	10	1.40
E9397.	Majestic G12	12	1.47
E9398.	Majestic G14	12	1.30
E9399.	Majestic G19	10	1.30
E9400.	Majestic G22	12	1.47
E9395.	Majestic G23	12	.88
E9394.	Majestic G26A	5	.85
E9354.	Operadio 2 1/2" Spider used in Albione 62-190, Zenith 179	8	1.32
E9402.	Oxford (3 pt. spider)	11 1/4	1.62
E9403.	Oxford (3 pt. spider)	9 1/2	1.47
E9436.	Oxford Auditorium	13 1/2	2.35
E9405.	Philco P1, No. 92861, 48, 50, 52, 80, 81	5 1/2	.59
E9406.	Philco 87, 95, 95, 76, 96, 57, 40, 111, 90, 112	10 1/2	.82
E9407.	Philco 90, 5, 7, 29, 21, 70	8 1/2	.73
E9437.	Philco P1, No. 92861, 48, 50, 52, 80, 81, 19, 12, 47, 71, 80, 91	5 1/2	.59
E9438.	Philco (72 Ford)	5	.59
E9439.	Philco 817 (Ford) 107	6 1/2	.59

Catalog No.	For Model	Outer Dia., in.	YOUR PRICE
E9359.	Quint Nubels (Motorola 11), (Emerson A), (DeLora 611)	5	\$0.88
E9408.	RA 104, 105	8	1.18
E9409.	RA 106, 108, 102, 150, 135, 130, R157, 134, 150, R50	10 1/2	1.18
E9410.	RA 48, 107, 117A, 108, 810, 111, 112, 115, 118, 119, 120, 123, 112, 114, 1117, 1120, 117, 118, 120, 112, 120, 121, 122, 124, 126, 142, 241, 242, 240, 240, AC156	6 1/2	.59
E9293.	RA P1, No. 8921, mod. R28, R281, K22, 1292V, R10, R101, 100, 101, 110, 111, 114, 115, 1110, 300, 501	5	.59
E9290.	RA P1, No. 9025, mod. R17, R18, R20, 112, 120, 121, 122, 124, 126, 142, 241, 242, 240, 240, AC156	5	.59
E9291.	RA P1, No. 8987, mod. R28, R281, K22, 1292V, R10, R101, 100, 101, 110, 111, 114, 115, 1110, 300, 501	5	.59
E9292.	RA P1, No. 9025, mod. R17, R18, R20, 112, 120, 121, 122, 124, 126, 142, 241, 242, 240, 240, AC156	5	.59
E9293.	RA P1, No. 8921, mod. R17, R18, SWA3, R24	7 1/2	.73
E9452.	RA P1, No. 43667, mod. 570, 577, 579	5	.59
E9360.	Rola DP1 (Crosley 1061), (Emerson 1741)	6	1.03
E9294.	Rola P1	5	.82
E9296.	Rola P1, P8	4 1/2	1.18
E9453.	Rola P12	12	1.82
E9454.	Stewart Warner R205, 1207, R204, R110, 100A, 100A, R218A, 209, 210, 208, 225A	8	1.47
E9455.	Stewart Warner R127, R224, R118, R116, R220, R222, 1270, 1220, 1181, 1182, 1185	6	1.03
E9456.	Stewart-Warner P1, R4110, R222, R130	6 1/2	1.18
E9428.	Uphal 1211 1/2 point 16 diam. voice coil	12	1.82
E9422.	Uphal London	7 1/2	1.18
E9423.	Uphal No. 1220	12	2.10
E9423.	Wright Deflector 107, 112	12	1.71
E9424.	Victor R1272, 45, 75	8	.95
E9365.	Westinghouse W1200, W1211	6 1/2	1.03
E9441.	Zenith 52, 72 (1218), 124	12 1/4	1.70

AUTOMOBILE SPEAKER CONES

Catalog No.	For Model	Outer Dia., in.	NET
E9457.	Chevrolet 691602, 601574	5 1/2	\$0.88
E9461.	Chevrolet 983501, 983500	5 1/2	.88
E9462.	Chevrolet 983502	5 1/2	.88
E9463.	Motorola 65 (Rola)	8	1.32
E9464.	Motorola 70 (Jensen)	8	1.32
E9465.	Motorola 80 (Jensen)	6 1/2	1.03
E9466.	General Elec. FA60, FA61	5	.59
E9467.	United Motors 621602, 8	1.32	1.32
E9468.	United Olds 13001ac, Airmate 341267	5	1.32
E9469.	Goodyear 602 10926 (Belmont)	5	.88
E9370.	Deley 613A, 610	5 1/2	.88
E9360.	Deley 610, 613A	6	1.03
E9470.	Philco P1, No. C14	6	.59
E9471.	Rola 76DP	5 1/2	.88

SPEAKER CONE CEMENT

Easily connects speaker cones, paper rings and felt to speaker frames. Comes in convenient metal tube containing 3 ounces, enough for many jobs. This high quality cement dries quickly and holds permanently. A necessary item in the service of the car. Almost as important to have as the right cone.

E2931. YOUR PRICE **24c**

KNIGHT DYNAMIC

KNIGHT DYNAMIC SPEAKERS

Knigh Speakers cost less, work better, and earn more for you. Universally accepted by discriminating servicemen, they are ideal as replacements or for original equipment. All Knight Dynamics are equipped with universal transformers to match any single or push-pull output tube.



KNIGHT 6" DYNAMIC

A compact dynamic speaker capable of surprisingly smooth performance. Quality-built, it adequately fulfills all requirements for reproduction in medium-sized sets. Study voice coil is $3\frac{1}{2}$ " diameter; impedance is 3 ohms at 400 cycles. With universal type transformer for matching any output stage. Shape, wt., 4 $\frac{1}{2}$ lbs.

- E9256, 6 Volt Field.
E9257, 1000 Ohm Field.
E9258, 1800 Ohm Field tapped at 300 Ohms.
E9259, 2500 Ohm Field.
YOUR PRICE EACH \$1.69

KNIGHT 5" DYNAMIC

Developed especially for use in the new output receivers, 6 volt model is ideal for use as a replacement speaker for auto radios. Correct design and alignment of cone and voice coil assembly eliminates distortion even at full volume. Voice coil is $2\frac{1}{2}$ " in diameter; impedance is 3 $\frac{1}{2}$ ohms at 400 cycles. Only 3 inches in diameter and 2 $\frac{1}{2}$ inches deep. With universal transformer to match all tubes. Shape, wt., 4 $\frac{1}{2}$ lbs.

- E9254, 6 Volt Field.
E9255, 3000 Ohm Field.
YOUR PRICE EACH \$1.48

KNIGHT 8 1/2" DYNAMICS

Ideal for use with console receivers and small Public Address Systems. Will handle full volume without overloading or distorting. Correctly aligned voice-coil and cone assure maximum efficiency. Voice coil, $7\frac{1}{2}$ " diameter; impedance is 3 ohms at 400 cycles. Diameter overall is 2 $\frac{1}{2}$ " only 4 $\frac{1}{2}$ " deep. With universal output transformer. Shape, wt., 7 lbs.

- RE9260, 6 Volt Field.
E9261, 1000 Ohm Field.
E9262, 1800 Ohm Field Tapped at 300 Ohms.
E9263, 2500 Ohm Field.
YOUR PRICE EACH \$2.25

KNIGHT 12" DYNAMICS

Well-built speakers with excellent power-handling ability. Superior tone quality. Will efficiently handle 8 watts. Ideal for console type radios, indoor P.A. systems, etc. Universal transformer matches all tubes. Wt., 8 lbs.

- E9531, 1000 Ohm Field.
E9514, 1500 Ohm Field.
E9522, 2500 Ohm Field. **NET EACH \$3.69**

KNIGHT 3 1/2" DYNAMIC

The smallest efficient dynamic speaker on the market. Particularly adaptable for use in small A.C. D.C. sets where compactness and space economy are important. Has excellent frequency response and will handle surprisingly large amount of volume. With flange mounting, 2 $\frac{1}{2}$ watts maximum input; 450 ohm field; 3 ohm voice coil. Extremely popular with radio builders and experimenters. This smallest little speaker will give excellent reproduction with the ability of larger speakers to handle big volume without any degree of blasting or distortion. Shape, wt., 3 lbs.
E9460, **YOUR PRICE \$1.29**



KNIGHT P.M. DYNAMICS

A new line of Knight high-quality permanent-magnet dynamic speakers with exceptional features. Extremely sensitive; with surprising high-fidelity reproducing characteristics. Requires no field current excitation. Especially suitable for replacements, or for battery-operated sets, P.A. systems, extension speakers, etc.

WITH UNIVERSAL TRANSFORMERS

Universal transformers are included on all except 3 $\frac{1}{2}$ " models. Speaker magnets of special "Alnico" alloy produce greater magnetic flux. Cones are of seamless non-resonant material. Girder frame construction throughout.



Cat. No.	Speaker Size	Voice Coil	Power Watts	Shps. Wt.	NET EACH
E9528	3 1/2"	3-5 Ohms	2	2 lbs.	\$1.49
E9533	4"	2 1/2 Ohms	5	3 lbs.	1.89
E9524	6"	6-8 Ohms	6	3 lbs.	2.39
E9515	8"	6-8 Ohms	8	3 1/2 lbs.	2.98
E9523	8"	6-8 Ohms	10	4 lbs.	3.29
E9522	12"	6-8 Ohms	12	7 lbs.	4.39
E9521	14"	8 Ohms	15	13 lbs.	8.39

UTAH SPEAKERS

UTAH DYNAMIC SPEAKERS

A popularly-priced line to fit the budget of the experimenter and Public Address man, and to permit the serviceman to make a handsome profit. Workmanship and materials are of the highest quality; construction is sturdy and vibration-proof. There's a model for every speaker need.

MODEL "Q" DYNAMICS

Each model of these new dynamic speakers incorporates every valuable feature of modern speaker design, providing for the maximum reproduction so important to real radio enjoyment. Economical and reliable, these speakers give splendid service at a moderate cost. Their quality construction gives fine frequency response. Each is conservatively rated and has ample power-handling ability, unexcelled by any speakers in comparable price classes. Long life is assured even under continuous operation. Ideal for all purposes where high quality units are required, in both old and new installations.



5 INCH DYNAMICS

- E9322, Type Q506, 6 ohm field with single 45 output transformer.
E9323, Type Q530, 3000 ohm field tapped at 2500 ohms, with single 45 output transformer.
E9324, Type Q518, 1800 ohm field with 250 ohms tap, with single 45 output transformer, List Each, \$2.75. **NET EACH \$1.62**

6 INCH DYNAMICS

- E9325, Type Q606, 6 ohm field with universal output transformer.
E9326, Type Q610, 1000 ohm field with universal output transformer.
E9327, Type Q618, 1800 ohm field tapped at 300 ohms, with universal output transformer.
E9328, Type Q625, 2500 ohm field with universal transformer. List Each, \$3.40. **NET EACH \$2.00**

MODEL "Q" 12 INCH DYNAMICS

- E9335, Type Q1210, 1000 ohm field with universal output transformer. List, \$7.50. **NET \$4.41**
E9336, Type Q1215, 1500 ohm field with universal output transformer. List, \$7.50. **NET \$4.41**

8 INCH DYNAMICS

- E9329, Type Q810, 1000 ohm field with universal output transformer. List, \$4.50. **NET \$2.70**
E9330, Type Q815, 1500 ohm field tapped at 300, with universal output transformer. List, \$6.50. **NET \$2.70**
E9331, Type Q825, 2500 ohm field with universal output transformer. List, \$4.50. **NET \$2.70**

10 INCH DYNAMICS

- E9332, Type Q1010, 1000 ohm field with universal output transformer. List, \$6.50. **NET \$3.82**
E9333, Type Q1020, 2000 ohm field with universal output transformer. List, \$6.50. **NET \$3.82**
E9334, Type Q1025, 2500 ohm field with universal output transformer. List, \$6.50. **NET \$3.82**

UTAH "PERMO-MAG" DYNAMIC SPEAKERS

An entirely new line of P.M. Dynamic Speakers with a quality and sturdiness of construction unmatched at these low prices. A new design and composition of magnet provides amazingly high efficiency; each "Permo-Mag" is fully the equivalent of the same size of electrodynamic speaker. Finest grade components are utilized. These speakers are capable of handling strong power without distortion. Excellent for use in battery and A.C. receivers, Public Address systems, etc.



5-5 WATT MODEL

- E9339, Type 5UP, 2 1/2 ohm voice coil, with universal output transformer. List, \$3.50. **NET \$2.06**

6-6 WATT MODEL

- E9340, Type 6UP, 6-8 ohm voice coil, with universal output transformer. List, \$4.15. **NET \$2.44**

8-8 WATT MODEL

- E9341, Type 8UP, 6-8 ohm voice coil, with universal output transformer. List, \$5.50. **NET \$3.23**

8-10 WATT MODEL

- E9342, Type 8SUP, 6-8 ohm voice coil, with universal output transformer. List, \$6.25. **NET \$3.67**

10-15 WATT MODEL

- E9343, Type 10UP, 4-8 ohm voice coil, with universal output transformer. List, \$8.00. **NET \$4.70**

12-15 WATT MODEL

- E9344, Type 12UP, 4-8 ohm voice coil, with universal output transformer. List, \$10.50. **NET \$6.17**

UTAH 3 1/2" "PERMO-MAG" DYNAMIC SPEAKER

A P.M. Dynamic Speaker that is small in size, but big in results. Built to exacting standards to provide the maximum in quality, range, and performance. Has tone quality which is amazingly good for a small speaker. Completely dust-proofed. Will give excellent service, even under continuous use. Can be mounted in any position; is especially adaptable for use in tight sets where space is at a premium, communication systems, small S.W. receivers, etc. Has 3-5 ohm voice coil; maximum input, 3 watts. Supplied lens transformer. Shape, wt., 3 lbs.
E9345, Type 3P, **NET EACH \$1.76**



MAGNETIC & DYNAMIC SPEAKERS

JENSEN SERIES "S" DYNAMICS

A new series of high-grade speakers for general replacement purposes. Outstanding for rizzed construction and excellent tonal response. Completely dust-proof. Less transformer. If adjustable output transformer is needed, order E11300 at 50c net.



MODEL H5S 5-INCH

Cat. No.	Field Coil	Input Imped.	NET EACH
E9650	3000 ohms	1500 ohms	\$1.71
E9651	2750 ohms	4 ohm V.C.	
E9652	1000 ohms	4 ohm V.C.	\$1.35
E9653	6 Volt	4 ohm V.C.	

MODEL H6S 6-INCH

MODEL F8RS 8-INCH

Cat. No.	Field Coil	Input Imped.	NET EACH	Cat. No.	Field Coil	Input Imped.	NET EACH
E9654	2750 ohms	4 ohm V.C.	\$1.59	E9658	2500 ohms	4 ohm V.C.	\$2.29
E9655	1800 ohms	4 ohm V.C.		E9659	1800 ohms	4 ohm V.C.	
E9656	1000 ohms	4 ohm V.C.		E9661	1000 ohms	4 ohm V.C.	
E9657	6 Volt	4 ohm V.C.		E9660	6 Volt	4 ohm V.C.	

QUAM REPLACEMENT SPEAKERS WITH UNIVERSAL TRANSFORMER



Quam speakers are widely known for efficient design, quality construction, and conservative ratings. They are used as standard equipment by leading manufacturers of table model A.C. and A.C. D.C. receivers. These new speakers are particularly designed for general replacement purposes. They are equipped with universal type transformers for matching any output tube. Each unit is rigidly welded to form a rugged, one-piece assembly; there are no screws or fastenings to get out of adjustment. Special Quam armored field coil assures long-life service. Has universal mounting bracket.

5-INCH DYNAMIC

A quality-built speaker, ideal for replacement in compact A.C. or A.C.-D.C. sets. Conservatively rated to handle 3.3 watts output. Depth, 3 1/2". With 10" standard leads. Shpg. wt., 2 lbs.

E9303, 1000 ohm field.
E9304, 2500 ohm field.
E9305, 3000 ohm field.
List, \$3.75.
NET EACH \$2.20

5-INCH P.M. DYNAMIC

A new Quam 5-inch Permanent Magnet Dynamic speaker especially suited as replacement for battery and auto sets, or for use in inter-communication systems, or as extension speaker. Conservative output rating is 2.5 watts. Depth, 3 1/2". With universal output transformer. Shpg. wt., 3 lbs.

E9306.
YOUR NET PRICE... \$2.65

WRIGHT-DECOSTER SPEAKERS

UNIVERSAL NOKOIL DYNAMICS



A radically new design in Permanent Magnet type speakers. Provides the fine performance usually associated only from electro-dynamic speakers. Uses new high permeability magnetized alloy. No excitation is required for field excitation. Rigid pressed steel frame. Excellent tonal characteristics. Ideal for all replacement purposes where a high quality, moderately-priced speaker is required. Voice coil impedance is 5.3 ohms at 400 cycles. Equipped with universal transformer except on 5" model. All rated at 3 1/2 watts, except E9580 which is 8 watts.

No.	Model	Size	Depth	Wt.	NET
E9575	N5LU	5"	2 1/4"	2 lbs.	\$3.06
E9576	N6LU	6"	2 1/4"	2 1/2 lbs.	3.56
E9577	N8LU	8"	3 1/4"	3 lbs.	3.91
E9578	N10LU	10"	3 3/4"	5 lbs.	4.70
E9579	N12LU	12"	4 1/4"	6 lbs.	5.67
E9580	N12LU	12"	6 3/8"	8 lbs.	8.17

UNIVERSAL DYNAMICS

A high-grade line of speakers for universal application. Will replace any speaker with field resistances of 2500, 1800, 1500, 1000, 700, or 500 ohms tapped at 500 ohms. Universal output transformer matches any output tube.

Cat. No.	Model No.	Speaker Size	NET EACH
E9590	E81CU	6"	\$3.53
E9591	E81CU	8"	4.12
E9592	E10KU	10"	4.70
E9593	E12KU	12"	5.67

HYFLUX MAGNETIC SPEAKERS

A new and improved type of magnetic speaker. Designed for use in both new and old construction. Compact assembly makes this speaker ideal for installations where space is at a premium, as in battery and auto sets, or in multiple extension speaker systems. Depth behind panel is less than 3 inches. Frequency response is unusually good. Unusually constructed from finest materials for years of trouble-free service. 7,000 ohms impedance.

E9317, 6" TYPE. \$2.35 | E9318, 8" TYPE. \$2.65



KNIGHT MAGNETIC SPEAKERS



5-INCH MAGNETIC

A well designed in kit and type speaker, only 5 inches in diameter. Has rigid, pressed-steel frame and large-sized magnet. Small size makes speaker ideal for use where space is limited. Provides unusually fine tonal response. D.C. resistance is 1000 ohms. An excellent replacement for all compact-type sets. Shpg. wt., 3 lbs.

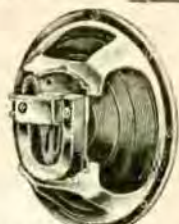
E9251, NET 98c



3-INCH MAGNETIC

The smallest efficient speaker on the market—only 3" in diameter. For use in pocket-sized magnet sets, intercom systems, and small S.W. receivers. Rigid pressed-steel frame; full-sized magnet and coil. 2 1/2" dia. cones.

E9459, With 3 1/2" net. 98c
etc. flange. NET 98c
E9458, Less flange. NET 88c



6-INCH MAGNETIC

A sturdy and powerful magnetic speaker only 6" in diameter. Has heavy pressed-steel frame and large magnet. Improved armature design; flexible diaphragm. Will handle up to 1 watt output. D.C. resistance, 1000 ohms. For use in battery and auto sets, as extension speaker, etc. Shpg. wt., 4 lbs.

E9252, NET \$1.25



8 1/2-INCH MAGNETIC

A very efficient speaker which will handle up to 1 1/2 watts output without distortion. Has extra-flexible diaphragm and heavy-duty magnet. The D.C. resistance is 1000 ohms. Ideal for battery sets, as extension speakers and for multiple speaker installations in hotels, homes, etc. Shpg. wt., 5 lbs.

E9253, NET \$1.65



NEW KNIGHT KINETIC SPEAKER

Expertly designed speakers employing new "Aulon" magnet alloy for greater sensitivity and power capacity in more compact space. Laminated armature with adjusting screw permits compensation for plate current changes. Superior tonal quality with excellent bass response. Ideal as replacements in portable, battery, or auto radios. Also valuable for multiple speaker installations, or for intercom systems where units may be used either as extension phone or speaker. 5" model is 2 1/2" deep; 6 1/2" model is 2 3/4" deep. Small in size but powerful. Shpg. wt., 2 lbs. each.

5-INCH MODEL

E9526, 10,000 Ohms.
E9526, 500 Ohms.
List, \$3.50.
NET EACH \$1.49

6 1/2-INCH MODEL

E9527, 10,000 Ohms.
E9529, 500 Ohms.
List, \$4.00.
NET EACH \$1.65



CABINET MODEL 8 1/2-INCH MAGNETICS

Handsome new walnut wood cabinet speaker is ideal for use as extension speaker or for multiple speaker installations. Has attractive grill on both front and back providing full protection from dust. Speaker chassis is 8 1/2 inches in diameter, 2 1/2 inches deep. Has pressed-steel frame, large magnet, and improved armature structure. 1000 ohm. D.C. resistance. Equipped with 6 foot cord. Available with or without self-contained volume control and switch. Shpg. wt. 8 lbs.

E9486, Less Volume Control and On-Off Switch. NET \$2.98

E9485, With Volume Control and On-Off Switch. NET \$3.57

WALNUT CABINET ONLY

Attractive, rich walnut-finished speaker cabinet is also offered separately. Measures 9 1/2" x 9 1/2" x 3 1/2". Has grills at both front and back. Will house any 8" or 8 1/2" speaker.

E9449, NET \$1.49

TELEPHONES HEADPHONES Accessories

"REAL-PHONES" DUPLEX TELEPHONES



New two-way French style telephones that operate on dry cell batteries. A real economical convenience for use in home or business. They are easy to install and provide an efficient method of communication between two points. These phones are sturdy, compact, attractive, and modern. Furnished in sets of 2, they are intended for use only in pairs. Only two standard dry cells need to be added for each set in operation. Especially convenient as room-to-room or house-to-house telephones. Equally useful in offices, schools, factories, public garages, restaurants, stores and for dozens of other applications. Full instructions for rapid connection are included. Shipping weight, 6 lbs.

COMPLETE SETS

Complete set consists of 2 Realphones with buzzers and 36 feet of wire. Additional wiring may be added. Available in four colors. Designed for use only in pairs.

PER SET OF 2
YOUR NET PRICE
E1980. Black. \$4.12
E1981. Green. \$4.12
E1982. Silver. \$4.12
E1983. Chinese Red. \$4.12
Lots of 3 Sets, Each, \$3.82.
PER SET

ACCESSORIES

The only accessories required, for either indoor or outdoor use, are listed below.
E8925. Dry Cells for use with Realphones, NET, EACH 21c
E1984. 100 feet 3 conductor connector cable for outdoor use. \$1.71
NET... \$1.37
E1985. 100 feet cable for indoor use. NET... \$1.37

MULTIPLE PHONE SYSTEMS FOR ALL PURPOSES

WE CAN SUPPLY multiple telephone systems for all types of installations. Write to us for descriptive literature on SERV-U-PHONE systems providing from two to ten stations, including common-talk, selective and super-selective types. There is a system for every requirement. We are also prepared to quote attractive prices on switchboard and communication type multiple systems suitable for private installations in hotels or apartment houses. Write giving us full particulars, and we will quote promptly.

QUAM-NICHOLS 'PHONE SET



An all-purpose battery phone set which operates electrically to furnish efficient, low-cost intercommunication for homes, offices, factories, farms, camps, etc. Two dry cell batteries at each phone will carry voice and signal 150 feet; four dry cells at each phone will carry 2,000 feet and over. These are cradle-type phones made of durable pressed steel and finished in telephone black. Installation is extremely simple: all that is required is to string two wires running between the phones, hook up the batteries, and you're ready for clear, natural communication. Work like regular commercial phones; unbeatable for utility and economy. Sturdy and well-designed; built for dependable, long-life service. Furnished with 75 feet single conductor wire. Less dry cells. For extra wire see page 149. Ship. wt. 4 lbs. \$2.65
E2811. NET

BRUSH "HUSHATONE" THE PILLOW SPEAKER

An entirely new and efficient pillow-type speaker. Enclosure Brush principle provides perfect reproduction of entire audible range. Permits the user a more comfortable method of enjoying radio programs and allows complete relaxation at the same time. It may be placed under pillow on bed, couch or chair. Permits genuine radio entertainment without disturbing or interfering with others in the room. The volume is regulated by the volume control on the set. Measures only 4 1/2" x 2 1/2". Supplied with ample length rubber-covered cord. Easily and quickly installed in any receiver and is particularly useful with portable or A.C.-D.C. sets. The Brush "Hushatone" pillow speaker is not only useful in the home but in an invaluable aid and comfort in hospitals and sanitariums where individual wall plugs are available. Shipping weight, 1 lb.

E1203. NET... \$2.94
E1214. INSTITUTIONAL MODEL Housed in sponge rubber; may safely be dipped into liquid for sterilization. \$4.41
NET



Model 643

TRIMM QUIET RADIO HEADPHONE ATTACHMENT

Designed to be attached to the speaker voice coil of any radio receiver. It permits the operation of either headphones or speaker, or both at the same time. Can be easily and quickly attached. The adapter has built-in switch and phone-jack with four foot extension cord. Headphones are extremely compact, light and sensitive. Ship. wt., 4 lbs. \$2.59
E5266. Model 647. YOUR PRICE... \$3.50
Model 643. An illustrated. Uses bakelite shell and cap type. Forged magnet. \$3.50
E5264. List, \$5.95. NET

FOR HARD-OF-HEARING
Model 641. Same as above but fitted with a bone conduction unit. Especially desirable where regular type phones are unsatisfactory.
E5268. List, \$20.00. \$11.76
NET...

HEARING-AID CONTROL BOX

Designed for use in multiple hearing-aid installations in schools, theaters, churches, etc. Permits adjustment of volume to suit individual hard-of-hearing needs. Resistance, 50,000 ohms. Small and compact; only 1 1/2" x 3 1/2". Has two tip jacks for plugging in headphones, and two mounting holes for pew installation. Corners and edges are rounded. Brown crystalline finish. With 4 ft. rubber covered cord. Refer to page 87 for suitable group-hearing equipment.
E12089. \$1.59
YOUR PRICE...

WESTERN ELECTRIC HEADSET

Type 1002C. Used in U.S. Government service. Pole pieces are made of silicon steel for greater magnetic flux. Combined resistance of set is 2200 ohms. At voice frequencies, impedance is about 30,000 ohms. Has nickel-plated brass cases with bakelite ear caps, steel headband with textile webbing, and adjustable yokes and slide rods. With phone cord. \$9.30
E1205. NET



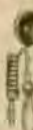
TRIMM HEADPHONES FEATHERWEIGHT PHONES

Very compact phones. Weigh only 4 ounces. Bakelite shells and caps. Forged magnets of best Cobalt steel. Adjustable spring steel headband. Diameter only 2 1/2". Custom-built for Amateurs, Alcecraft, Hard-of-Hearing, etc. Ideal for general purpose work. Especially for short wave work and have a 50% reduction in impedance. \$5.88
E5270. 4000 Ohms Standard.
E5271. 24,000 Ohms Special.
List, \$10.00. EACH PAIR...



SINGLE UNIT PHONES LORGNETTE HANDLE

Single unit Trimm featherweight phone with adjustable 14-inch telescoping metal handle. Bakelite case unit is adjustable to any angle. Terminals are inside of case. Efficient and adaptable for group hearing-aid church systems. Ample extension cord. Wt. 3 lbs. E5275. List, \$6.75. \$3.97
NET



HEADBAND STYLE

With adjustable steel headband. Ideal for hearing-aid installations in churches, theaters, schools, lodges, etc. E5273. List, \$6.25. NET... \$3.67

TRIMM PROFESSIONAL PHONES

A high quality standard type headphone, suitable for battery, crystal and short-wave sets, as well as for multiple installations. Has bakelite case and cap. Perfectly matched units assure long life. With cords. Cord terminals are inside case. E5277. 3000 OHMS. \$2.47
E5277. 4000 OHMS. NET EACH



TRIMM COMMERCIAL PHONES

Ultra-sensitive headset of rugged construction and light weight. Leather-covered headband with exclusive spring lock and adjusting clamp. E5265. 600 Ohms. \$9.40
E5266. 17,000 Ohms. EACH

We can supply Trimm Featherweight and Professional phones in any special resistance desired, from 1 ohm to 2400 ohms, each unit, at no extra cost. Please remit deposit with your order.

CANNONBALL MASTER HEADSETS

An improved high resistance type headset of excellent quality. Heavy bar magnet assures maximum sensitivity. Terminals are placed inside of case, assuring greater safety. The flexible headband is easily adjusted by means of a handy hinged fastening nut. Has 4 1/2 foot mercerized cotton-covered cord. These efficient Cannonball Master phones are particularly adaptable for use in hospitals and institutions. Compact and light, they permit the user to enjoy radio programs for hours without discomfort or disturbance to others. Supplied with lightweight stainless-steel headband. Ship. wt., 2 lbs. \$2.35
E2805. 5000 OHMS. NET... \$1.85
E2804. 3000 OHMS. YOUR PRICE...



Hospitals, Schools and Institutions for the Hard-of-Hearing, Sanitariums, Prisons, etc., are invited to write for attractive quantity prices on Cannonball Headsets. Outline your requirements, and a price quotation will be sent promptly without obligation.

CRYSTAL SETS HEADPHONES Accessories

ACME FEATHERWEIGHT HEADPHONES



VALUE LEADER

Sensitive, durable, and practical for every headset user. Light as a feather. Each unit weighs less than 1/4 ounce; total weight is only 5 ounces. Recommended especially for Amateurs, S.W., S. hard-of-hearing, and multiple phone stations. Case is of non-breakable aluminum with light tension flexible headband. Cord is 4 1/2 ft. braided-covered.

E5250. 4,000 Ohms. \$1.20
(2,000 per phone.) NET.....
E5251. 2,000 Ohms. 95c
(1,000 per phone.) NET.....

SINGLE ACME HEADSETS

A lightweight single unit phone with headband exactly as described above. With cord.

E5278. 2,000 Ohms. 70c
YOUR PRICE.....
E5279. 1,000 Ohms. 59c
YOUR PRICE.....

DIAPHRAGMS FOR ABOVE

E5252. For Acme Featherweight phones. NET EACH. 5c



BRANDES SUPERIOR

A high quality ruggedly-built headset which has been a favorite for years. Outside terminal type, with aluminum cases and bakelite caps. Diaphragm diameter is 2 1/2". Has 4 double coils, two in each receiver; adjustable stainless steel piece headband; and 4 1/2 foot cotton-covered cord. Magnets are made of chrome magnet steel, 3/4" square. Resistance is 2400 ohms per pair. Wt. 2 lbs.

E2908. \$1.59
YOUR PRICE.....

BRANDES "ADMIRAL" PHONES

Similar to the phones above, but with terminal inside of case. Sturdy and lightweight—excellent for all-around use.

E2909. 2000 Ohms. \$1.89
YOUR PRICE.....
E2910. 3000 Ohms. \$2.06
YOUR PRICE.....
E2911. 5000 Ohms. \$2.49
YOUR PRICE.....

CAPS AND DIAPHRAGMS

E2801. CAPS. 18c
YOUR PRICE, EACH.....
E2802. DIAPHRAGMS. 5c
YOUR PRICE, EACH.....



FROST PHONES

Many superior features are incorporated in Frost phones which add greatly to their efficiency and quality of reproduction. They are light in weight and comfortable to wear; easily adjusted to fit the head. Headband is double type. With woven fabric covers. Units have aluminum shells and hard rubber caps. Cord terminals are inside of case, to prevent accidental shock. Have been sold for many years to discriminating amateurs. With cords. Shipping weight, 3 lbs.

E3251. 3000 OHMS. \$1.65
YOUR PRICE.....
E3250. 2000 OHMS. \$1.48
YOUR PRICE.....

HEADPHONE CORD

E3254. Standard length flexible headphones cords. Cotton-covered. NET..... 33c

HEADPHONE PLUG

E3252. Takes 2 phones. Has extra wide screws, hold this tight. NET..... 15c

BRUSH CRYSTAL HEADPHONES

TYPE A

High sensitivity headphones of new piezo-electric design. For Amateurs, Short Wave fans, monitoring, measurement work, etc. Have unusually high impedance and wide frequency response between 60 and 15,000 cycles. These phones are ideal for all applications. When used in circuits carrying direct current a small blocking condenser is required. Weight including band and cord only six ounces. One of the finest headsets made. Quality-built units.



E1200. NET \$5.29

SINGLE UNIT TYPE A PHONES

E1201. Single phone with metal headband. List. \$5.00. NET \$2.94
E1202. Single phone with hornette handle. List. \$6.50. NET \$3.82

BRUSH TYPE B HEADPHONES

High-fidelity, light-weight, hermetically sealed headphones. Weight is only 3 1/2 oz. Headphone connectors are of the snap connector type. Caps are burnished tightly to the aluminum case for permanent alignment.

E1204. NET \$5.29

SINGLE UNIT TYPE B PHONES

E1206. Single phone with metal headband. NET \$2.94
E1207. Single phone with hornette handle. NET \$3.82

PHILMORE SETS & KITS

ONE TUBE BATTERY KIT

An efficient and sensitive 1 tube Philmore battery set in kit form. Employs plug-in type coils. Tunes from 15 to 530 meters covering Amateur, Police Calls, Short-wave, Broadcast bands, etc. Has amazing volume and clearness. Especially suited for use in camp or on farm. With coil for broadcast band (200 to 530 meters). Easy to assemble from clear instructions. Also available completely assembled. Ship. wt., 5 lbs.

E7237. Less Tubes and Batteries. \$1.18
NET PRICE, PARTS KIT ONLY.....

E7238. As above but completely wired. NET \$1.65

E7239. Batteries, 1-1 1/2 V., 1-45 V. \$1.15

E7245. Kit of 4 coils (13 to 240 meters) .72

E915. Type 30 Tube. .40

2 TUBE BATTERY KIT

Mounts on attractive panel. Uses 2 type 30 tubes. These Philmore sets when assembled are powerful enough to operate several sets of headphones at the same time. With plug-in broadcast band coils. Quickly assembled. Kit includes complete instructions.

E7240. Less Tubes and Batteries. \$1.49
NET PRICE, PARTS KIT ONLY.....

E7241. As above but completely wired. NET \$1.89

E7242. Batteries, 1-1 1/2 V., 2-45 V. \$2.09

E7245. KIT of 4 coils (13-240 meters) .72

E915. Type 30 Tubes. EACH .40

2 TUBE A.C.—D.C. KIT

A reliable Philmore 2 tube electric receiver kit. Will operate from 110 volts A.C. or D.C. Reception is strong and clear. Uses 2 type 76 tubes. Coil supplied is of the plug-in type covering broadcast band. Coil kit permits tuning short-wave, amateur bands, police calls, etc. A really efficient and economical electric set. Can be bought assembled if preferred. Wt., 5 lbs.

E7243. Less Tubes. \$2.25
NET PRICE.....

E7244. As above but completely wired. NET \$2.65

E7246. Kit of 4 coils (13-240 meters) .72

E946. Type 76 Tubes. EACH .32

PHILMORE PORTABLE TWO TUBE "SUPREME"

Now you can have loudspeaker performance in a low-drain, portable battery receiver. This remarkable set covers the complete Broadcast band and employs a full 5" magnetic speaker which delivers clear, undistorted tone. Uses 1-2 1/2 volt 10" battery and 2-1 1/2 volt dry cells; and 1 type 19 and 1 type 40 tubes. Type 19 is a dual-purpose tube, making for three-tube efficiency. Employs highly efficient regenerative type circuit, providing excellent selectivity. Fine tuning ease. With tubes, but less batteries. Size 8" x 5 1/4" x 3 1/4". Ship. wt., 5 lbs., less batteries.



E9320. NET \$5.98

E9321. Battery Kit. Consists of 1-2 1/2 volt "B" battery and 2-1 1/2 volt dry cells. NET \$1.01

CRYSTAL SETS

NEW ICA TOPNOTCH

A super-sensitive crystal set which brings in many stations with exceptional clarity and volume. Housed in a handsome crystalline metal case. Crystal is mounted under a dust-proof glass cover. Has beautifully engraved calibrated dial. Soldered coil assures clear, strong reception.



E5571. Set Only. 88c

CARRON MIDGET

Midget model crystal radio set that economically provides genuine radio enjoyment. Built into a sturdy solid walnut cabinet. Has 2 wax spring action locator and station selector knob. Complete with special earphone and roll of ground wire. 4 1/2 x 3 1/2 x 2 1/4". Wt., 3 lbs.



E9311. Complete with Accessories. NET \$1.31

E9310. Set Only. 88c
NET.....

CARRON JUNIOR

Larger size of the above crystal set. Has the same working characteristics. Attractive solid walnut cabinet of modern design. With spring action locator and easy-to-adjust crystal. Supplied with earphone on metal headband and coil of ground wire. 5 1/2 x 4 1/2 x 3 1/4". Wt., 5 lbs.



E9313. Complete with Accessories. NET \$1.98

E9312. Set Only. \$1.47
NET.....

CARRON DELUXE

A unique crystal set in a solid walnut cabinet with real inlay strips. Unusually attractive and has the appearance of a \$20.00 A.C.—D.C. set. Same tuning features as above. Easy to operate. Complete with double adjustable headset and coil of ground wire. 6 1/2 x 5 1/2 x 3 1/4". Wt., 8 lbs.



E9315. Complete with Accessories. NET \$3.29

E9314. Set Only. \$2.35
NET.....

HEADPHONES CRYSTAL SETS Accessories

AMERICAN BELL 'PHONES



These unusually sensitive and efficient headphones, produced by one of America's foremost manufacturers, are noted for tonal fidelity and clarity. Their aluminum shells and caps make them light in weight; one-piece stainless steel light-weight headband adds to comfort in wear, and long-life utility. High-grade magnet gives extra sensitivity. Shpg. wt., 2 lbs.

WITH METAL CAPS
E2807.
3000 Ohms.
YOUR PRICE **\$1.25**
E2806.
2000 Ohms.
YOUR PRICE **97c**

3000 OHMS WITH BAKELITE CAPS

The same sensitive and efficient headphones as above, but equipped with black bakelite caps instead of aluminum. A real value in a high-quality sensitive headpiece.
E2812. YOUR PRICE **\$1.32**

DIAPHRAGMS

E2809.
YOUR PRICE, EACH **5c**

EXTRA ALUMINUM CAPS
E2808.
PRICE, EACH **12c**

AMERICAN BELL SINGLE HEADPHONE



A comfortable dependable single unit headphone which is easy to wear. Has a single spring steel headband. Built in of lightweight construction. May be used on any set, minimal in phone; ideal for multiple hearing-aid installations. Complete with cord. An outstanding headphone value.

E2813.
1000 ohms.
YOUR PRICE **66c** | E2814.
1500 ohms.
YOUR PRICE **79c**

CRYSTALS & CRYSTAL DETECTORS

OPEN TYPE DETECTOR



Universal Joint on metal arm provides quick, accurate adjustment on any point of the very sensitive crystal. Handsome polished metal finish. Complete with crystal.

Net Wt., 8 oz.
E7062.
10 for \$1.10.
Each **12c**

FIXED CRYSTAL DETECTOR



A very good calico. Extremely sensitive. Selected crystals are meter-tested and permanently adjusted. Housed in compact bakelite case. Eliminates bother of continual adjustment for sensitive spot. Pre-tested.

E7063.
List, \$1.00.
NET EACH **43c**

METER TESTED CRYSTAL



These crystals are tested in laboratory on very sensitive meters. Crystal is of genuine bakelite composition. Fit all crystal sets.

E4150.
YOUR PRICE **19c**

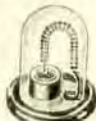
SENSITIVE MOUNTED CRYSTAL



Carefully tested mounted crystal. Sensitive meters. Fit all standard crystal sets.

E4151 10 for 5c. NET EACH **6c**

GLASS ENCLOSED DETECTOR



A low-cost high-grade dust-proof glass enclosed detector complete with super-sensitive crystal. Standard in 50% of the crystal sets made. A fast selling item. Shpg. wt., 8 oz.

E7061.
YOUR PRICE **22c**

FEDERAL FIXED DETECTOR



This fixed detector will give more selectivity to crystal sets or reflex circuits. Sensitivity is permanently fixed. Mounted in small bakelite case with screw connectors. Pre-tested.

E4154.
List, \$1.00.
NET **53c**

CAT-WHISKERS

Set of three. Correctly designed and made of the finest quality wire.

E4152.
10 for 80c
Each **9c**

COMFORT EARPHONE CUSHIONS



A real necessity for those who wear headphones consistently. Makes them comfortable and easy to wear. Made of soft sponge rubber. Sanitary and practical. Will fit all types of phones.

E2810. YOUR PRICE, PER PAIR **22c**
10 PAIRS **\$1.95**

PHILMORE CRYSTAL SETS

THE SELECTIVE



Designed to give most efficient results and possessing unusual selectivity. Built with a tapped coil matched with a 00025 Mil. variable condenser. The reception on this set is loud and clear. It is exceptionally sensitive and very easy to tune. It has double connection posts making possible the use of two pairs of headphones at one time. The next thing to a tube set at the lowest possible price. Contained in a crackle finish cabinet. Shipping **\$2.35**
E7053. List, \$5.00. NET

THE BLACKBIRD

The "Blackbird" is a first quality crystal set presented at the lowest possible price. It requires no tubes or batteries and delivers programs loud and clear without distortion. Housed in crystalline finish metal cabinet with attractive front panel. It employs a dust-proof glass-enclosed super-sensitive crystal detector making possible the best of results. A fast seller everywhere. Accessories of good quality are listed below. Shpg. wt., 3 lbs.
E7050.
List, \$3.00.
NET **\$1.62**



NEW SUPERTONE



A well-constructed crystal set which will give unexcelled service. Offers the utmost in entertainment on local stations with the extensive chain programs now being broadcast from stations all over the country. A sensitive crystal is enclosed in a dustproof glass casing. In bakelite case.
Shpg. wt., 2 lbs.
E7051. List, \$1.50. NET **69c**

PHILMORE DE LUXE

A De Luxe Crystal set in a moderate-size bakelite cabinet. Just turn the handy control knob to select the station you desire. Has attractive, easy-to-read, calibrated dial. Fixed crystal detector is permanently sealed on sensitive spot for instant reception. Thoroughly efficient and easily operated by old or young. Accommodates two sets of headphones. Requires only aerial ground, and headphones for immediate use. A fine value at our low price. Will give good reception with minimum cost.
Shpg. wt., 2 lbs.
E7233. NET **\$1.95**



CRYSTAL SET ACCESSORY KIT

Complete equipment for operating any of the above crystal sets. Consists of a set of good quality headphones, aerial and ground wire, lead-in strip, ligature, arrestor, insulators and all necessary parts for a perfect aerial installation. Shpg. wt., 4 lbs.
E7054. YOUR PRICE **\$1.39**

PHILMORE "DWARF" 1 TUBE SET



The tiniest, self-contained, portable radio made; measures only 5 1/2" x 4 1/2" x 3 1/2", weighs only 1 1/2 lbs. Easily carried anywhere, no electric current necessary. Covers broadcast band, has four calibrations, tuning and volume controls, "on-off" switch, uses one low-drain type 30 tube and two standard flashlight type batteries. Supplied complete with tube, batteries, single earphone.
E7232. NET **\$2.98**

PHILMORE PORTABLE BATTERY SET

A fine new portable receiver that is light, easy to handle, and a splendid performer. Covers the complete broadcast band. Single tuning control makes it easy to tune. Uses a specially designed high "Q" coil system for maximum sensitivity and selectivity. Has band-1 antenna setting for maximum pickup selection. Tubes used draw less than one milliwatt for economical battery life. Batteries required: 2 small 1 1/2 volt dry cells, 2 small 4 1/2 volt "C" batteries. Uses one type 30 and one type 40 tube. Fits in metal case; compact, 5 1/2" x 8 1/2" x 7 1/2". Less tubes, batteries and accessories.
E7069. List, \$11.00.
YOUR PRICE **\$5.98**



COMPLETE ACCESSORY KIT

Kit includes: 1 type 30 and 1 type 19 tubes, complete set of five Burgess batteries, 1 set of sensitive headphones and 25 ft. of aerial wire. These items all fit in same case with the set.
E7066. YOUR PRICE **\$3.75**

ALLIED'S PAGE OF *Special* VALUES

TABLE MODEL RADIO CABINETS



MODEL 115

A solidly constructed midget type cabinet. Just the thing for set kits, intercommunication systems, extension speakers, etc. Face woods are made of walnut veneer, beautifully grained at the top to conform with modern furniture appointments. Evenly balanced and shaped grille bars cover a modernistic grille cloth over speaker opening. Inside dimensions: 9 1/4" wide, 6 3/4" high, 5" deep. Shpg. wt., 3 lbs. **E10600. NET \$2.04**



MODEL 519

A medium-sized table model cabinet of modern design. Speaker opening has vertical cross bars over modernistic woven grille cloth. Walnut veneer is of two-toned design. Designed to accommodate larger type midget chassis and some table model chassis. Inside dimensions: 15" wide, 8 1/2" high, 7 1/2" deep. Shpg. wt., 6 3/4 lbs. **E10602. NET \$3.30**

MODEL 116
E10601. Same as above but has speaker openings on both ends instead of on front panel. **NET \$2.07**

MODEL 620
E10603. Slightly different from above and larger. Inside measurements: 18" wide, 9 1/4" high, 8" deep. Shpg. wt., 8 lbs. **NET \$3.30**

KNIGHT PORTABLE



A spring-wound for portability, and completely necessary to connect reproduction. Comes with black water American-made on a winding. Plus "Slow-Fast" tuning are controlled located on a heavy nickel-acoustically the very finest this type of in top cover. 2 1/4" x 6". Shpg. **E10193. NET**

SECTION 7

SPECIAL VALUES IN AUTO AERIALS



The finest hinge-type auto antenna available at these standard prices. Will look good on any car, new or old. Easily installed by anyone in 5 minutes. Mounts on any automobile door-hinge. Merely knock out hinge-pin with nail, slip hinge-rod through bracket supplied with aerial, and drive pin back into hinge. 37" long. Supplied with lead-in.

E10453. Rustproof satin finish. Will not "whip" while car is in motion. **YOUR SPECIAL PRICE 39c**
LOTS OF 6 \$2.10
E10454. A two section chrome-finished brass antenna. 25" in length; extends to 42". Hinge whip type with lead-in. **YOUR SPECIAL PRICE 65c**
LOTS OF 6 \$3.50

ALL-STEEL PARTS CABINET



Just what every Service man needs. A small parts cabinet for the numerous small items every serviceman has around the shop. Can also be used in house work shop, office, store, garage, etc. Ideal for the fisherman's supply of fish hooks, sinkers, lures, etc. Drawers have separators for different sized items. Finished in dark green ripple. Utility cabinet measures 13 1/4" long, 10 1/4" wide, 11 1/2" high. Shpg. wt., 22 lbs. **E10605. NET \$3.69**

AMERICAN BELL SILENT RADIO HEADPHONE ATTACHMENT

- PERMITS USE OF HEADPHONES OR SPEAKER ALONE OR TOGETHER
- IDEAL FOR LATE-NIGHT RADIO LISTENING
- PROVIDES BETTER DX AND FOREIGN RECEPTION
- EXCELLENT FOR PERSONS WHO ARE HARD-OF-HEARING
- DESIGNED FOR QUICK AND SIMPLE INSTALLATION
- SUITABLE FOR USE WITH ANY RADIO SET



The new American Bell Silent Radio Headphone Attachment combines real convenience with fine versatility. Suitable for installation on any radio set, this unit permits you to silence your radio set loudspeaker and listen to any program by headphones in your room. Or, you can use headphones simultaneously with others in the same room for the best of both worlds and the best of both worlds.

ng others in the same d the headphones sim- radio enjoyment.

RADIO SET

Usually adaptable and Only a few minutes to understand headphones are in- to disturbing anyone radio programs with ear DX and foreign reproduced through thoroughly enjoyed Persons who are best through the gram through the er entirely. This radio utility and ance headphones.

\$1.95
with any good edance **85c**

ES IN TORS



many-type ment in- popular hese kits several **18c**

quality **19c**



Name _____
Street or _____
RFD and Box _____
Post Office _____
State _____

ALLIED RADIO CORP.
833 W. JACKSON BLVD.
CHICAGO, ILLINOIS

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OUR TERMS

Our low prices to you are the result of efficient organization and the most economical merchandising methods. We buy for cash and sell for cash. The savings are passed on to you in the lowest prices and best values in the radio industry. **Our terms of sale are cash with order or C.O.D.** We ship C.O.D. if you wish (except on orders for special merchandise); new customers are requested to include a 20% remittance with first orders when specifying C.O.D. shipment. A 20% deposit should also be included with C.O.D. orders for heavy items such as windchargers, batteries, generators and console receivers. All quotations in this catalog are net, F.O.B. Chicago (except where noted). **ALLIED** will always give you the benefit of any price reductions. **All prices are necessarily subject to change without notice.** (We reserve the right to add any Federal or State Taxes which may be levied after this book is printed.) See Sound Systems, Test Instruments and Amateur Receivers sections of this catalog for merchandise available on Time Payment Terms.

DON'T SPLIT YOUR ORDERS

We will never be undersold. We meet all competitive prices for identical standard merchandise of current manufacture. We can secure for you any special radio equipment, not shown in this catalog, at lowest prices and with minimum delay. Enter your order with deposit, and give full description or send sample for duplication. We can serve you best because we are the leading radio specialists. It pays to do your radio buying 100% from **ALLIED**—Radio Headquarters.

ALL ORDERS FILLED

Whether your order is big or small, you get the benefit of **ALLIED'S** speedy service always. We set no restriction on the amount of your order. It's wise to buy where you know you will consistently be better served.

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In addition to all trade discounts, a **FULL 2% CASH DISCOUNT HAS ALREADY BEEN DEDUCTED** from every price in this book. Our net catalog prices are the prices you pay. You receive full discounts even if you prefer part C.O.D. shipment. You save C.O.D. collection costs; however, by remitting in full.

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Take advantage of our 2% Transportation Allowance on all orders for \$25.00 or more. Don't split your orders! This 2% **Transportation Allowance** is in addition to the **Trade Discounts** and the **Full 2% Cash Discount** already deducted from every price in this catalog. **ALLIED'S** money-saving transportation allowance will apply on your order whether you want to have it shipped by Parcel Post, Express or Freight. **Deduct This Extra Discount in Advance** either from the amount you send if you are remitting in full, or in calculating the C.O.D. charge. The 2% transportation allowance on orders of \$25.00 or over applies on shipments made anywhere in the United States on all radio merchandise listed in this catalog, except National Company equipment and catalog items marked "Postpaid." (Orders for export and from U.S. Territories and Possessions excepted.) Take advantage of this extra saving. Make your order for \$25.00 or over and deduct 2% on your transportation allowance. Do all your radio buying from **ALLIED** to get the most for your money.

It's Easy to Order FROM ALLIED!

It's Easy to Order. Use our convenient order blanks which are bound into this catalog. Type or print your name and address in full and specify whether shipment is to be made by Express, Parcel Post or Freight. List the items you want—one to a line—making sure to give the correct catalog number for each item. Enter correct prices and make extensions carefully. Then total your order and make your remittance large enough to cover both the cost of the merchandise and shipping charges (unless C.O.D. shipment is requested). Additional order blanks and envelopes are packed with each order and will also be sent on request.

PARCEL POST SHIPMENTS

See the table immediately below for parcel post rates. If in doubt, ask your postmaster for your zone number and charges on items for which weights are shown, or write to us. Save C.O.D. charges by sending enough money to cover postage. Any surplus will be promptly refunded. If remittance does not cover postage, shipment will be made C.O.D. for the balance. For your protection all our parcel post shipments are insured. Allow for insurance at the following rates:

Up to \$5.00	5c
\$5.00 to \$25.00	10c
\$25.00 to \$50.00	15c
\$50.00 to \$100.00	25c

How to Send Money. Remittance may be made most safely by post office or express money order, bank draft or check. Avoid sending coin or currency, but if necessary, be sure to register your letter. For special haste, your order and money may be telegraphed through any Western Union or Postal Telegraph station. Make allowance for postage on parcel post orders. Prompt refund of any excess follows shipment. For greatest convenience, do not include transportation charges for express and freight shipments unless there is no agent at your station. Express and freight shipments are sent transportation collect.

EXPRESS SHIPMENTS

Radio Sets, Windchargers, Generators, Storage batteries and any items in this catalog which we have indicated as not available, should be shipped by express or freight. In general, it is best to send radios and bulky merchandise by express rather than by parcel post. This assures quick shipment and safe delivery. If there is no express agent at your location, please be sure to specify your nearest express office. All express shipments are insured. For shipping charges on any items for which weights are shown, refer to your local Railway Express agent or write to us. Express charges need not be included in your remittance. Shipment will be made collect.

HOW TO ESTIMATE PARCEL POST RATES

(For U.S. only. Postage rate to Canada is 14c per pound.)
Packages Under 8 Ounces. Allow 1½c Each 2 Ounces

WEIGHT POUNDS	ZONES							
	First, Up to 50 MILES	Second, 50 to 150 MILES	Third, 150 to 300 MILES	Fourth, 300 to 600 MILES	Fifth, 600 to 1200 MILES	Sixth, 1200 to 1400 MILES	Seventh, 1400 to 1800 MILES	Eighth, Over 1800 MILES
1	8c	8c	9c	10c	11c	12c	14c	15c
2	10c	10c	11c	14c	17c	19c	23c	26c
3	11c	11c	13c	17c	22c	26c	32c	37c
4	12c	12c	15c	19c	25c	30c	41c	48c
5	13c	13c	17c	24c	33c	40c	50c	59c
6	14c	14c	19c	28c	38c	47c	59c	70c
7	15c	15c	21c	31c	43c	54c	68c	81c
8	16c	16c	23c	35c	49c	61c	77c	93c
9	17c	17c	25c	38c	54c	68c	86c	\$1.03
10	18c	18c	27c	42c	59c	75c	95c	1.14
11	19c	19c	29c	45c	64c	82c	\$1.04	1.25
12	21c	21c	31c	49c	70c	89c	1.13	1.36
13	22c	22c	33c	52c	75c	96c	1.22	1.47
14	23c	23c	35c	56c	80c	\$1.03	1.31	1.58
15	24c	24c	37c	59c	86c	1.10	1.40	1.69
16	25c	25c	39c	63c	91c	1.17	1.49	1.80
17	26c	26c	41c	66c	96c	1.24	1.58	1.91
18	27c	27c	43c	70c	\$1.02	1.31	1.67	2.02
19	28c	28c	45c	73c	1.07	1.38	1.76	2.13
20	29c	29c	47c	77c	1.12	1.45	1.85	2.24
For Each Additional Pound Add	1c	1c	2c	3½c	5c	7c	9c	11c

FREIGHT SHIPMENTS

You save by ordering merchandise sent by freight where rapid shipment is not essential and merchandise selected weighs approximately 100 pounds or over. The minimum freight charge is for 100 pounds. If you have a freight agent, do not send shipping charges. If you are on a pre-paid station, please send funds to pay charges in advance. Any surplus will be promptly refunded. Charges are the same whether prepaid or collect. If there is no freight station at your location, please be sure to specify your nearest shipping point.

SHIPMENTS TO U.S. TERRITORIES

Orders from U.S. Territories and Possessions always receive special attention. All parcel post C.O.D. orders should include a 20% deposit. Remit in full for merchandise plus eighth zone postage on parcel post orders to the Philippine Islands and the Canal Zone. There is no parcel post C.O.D. service to these territories. Console sets, Windchargers, Generators and items which we have indicated as not available are shipped by freight. There is no freight shipment on 50¢ deposit, balance by sight bill attached to shipping documents. All freight shipments are carefully boxed with no charge for export packing.

CHICAGO CUSTOMERS

For handy quick counter service, visit our City Salesroom. Free parking lot available for our customers. Servicemen, Engineers and Licensed Amateurs are always on hand to serve you. If you can't come in, phone your requirements to our City Order Department for prompt delivery. All telephones: HAYmarket 6800.

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We are Radio Supply Headquarters to the World and serve an export market with every conceivable equipment in radio receivers, parts, sound equipment, etc. To serve our large Overseas trade, our Export Department is staffed with specialists best qualified to know and satisfy your needs. Write for our complete Export Literature.

WE INVITE YOU

On your next visit to Chicago, be sure to visit us in our enlarged Radio Headquarters at 533 W. Jackson Blvd., conveniently located on the site of Chicago's "Loop." See the famous **Knight** Radio Sets and Sound Systems on display and hear them in actual operation. Visit our Recording Studio. Take advantage of the many service facilities available.

ALLIED'S PAGE OF Special VALUES

TABLE MODEL RADIO CABINETS



MODEL 115

A solidly constructed midget type cabinet. Just the thing for set life, infocommunication systems, extensible speakers, etc. Face woods are made of walnut veneer, beautifully grained at the top to conform with modern furniture appointments. Slightly balanced and shaped grille bars cover a modernistic grille cloth over speaker opening. Inside dimensions: 9 1/2" wide, 6 1/2" high, 7 1/2" deep. Shpg. wt., 3 lbs.

E10600. NET **\$2.04**



MODEL 519

A medium-sized table model cabinet of modern design. Speaker opening has vertical cross bars over modernistic woven grille cloth. Walnut veneer is of two-toned design. Designed to accommodate larger type midget chassis and some table model chassis. Inside dimensions: 10" wide, 8 1/2" high, 7 1/2" deep. Shpg. wt., 6 1/2 lbs.

E10602. NET **\$3.30**

MODEL 820

E10603. Slightly different from above and larger. Inside measurements: 18" wide, 9 1/2" high, 8" deep. Shpg. wt., 8 lbs.

NET **\$4.20**

E10601. Same as above but has speaker opening on both ends instead of on front panel.

NET **\$2.07**

KNIGHT PORTABLE PHONOGRAPH



A spring-wound portable phonograph. Ideal for picnics, play-rooms, clubs, etc. Compact and completely self-contained. It is not necessary to connect to radio or amplifier for record reproduction. Covered and lined inside and out with black water-proof artificial leather. New American-made motor plays 2 or more records on a winding. Plays both 10 and 12" records. Has "Slow-Fast" control. Starting and stopping are controlled by friction shoe conveniently located on top panel. All hardware is heavily nickel-plated. Curved tone arm and acoustically correct tone chamber assure the very finest reproduction available from this type of machine. Record compartment in top cover. Size: 11 1/2" x 11 1/2" x 12". Shpg. wt., 12 lbs.

E10193. NET **\$7.75**

AMERICAN BELL SILENT RADIO HEADPHONE ATTACHMENT

- PERMITS USE OF HEADPHONES OR SPEAKER ALONE OR TOGETHER
- IDEAL FOR LATE-NIGHT RADIO LISTENING
- PROVIDES BETTER DX AND FOREIGN RECEPTION
- EXCELLENT FOR PERSONS WHO ARE HARD-OF-HEARING
- DESIGNED FOR QUICK AND SIMPLE INSTALLATION
- SUITABLE FOR USE WITH ANY RADIO SET



The new American Bell Silent Radio Headphone Attachment combines real convenience with the versatility. Suitable for installation on any radio set, this unit permits you to silence your radio set loudspeaker and listen to any program by headphones without disturbing others in the same room. Or, you can operate both the speaker and the headphones simultaneously, thus giving the hard-of-hearing full radio enjoyment.

EASILY ATTACHED TO ANY RADIO SET

The Silent Radio Headphone Attachment is unusually adaptable and can easily be installed by anyone on any radio set. Only a few minutes are required to make the attachment and full, easy-to-understand instructions are furnished. Special low-impedance headphones are included to offer unusually fine tone quality. Without disturbing anyone else in the room, you can listen to your favorite radio programs with full enjoyment. You can also pick up and clearly hear DX and foreign stations which are not always readily audible when reproduced through loudspeaker. Late-at-night listening can now be thoroughly enjoyed without fear of disturbing the family or neighbors. Persons who are hard-of-hearing can also enjoy modern radio at its best through the headphones, while others may listen to the same program through the radio set's loudspeaker, or may switch off the speaker entirely. This new unit will easily pay for itself through increased radio utility and enjoyment. Supplied complete with special low-impedance headphones, lightweight headband, 8-foot cord, and adapter unit with switch.

E2912. Complete with headphones. NET **\$1.95**
E2913. ADAPTER ATTACHMENT ONLY. For use with any good pair of headphones, but offers best results with low-impedance (11 ohms) 'phones as supplied above. NET **85c**

SPECIAL VALUES IN AUTO AERIALS



The finest hinge-type auto antennas available at these stand-out prices. Will look good on any car, new or old. Easily installed by anyone in 5 minutes. Mounts on any automobile door-hinge. Merely knock out hinge pin with nail, slip hinge-pin through bracket supplied with aerial, and drive pin back into hinge. 37" long. Supplied with lead-in.

E10463. Rustproof satin finish. Will not "whip" while car in motion. NET **39c**

YOUR SPECIAL PRICE... **\$2.10**

E10454. A two section chrome-finished tube antenna. 25" in length; extends to 42". Hinge your type with lead-in.

YOUR SPECIAL PRICE... **65c**

LOTS OF 6... **\$3.50**

NEW "TINY KNIGHT" 4 TUBE AC-DC KIT

Here is a smash scoop! You can now build your own "tiny set"—small enough to fit in the palm of your hand, and yet strong enough to give you "big set" results. Uses four new "Bantam" tubes in a circuit where every tube works. Fully dynamic speaker. Tunes all standard Broadcast programs from 550 to 1500 K.C. Kit includes all necessary parts (less tubes). In a few short hours and with only a screwdriver, pliers, and soldering-iron, anyone can assemble this set. Kit includes leatherette cabinet with handle. Size 8 1/2" x 4 1/2". Choice of colors. For 110 V., A.C. or D.C.



E9880. Alligator Brown. NET **\$6.98**
E9881. Satin Black. EACH
E9882. Dark Green. EACH

E9885. Set of Bantam tubes: 1-6KTGT, 1-6TGT, 1-2520GT, and 1-25LGT. NET PER SET **\$3.29**

SPECIAL VALUES IN CARBON RESISTORS



KIT of 100 RESISTORS
A popular value assortment of economy-type carbon resistors. Color-coded. Assortment includes 1/4 and 1/2 watt sizes in most popular resistance values. You can pay for these kits with your first service call profile. Buy several assortments and have the resistor you need on hand at all times.

E5120. 100 Resistors. NET **98c**

KIT of 50 RESISTORS
E5121. Smaller assortment of same quality resistors as those listed above. 50 popular resistors. NET **59c**

ALL-STEEL PARTS CABINET



Just what every service man needs. A small-parts cabinet for the numerous small items every serviceman has around the shop. Can also be used in house workshop, office, store, garage, etc. Ideal for the fisherman's supply of fish hooks, sinkers, leaders, etc. Drawers have Uddity cabinet

comparators for different sized items. Finished in dark green ripple. Measures 13 1/2" long, 10 1/2" wide, 8 1/2" high. Shpg. wt., 22 lbs.

E10605. NET **\$3.69**

SPECIAL VALUES IN BAKELITE SOCKETS

Our economy line of tube sockets. These special value sockets have individual interchangeable lugs and separate grounding lugs. Have standard 1 1/2" mg. centers. Numbered pin holes.



No. Progs. EACH FOR 10

E4450 4 **5c 45c**
E4451 5
E4452 6
E4453 7
E4454 8 (Total)

HEARING-AID CONTROL BOX

Designed for use in multiple hearing-aid installations in schools, theaters, churches, etc. Permits adjustment of volume to suit individual hard-of-hearing needs. Resistance, 10,000 ohms. Small and compact, only 1 1/2" x 2 1/2". Corners and edges smoothly rounded, no greasy catching or tearing clothing. Available in either glossy ivory, suitable for theatres, or brown crystal for churches, schools, etc. (Use Knight 8 and 15 watt High Gain Amplifiers for suitable group-hearing use.)



E5280. Brown Crystal Finish. Glossy Ivory. NET **\$1.91**

YOUR PRICE, EACH BOX



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Our low prices to you are the result of efficient organization and the most economical merchandising methods. We buy for cash and sell for cash. The savings are passed on to you in the lowest prices and best values in the radio industry. **Our terms of sale are cash with order or C.O.D.** We ship C.O.D. if you wish (except on orders for special merchandise); new customers are requested to include a 20% remittance with first orders when specifying C.O.D. shipment. A 20% deposit should also be included with C.O.D. orders for heavy items such as wind-chargers, batteries, generators and console receivers. All quotations in this catalog are net, F.O.B. Chicago (except where noted). **ALLIED** will always give you the benefit of any price reductions. **All prices are necessarily subject to change without notice.** (We reserve the right to add any Federal or State Taxes which may be levied after this book is printed.) See Sound Systems, Test Instruments and Amateur Receivers sections of this catalog for merchandise available on Time Payment Terms.

DON'T SPLIT YOUR ORDERS

We will never be undersold. We meet all competitive prices for identical standard merchandise of current manufacture. We can secure for you any special radio equipment, not shown in this catalog, at lowest prices and with minimum delay. Enter your order with deposit, and give full description or send sample for duplication. We can serve you best because we are the leading radio specialists. It pays to do your radio buying 100% from **ALLIED**—Radio Headquarters.

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In addition to all trade discounts, a **FULL 2% CASH DISCOUNT HAS ALREADY BEEN DEDUCTED** from every price in this book. Our net catalog prices are the prices you pay. You receive full discounts even if you prefer part C. O.D. shipment. You save C.O.D. collection costs, however, by remitting in full.

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It's Easy to Order. Use our convenient order blanks which are bound into this catalog. Type or print your name and address in full and specify whether shipment is to be made by Express, Parcel Post or Freight. List the items you want—one to a line—making sure to give the correct catalog number for each item. Enter correct prices and make extensions carefully. Then total your order and make your remittance large enough to cover both the cost of the merchandise and shipping charges (unless C.O.D. shipment is requested). Additional order blanks and envelopes are packed with each order and will also be sent on request.

PARCEL POST SHIPMENTS

See the table immediately below for parcel post rates. If in doubt, ask your postmaster for your zone number and charges on items for which weights are shown, or write to us. Save C.O.D. charges by sending enough money to cover postage. Any surplus will be promptly refunded. If remittance does not cover postage, shipment will be made C.O.D. for the balance. For your protection all our parcel post shipments are insured. Allow for insurance at the following rates:

Up to \$5.00	5c
\$5.00 to \$25.00	10c
\$25.00 to \$50.00	15c
\$50.00 to \$100.00	25c

How to Send Money. Remittance may be made most safely by post office or express money order, bank draft or check. Avoid sending coin or currency, but if necessary, be sure to register your letter. For special haste, your order and money may be telegraphed through any Western Union or Postal Telegraph station. Make allowance for postage on parcel post orders. Prompt refund of any excess follows shipment. For greatest convenience, do not include transportation charges for express and freight shipments unless there is no agent at your station. Express and freight shipments are sent transportation collect.

EXPRESS SHIPMENTS

Radio Sets, Windchargers, Generators, storage batteries and any items in this catalog which we have indicated as not mailable, should be shipped by express or freight. In general, it is best to send radios and bulky merchandise by express rather than by parcel post. This assures quick shipment and safe delivery. If there is no express agent at your location, please be sure to specify your nearest express office. All express shipments are insured. For shipping charges on any items for which weights are shown, refer to your local Railway Express agent or write to us. Express charges need not be included in your remittance. Shipment will be made collect.

HOW TO ESTIMATE PARCEL POST RATES

(For U.S. only. Postage rate to Canada is 14c per pound.)

Packages Under 8 Ounces, Allow 1/2¢ Each 2 Ounces

WEIGHT IN POUNDS	ZONES							
	First, Up to 50 MILES	Second, 50 to 150 MILES	Third, 150 to 300 MILES	Fourth, 300 to 600 MILES	Fifth, 600 to 1000 MILES	Sixth, 1000 to 1400 MILES	Seventh, 1400 to 1800 MILES	Eighth, Over 1800 MILES
1	8c	8c	9c	10c	11c	12c	14c	15c
2	10c	10c	11c	14c	17c	19c	23c	26c
3	11c	11c	13c	17c	22c	26c	32c	37c
4	12c	12c	15c	21c	27c	33c	41c	48c
5	13c	13c	17c	24c	33c	40c	50c	59c
6	14c	14c	19c	28c	38c	47c	59c	70c
7	15c	15c	21c	31c	43c	53c	68c	81c
8	16c	16c	23c	35c	49c	61c	80c	93c
9	17c	17c	25c	38c	54c	68c	90c	\$1.03
10	18c	18c	27c	42c	59c	75c	95c	1.14
11	19c	19c	29c	45c	64c	82c	\$1.04	1.25
12	21c	21c	31c	49c	70c	90c	1.13	1.36
13	22c	22c	33c	52c	75c	98c	1.32	1.59
14	23c	23c	35c	56c	80c	\$1.03	1.31	1.58
15	24c	24c	37c	59c	86c	1.10	1.40	1.69
16	25c	25c	39c	63c	91c	1.17	1.49	1.80
17	26c	26c	41c	66c	96c	1.24	1.58	1.91
18	27c	27c	43c	70c	\$1.02	1.31	1.67	2.02
19	28c	28c	45c	73c	1.09	1.38	1.66	2.13
20	29c	29c	47c	77c	1.12	1.45	1.85	2.24
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All Test Equipment listed in this catalog may be purchased on a convenient and economical Time Payment Plan, providing you total Test Equipment order amounts to \$40 or more. Just select the equipment you want and enclose remittance for proper down payment as indicated, giving the customary credit information (references, etc.). Where no Time Payment Terms are shown in our catalog listing, remit 10% of the total net amount with your order.

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All Amateur Communications Receivers and Transmitters listed in this catalog can be purchased on a convenient and economical Time Payment Plan, provided that your total order comes to \$40 or more. Select the equipment you want and remit the indicated down payment with your order, giving the customary credit information (references, etc.). Where no Time Payment Terms are indicated, remit 10% of the net price with your order. You will find our Easy Terms Plan the most attractive ever offered.

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2% TRANSPORTATION ALLOWANCE
 Take advantage of our 2% Transportation Allowance on all orders for \$25.00 or more. Don't split your orders! Make ALLIED your one dependable source of Radio Supply—save more and profit more. See Page 158 for full How-To-Order Information.

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VIDRIO ELECTRIC MIXER

An efficient little labor-saving assistant for the housewife. It beats, whips and mixes. For eggs, salad dressings, meringue, cream and countless other foods. Motor is completely encased by metal housing. Portable motor-driven beater may be used anywhere. Detachable beater is very easy to clean. Glass measured-capacity jar holds 1 pint. For 110 V., 50-60 cycles; complete with cord and plug. Will find innumerable uses in every kitchen. Worth many times our low price.

E9163.

YOUR PRICE,
LOTS OF 6.....
YOUR PRICE, EACH.....

\$110

99c



HOT DONUT WATER HEATER

Supplies hot water in a jiffy when needed — Just connect the Hot Donut Water Heater to any 110 volt outlet, either AC or DC, and immerse it in a pan of water and you will have boiling water almost immediately. This dependable little heater is inexpensive and portable; it is extremely valuable to tourists and travelers. Ruggedly built. Heating unit is thoroughly impregnated against moisture. Metal housing is finished in bright aluminum; will not rust. Has heavy rubber cord 6 feet long, with plug.

E9161; **YOUR PRICE, EACH**.....
YOUR PRICE,
PER LOTS OF 10.....

71c

\$6.65



AUTOMATIC TOASTER

New low-priced fully automatic Electric Toaster. Adjustable for any desired texture of toast. Bell signals when toast is done and shuts off current. Auto-rip doors turn toast when lowered. All-chrome finish; ebony base. With cord set. Underwriters' Approved. For 110 V. Shpg. wt., 4 lbs.

E10435. **\$2.65**
NET.....

E10436. **ELEC-TRIC TOASTER** similar to above but without automatic feature. **NET \$1.45**



STERRO ELECTRIC CLOTHES WASHER

A new Underwriters' Approved Electric Clothes Washer, ideal for the home or nursery. Boils and sterilizes as it washes everything from baby's clothes to wearing apparel and linen. Holds 2 full pounds of dry clothes; washes thoroughly with swirling action. Has powerful air-cooled motor and 3 fin cast-aluminum agitator. Green porcelain enameled tub and cover. Diameter, 16". For 110 V., 50-60 cycles A.C.

Shpg. wt., 18 lbs. **\$9.75**
E10440. **NET.....**

E10441. **PORTABLE WRINGER.** Lightweight and compact; easily affixed to washer tub. Has soft rubber rollers. **NET \$3.85**



AUTOMATIC ELECTRIC IRON

New Updewriters' Approved Electric Iron with automatic heat regulator adjustable to wide range of ironing temperatures. Has quick-heating thin sole plate which speeds up ironing and saves on current. Sole plate slips under buttons without prying them off. Finished in chromium with black rubberoid handle. This 4 1/2 lb. 690 watt iron is ideal for all home ironing needs. For 115 V. A.C. With 6-foot cord set. Shpg. wt., 5 lbs.

E10437. **\$2.65**
NET.....

E10438. **ELECTRIC IRON** as above, but less heat regulator. **NET \$1.45**



HEATING PAD

High-grade Underwriters' Approved heating pad. Has automatic, non-radio interfering double thermostat control and three heating ranges selected by 4-position switch. Gives uniform heat over entire pad surface. 15" x 12"; soft camel's hair finish cover. With 8 ft. cord. For 110 volts AC or DC. 55 watts.

E10442. **NET \$1.45**

DE LUXE MODEL. Has 4 thermostats which maintain exact temperature selected. Offers three fixed heats which stay put. When at Low—125°, Med.—150°, High—175°. Cannot overheat. Has removable snap-on camel's hair finish cover and water-repellent interlining. For 110 volts AC or DC. 55 watts. E10443. **NET PRICE \$2.15**



COFFEE-MAKER

An efficient and attractive coffee maker with improved filtering method which produces coffee of superior flavor. Made of "Glasbak" full heat-resisting glass. Can be used on gas stove, electric stove or over open flame. With black molded handle. (Illustrated with electric stove.)

E10295. **6 CUP MODEL (Less Stove) \$1.25**
NET.....

E10296. **8 CUP MODEL (Less Stove) \$1.40**
NET.....

E10297. **12 CUP MODEL (Less Stove) \$2.10**
NET.....

E10298. **Electric Stove Only. \$1.01**
NET.....



SAFE-FLEX AUTO FAN

A truly safe 6 Volt auto fan. Has 6" blades of flexible molded rubber, which hold their shape even during high speed rotation. No unsightly guards, yet it cannot hurt even a baby's fingers. Has two speeds for all-weather driving. For Winter, use high-speed to remove encrusted snow and ice, and then low speed to keep it clear. In Summer, the high-speed is ideal when crawling along in city traffic, while the low-speed is fine when touring in the country, or to remove dangerous steam and fog from windshield on rainy days. Finished in no glare walnut. With universal mounting bracket, rubber cord and battery terminals.

E10439. **\$2.49**
NET.....

Special APPLIANCE VALUES



AUTOMATIC WAFFLE IRON

A high-quality waffle iron with many exclusive features at an unbelievably low price. Durable heating units, adequately insulated to prevent breakdown, assure rapid heating. Has heavy greaseless-type 7 1/4" die-cast aluminum grids. Equipped with automatic heat indicator that signals light when grids have reached the proper baking temperature and when waffle is done. Adjustable to desired texture of waffle—light, medium or dark. Beautifully finished in chromium with bakelite handles. Supplied with 6 foot Underwriters' approved cord set.

E10444. **NET \$4.45**
E10445. **WAFFLE IRON**, as above, but less automatic indicator. **NET \$2.60**



NEW THREE-SPEED ELECTRIC MIXER

The latest high-quality electric food mixer, beautifully designed and built for long, lasting service. A powerful all-purpose kitchen servant which will mix, whip, stir or beat all types of batters, pastry dough, salad dressings, eggs, cream and many other foods; may also be used with juice extractor listed below. Has many exclusive new features. Equipped with set of 2 self-locking beaters with stainless steel blades, easily removable for cleaning. Base tray is revolving ball-bearing type. Powerful three-speed universal type motor operates on 110 volts AC or DC; light and portable for easy removal from base. Three speeds take care of foods requiring slow or fast mixing. Has sturdy die-cast easy-grip fatigue-proof handle. Motor housing automatically locks self to frame; motor tilts back to drain beaters or for easy removal of 3-inch mixing bowl. Fan-cooled motor stays cool. The entire mixer is ivory-finished, attractive in appearance and easy to clean. The entire mixer is readily portable, made of unbreakable die-casting with scratch-proof rubber feet. Equipped with rubber-covered cord and unbreakable rubber plug. Complete as illustrated. (See below for juicer attachment.) Shpg. wt., 9 lbs.

E10446. **\$7.45**
YOUR SPECIAL PRICE.....

JUICER ATTACHMENT

Juice extractor attachment, consists of juicer bowl and reamer. Mixer motor reverses for quick attachment of juicer. Easily extracts juice from fruits.

E10447. **Juicer Bowl and Reamer. NET PRICE \$1.10**

ALLIED PRESENTS:

THE MOST ECONOMICAL FARM RADIO EVER BUILT!



R.C.A. & HAZELTINE LICENSED

NEW 1 1/2 VOLT SUPERHET CIRCUIT

4 TUBES DO THE WORK OF 6

1000 HOUR BATTERY LIFE

BETTER POWER! FINER TONE!

***Knight* 4 TUBE 1 1/2 VOLT BATTERY SUPERHET**

ALLIED is first with this amazing new Farm Radio sensation—the most economical farm set ever built! The ultimate answer to the rural demand for low-cost radio operation—the world's most economical battery receiver! Works 1000 hours—a full radio season—without a change of batteries! And this new Knight 1 1/2 Volt Farm Radio is not only the last word in economy, but it's the finest, the best-performing radio ever offered to unwired homes. The secret of this wonderful radio lies in the newly perfected 1 1/2 volt tubes with drain lower than any battery radio tubes yet developed; each of these tubes draws less current; several are multi-purpose types; the result is that you not only save money, but you actually get six-tube performance with only four tubes.

- **POWERFUL RECEPTION.** The Knight 4 tubes 175 to 556 meters (540-1730 K.C.) for powerful coverage of the standard Broadcast American and Canadian band. Also tunes many police signals. Really gets out and brings in programs dependably, powerfully, day and night, in all locations.
- **"THERMOMETER" DIAL.** The novel new "Thermometer" dial simplifies tuning. As the tuning knob is turned, a ribbon of color shows the exact position of the station indicator on the kilocycle-calibrated scale. The dial measures 2 3/4" x 1 1/4" and has a 7 to 1 vernier tuner ratio.
- **NEW 1 1/2 VOLT CIRCUIT.** Licensed by R.C.A. and Hazeltine. Uses the new 1 1/2 volt super low-drain tubes as follows: 1A7G as One-Modulator (dual-purpose); 1N5G as I.F. Amp.; 1H5G as Detector-A.V.C.-1st Audio (triple-purpose); 1A5G as Audio Output. Dual-purpose and triple-purpose tubes mean actual six tube power, distance-reach and operating efficiency. Automatic Volume Control assures complete freedom from fading.
- **1000 HOUR BATTERY LIFE.** An amazing performance record—unheard-of battery radio economy "A" drain is only 2 amperes. "B" drain is only 8 milli-amperes. Consumes 60% less current

than any previous battery radio. Using the new "AB" power pack especially developed for the Knight 1 1/2 Volt Superhet, the set has a normal battery life of 1000 hours when used about 10 hours per day. Never before has there been a farm radio with so low a maintenance cost.

- **NEW POWER PACK.** ALLIED offers the new Knight 1 1/2 Volt Superhet with a special single unit "AB" battery power pack that will give 1000 hours, or a full season of radio enjoyment, at a cost of less than two cents a day. Set has special plug for power pack. While this convenient pack is recommended, regular 1 1/2 volt "A" batteries and two standard 45 volt "B" batteries may be used.
- **NEW P.M. SPEAKER.** The latest type of 5-inch Permanent Magnet Dynamic Speaker is used in the Knight 4 to reproduce its large power with a brilliance and reality of tone that will be a lasting joy on all programs.
- **AN OUTSTANDING CABINET.** The new 1939 table model cabinet of the Knight 4 has a beautiful front face of striped walnut with gracefully rolled ends. Contrasting bands of walnut at upper and lower edges enhance the beauty of the design. Size: 12 1/2" x 7 1/4" x 5 3/4".
- **KNIGHT 4 COMPLETE.** The Knight 4 Tube 1 1/2 Volt Superhet is offered complete with Sylvania tubes, but less "AB" pack. Shpg. wt., 13 lbs. Code: POWER.

\$14³⁵

- E10912. Retail Value, \$28.95. NET PRICE, EACH
- E10913. The Knight 4 as above but complete with special 1000 Hour Ray-O-Vac "AB" pack. Shpg. wt., 34 lbs. NET PRICE EACH **\$18.10**
- E10044. Replacement 1000 Hour Ray-O-Vac "AB" Pack. (15 1/4" x 4 1/4" x 6 3/4"). Shpg. wt., 21 lbs. NET PRICE, EACH **\$4.00**

Take advantage of our liberal Money-Back Guarantee. Try the Knight 4 out under your own operating conditions. You'll find it everything we claim—the most economical and best-playing Farm Radio at the price!

1 1/2 VOLT SELF-CONTAINED BATTERY MODEL

The Knight 4 Tube 1 1/2 Volt Superhet is available also exactly as described above, but in a larger new type table model cabinet (illustrated at left) which will conveniently hold the "AB" Power Pack of the regular standard batteries. The cabinet is a masterpiece of beautiful construction and fine woods. It has a magnificent front panel and top of one-piece beautifully-figured burl walnut with roll-effect. Features an inlaid side trim of diagonally-stripped walnut. Has attractive grille. Size: 20 1/4" x 12" x 12 3/4". The Knight 4 is offered complete with Sylvania tubes in cabinet, illustrated at left, less only "AB" pack. Has all the features described above, but is sufficiently large to hold batteries. Shpg. wt., 20 lbs. Code: GRASS.

- E10916. Retail Value, \$32.75. NET PRICE, EACH **\$16.45**
- E10917. The Knight 4 as above but complete with special 1000 hour Ray-O-Vac "AB" pack. Shipping wt., 41 lbs. NET PRICE, EACH **\$20.20**



A SENSATIONAL ADVANCE IN BATTERY RADIO

Sensational NEW 1½ VOLT MODEL

the most economical of all FARM RADIOS!

PUSH-BUTTON TUNING

LATEST 1939 FARM RADIO FEATURES

- NEW 3½ VOLT TUBES
- PUSH-BUTTON TUNING
- THERMOMETER DIAL
- 6-INCH P.M. DYNAMIC
- FULL-ACTING A.V.C.
- NEW "AB" POWER PACK
- ON-OFF INDICATOR

The outstanding Farm Radio development of the past 10 years — the new 1½ Volt tube — makes possible the World's most economical Farm Battery Radio!

R.C.A. & HAZELTINE LICENSED

Knight 4 TUBE 1½ VOLT FARM SUPERHET

The new 1939 super-economical, super-efficient, **Knight 4 Tube 1½ Volt Battery Superhet**—with perfected Push-Button Tuning! The greatest and newest development in Farm Radio, the amazing 1½ volt tubes draw 60% less current than ordinary battery radio tubes! Used as multi-function tubes in the **Knight 4**, they attain astonishing economy with six tube power and efficiency.

• **Push-Button Tuning.** Front-adjusted type; easy to set and tune. Instantly selects any one of four favorite stations just by pushing a button! Manual tuning is made easy by the new "Thermometer" dial which shows a ribbon of color, indicating the exact position of the station indicator on the scale. Dial size is 3¼" x 2½". Has "on-off" indicator. Tuning range is 175 to 556 meters (540-1730 K.C.), covering all Broadcast stations and many Police calls.

• **New 1½ Volt Circuit.** Licensed by R.C.A. and Hazeltine—offers the greatest Farm Radio development of the past ten years. Uses the new 1½ volt super low-drain tubes as follows: 1A7G as Osc. Mod. (dual-purpose); 1N5G as I.F. Amp.; 1H5G as Det.-A.V.C.-1st Audio (triple-purpose); 1A5G as Audio Output. Dual-pur-

pose and triple-purpose tubes permit four tubes to do the work of six, attaining greater distance reach, better volume and finer tone—and all this with unheard of economy in operation. Has Automatic Volume Control to maintain uniform volume and to prevent fading. The full 6-inch P.M. dynamic speaker reproduces each program with flawless enjoyable tone.

• **1000 Hour Battery Life.** The new 1½ volt tubes feature amazingly low drain to satisfy completely and at last the persistent demand for economical battery radio operation. "A" drain is only 2 amperes; "B" drain is only 8 milliamperes. Never before have there been such economy, such savings on maintenance and replacement. The **Knight 4**, when used with the newly developed 1½ volt "AB" Power Pack, has a normal operating life of 1000 hours (used 10 hours a day) before requiring new batteries.

• **New "AB" Power Pack.** ALLIED offers the new **Knight 1½ Volt Superhet** with a special single unit "AB" battery power pack that will give 1000 hours, or a full season of radio enjoyment, at a cost of less than two cents a day. While this convenient pack is recommended, a regular 1½ volt "A" battery

and two standard 45 volt "B" batteries may be used. Cable has coded leads for easy connection.

• **Beautiful Cabinet.** The **Knight 4** is offered in a magnificent new 1939 table cabinet. Top and front are one-piece burl walnut with attractive overlay side and top trim of diagonally striped walnut. Has attractively shaped grille. The cabinet is of generous size and will hold either the "AB" power pack or regular batteries. Size: 20¼" x 12" x 12½".

• **Knight 4 Complete.** The **Knight 4 Tube 1½ Volt Superhet** with Push-Button Tuning is offered complete as illustrated, with Sylvan tubes, but less "AB" pack. Shpg. wt., 20 lbs. Code: RANGE.

E10914.
Retail Value, \$39.95.
NET PRICE EACH

\$19.85

• The **Knight 4** as above but complete with special 1000 Hour Ray-O-Vac "AB" pack. Shpg. wt., 41 lbs.

E10915. NET PRICE EACH

\$23.60

E10044. Replacement 1000 Hour Ray-O-Vac "AB" Pack. (15¼" x 4¼" x 6¼"). Shpg. wt., 21 lbs. NET

\$4.00

Knight 4 TUBE 2 VOLT SUPERHET

- SLIDE-RULE DIAL
- FULL-ACTING A.V.C.
- LOW DRAIN TUBES
- P.M. TYPE SPEAKER
- "BATTERY SENTRY"
- 5 TUBE POWER

A superb new Farm Radio offering at lowest cost a remarkable combination of powerful reception, real economy in operation, sharp selectivity and rich, life-like tone.

• **Dependable Performance.** The **Knight 4** tunes 174 to 560 meters (535-1720 K.C.) to cover the entire standard Broadcast band as well as the upper police channels. The latest type 3¼" x 1½" slide-rule dial is used for easy tuning. "On-off" red disc indicator is incorporated.

• **Powerful Circuit.** The R.C.A. and Hazeltine licensed circuit uses the following R.C.A. tubes: 1C7G as Det.-Osc. (dual-purpose); 1D5G-P as I.F. Amp.; 1F7G as Diode Det.-A.V.C.-1st Audio (triple purpose); 1G5G as Power Pentode Output. Has full-acting A.V.C. to maintain uniform volume and to prevent fading. The **Knight 4** may be operated efficiently either from a 3-volt dry "A" battery, a 2-volt storage battery, or an Eveready Air Cell. Can be used with either 90 volts of "B" or 135 volts. Our listing offers the **Knight 4** for money-saving operation with a 3-volt dry "A" battery. If ordered with Air Cell, add \$2.16 to E10836 set price; if ordered with 2-volt storage batteries, add \$0.94. "B" battery cable is of plug-in type to connect to either 2 or 3-45 volt "B's".

• **New Battery Sentry.** Amazing economy of operation is achieved by the **Knight 4**. The new "Battery Sentry" circuit, by use of a special switch, provides increased economy by extending the life available from the batteries. As batteries begin to deteriorate, switch is shifted from "Economy" position to "Power" position. Makes possible a 50% increase in the life of the "B" batteries. "A" drain is only 3 amperes; "B" drain on 90 volts is only 11 mls. on 135 volts, only 16 mls. When using 135 volts "B" battery, life will be approximately 1000 hours, when used 10 hours per day.

• **Outstanding Power.** Real economy is coupled with surprising power and wonderful tonal results in the **Knight 4**. The circuit uses dual-purpose and triple-purpose tubes for actual six-tube operating efficiency with four-tube economy. The special P.M. Dynamic Speaker provides the combined super-sensitivity of a magnetic speaker with the full power-handling capacity and rich tonal output of the finest dynamic speaker. You have only to try the **Knight 4** on our liberal money-back guarantee offer to be convinced that it is a super-value in a fine Farm Radio.



• **1939 Design.** You will like the pleasing new cabinet in which the **Knight 4** is presented. The instrument panel is of horizontally-grained walnut with attractive edge trim overlays of vertically striped walnut. Dual grille openings enhance the design to give it real style and beauty. The entire cabinet is beautifully finished. Size: 13½" x 8" x 7½". Nowhere this year will you find so much Farm Radio power, economy and outstanding beauty at so low a price.

• **Set Complete.** The **Knight 4 Tube 2 Volt Superhet** as illustrated, complete with R.C.A. tubes. Less batteries. Shpg. wt., 11 lbs. Code: HONEY. E10835. Retail \$26.50. NET PRICE EACH

\$13.25

E10836. The **Knight 4** complete with 2-45 volt B's and Burgess dry "A". Shpg. wt., 45 lbs. NET

\$17.00

AMERICA'S LOWEST-PRICED FARM RADIO!

Knight 5 TUBE 2 VOLT SUPERHET

- 4 1/2" Inch Dial
- Full Action A.V.C.
- Low-Drain Tubes
- Tunes Police Calls
- P.M. Type Speaker
- Has Battery Space

ECONOMICAL OPERATION

ALLIED challenges the industry with this amazingly economical and powerful Farm Radio. A superb value in a 1939 mantel-type farm radio offering a combination of powerful reception, real economy in operation, sharp selectivity and rich, life-like tone. This Knight 5-Tube 2-Volt Battery-operated Superhet incorporates the newest battery radio features. Tuning range covers 173 to 550 Meters (540 to 1720 K.C.) for dependable reception of American standard Broadcast stations plus upper Police channels. New large, easy-to-read, 4 1/2" gold-faced dial is clearly calibrated in kilocycles. Five of the newest low-drain tubes conserve battery energy, yet provide for strong reception. A full-sized 6" newly-developed alloy P.M. dynamic speaker assures flawless tone. Has Automatic Volume Control for uniform volume.

- **A Dependable Performer.** The Knight 5 may be operated efficiently from either a 3-volt dry "A" battery, or a 2-volt storage battery, or an Eveready Air Cell. When operated from a 3-volt "A" battery, drain is only .5 amp. from "A" battery and 20 M.A. from "B" battery. This means greatest economy in operation and makes the Knight 5 inexpensive to operate, by assuring maximum battery life. Our listing offers the Knight 5 for money-saving operation with a 3-volt dry "A" battery. (If ordered with Air Cell, add \$2.16 to E10909 set price; if ordered with 2-volt storage "A" battery, add \$0.94.) Battery cables have plug-in feature. You get the real advantage of fine radio efficiency coupled with remarkable economy when you use the Knight Battery 5.
- **Powerful New Circuit.** An advanced R.C.A. and Hazeltine licensed Superhet circuit is incorporated in the Knight 5. Designed for maximum efficiency and economy. It uses the latest low-drain tubes as follows: 1C6 as Mod. (dual-purpose); 34 as I.F.; 1F6 as Det.-A.V.C.-Osc. (dual-purpose); 33 as Power Output; 5E1 as Voltage Regulator. The 1F6 is a triple-purpose tube and does the work of 3 tubes so that the Knight 5 actually offers 7 tube power with 5 tube economy. Other circuit features include: heavy-duty tuning condenser, A.V.C., matched alloy slide; heavy-duty tuning condenser, A.V.C., matched alloy slide; heavy-duty tuning condenser, A.V.C., matched alloy slide; P.M. dynamic speaker, rubber-cushioned chassis, no "C" battery required, etc. The 1939 Knight 5 circuit represents the last word in powerful and economical battery radio operation, assuring dependable, enjoyable reception.



R.C.A. & HAZELTINE LICENSED

- **Attractive Cabinet.** The beautiful new cabinet illustrated above combines a high degree of attractiveness with perfect utility. Front and top are of one-piece burl walnut with roll-effect and piece burl walnut with diagonally-stripped walnut side trim of diagonally-stripped walnut. Hand-rubbed to a high piano finish. Size: 20 3/4" x 12" x 12 1/2". Has space to accommodate all batteries.
- **Beautiful Tone.** Rich, faithful tone is an outstanding feature of the Knight 5 Battery Superhet. It will meet the demands of today's wide-awake battery radio purchasers. There is no finer battery radio offered today at anywhere near our amazing low price.

• **A Splendid Value.** The Knight 5 Tube Battery Superhet in table cabinet as illustrated above, complete with 6" speaker and Sylvania tubes. Less batteries. Shpg. wt., 22 lbs. Code: MAIZE.

E10908.
Retail Value,
\$39.95.

\$14.75

NET EACH.....

E10909. The Knight 5 complete as above, with 3-45-volt "B" and 1-Burgess Dry "A" Batteries. Shpg. wt., 66 lbs.
NET PRICE EACH..... **\$19.70**

Knight 6 TUBE 2 VOLT 2 BAND SUPERHET

- Push-Button Tuning
- Thermometer Dial
- New P.M. Speaker
- Low-Drain Tubes
- With Tone Control
- Full-Acting A.V.C.
- "On-Off" Indicator
- "Battery Economizer"

A Farm Radio setting new standards for battery radio value for years to come—a set incorporating the luxury performance features of the finest A.C. sets—a radio unmatched for operating economy and unequalled for low price—that's the Knight 6 Tube 2-Volt Battery Superhet.

• **Push-Button Tuning.** The latest and finest system yet developed. Front-adjusted and easy to tune. Instantly selects any one of four favorite stations just by pushing a button! Manual tuning is easy, too, by means of the new Thermometer Dial which shows a ribbon of color indicating the exact position of the station indicator on the kilocycle-calibrated scales. Dial size is 3 1/4" x 2 1/4".

• **2 Band Range.** Tunes two full bands, 16-52 meters (5750-18100 K.C.) for thrilling Short Wave reception and amateur, police and aircraft signals; and 173 to 556 meters (540-1730 K.C.) for all standard American and Canadian Broadcast stations.

• **Powerful Low-Drain Circuit.** Licensed by R.C.A. and Hazeltine, the brilliant superhet circuit of the Knight Battery 6 achieves remarkable volume and splendid tone quality. Newest low-drain tubes are used: 1C7G as Osc.-Mod. (dual-purpose); 1E5G as I.F. Amp.; 1H4G as Det.-Osc. (dual-purpose); 1E5G as 1st Audio; 1G5G as Audio Output; 4-1 as Voltage Regulator. Multi-function tubes attain actual 8 tube efficiency.

• **Battery Economizer.** The Knight 6 features a special Battery Economizer utilizing only the amount of current required to provide power for any given level of volume. "A" drain is only .420 amp.; "B" drain with Economizer in use is only 12 M.A.; without Economizer, only 16 M.A.

• **Extra Value Features.** Special alloy P.M. speaker develops a flawless clarity and richness of tone; has full-range Personal Tone Control; A.V.C. keeps volume uniform on all programs; includes heavy-duty tuning condenser and rubber-floated chassis; 6 tuned circuits on each band.

• **Table Model Complete.** The Knight 6 Tube 2-Band Battery Superhet in cabinet, complete with 6" P.M. Dynamic Speaker and Sylvania tubes. Less Batteries. Shpg. wt., 22 lbs. Code: GRACE.

E10910.
Retail Value, \$44.50
NET PRICE EACH.....

\$21.65

E10911. The Knight 6 Table Model as described complete with Burgess Dry "A" Battery and 3 45-volt "B" Batteries. Shpg. wt., 60 lbs.
YOUR NET PRICE EACH..... **\$26.60**



Unusual Economy. Operating with remarkable money-saving economy, the Knight 6 will work from either a 3-volt Dry "A", a 2-volt Storage or an Air Cell Battery—a "C" Battery is required, and only 3-45-volt "B" Batteries are used. Plug-in connectors on battery cables assure quick, easy connections. Our listing offers the Knight 6 with 3-volt Dry "A" Battery. (If Knight 6 with Air Cell Battery is desired, add \$2.16 to E10911; if desired with 2-volt Storage Battery, add \$0.94.) You get maximum economy and powerful reception always with the Knight 6.

• **Cabinet Holds Batteries.** Handsomely designed and generously proportioned, the lay-down cabinet of the Knight 6 has a top and front of one-piece selected burl walnut with attractive overlay side trim of contrasting diagonally-grained walnut. Measures 20 3/4" x 12" x 12 1/2" and holds all batteries neatly and conveniently—a luxurious table model cabinet in every sense of the word.

• **Push-Button Tuning.** This is Automatic Push-Button Tuning at its very best—offered for the first time at so low a price in a 1939 Farm Radio. Push-button Tuning is front-adjusted and can be easily and quickly set for the selection of any of four favorite stations. Once set, you just push a button for the station of your choice, and it comes in perfectly, instantly each time—tuned right-on-the-head for maximum radio enjoyment with the greatest tuning convenience.

Amazing New ONE BATTERY RADIOS

Knight 4 TUBE 6 VOLT SUPERHET



R.C.A. & HAZELTINE
LICENSED

The Knight 4 Tube 6 Volt Superhet is presented in a beautiful cabinet made of choice selected two-toned solid walnut. Top and bottom are in rich, dark walnut finish, while the raised body band is of a lustrous, contrasting lighter shade. Louvre openings in front provide for best acoustical results together with smart styling. Size: 12" long, 7 1/4" deep, and 7 1/2" high. Beautiful new Slide-Rule Dial (3 1/4" x 1 1/4") enhances the cabinet beauty and makes tuning easier and more accurate. Has horizontal-traveling pointer; calibrated both in kilocycles and meters.

- SLIDE-RULE DIAL
- SYNCHRONOUS VIBRATOR
- P.M. DYNAMIC SPEAKER
- FULL-ACTING A.V.C.
- LOW-DRAIN TUBES
- TUNES POLICE CALLS
- BEAUTIFUL CABINET

Through the use of such latest developments as the new synchronous type vibrator and dual and triple-purpose tubes, the Knight 4 Tube 6 Volt Superhet achieves a brilliance in performance and tone quality equal to many 6 and 7 tube sets—yet its price and operating cost are amazingly lower.

Economical Operation. The Knight 4 uses only one 6 Volt storage battery and does not require any "B" or "C" Batteries; battery drain is only 1.9 amps. This efficient receiver costs you practically nothing to run. It combines the latest desirable features found in all-electric sets with remarkable economy of operation so important to the purchaser of a battery-operated set.

Powerful New Circuit. R.C.A. and Hazeltine licensed, uses newest low-drain tubes: 6A5G as Converter-Osc.; 6K7 as I.F. Amp.; 6Q7G as Diode Det.-A.V.C.-1st Audio; 6G6G as Beam-Power Pentode Output. Other features: dual-purpose synchronous vibrator, found only in finest 6 volt sets; A.V.C.; rubber-covered battery cable, highest quality standard components throughout, etc.

Amazing Performance. The Knight 4 covers 174 to 560 meters (535-1720 K.C.) for clear, powerful reception of American standard Broadcast reception plus upper Police channels. Rich, mellow tone is assured by the new type 5-inch P.M. Dynamic speaker—a revelation in such a low-priced battery receiver.

A Splendid Value. The Knight 4 Tube 6 Volt Superhet in table cabinet as illustrated above, complete with 5" P.M. speaker and R.C.A. tubes. Less battery. Shpg. wt., 13 lbs. Code: HOME.

E10831.
Retail Value, \$32.50.
NET PRICE EACH

E10458. Knight 6 volt 15-plate Storage Battery. Shpg. wt., 42 lbs. NET \$5.95

\$15.45



R.C.A. & HAZELTINE LICENSED

Knight 7 TUBE 6 VOLT SUPERHET

For those who want a quality 6 volt receiver which offers all the de luxe features of the finest A.C. sets—powerful 3-band reception, stirringly realistic tone quality, smart styling, and extreme economy in operation—ALLIED presents the Knight 7 Tube 6 Volt Superhet. Prove it to yourself—try it out in your own locality under our liberal Free Trial, Money-Back terms—and you'll agree that it's a radio that will set the standards for battery radio value for years.

World-Wide Range. The Knight 7 tunes 3 full bands to bring you every worth-while program: 12.5 to 40 meters (7500-24,000 K.C.) for thrilling foreign and domestic Short Wave programs; 40 to 120 meters (2500-7500 K.C.) for Short Wave amateur, police, and aircraft signals; and 175 to 556 meters (540-1720 K.C.) for your choice of the best American and Canadian Standard Broadcast programs. No other 6 volt radio approaches the Knight for sensitivity and selectivity—it brings the entire living world of radio into your own home.

Slide-Rule Dial. Both the efficiency and beauty of the Knight 7 are enhanced by the accurate, simple-to-use Slide-Rule Dial with vertical pointer. The top scale is calibrated in kilocycles for standard Broadcast; the lower scales in megacycles for Short Wave.

R.F. On All Bands. An outstanding feature generally found only in the finest custom-built receivers. Increases sensitivity tremendously.

Electric Eye. Incorporated in the dial face. Scientifically precise, it shows you when you are tuned in perfectly. You just watch the shadow in the glowing eye; when it is narrowest your station is tuned "on the head."

Push-Button Tuning. Just push a button—and there's your favorite Broadcast station! Here's a feature not usually found on battery radio. Will tune any six of your favorite Broadcast stations. Once you set the buttons they operate without further adjustment.

Real Economy. The Knight 7 works entirely from a single 6-volt storage battery. No "B" or "C" batteries are required. Operating costs are extremely low, especially when used with Gas Generator (Page 43) or Windcharger (Page 167).

Powerful 1935 Circuit. The Knight 7 employs a superhet circuit which is fully licensed by R.C.A. and Hazeltine. Latest low drain tubes are used: 6S7 as R.F. Amplifier; 6K8 as Osc.-Mod.; 6S7 as I.F. Amplifier; 6T7G as 2nd Det.-A.V.C.-1st Audio; 6G6G; as A.F. Driver; 6Z7G as Class "B" Output, and 6N5 as Electric Eye. Battery drain is only 2.6 amps., yet full 3 watts output is developed—unusual for a battery receiver.

Superlative Tone. Never before has a battery receiver achieved such a remarkable fidelity of tone! The special 8" P.M. speaker of the Knight 7 assures the finest wide-range tonal reproduction, rendered with a clarity and full richness that will amaze you. Continuously Variable Tone Control allows for personal emphasis of either treble or bass. Bass Booster reinforces and builds up the bass register.

Additional Features. Full A.V.C. to prevent fading or blaring; wave-band indicator knob; 3-gang rubber-mounted tuning condenser; 7 tuned circuits; phono connection, etc.

Luxurious Table Model. The finest cabinet ever chosen to house a battery radio. Of two-toned, matched selected walnut woods, with grille overlay bars and side-fluting to add to distinguished appearance. Will harmonize in any interior. Size: 12 1/2" wide x 9 1/4" deep x 9" high.

Table Model Complete. The Knight 7 Tube 6 Volt Superhet is offered complete with 8" speaker and R.C.A. tubes, as illustrated above. Less 6-volt battery. Shpg. wt., 32 lbs. Code: WAGON.

E19066. Retail Value, \$84.50.
NET PRICE EACH

E10459. Knight 6-volt 19 plate Heavy-Duty Storage Battery. Shpg. wt., 53 lbs. NET \$7.49

\$41.85

At Sensational Low Prices!



**OUTSTANDING
NEW FEATURES**

- Push-Button Tuning
- 6" Slide-Rule Dial
- Synchronous Vibrator
- New P. M. Speaker
- With Tone Control
- Low-Drain Circuit
- Full-Acting A. V. C.
- Efficient Wave Trap
- Full 2 Watts Output

Knight 6 TUBE 6 VOLT SUPERHET

If we're exceptionally proud of this 1939 Knight 6 Tube 6 Volt Superhet it's because we know that it incorporates the finest in engineering skill, quality-built parts, and artistic cabinetry—at a price that is unbeatably low. It's ALLIED's challenge to the battery radio industry and we're backing it up 100% with our Free Trial, Money-Back Guarantee! Buy this set—try it out under your own operating conditions—listen to it bring in Broadcast and Short Wave stations with an ease and fidelity you never dreamed possible in a battery radio—and if it doesn't out-perform any other 6 tube 6 volt set you ever heard, we'll gladly refund your full cash purchase price!

• **Push-Button Tuning.** Automatic, simple, fool-proof, the Push-Button Tuning System of the Knight 6 will tune any 6 of your favorite Broadcast stations. Just push a button—and there's the station you want, accurately tuned for perfect reception! Station tabs are included for all important American stations. Convenient manual tuning is also provided.

• **Powerful Reception.** The Knight 6 covers two complete bands powerfully and dependably: 16.5 to 53 meters (5650 to 18,100 K.C.) for Short Wave police, aviation, and amateur phone, as well as fascinating foreign reception on the popular 19, 25, 31, and 49 meter foreign Short Wave channels. The second band covers 174 to 560 meters (535 to 1720 K.C.) for upper police channels and all American and Canadian standard Broadcast stations. Here is virtually three band reception!

• **Slide-Rule Dial.** Latest 1939 type—an innovation that makes for simpler, more accurate tuning. Measures 6" x 2 3/4". Pointer travels horizontally over attractively-colored dial. Has easy-to-read calibrations, marked in kilocycles for the Broadcast band and in megacycles for Short Wave. Popular stations and channels are clearly indicated.

• **Latest 1939 Circuit.** The circuit of the Knight 6 is of the newest superhet type, licensed by the famous R.C.A. and Hazeltine laboratories. Every tube works: 6D8G as Converter; 1H4G as Oscillator; 6S7G as I.F. Amp.; 6T7G as Diode Det.-A.V.C.-1st Audio (triple-purpose); 6L5G as Audio Driver; and 1J6G as Class "B" P.P. Output. The circuit also employs the new synchronous vibrator for combined alternator and rectifier. Since the vibrator acts as a tube, the Knight 6 attains a power and performing ability usually associated only with 7 and 8 tube sets.

• **Low-Cost Operation.** The Knight 6 operates solely from a 6-volt storage battery and does not require any "B" or "C" batteries. Battery drain is extremely low—1.8 amps.—yet the power output is more than 2 watts, unusual for a 6 tube battery set. That's real economy!

• **Splendid Tone.** A full-sized 6" P.M. Dynamic speaker is incorporated in the table model of the Knight 6 (8" in the console and chassis models). All programs are handled smoothly and effortlessly, being reproduced with a rich, bell-like quality of tone not found even in many A.C. receivers. You'll like the vivid tonal realism of the Knight 6!

• **Other Value Features.** Full Automatic Volume Control to maintain uniform volume on all programs; Continuously Variable Tone Control so that you may emphasize either bass or treble as you desire; "On-Off" switch; separate coils for each band; I.F. Wave Trap to prevent code from breaking through on the Broadcast band; rubber-floated, heavy-duty tuning condenser; 3 foot battery cable with clips attached, etc.

• **Beautiful Cabinet.** An attractive, pleasingly-proportioned cabinet houses the sturdy chassis of the Knight 6. Instrument panel is of horizontally striped walnut with top and bottom band trims of vertically striped walnut. Curved grille bars accentuate the flowing lines, and add to the graceful design. Size: 18" long, 10 1/4" high, and 8" deep.

• **A Superb Value.** The Knight 6 Tube 2 Band 6 Volt Superhet is offered in the handsome table model cabinet illustrated above, complete with R.C.A. tubes and 6" speaker. Less 6-Volt Battery. Shpg. wt., 23 lbs. Code: WHEEL.

E10825, Retail Value, \$52.50.

YOUR NET PRICE.....

\$25⁸⁵

E10458, Knight 6-volt 15-Plate Storage Battery. Shpg. wt., 42 lbs. NET.....\$5.95



R.C.A. & HAZELTINE LICENSED

6 TUBE 6 VOLT CONSOLE MODEL

The Knight 6 Tube 6 Volt Superhet is available in the luxurious new low-boy console shown above. Incorporating the same efficient chassis, but with an 8" P.M. Dynamic Speaker, it has a large baffle area for finest tone quality. Instrument panel is of striped walnut, and is sloped for best visibility. Entire cabinet is hand-rubbed to a rich walnut finish, and reflects careful craftsmanship. Size: 32" wide, 36" high, 13 1/4" deep. Supplied complete with 8" speaker and R.C.A. tubes. Less 6-volt battery. Shpg. wt., 66 lbs. Code: CREAM.

E10827, Retail Value, \$77.50.

NET PRICE EACH.....

\$38⁵⁰

E10458, Knight 6-Volt 15-Plate Storage Battery. Shpg. wt., 42 lbs. NET.....\$5.95

6 TUBE 6 VOLT CHASSIS MODEL

The chassis model of the Knight 6 makes a perfect replacement for obsolete battery sets. Incorporates all the features described above, including an 8" speaker. Ruggedly built for long, dependable service. Size: 14 1/2" x 7 1/4" x 8". Complete with R.C.A. tubes and 8" speaker. Less 6-volt battery. Shpg. wt., 19 lbs. Code: FENCE.

E10829, Retail Value, \$47.50.

YOUR NET PRICE.....

\$23.45

E10458, Knight 6-Volt 15-Plate Storage Battery. Shpg. wt., 42 lbs. NET.....\$5.95

NEW 2-WAY FARM RADIO

6 TUBE 6 VOLT-110 VOLT SUPERHET



At just the flip of a switch the Knight 6 Two-Way Farm Radio will play from either a 6-volt storage battery or from 110 Volts A.C. Either way its performance equals that of any A.C. radio.

If you expect the high-lines soon, you don't have to go without radio now—the 1939 Knight 6 Two-Way Farm Receiver gives you perfect reception from either a 6-volt storage battery or from 110 Volts A.C. A product of the highest engineering skill and ingenuity, the Knight 6 is the most advanced, versatile performer yet developed. It's really two high-grade sets in one, and no matter which type of current you use, you'll be getting the finest type of reception!

Powerful 2-Band Reception. The Knight 6 covers 16.5 to 54 meters (535-1730 K.C.) for long-range Short Wave reception of aviation, ship and airplane signals, as well as the important 19, 25, and 49 meter foreign channels; and 175 to 560 meters (5650-18,100 K.C.) for police calls and for powerful reception of all American and Canadian standard Broadcast stations.

Glorious Tone Quality. Superb reproduction of all programs is an outstanding feature of the Knight 6. You'll thrill to this new concept of radio performance which is attained by a brilliant new circuit coupled to the finest type of P.M. dynamic speaker (full 8" type in the table model) which reproduces with finest fidelity.

1939 Circuit Design. A rugged superhet circuit, fully licensed by R.C.A. and Hazeltine, uses latest low-drain tubes: 6D8G as 1st Det.; 6L5G as Osc.; 6T7G as Audio Amp-Diode Det.-A.V.C. (triple-purpose); 6S7G as I.F. Amp.; 6G6G as Power Output; and 6Z5YG as Rectifier. Other latest features include: Full A.V.C. to maintain uniform volume on all programs; Continuously Variable Tone Control; Litz-wound high-gain coils; full-length cable with battery clips and A.C. plug, etc.

Economical Operation. The new two-in-one Knight 6 is a marvel for economy whether you operate it from 6 volts or 110 volts. Low-drain tubes and skillful circuit design assure maximum savings without any sacrifice in efficiency. You can save as much as \$15 to \$18 a year on battery operation; 110 volt operation is on a par with the lowest-drain A.C. radios.

Push-Button Tuning. The finest available. Has 8 push-buttons—6 for tuning your favorite

Broadcast stations automatically, one for clearing to manual tuning, and one as Short Wave band switch; can be set for any 6 desired local stations. Manual tuning is also provided for.

Slide-Rule Dial. Both efficient and attractive; makes for accurate, easy logging of stations. All popular Broadcast stations and important Short Wave channels are marked. Upper scale is calibrated in kilocycles for Broadcast; lower scale in megacycles for Short Wave. Size: $8\frac{1}{2} \times 5\frac{1}{2}$ " An easy-to-tune modern dial.

Handsome Table Cabinet. Body is of beautiful horizontally striped walnut, top and bottom of striking "V" matched woods. Attractive grille bars add richness to appearance. Cabinet has finest acoustical qualities. Size: $18 \times 11\frac{1}{2} \times 9$ ".

Two-In-One Radio Complete. The Knight Two-Way 6 Tube Superhet in table model cabinet shown below, complete with speaker and Raytheon tubes. Shpg. wt., 27 lbs. Code: WHEAT, Less battery.

E10882.
Retail Value, \$59.95.
NET PRICE EACH.

E10458, Knight 6-volt, 15-plate Storage Battery. Shpg. wt., 42 lbs. NET \$5.95

\$29.95



OUTSTANDING NEW FEATURES

- * PUSH-BUTTON TUNING
- * SLIDE-RULE DIAL
- * NEW P.M. SPEAKER
- * WIDE-RANGE TUNING
- * FULL-ACTING A.V.C.
- * TONE CONTROL
- * NEW LOW-DRAIN TUBES

R.C.A. & HAZELTINE LICENSED



For camps, cottages, trailers, and for those who expect high lines soon, the Knight 6 offers the last word in radio design—two-way reception at the turn of a switch. Works perfectly from either 6-volts D.C. or 110 volts A.C. Use it in the city on A.C.—in the country from a 6-volt storage battery—either way you get A.C. performance, convenience and luxury—at a price that marks this set as 1939's outstanding radio value! Take advantage of our Free Trial, Money-Back Guarantee (See Page 10)—try it yourself in your own place—you'll be proud and delighted when you experience the thrilling performance, versatility and economy of the Knight 6!

6 TUBE 6 VOLT-110 VOLT CONSOLE

The Knight 6 Tube Two-Way Superhet is available in a modern console model as illustrated at the left. Front panel is of beautiful burl walnut, sloped for the perfect tuning angle. Top and curved sides are of choice walnut, furnishing a harmonious note. Entire cabinet is hand-rubbed to a high finish. Size: $37 \times 27 \times 11\frac{1}{2}$ ".

The Knight 6 Console Model includes all the features described above; incorporates an 8" speaker for finest tone quality; complete 2-band reception—16.5 to 54 and 175 to 560 meters (535-1730 and 5650-18,100 K.C.)—for the finest in Short Wave and Broadcast reception, Push-Button Tuning, Slide-Rule Dial, A.V.C., Tone Control, R.C.A. and Hazeltine licensed circuit, etc. Complete set, as shown, with 8" speaker and Raytheon tubes. Shpg. wt., 54 lbs. Code: TULIP, Less 6-volt battery.

E10884.
Retail Value, \$83.50.
NET PRICE EACH

E10458, Knight 6-Volt 15-Plate Storage Battery. Shpg. wt., 42 lbs. NET \$5.95

\$41.45

6 TUBE 6 VOLT-110 VOLT CHASSIS

Here's an ideal chassis for modernizing old battery radios. Measures 14" long, $8\frac{1}{2}$ " deep, 9" high. Includes all features described above: 2 Full Bands, Push-Button Tuning, Slide-Rule Dial, A.V.C., Tone Control, low-drain tubes, etc. The perfect two-in-one chassis—for either 6 volts or 110 volts. Supplied complete with 8" P.M. speaker and Raytheon tubes. Shpg. wt., 18 lbs. Code: SPRAY, Less 6-volt battery.

E10886, Retail Value, \$56.50.
NET PRICE EACH

E10458, Knight 6-Volt, 15-Plate Storage Battery. Shpg. wt., 42 lbs. NET \$5.95

\$27.95



1939 FEATURES

- PUSH-BUTTON TUNING
- 6" DYNAMIC SPEAKER
- WITH TONE CONTROL
- TWO BAND RANGE
- FULL-ACTING A.V.C.
- BEAM POWER TUBES
- NEW 1939 CIRCUIT
- INDIVIDUAL COILS

R.C.A. & HAZELTINE LICENSED

6 TUBE 2 BAND 32 VOLT FARM PLANT RADIO

Power to bring you the finest radio programs from everywhere—tonal brilliance never before obtainable in a 32 volt set—economy of operation that will amaze you—that's the **Knight 6 Tube 32 Volt Superhet** for 1939! We believe that the **Knight 6** is so far superior to any other 32 volt set in spite of its extremely low price that we invite you to try it out under our Free Trial, Money-Back Guarantee! Once you enjoy the beauty and performance of this set, once you hear its outstanding, rich tone quality, you'll know why we are so proud of this 1939 **Knight 6**!

• **Two Full Bands.** The **Knight 6** covers 16.5 to 556 meters (5750-18100 K.C.) for Short Wave police, airplane, amateur and ships-at-sea signals, as well as foreign reception on the popular 19, 25, 31, and 49 meter bands; and 174 to 556 meters (540-1739 K.C.) for long-distance reception of American and Canadian standard Broadcast programs.

• **All-Electric Operation.** No batteries are required for operating the **Knight 32-Volt Superhet**—just plug it into the nearest 32 Volt D.C. source, and you're ready to enjoy all the luxury, convenience and economy of the finest modern A.C. radio receivers. Here is 1939's finest 32 Volt radio at a price everyone can afford.

• **Push-Button Tuning.** ALLIED is first with Push-Button Tuning in a 32 Volt radio. Automatic, accurate, and dependable, this tuning system enables you to tune any four of your favorite broadcast stations automatically. Buttons may be easily set from front for your favorite local stations. Set can also be tuned in the regular manual method.

• **Powerful 1939 Circuit.** An entirely new superhet circuit has been chosen for the **Knight 6**. Licensed by R.C.A. and Hazeltine, it uses: 6K8 as Osc.-Mod. (dual-purpose); 6K7 as I.F. Amp.; 6Q7G as Det.-A.V.C.-1st Audio (triple-purpose); 6C5G as Audio Driver; and 2-25L6G as Push-pull Beam Power Output. These last two tubes contribute greatly to the extra power and tone quality of the **Knight 6**. The circuit is designed for greatest efficiency and economy. Total drain is only 1.05 amps.

• **Magnificent Tone.** The **Knight 6** stands head and shoulders above all other 32 volt sets for full-bodied, bell-like tone quality. The heavy-duty 6" dynamic speaker, plus the 2 Beam Power Tubes and efficient Tone Control, result in unmatched tonal excellence. You'll enjoy the way in which this new **Knight** model reproduces each program with broadcast studio tone quality.

Latest Features. Full A.V.C. for uniform volume and freedom from fading; rubber-mounted tuning condenser and chassis "Thermometer" dial; individual coils for each band; Beam Power tubes, etc. These are features seldom found in ordinary 32 volt radios. They are additional proof that the **Knight 6** is truly a deluxe receiver—yet it is offered at a price easily within anyone's reach.

• **Beautiful Cabinet.** The cabinet which houses the **Knight 6** is a model of superb craftsmanship and design. Gracefully proportioned, it has top and bottom of richly colored dark woods which contrast handsomely with the lighter, horizontally grained walnut instrument panel. Attractive grille bars on front and side add a pleasing streamlined note. Size: 19" wide, 11" high, 8 3/4" deep.

• **Table Model Complete.** The **Knight 32-Volt 6 Tube Superhet** is offered complete with 6" dynamic speaker and R.C.A. tubes. For 32-volt operation. Shpg. wt. 19 lbs. Code: GRAIN. **\$29.45**
E10920.
Retail Value, \$58.95.
NET PRICE EACH

Get FREE POWER with a WINDCHARGER



GAS ENGINE FARM PLANTS

Get rid of time-wasting drudgery, poor lighting, and weak radio performance—purchase one of the new dependable, low-cost Farm Power Plants described on Page 45! Available in 6-volt, 32-volt, and 110-volt A.C. models, all gas-engine driven and incorporating the latest improvements for efficient, economical power and lighting service. Also, see Page 46 for light plant wire, bulbs, and accessories.

NEW: ELECTRIC FENCE CONTROLLERS

New, sensational, and revolutionary are the 6-volt, 32-volt and 110-volt A.C. Electric Fences shown on Pages 46-47! Low in cost, reliable, and economical, they will keep live-stock safely enclosed within restricted areas.

Ruripower

Now! Get FREE power from the wind with the finest, most reliable Windcharger ever made. This new, perfected Ruripower Windcharger offers true economy in storage-battery charging—costs nothing to operate; saves you the expense of dry batteries, of carrying heavy batteries to town for recharging. Delivers up to 16-20 amperes of direct 6-volt current. Employs a newly-designed, exclusive heavy-duty generator which has been especially developed for the Ruripower Windcharger. The Windcharger assures better radio performance because it eliminates the nuisance of run-down batteries.

The Ruripower Windcharger quickly and efficiently charges any 6-volt Storage "A" Battery, or, used with the resistor below, will charge any 2-volt storage battery. Has automatic cut-out; automatic propeller speed governor. Generator has oil-sealed ball bearings; cuts in at 320 R.P.M. Has airplane type propeller with copper-sheathed leading edges. Ball-bearing Turtable maintains double tension contact; permits free rotation of power head. Turntable brake automatically corrects position for any wind. Easily started and stopped with simple pull-down wire attached to swivel-collar. To install, mount Windcharger and 10-foot tower on unobstructed roof or in high, open place; attach wires from generator outlet to storage-battery—the wind does the rest. May also be used for limited lighting service with heavy-duty batteries such as shown on page 43.

E10610. Ruripower Windcharger complete. Includes heavy-duty generator and head-mechanism, wired and ready to mount; 10-foot Tower, Propeller, Tail Vane, Ammeter on panel, Cut-out, Battery clips, etc. Complete instructions supplied. Shpg. wt., 75 lbs.
List Price, \$29.95.

NET PRICE COMPLETE WITH 10 FOOT TOWER

E10031. 2-Volt Resistor for charging 2-Volt Storage Battery from Windcharger line. NET \$5.50

When purchased complete with any Knight 6-Volt Radio, the Windcharger is available at the reduced price of **\$17.50**

\$19.75

More Joy on the Road with these

R.C.A. & HAZELTINE
LICENSED



The
PACEMAKER
\$14.95 Each
In Lots
of 3
Knight 5 TUBE
AUTO SUPERHET

Think of it—a powerful high-grade 1939 Auto Radio with genuine Automatic Push-Button Tuning at an unbelievably low price! Here's the latest advance made in Auto Radio design. It offers you a choice of five favorite stations which can be tuned instantly, automatically, perfectly—without once taking your eyes off the road. No other Auto Radio at so low a price offers so much!



Push
A BUTTON
FOR FAVORITE
STATIONS

1939's most amazing car radio design! Offers the best in Auto Radio versatility, convenience, driving security and enjoyable performance. Fits any car perfectly. The first low-cost Auto Radio to combine superb entertainment coupled with absolute safety in driving. ALLIED is first with the latest in a Push-Button Tuning Auto Radio—and at the lowest price on the market!

• **AUTOMATIC TUNING.** You can tune any of five favorite stations on the Knight 5 just by pressing a button—and you don't have to take your eyes off the road! Buttons are instantly adjustable for any five stations selected. Each button is geared directly to the tuning condenser for positive, accurate tuning. This tuning system withstands vibration and can't get out of adjustment. Does not interfere with regular manual tuning.

• **NEW SLIDE-RULE DIAL.** The latest 1939 rectangular full-vision dial is incorporated in the Knight 5 Auto Radio. Has full-vision easy-to-read scale. Both dial, controls and push-buttons are inclined slightly to face the driver and to provide full-vision and safety while driving. The entire auto radio assembly mounts neatly to the lower edge of the car instrument panel.

• **ALL-ELECTRIC RADIO.** You get luxurious all-electric operation anywhere you drive, with the new Knight 5. Has built-in vibrator power supply of the finest construction. No suppressors are required. Latest Superhet circuit design, licensed by R.C.A. and Hazeltine, uses five new tubes to achieve 7 tube efficiency and performance. Tubes used are: 6A8G as Conv. Osc.; 6K7 as I.F.; 6Q7G as Det.-A.V.C.-1st Audio; 6K6G as Power Output; 6X5G as Rectifier.

• **OUTSTANDING FEATURES.** Additional features include: Full A.V.C. to maintain uniform volume; 5-inch Electro-dynamic Speaker of highest quality; full 2 watts power output; 6 tuned circuits; 7 to 8 microvolts sensitivity; 335 to 1530 k.c. range; plug-type antenna connection on case; fused "A" lead, etc. All components are in a single sturdy steel case, 12" x 6" x 6", beautifully finished in tan crackle. The Knight 5 has been built with the care and precision required in the automotive field. It will withstand vibration and shock to give stable, enjoyable performance. The Knight 5 is offered at a price that makes available to all the finest in car radio design.

• **SET COMPLETE.** The 1939 Knight 5—America's Safety First Auto Radio—is offered complete as described above with R.C.A. tubes. Shipping weight, 15 lbs. Code: RIDE E10390. Retail Value, \$24.95.

NET PRICE EACH, \$15.95.

NET PRICE, LOTS OF 3, EACH.

\$14.95

(See page 150 for suitable and efficient new Auto Aerials.)

LATEST FEATURES

- AUTOMATIC TUNING
- ALL-ELECTRIC RADIO
- NEW SLIDE-RULE DIAL
- SUPPRESSORLESS
- FULL-ACTING A.V.C.
- 2 WATTS OUTPUT
- DYNAMIC SPEAKER
- SAFETY-FIRST RADIO
- PLUG ANTENNA CONN.
- 6 TUNED CIRCUITS

SPECIALS IN AUTO RADIO ACCESSORIES

MOTOR-NOISE FILTER



A new scientifically designed Auto Radio noise and spark plug suppressor eliminator. Easy to install; does not interfere with the car ignition system. Assures noise-free auto radio reception. Unit consists of a combination high-frequency filter and adjustable balance circuit which completely eliminates use of spark plug suppressors. Interference is always "balanced out" regardless of frequency, by means of manual inductance control. Filter is housed in shielded metal container fitted with mounting bracket. Installed in series with the antenna at receiver. A really efficient and dependable auto filter unit.

E5489. YOUR PRICE **\$1.25**

FRONT WHEEL NOISE

SUPPRESSORS

Effectively eliminates all noises caused by static pick-up of front wheels of car. Designed for easy installation in hub caps of car wheels.

E5488. PER PAIR **10c**



RCA-VICTOR M-34

VIBRATOR ASSEMBLY

A genuine R.C.A. Replacement part. Exact replacement vibrator, part No. 7604, for the R.C.A. M-34 auto set. Sealed; fully adjusted and ready to install. Will operate on from 4 to 8 volts input. Rubber-mounted in double aluminum can. Size 4 1/4" high x 2 3/4" diameter. Built with typical R.C.A. quality to give efficient lasting service. An excellent replacement and exact duplicate of the original. Priced attractively low so that you need not make replacement with inferior unit.

E7335. Part 7604. List. \$6.00. NET **\$3.53**

BASE FOR ABOVE

R.C.A. Part No. 6577 Capacitor and base assembly for vibrator No. 7604. Contains two .04 mfd. condensers.

E7336. Part 6577. YOUR PRICE **46c**

SHIELDED AERIAL LEAD-IN

For efficient installation of auto antenna. Filter wrapped around No. 18 conductor, with close-fitting shielding overall. The highest quality shielded aerial lead-in wire you can buy, yet priced attractively low. Ideal for auto radio installations.

E2444. 1/4" DIAM. **5c**
Per Ft. **\$4.35**
E2443. 1/2" DIAM. **7c**
Per Ft. **\$5.95**
100 Ft.

ANTENNA CONNECTOR

For Auto Radio sets, to connect antenna lead to set.

E6254, EACH **6c**
PER DOZ. **60c**

ALLIED has available the most complete selection of high-grade Auto Aerials ever offered. See our listings on Page 150.

Powerful New 1939 Auto Radios!

Knight 6 TUBE SUPERHET

- ALL-ELECTRIC RADIO
- SUPPRESSORLESS
- 3-GANG CONDENSER
- R. F. PREAMPLIFIER
- SINGLE HOLE MOUNT
- WITH TONE CONTROL
- FULL-ACTING A. V. C.
- 3 WATTS OUTPUT
- 6" DYN. SPEAKER
- FITS ALL MAKE CARS

Get the ultimate in car radio enjoyment with the new 1939 **Knight Super Six Auto Radio!** Every advantageous engineering development, every new car radio feature has been incorporated to provide the finest possible radio performance and utility in any automobile. Here is a set designed with the ruggedness, precision and quality demanded by the automotive industry. Unparalleled at any price for tonal brilliance, large dependable power and outstanding new refinements.

Fits All Cars. The **Knight 6** is completely contained in a single tan-colored crackle-finished steel case, 8 $\frac{3}{4}$ " x 7" x 7 $\frac{3}{8}$ ". Has single hole mounting for quick, easy installation.

No Suppressors. Six advanced filter circuits provide reception absolutely free from ignition noises. No need for spark plug suppressors. Will give splendid noise-free radio performance.

Low-Drain Tubes. The powerful R.C.A. and Hazeltine licensed circuit uses the following tubes: 6K7 as R.F.; 6A8G as 1st Det.-Osc.; 6K7 as Amp.; 6Q7G as Det.-A.V.C.-1st Audio; 6K6G as Power Output; 6X5G as Rectifier.

3 Watts Output. The **Knight Super Six** develops a full undistorted output of 3 watts—the result of a powerful 6K6G output stage. Makes possible marvelously full and rich tone which is ably handled by the full-size 6" Electro-dynamic speaker. You will appreciate the fine full tone of this splendidly designed Auto Radio.

Tone Control. Continuously Variable Tone Control is incorporated to add enjoyment to every program. An "extra-value" feature of this De Luxe **Knight 6** Tube Auto Radio Superhet.

Full A.V.C. Automatic Volume Control has been brought to a high point of perfection in the **Knight 6**. No fading, no reduction of volume, no matter what programs you are tuning or wherever you drive. You'll notice the difference in this receiver.

No-Glare Dial. The splendid new dial of the **Knight 6** is a real safety feature. It is easy to read—no glare or distraction. Dial mounting kits are available to fit any car.

New Features. Additional features are: R.F. pre-amplifier for super-sensitivity at a minimum noise-level—sensitivity is 1.5 to 1 microvolts; 10 K.C. Selectivity; 2 Position Antenna Plug for matching serials of various capacities; 6 Tuned Circuits; 3-Gang Condenser; Fused "A" lead, etc. Tuning range is 535 to 1550 K.C. A De Luxe Auto Radio in every detail of design and performance.

A Great Car Radio Value. The **Knight Super Six Auto Radio** as described is offered complete with built-in speaker, R.C.A. tubes, flexible shafts, tuning mechanism and hardware. Requires either of tuning control heads listed at right. Shipping weight, 20 lbs. Code: MOTOR.

E10891. Retail Value, \$39.95.
NET PRICE EACH, \$22.95.
YOUR NET PRICE, LOTS OF 3, EACH

(See Page 150 for suitable Auto Aerials.)

\$21⁹⁵



R.C.A. & HAZELTINE LICENSED

SPECIAL CONTROL MOUNTING KITS

E10940. TYPE A. Universal control which adapts tuning mechanism of **Knight 6** Auto Radio to fasten to lower edge of dash instrument panel. Makes an attractive installation in cars which do not have custom-control provision on dash. YOUR PRICE EACH.....99c

E10941. TYPE B. Custom control for mounting on dash panel of cars equipped with ash tray compartment. When ordering, be sure to specify make, model and year of car, indicating whether de luxe or standard. YOUR PRICE EACH.....\$1.47

These controls are for use only with 1938-1939 **Knight Auto Radios**—will not fit Auto Radios of other makes.

TAKE *It Anywhere!*
PLAY *It Anywhere!*

R.C.A. & HAZELTINE LICENSED



Knight 4 TUBE PORTABLE

ALLIED does it again—brings you the first really practical compact portable radio you can actually use anywhere! Made possible by the development of the sensational new 1 $\frac{1}{2}$ volt tubes which draw 60% less current than ordinary battery set tubes. Gives excellent performance with unusually long battery life. The **Knight 4** Portable Receiver is a complete radio in itself, entirely self-contained in a sturdy leatherette-covered cabinet, measuring only 13"x8 $\frac{1}{4}$ "x8". Weighs only 13 lbs.

NEW 1 $\frac{1}{2}$ VOLT CIRCUIT. The **Knight 4** Portable tunes 173 to 556 meters (540-1730 K.C.) for powerful enjoyable reception over the entire standard Broadcast band. The R.C.A. and Hazeltine licensed circuit uses the new 1 $\frac{1}{2}$ volt tubes—the most amazing advance in battery radio tubes in ten years—as follows: 1A7G as Use-Mod. (dual-purpose); 1N5G as I.F. Amp.; 1H5G as Det.-A.V.C.-1st Audio (triple-purpose); 1A5G as Audio Output. Multi-purpose tubes achieve actual 88-tube efficiency. Automatic Volume Control assures uniform volume and freedom from fading.

LOW-DRAIN FOR ECONOMY. Amazing battery economy is achieved by the **Knight 4** Portable using the newly developed super-economical 1 $\frac{1}{2}$ volt tubes. "A" drain is only 2 amperes; "B" drain is only 8 milliamperes. Never before has there been possible such amazing economy of operation in a portable receiver. Special compact "AB" Power Pack which fits in cabinet will give 200 hours of service.

EVERYTHING BUILT-IN. A full 5" P.M. dynamic speaker is built into the receiver reproducing every program with exceptional fidelity. An attached 25 foot flexible antenna gives added convenience for quick operation. The novel "thermometer" dial makes tuning simple. The complete, compact, portable "AB" Power Pack is self-contained in the cabinet for exceptional convenience.

SMART WEATHERPROOF CABINET. The **Knight 4 Tube Battery Portable** is supplied in a compact carrying case finished in black, waterproof leatherette. Has a convenient carrying handle. Will carry anywhere and play everywhere. Ideal for motoring, fishing, hiking and camping trips; in parks, on boats, trains, at picnics, on the beach. A versatile receiver that costs practically nothing to operate. Supplied complete with Sylvania tubes as described, but less the "AB" Power Pack. Shpg. wt., 20 lbs. Code: TRAIL. E10925. Retail Value, \$32.50.

NET PRICE EACH, \$15.85.
PRICE, LOTS OF 3, EACH
E10045. Special "AB" Power Pack.
NET.....

\$14⁹⁵

\$2.95

169



Stirring Tone - World Reception



R.C.A. & HAZELTINE
LICENSED

AMERICA'S DELUXE RADIO FOR 1939

PUSH-BUTTON
TUNING

20 WATTS OUTPUT

172

NEW
"TILT-TUNER"
CONSOLE

HIGH-FIDELITY



Knight 16 TUBE A. C. 3 BAND SUPERHET

THE ELECTRIC-TUNING RADIO RECOMMENDED BY LEADING TESTING LABORATORIES

- ELECTRIC TUNING
- PUSH-BUTTON TONE CONTROL
- R.F. ON ALL BANDS
- BEAM POWER OUTPUT
- NEW A.F.C. ACTION
- SEPARATE BASS AMPLIFIER
- FULL-DELAYED A.V.C.
- WAVE BAND INDICATOR
- 18 WATTS OUTPUT
- 15" EXPANDER SPEAKER
- 2 STAGES OF I.F.
- PHONO CONNECTION

Here's America's greatest 1939 Radio Receiver—the de luxe performer that sets new standards by which all other radios must be judged! Packed with every new feature, every latest refinement to achieve the very utmost in radio performance. Just check these amazing specifications:

- **ELECTRIC PUSH-BUTTON TUNING.** The Knight 16 offers you the most perfect of Electric Push-Button Tuning Systems. Select any one of your eight favorite stations just by pushing a button! Tuning is precise, smooth—right on the head each time. Anyone can easily adjust the simple fool-proof mechanism that tunes eight stations in eight seconds. Additional buttons are provided as follows (for the first time in any radio receiver): one for "on-off" switch; one for switching to phono in case phono attachment is used; one to make the change from Push-Button to manual tuning; three for Tone Control. This ingenious Push-Button System makes the Knight 16 the first truly automatic radio receiver in history!
- **WORLD-WIDE RECEPTION.** America's greatest long-distance radio, the Knight 16 gives complete coverage of everything that's broadcast: tunes 16 to 54 meters (5650-18100 K.C.) and 54 to 175 meters (1715-5650 K.C.) for powerful, consistent, enjoyable Short Wave foreign and domestic programs, police, amateur and aviation signals; and 175 to 560 meters (535-1730 K.C.) for magnificent coverage of all American and Canadian standard broadcasts. A special wave-band knob and plate indicator are provided so that you always know the band you are tuning.
- **LATEST SLIDE-RULE DIAL.** The perfect companion to Push-Button Electric Tuning for precise manual tuning of all programs. Ingeniously built-mounted for easy visibility and "no-stop" tuning. Each band has an individual full-length scale. Names of popular stations and country locations are indicated on both Broadcast and Short Wave bands. Calibrations are in kilocycles and megacycles, easy to read and tune. A horizontal-traveling pointer is featured. This new Slide-Rule Dial is a distinct advance in tuning arrangements.
- **SUPER-POWERFUL CIRCUIT.** Newest octal tubes are used throughout the R.C.A. and Hazeltine licensed circuit as follows: 6K7G as R.F. Amp.; 6L7G as 1st Det.; 6J5G as Osc.; 6I7G as Frequency Control; 6K7G as 1st Amp.; 6V7G as 2nd I.F. Amp.; 6Y7G as A.F.C.; 1 F. Amp.; 6H6G as A.F.C. Rect.; 6H6G as Signal and A.F.C. Rect.; 6F8G as Phono and Audio Amp.; 6J5G as 1st Bass Amp.; 6J5G as 2nd Bass Amp.; 2—6L6G as Push-pull Class "AB" Output; 2—5Z3 as Rect.
- **AUTOMATIC FREQUENCY CONTROL.** Automatic Tuning reaches its greatest peak in accuracy and efficiency in the Knight 16 through the use of a perfected A.F.C. circuit. Found only in custom-built receivers. You simply can't tune "off-tone" with this feature. The A.F.C. circuit automatically snaps each program into perfect focus anywhere within range of the station signal you are tuning. You get perfect tonal reception on every program because you are tuned in precisely.
- **R.F. ON ALL BANDS.** An exclusive new de luxe feature found only in sets selling at much higher prices. Affords the utmost in sensitivity, selectivity and low noise level. Makes possible consistently dependable reception on all three bands. Two double-tuned I.F.'s are also incorporated. (Sensitivity is absolute 2 MV measured at 50 milliwatts on all bands! Selectivity is 8 to 10 K.C. at 10 x power!) This is amazing proof of the performing superiority of the 1939 Knight 16.

tivity and low noise level. Makes possible consistently dependable reception on all three bands. Two double-tuned I.F.'s are also incorporated. (Sensitivity is absolute 2 MV measured at 50 milliwatts on all bands! Selectivity is 8 to 10 K.C. at 10 x power!) This is amazing proof of the performing superiority of the 1939 Knight 16.

• **FULL-DELAYED A.V.C.** Only the finest radios have this wonderful feature. Absolutely overcomes fading even on the weakest signals. Equal intensity and uniform volume strength are given to all incoming signals picked up by the supersensitive circuit. A three-gang rubber-floated condenser tunes with hairline sharpness for unprecedented selectivity.

• **GIANT POWER OUTPUT.** The Knight 16 has an amazing power output of 18 watts undistorted. It is ably handled by a special newly developed giant 12-inch super-dynamic speaker with additional three-inch expander ring. Actually a 15-inch Expander Type Speaker. This valuable feature provides proper acoustical balance for any program in any size room. The Knight 16 develops a quality of tone that will never cease to delight you. It reproduces both speech and music with life-like fidelity, unfolding new worlds of tonal depth and beauty that will thrill even the most critical.

• **BASS AMPLIFIER.** Into the Knight 16 there has been built a special, separate bass amplifier channel. This circuit design innovation—previously found only in laboratory and Broadcast studio instruments—handles bass frequencies exclusively and realistically, without affecting or cutting off the high notes. Has separate bass control knob with 10 positions.

• **PUSH-BUTTON TONE CONTROL.** Found only in the 1939 Knight 16. Three buttons are provided for varying tone to give bass or treble emphasis as desired. Assures perfect acoustical correction for every room. Provides absolute and completely effective response at either or both ends of a musical range extending from 30 to 6000 cycles, does not cut off frequencies. Gives complete mastery of the entire tonal range from highest treble to lowest bass. Imagine it—you get the tonal emphasis you want just by pushing a button! Together with the 16-position bass channel control knob, the Knight 16 offers 42 separate tonal variations for the most complete tonal control ever incorporated in any radio receiver.

• **MAGNIFICENT 1939 CONSOLE.** The console of the Knight 16 is magnificently styled in the latest 1939 low-boy trend. The cabinet has a tilted dial panel of matched burl walnut, set off by beautifully-grained pilasters of choice walnut with contrastingly grained top and bottom band trims. Beautifully hand-rubbed to a lustrous piano finish. The cabinet measures 34 3/4" wide, 37 3/4" high, 14" deep.

• **CONSOLE MODEL COMPLETE.** The 1939 Knight 16 Tube All-Wave Superhet with Push-Button Tuning in console as illustrated at the left, complete with 12-inch speaker and R.C.A. tubes. For 110 volts, 60 cycles, A.C. Shpg. wt. 110 lbs. Code: DREAM.

E10880. Retail Value, \$169.50. YOUR NET PRICE EACH...

\$83.50

16 TUBE PHONO-RADIO

The year's most magnificent complete musical instrument is the new Knight 16 Tube Phono-Radio Combination which offers supremely beautiful reproduction of all phonograph records as well as all radio programs. Equipped with the latest R.C.A. de luxe Record Changer. This new instrument offers you the entire world of musical entertainment just when you want it. Incorporates the de luxe 16 Tube Radio described above, providing powerful World-Wide Radio reception, marvelous fidelity of tone and supremely easy Automatic Push-button operation. The Record Changer plays eight 10-inch or seven 12-inch records automatically or will play 10-inch and 12-inch records in mixed sequence. Has new top-loading offset head inch records in mixed sequence. Has new top-loading and triple-sealed Crystal Pickup with automatic needle-cup assures perfect staccato. The silent, powerful phono motor assures perfect staccato of operation. Records are played through the advanced amplifying circuit of the receiver; 18 watts output provides separate Bass channel, Push-Button Tone Control and 10 position Bass Control assure the faithful reproduction of every nuance and overtone. The Knight 16 Phono-Radio Combination includes all features described above: 3 Band Range; Electric Tuning; A.F.C.; A.V.C.; 15" Expander Speaker; R.F. on all bands, etc. The massive cabinet is a real masterpiece. It has a double-roll front panel of center-matched burl walnut with straight grain walnut side panels; has record compartment at sides. Dimensions: 40" wide, 38" high, 18" deep. For 110 volts, 60 cycles, A.C. Shpg. wt. 190 lbs. Code: FLARE.

E10881. Retail Value, \$350.00. NET PRICE EACH

\$169.50

Only the very finest components, fully conforming to the highest standards of modern radio science, are used in the construction of the deluxe chassis of the Knight 16 as illustrated at left. Two separate chassis—tuner and amplifier—have been assembled with utmost precision to assure the very finest stability. All vital circuits are thoroughly shielded; extra safety factors are incorporated at all important points. Built like a battleship, the chassis of the Knight 16 will provide years of dependable service. Only when you have experienced the actual thrill of hearing this deluxe receiver in operation can you fully appreciate its magnificent full-bodied tone, its glorious distance-reach, its tremendous reserve power. We invite you to try this receiver under your own operating conditions—with full protection under our Free Trial and Money-Back Guarantee offer (see Page 10 for details). Put it through every conceivable test—notice how powerfully it tunes stations on every band—listen to its marvelous rendition of every type of program—and you will agree that, without qualification, this is one of the very finest radio instruments America's great radio industry has ever produced, that in every detail of construction and operation, the Knight 16 is truly a supreme achievement—worthy of a proud position in even the most luxurious setting.



AUTOMATIC RECORD CHANGER

Glorious Musical Entertainment!

Knight 8 TUBE PHONO-RADIO

The thrill of perfect all-wave radio reception—the satisfaction of high-fidelity reproduction of phonograph records—and the luxury of a magnificent cabinet in the modern trend are combined in this quality-built musical instrument to provide lasting joy and entertainment. This new Knight 8 Tube De Luxe Phono-Radio Combination is truly a luxury instrument for those who want only the best.

• **ALL-WAVE SUPERHET CIRCUIT.** The radio portion of the Knight 8 Tube Phono-Radio is built around a new R.C.A. and Hazeltine licensed Superhet circuit. Continuous tuning range from 16.5 to 565 meters (535 to 18,000 K.C.) covers everything that's on the air: standard Broadcast, foreign Short-Wave programs, Aviation, Amateur, Police Calls and Ships-at-Sea. A full 3 1/4 watts undistorted output (5 watts maximum) is developed. Tubes used are: 6A7—1st Det.; 6B6—I.F. Amp.; 76—Osc.; 6—Phase Inverter; 75—2nd Det.—A.V.C.—1st Audio (triple purpose); 2—41—P.P. Output; 80—Rectifier.

• **RADIO'S GREATEST FEATURES.** Incorporates the finest features: Automatic Push-Button Tuning for any 6 selected stations; 8 1/4" x 5 1/4" Slide-Rule Dial with separate scales for each band; continuously variable Tone Control; full Automatic Volume Control; heavy-duty 3-gang rubber-mounted condenser; Bass Compensation and Bass Booster; Preset Selector Stage; Individual Coils on each band, and many others. An oversized 10" concert-dynamic speaker reproduces every delicate nuance, every shade of tone in a magnificently faithful manner.

• **AUTOMATIC RECORD CHANGER.** The phono portion incorporates the finest equipment ever designed for wide-range phono reproduction. The genuine R.C.A. record changer automatically plays 8—10" or 7—12" records in sequence without your lifting a finger! A new top-loading R.C.A. crystal pickup with triple-sealed crystal cartridge captures the full significance of every musical note. You have never really heard modern electrically recorded music until you hear it on the Knight 8!

• **MODERN MASTERPIECE CABINET.** To house this glorious instrument fittingly, an entirely new deluxe cabinet has been designed. Accommodates radio and phono side-by-side under hinged lid. Of expensive matched walnut woods, hand-rubbed to a rich piano finish. Console measures: 36" wide, 35" high, 14" deep.

• **SET COMPLETE.** Knight 8 Tube Phono-Radio in console as left with R.C.A. tubes, Automatic Record Changer, and 10" speaker. For 110 volts, 60 cycles A.C. Shpg. wt. 95 lbs. Code: ORGAN. E10877. Retail Value, \$179.50. NET PRICE EACH

\$89⁹⁵



Knight

10 TUBE PHONO-RADIO

The charmingly beautiful period console shown at right provides a luxury setting for one of the finest musical instruments ever built. The grace and distinction of fine cabinetry, the precision of skilled radio construction, and the perfection of modern phonograph reproduction have been molded into a harmonious whole—resulting in a type of instrument that has heretofore been available only in expensive custom-built installations.

• **R.C.A. LICENSED SUPERHET CIRCUIT.** Latest 1939 de luxe features include: All-wave reception range of 12.5 to 40, 40 to 136, 173 to 556 meters, tuning foreign Short-Wave, standard Broadcast, Police, Aviation, Ships-at-Sea, and Amateur transmission; Electric Push-Button Tuning of any 8 selected stations; 9" Slide-Rule Dial; full Amplified Automatic Volume Control; full rubber-floated 3-gang tuning condenser and chassis; 4-position Tone Control; Electric Eye; Bass Compensation; Bass and Treble Boosters; R.F. on all Bands; Individual Coils on each Band; tremendous Push-Pull Beam Power Output of 14 watts undistorted (20 watts maximum); doublet antenna connection, etc. Tubes used are: 2—6K7; 1—6K8; 1—6Q7G; 1—6AE6G; 1—6AF6G; 2—6L6; 1—6CS6; 1—5Z3. A 12" speaker gloriously handles the full power output.

• **LUXURY PHONO EQUIPMENT.** No element has been omitted to provide 1939's finest phonograph reproduction. Genuine R.C.A. automatic record changer will play 8—10" or 7—12" records entirely automatically. R.C.A. offset head crystal pickup, properly balanced and adjusted, takes from the record grooves exactly what the recording studio has put there—every overtone, every crescendo or pianissimo passage is perfectly rendered with high-fidelity realism.

• **SET COMPLETE.** The deluxe 10 Tube Knight Phono-Radio is offered complete with R.C.A. tubes, automatic record-changer, and 12" speaker in the lovely period console pictured at right. Rich walnut woods are carefully matched and rubbed by hand to a lustrous finish. Cabinet has space for record albums. Measures: 41" wide, 35" high, 16" deep. Shpg. wt., 155 lbs. For operation from 110 volts, 60 cycles. A.C. Code: CHOIR.

E10902. Retail Value, \$250.00.

\$124⁵⁰

YOUR NET PRICE, EACH ...



R.C.A. & HAZELTINE LICENSED

Fine Phono-Radio Enjoyment at LOW COST!

R.C.A. &
HAZELTINE
LICENSED



Knight 5 TUBE PHONO-RADIO

For little more than the usual price of a radio only, you can now enjoy the double utility of a fine radio receiver plus excellent reproduction of your favorite recordings. No other comparable unit (and we've ransacked the market to find out) offers so much for so little as this Knight 5 Tube A.C.-D.C. Super-Net Phono-Radio. Compare these features: *** EFFICIENT RADIO CIRCUIT.** A newly designed five tube circuit incorporates latest developments for most enjoyable reception. Covers 175 to 545 meters (550 to 1720 K.C.) for powerful standard Broadcast American and Canadian programs, plus upper channel Police Calls. Has level on all stations. *** Full Automatic Volume Control** to maintain steady, unvarying volume. *** 60/75GT; 6K7GT; 25L6GT; and 25Z6GT.** Circuit develops a strong 2 watts undistorted output. *** EASY TO TUNE.** The brand-new 2 1/2" dial dual calibrated in kilocycles and meters, has large, clear markings and is fully illuminated. *** FINEST PHONO EQUIPMENT.** The very latest phono-graph equipment assures superb rendition of all records. A self-starting, high-quality synchronous motor maintains constant 78 R.P.M. speed. Full 8" turntable accommodates all records, even on 12" records, thus eliminating all traces of surface noise. Has special switch, mounted on motor-board, which permits shift from radio to phono and also starts phono-motor. *** SET COMPLETE.** In hand-A.C. or D.C. (Phono operates only from 110 volts, 50-60 cycles, Shpg. wt. 23 lbs. Code: GLOW. **E10820.** Retail Value, \$44.50. **NET EACH, \$24.95.** **YOUR PRICE, LOTS OF 3, EACH**

\$23.75

Knight RECORD PLAYER

Turn your radio set into a phono-radio combination—at surprisingly low cost—with this new 1939 improved model Knight Record Player. Requires only two simple connections to reproduce all recordings through your radio set amplifying circuit with the tonal fidelity attainable only through electrical reproduction.

*** PLAYS ALL RECORDS.** All standard 78 R.P.M., 8-, 10-, and 12-inch records are accommodated. The high-grade wide-range magnetic pickup assures exceptionally accurate reproduction and brings out of each recording exactly what the artist has put into it. Built of quality materials throughout, the Knight Record Player is the first choice of record-lovers who want only the best. It offers you the opportunity to enjoy endless hours of the world's finest recorded entertainment—reproduced with all the tonal beauty of the original performance.

*** SPECIFICATIONS.** Incorporates self-starting synchronous type motor maintaining uniform speed of 78 R.P.M., provided with 8" felt-covered turntable. Full-size lightweight magnetic pickup maintains proper balance and pressure to minimize record wear. Combination volume control and "on-off" switch is mounted on motor board. Pickup arm rest is provided.

*** FULL-SIZE CABINET.** The walnut-finished hand-rubbed case measures 13 1/4" wide, 7" high, 10 1/2" deep. All visible metal parts are stately bronze finished. With 3 1/2-foot pickup cord and 6-foot A.C. line cord. For operation from 110 volts, 60 cycles. A.C. Shpg. wt., 13 lbs. **E10050.** Knight Record Player. **NET EACH, \$9.95.** **\$9.45**

NET PRICE, LOTS OF 3, EACH

RCA RECORD PLAYER

This low-cost compact Model R-93-C Record Player by RCA-Victor has proved to be a real sensation. Since its release a short time ago thousands have been bought by price-wise music lovers everywhere, and still the demand grows! It's a real achievement—priced pleasingly low—and is unusually attractive and practical. A compact wood case (11" x 9" x 6") houses the newly designed A.C. phono motor and pickup. Cabinet has neat roll-over top and front panel (no cover). Improved, full rubber-cushioned synchronous motor maintains constant speed of 78 R.P.M. 6" turntable (manually started) will handle all records up to full 12" size. Latest crystal pickup with true-tracking tone arm and angle-set head provide finest tracking accuracy. Volume control and "on-off" switch are conveniently mounted on top face. The RCA-Victor Model R-93-C Record Player may easily be connected to any radio receiver operating from 110 volts, 60 cycles A.C. Most Knight Radios of 7 tubes or over are already equipped for phono-graph connection. All records are reproduced through radio set amplifying system with the full tone of the set. Enjoy your favorite artists on recordings; the RCA Victor Model R-93-C Record Player offers ideal low-cost record-playing facilities so that you can always hear "the music you want... when you want it." For operation from 110 volts, 60 cycles, A.C. Shpg. wt., 11 lbs. **E10060.** RCA-Victor Model R-93-C Record Player. **\$8.97**

List, \$14.95. **NET PRICE EACH.**

Knight PLAYER-AMPLIFIER

Entirely complete and self-contained, this new Knight Record Player-Amplifier offers a host of features seldom available in instruments priced so low. In addition to the finest record-playing equipment, the unit includes a complete built-in 8 1/2 watt amplifier providing glorious reproduction of all 78 R.P.M. phono-graph records. There is nothing else to buy. Simply plug into any 110 volts, 60 cycles A.C. outlet for immediate operation. (Requires no radio connection.) *** FINEST PICKUP.** A new, full-floating, high-fidelity Crystal pickup—the finest made—assures perfect tracking. Equipped with offset tangent arm and locking device. Maintains proper needle pressure to reduce record wear. The finest type phono motor is included. *** DE LUXE AMPLIFYING EQUIPMENT.** An expertly-designed four tube amplifier furnishes a powerful 8 1/2 watt undistorted output. Tubes used are: 1-80, 2-6V6G, 1-6N7G, providing a Push-Pull output with degenerative coupling. Essentially the amplifier is two units in one, with separate channels for bass and treble. Equalizer network combining 3-position tone control with volume control assures perfectly stabilized volume at all tone ranges. Bass equalization feature provides correct bass emphasis at any tone setting. A full 8" heavy-duty Dynamic speaker reproduces each note perfectly. *** PLAYER-AMPLIFIER COMPLETE.** Supplied in hand-rubbed solid walnut case 12" x 14" x 9". Lid closes on all records, eliminating needle scratch and surface noise. With tubes. For operation on 110 volts, 60 cycles A.C. Shpg. wt., 33 lbs. **E10051.** Knight Player-Amplifier. **\$35.85**

NET PRICE, EACH.



NEW
Beauty
NEW
Power

\$66⁴⁵

Each, Lots of 3

R.C.A. & HAZELTINE
LICENSED



Knight 12 TUBE 3 BAND A.C. SUPERHET

ALLIED offers a 1939 radio masterpiece in this entirely new 12 Tube Console model. It has been created for those who appreciate perfect musical reproduction and powerful long-distance reception—and for those who want the most for their radio dollar. This new-styled model incorporates all of the newest and most advantageous radio features and refinements for maximum radio enjoyment—at an amazingly low price.

• **Push-Button Tuning.** The latest automatic electric type. Has provision for the selection of any of seven favorite stations. Initial adjustment is made from the front. It is amazingly simple. One setting required for each station. Will operate thereafter without further adjustment.

• **Tunes 3 Full Bands.** The Knight 12 covers three wave bands: 16 to 53 meters (5650-18100 K.C.) and 53 to 175 meters (1710-5650 K.C.) for consistently reliable Short Wave foreign, amateur, police and aviation signals; and 174 to 560 meters (535-1720 K.C.) for powerful American and Canadian standard Broadcasts. Tunes everything on the air. In addition to Push-Button Tuning, an easy-to-read giant 8-inch Slide-Rule Dial is featured with illuminated translucent colored scales and horizontal-traveling pointer. Shows kilocycles for Broadcast and megacycles for Short Wave.

• **Brilliant 1939 Circuit.** The following R.C.A. tubes are used in the splendid new R.C.A. and Hazeltine licensed circuit: 6K7 as R.F. Amp.; 6K8 as Conv.-Osc. (dual-purpose); 6K7 as 1st I.F. Amp. (double-tuned); 6K7 as 2nd I.F. Amp. (double-tuned); 6HG as Signal-diode and A.V.C. (dual-purpose); 6C5G as special A.V.C. Amp.; 6J5G as 1st Audio; 6J5G as Bass Amplifier; 6J5G as Phase Inverter Audio Amp.; 2-6V6G as Push-Pull Beam Power Output; 5V4G as Rectifier.

• **Latest Features.** R.F. on all bands—a wonderful asset that results in greater sensitivity and more dependable distance tuning. Amplified A.V.C.—the latest development in A.V.C. circuits—keeps the signal intensity equal on all stations. Three-Gang Condenser—the finest new rubber-boated type available. Special Temperature Compensation—a new feature that insures the maintenance of permanent stability of all oscillator circuits in any climate. Phono Connection—for aided enjoyment when used with a Phonograph Record Player (see Page 175).

• **Rich, Golden Tone.** The outstanding characteristic of the Knight 12. Achieved by the magnificent full 12 watts output of the 1939 circuit and beautifully handled by the giant 12-inch Super-dynamic Speaker. Further enhanced by the variable Tone Control and the new Bass Channel Amplifier with separate Bass control.

• **Magnificent Console.** A superb new console that will rank as 1939's most luxurious. Designed in the popular new low-boy trend, featuring a choice of splendid woods. The instrument panel is sloped for convenient visibility and tuning ease, and is of beautifully marked walnut. Side pilasters and top are of choice walnut with contrastingly-grained top and bottom band trim. 34 3/4" wide, 37 1/2" high, 14" deep.

• **Console Model Complete.** The Knight 12 is offered complete in console as illustrated with R.C.A. tubes and 12" speaker. For 110 volts, 60 cycles.

A.C. operation. Shpg. wt. 80 lbs. Code: ULTRA.
E10821, Retail Value, \$139.95.
NET EACH, \$69.95.

• **Chassis Model.** The Knight 12 is also available in chassis form only. Exactly as described above, with 12-inch speaker, but less cabinet. Size: 19 1/2" x 12 1/2" x 9 1/2". Complete with escutcheon, push-button tuning and R.C.A. tubes. For 110 volts, 60 cycles, A.C. Shpg. wt., 36 lbs. Code: TORCH.
E10822, Retail Value, \$112.50.

NET EACH, \$54.85. PRICE, LOTS OF 3, EACH.....

\$66⁴⁵

\$51⁸⁵



Electric Push-Button Tuning! Tune any one of seven favorite stations just by pushing a button! It's easy!

Covers the whole world of radio entertainment on three full thrill-packed tuning bands. Tunes every-thing.

Separate Bass Channel and control knob bring out rich and vital bass frequency tonal response.

Latest Slide-Rule Dial—8 1/2" x 3 1/4" —with each band spread on legible full-length scale. Easy to read; delightful to tune.

Magnificent 12" Super-dynamic Speaker of the latest type.

Latest type tubes—several of their dual-purpose—actually attain 15 tube efficiency and power for extra value.



LOW-COST RADIO AND RECORD ENTERTAINMENT!

R.C.A. AND HAZELTINE LICENSED



Knight 5 TUBE AC-DC T.R.F. PHONO-RADIO

To meet the demand for a satisfactory low-cost phono-radio combination, ALLIED is first to present this line new Knight 5 tube (with Ballast) instrument. It will afford endless enjoyment of both radio and records, works actively and with the utmost economy of operation.

• **LATEST AC-DC RECEIVER.** The receiver used in this Knight 5 tube Phono-Radio tunes the regular broadcast range of 175 to 560 meters (535 to 1730 K.C.). Tunes all popular standard broadcast programs plus upper channel Police Calls. Features a 2" x 2 1/2" silver dial.

• **SPLENDID NEW CIRCUIT.** The carefully engineered R.C.A. and Hazeltine licensed circuit utilizes 6D6 as R.F. Amp., 6C6 as Det., 25L6G as Audio Power Output, 25Z5 as Rectifier, L55B6 as Ballast.

• **OUTSTANDING POWER.** The Knight 5 offers you surprising power seldom achieved in a compact receiver. Output undistorted is 1 1/2 watts; peak output is 2 watts. This outstanding power is intelligently reproduced by the 3-inch super-dynamic speaker.

• **ADDED FEATURES.** R.F. Amplifier assures greater selectivity and distance reach; an iron-core antenna coil adds exceptional sensitivity. Has built-in aerial. The receiver operates on 110 volts, 40-60 cycles A.C. or D.C. (phonograph motor on 110 volts, 60 cycles A.C. only).

• **FINEST PHONO EQUIPMENT.** Uses a genuine R.C.A. 78 R.P.M. constant-speed synchronous motor and latest R.C.A. Crystal pickups. Plays all records up to and including 12-inch size. Phono has separate volume control.

• **MODEL LESS LID.** Illustrated at right above. Attractive walnut cabinet. Measures 11" x 10" x 7". Complete with R.C.A. tubes. Shpg. wt. 15 lbs. Code: SONG.

E10863. Retail Value, \$29.95.
NET EACH, \$16.95.
LOTS OF 3, EACH.....

\$15.95

• **MODEL WITH LID.** Illustrated at left above. Same as above, but cabinet is larger and has lid (shown on all size records). Of choice-grained walnut with rolled ends and shaped sides. Size: 14" x 11 1/2" x 11 1/2". Complete with R.C.A. tubes. Shpg. wt., 19 lbs. Code: SWING.

E10864. Retail \$34.95.
NET EACH, \$19.95.
LOTS OF 3, EACH.....

\$18.95

Knight 5 TUBE AC SUPERHET PHONO-RADIO

The Knight 5 Phono-Radio is also available in a Superhet model at an attractive low price. It offers exceptionally fine entertainment both from radio programs as well as from phonograph records. Delivers excellent power and fine tone.

• **NEWEST AC SUPERHET.** The radio portion of the Knight 5 covers the regular broadcast range of 175 to 560 meters (535 to 1730 K.C.). This band tunes all standard broadcast United States and Canadian programs as well as the upper channel Police Calls. Tuning is made enjoyable and easy by the full-vision 2" x 2 1/2" silver dial set in a bezel in kilocycles and in meters.

• **1939 CIRCUIT.** R.C.A. and Hazeltine licensed, a circuit the latest improvement from their great laboratories. Utilizes the latest tubes: 6A7 as 1st Det.-Osc. (dual-purpose), 6D6 as I.F., 75 as 2nd Det.-A.V.C.-1st Audio (triple-purpose); 41 as Power Output; 80 as Rectifier. This tube line-up achieves 80 tube efficiency.

• **EXCEPTIONAL TONE.** The latest type of 3-inch super-dynamic speaker is utilized for flawless reproduction of the exceptional power developed by the superhet circuit. Normal output is 1 watt; peak output is 1 1/2 watts. Tone quality on both radio and phonograph is surprisingly realistic with unusually fine fidelity.

• **LATEST IMPROVEMENTS.** The Knight 5 develops unusual sensitivity through the use of dual and triple-purpose tubes and a superlatively designed superhet circuit. Full Automatic Volume Control is incorporated to maintain uniform volume and freedom from fading.

• **NEWEST PHONO EQUIPMENT.** The latest genuine R.C.A. 78 R.P.M. synchronous motor is enclosed for dependable, constant-speed service. The latest type R.C.A. Crystal pickups is utilized for exceptionally true tonal rendition. Plays all records up to and including 12". Phono has separate volume control.

• **MODEL LESS LID.** Illustrated at right above. An attractive, harmoniously designed cabinet, built of beautiful-grained walnut with roll top front and back. Size: 14" x 10" x 7". Complete with R.C.A. tubes in cabinet less lid. Shpg. wt. 18 lbs. Code: FANTASY.

E10867. Retail \$34.95.
NET EACH, \$18.95.
LOTS OF 3, EACH.....

\$17.95

• **MODEL WITH LID.** Illustrated at left above. Same as above, but in larger cabinet with lid (shown on all size records). Has rolled front ends and shaped sides. Beautifully built of choice-grained walnut. Size: 14" x 11 1/2" x 11 1/2". Complete with R.C.A. tubes. Shpg. wt., 20 lbs. Code: TONAL.

E10868. Retail \$39.95.
NET EACH, \$21.95.
LOTS OF 3, EACH.....

\$20.95

Knight 6 TUBE AC-DC PHONO-RADIO

R.C.A. AND HAZELTINE LICENSED

A fine new 1939 Phono-Radio instrument of exceptional quality. Brings you splendid reproduction both of radio programs and phonograph records. The 6 tube (with ballast) superhet receiver used in this instrument tunes two full bands: 43 to 183 meters (2200 to 7000 K.C.) for Short Wave amateur, aviation and police signals, including the 49 meter foreign channel; 175 to 560 meters (535 to 1730 K.C.) for regular broadcast programs and upper police channels. Features tuning condenser for easy tuning; full A.V.C. for freedom from fading; individual coils on each band and rubber-floated antenna R.C.A. tubes: 6A8E as 1st Det.-Osc.; 6K7 as I.F.; 6G7G as 2nd Det.-A.V.C.-1st Audio; 25L6G as Beam Power Output; 25Z6G as Rectifier; 16SR4G as Power Regulator. Achieves 2 watts undistorted output which is flawlessly handled A.C. or D.C. (phonograph operates only on 110 volts, 60 cycles A.C.).

• **HIGH GRADE PHONO.** The Knight 6 Phono-Radio incorporates a high-grade synchronous 78 R.P.M. motor of the self-starting type; has offset-head crystal pickup of exceptionally fine tonal response. A switch is provided for changing from radio to phonograph.

• **6 TUBE PHONO-RADIO COMPLETE.** The Knight 6 is offered complete in the attractive cabinet illustrated at right. Has exclusive new ALLIED grille. Size: 14 1/2" x 15" x 11 1/2". Complete with R.C.A. tubes. Shpg. wt., 35 lbs. Code: RANGE.

E10818. Retail Value, \$54.45.
NET EACH, \$27.95.
NET PRICE, LOTS OF 3, EACH.....

\$26.45



What a Value!

Brilliant Tone!

New Beauty, and—

AUTOMATIC TUNING!



R.C.A. AND HAZETINE LICENSED

KNIGHT 6 TUBE AC-DC 2 BAND SUPERHET

We've picked this sensational model as 1939's greatest Radio Value! It's an amazing stand-out—an entirely new 2-band 6 Tube AC-DC Superhet (with ballast) with every new and important feature. **PLUS** Push Button Automatic Tuning—at a price that simply defies all competition. It's the most versatile, the most powerful, the truest-toned and best-looking receiver you will find anywhere this year at this smashing low price.

• **PUSH-BUTTON TUNING.** The best-working system yet developed. Offers you a choice of any-four of your favorite stations. Just push a button—and there's your program, tuned in perfectly, precisely, easily. Each button is directly geared to the tuning condenser; adjustment is made in a few seconds; operation is instantaneous, and you always tune right on the head. Regular tuning is easy, too, by means of the genuine $3\frac{1}{4}$ " x $1\frac{3}{4}$ " slide-rule type dial that's clearly and logically calibrated with colored scales on an attractive gold face.

• **FULL 2 BAND RANGE.** The new Knight 6 tunes from 45 to 139 meters (2200 to 7000 K.C.) to bring in Short Wave Amateur, aviation and police signals, as well as programs from the fascinating 49 meter foreign band. The second band covers 174 to 560 meters (535 to 1720 K.C.) and tunes the upper police channels and all American and Canadian regular broadcast stations. These two bands cover practically everything of importance.

• **UNUSUAL VERSATILITY AND POWER.** Operating equally well from either 110 Volt 40-60 cycle current A.C. or D.C., the Knight Dual-Wave 6 will play practically anywhere. (May also be used on 220 volts A.C. or D.C. with adapter listed below.) Has built-in antenna for added convenience. This new 1939 performer has amazing reserve power for every requirement. Output is full 2 watts undistorted, achieved by the use of a highly efficient 25L6 Beam Power output stage. Volume is resolutely and adequately handled by the new 5-inch super-dynamic speaker, and tone is rendered with amazing fullness and reality.

• **BRILLIANT 1939 CIRCUIT.** The R.C.A. and Hazetone licensed Superhet circuit of the new Knight 6 assures the finest and latest developments from these great laboratories. Latest R.C.A. tubes are used as follows: 6A8G as 1st Det.-Osc. (dual-purpose); 6K7 as I.F.; 6Q7G as 2nd Det.-A.V.C.-1st Audio (triple-purpose); 25L6G as Beam Power pentode output; 25Z6G as Rectifier; 165R4G as power regulator. This tube line-up means more gain, bigger output, more thoroughly enjoyable tone quality.

• **EXTRA-VALUE FEATURES.** The new Knight AC-DC 6 has full A.V.C. action to assure uniform volume and freedom from fading. Multi-purpose tubes give added-tube power and efficiency. Individual coils for each band and rubber-floated tuning condenser assure better stability of operation. The 25 foot attached antenna permits instant convenient operation.

• **ADVANCED STYLING.** ALLIED has designed a new and exclusive gem of a cabinet for the Knight AC-DC 6. It is triumphantly executed in solid walnut of the choicest graining. Soft lines are featured throughout with harmoniously raised center band. A unique and exclusive new feature is the sloped push-button panel inset, designed for easy-vision tuning. The entire cabinet is hand-rubbed to a splendid two-tone finish. Measures: 12" x 7" x 7 $\frac{1}{4}$ ".

• **KNIGHT AC-DC 6 COMPLETE.** The Knight Dual-Wave 6 Tube AC-DC Superhet is offered in the beautiful cabinet illustrated above, complete with R.C.A. tubes. For operation from 110 volts, 40-60 cycles A.C. or D.C. Code: ROYAL. Shipping weight, 16 lbs.

E10800. Retail Value, \$25.00
NET PRICE EACH, \$13.85.
YOUR PRICE, LOTS OF 3, EACH

E9145. 220 Volt Adapter for above set. NET 59c

\$12⁹⁵

WITH THESE
AMAZING FEATURES

- PUSH-BUTTON TUNING
- TUNES 2 FULL BANDS
- SLIDE-RULE TYPEDIAL
- 2 WATTS POWER OUTPUT
- FULL-ACTING A.V.C.
- 5 INCH DYNAMIC SPEAKER
- BUILT-IN ANTENNA
- LATEST R.C.A. TUBES
- 110 VOLTS A.C. OR D.C.
- SOLID WALNUT CABINET



Tune any four favorite stations just by Pushing a Button! Easy to adjust—easy to tune!

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