

PHILCO

Model 65

Screen Grid Console

Only
49.50
Complete
with
Tubes



Best Radio Value

For the first time in Radio history we are offering a perfect performing, full-fledged screen grid Radio Set at a price that is simply irresistible.

The Philco Screen Grid Console is a marvelously engineered receiver. It is a real Radio that will satisfy your most discriminating customers. At the very low price of \$49.50 it will open up a tremendous new market for you and will not detract in the slightest from sales of other standard lines.

The Console

This six-tube Screen Grid Receiver is in a beautiful compact console cabinet, especially designed to fit the requirements of the modern small room. Genuine butt walnut and bird's eye maple, hand rubbed satin finish. Concealed opening for the improved electro-dynamic speaker. The cabinet is 35½" high, 26" wide and 13½" deep.

The tubes used in this set are two type 224; two type 245; one type 227; one type 280 rectifier.

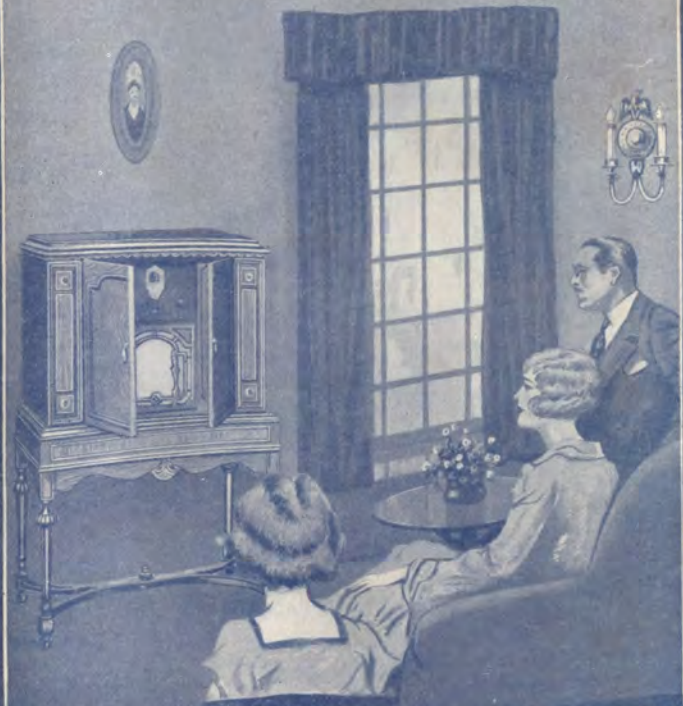
YOUR SPECIAL PRICE.....**\$49.50**

Complete with CeCo Tubes

RADIO

DEALER'S GUIDE OF QUALITY APPARATUS

1931



CONFIDENTIAL
WHOLESALE
PRICES



RADIO TRAINING ASSOCIATION
OF AMERICA

4513 RAVENSWOOD AVE. CHICAGO, ILL.

Nine Years of Satisfaction

It has taken nine years of progressive enterprise and honest dealing to place R.T.A. in its high and enviable position in Radio today. Nine years of giving satisfaction to the utmost—of offering the finest Radio training available—the finest radio sets, consoles, equipment and parts at prices that are rock bottom.

As always, R.T.A. offers you for 1931, standard advertised radio products whose quality has long been established. With our nine years of successful experience as a foundation we offer you values for 1931 that surpass all previous offerings.

An Ever Increasing Host of Students Buy From Our Supply Department

It has been our privilege to serve many thousands of students in fulfilling their radio needs. The best proof of satisfaction is the fact that once a student deals with our supply department he keeps right on dealing with us. This department is maintained exclusively for the benefit of students and we offer you honest values at lowest prices.

Quality Guaranteed

We guarantee every piece of Radio apparatus we sell to operate in the manner for which it is intended. We guarantee all merchandise against defects in material and workmanship. Any article which does not meet our guarantee, if returned at once, will be repaired or replaced.

OUR TERMS:

Our terms are cash with order or C. O. D. as you choose. We will allow 2 per cent discount when full amount of cash accompanies order. This means a substantial saving and convenience to you. Our prices are now marked down to a very low figure, but when you make an additional reduction of 2 per cent it brings our prices so low that no competition can meet them.

Eight Hour Shipping Service

We have developed our shipping service so that practically every order is on its way to the member the same day we receive it. Quick service enables you to depend upon us to furnish your Holiday needs and get delivery on time.

Use Our Order Blank

Use our special order blank when sending us your order. Fill it out carefully. It will help avoid mistakes. Additional order blanks will be mailed you on request.

NEW JACKSON-BELL

The Aristocrat of Midgets TONE CONTROL



4 SCREEN GRID TUBES

The new Model "62" Receiver contains six tubes, four type 224 Screen Grid; one type 245 Power Tube and one type 280 Rectifier. It has three stages of tuned radio frequency amplification and power detector, with four completely shielded tuned circuits. The radio frequency circuit is known as a "constant gain" circuit, which insures practically the same amplification and selectivity over the entire broadcast band.

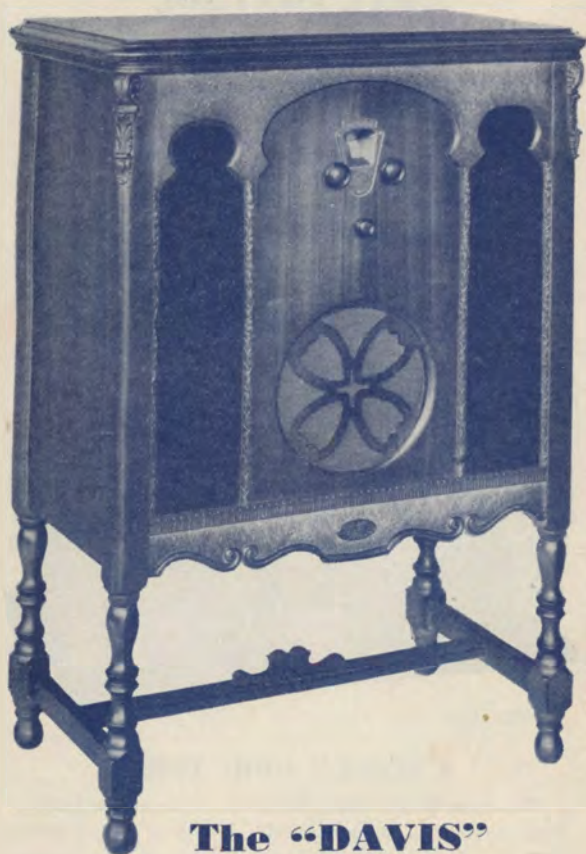
A REAL SENSATION

The set is equipped with Tone Control which is operated by a knob in front of the panel. Power supply is protected by a two-ampere fuse arranged so that it may be instantly changed for use with either 110 volt or 125 volt circuits. An electrostatic shield built into the power transformer isolates the R.F. circuit from the A.C. line. The chassis is of steel, cadmium plated. Filters are self-healing, dry electrolytic type. The speaker is an electro-dynamic designed for this set.

Complete with 6 Arcturus Tubes and Dial Light. ONLY.....\$44.50

SUPER POWER

SCREEN GRID AT ITS BEST



The "DAVIS"

Only \$54.50 Complete with Tubes

Look over the market! Where can you find such an outstanding bargain as this? We believe this value is unmatched. Think of it! A super powerful 8 Tube A.C. Screen Grid Receiver complete with Dynamic Speaker and 8 CeCo Tubes in a beautiful console for only \$54.50. This amazing offer sets up entirely new price standards.

Yet its appeal is not only one of price—there is rich quality as well. Beautiful appearance. Sweet, natural tone quality. Thrilling performance. Trouble-free operation. A splendid high-grade set in every way. Only the price is low.

The DAVIS employs 3 type 24 tubes, 2—45 tubes, 2—27 tubes and 1 type 280.

BEAUTIFUL WALNUT CONSOLE

The DAVIS is a strikingly beautiful Low Boy console. It would be difficult to imagine anything more charming than this popular model. It incorporates both the master handiwork of the cabinet maker and the ingenuity of the experienced Radio Engineer. The Console is walnut with curly maple trimming. It is 39 inches high, 26 $\frac{3}{4}$ inches wide and 15 $\frac{1}{2}$ inches deep. Crated ready for shipment.

No. 34—DAVIS CONSOLE Complete with Matched Dynamic Speaker and 8 CeCo Tubes.

LIST \$195.30

DEALER'S \$54.50

The Sensational DAVIS

SCREEN GRID AC RECEIVER
EIGHT TUBES

Today radio is the reigning entertainment industry of the world! Millions of homes enjoy it. Millions more will accept it this season. To supply this demand, the best engineering brains of the world are bringing forth receivers that are marvels of electrical and mechanical genius.



Screen Grid Power

Takes full efficiency from the super operating characteristics of the 224 AC screen grid tube. Amazing power, range and volume.

Such a receiver is the Davis. In its making has gone the composite experience and knowledge of the leading engineering minds of the industry. It incorporates not only the highly developed proven principles of the fine radio of the day, but refinements of design and construction that bespeak the trend of next year. Buy it with that in mind—it is a 1932 receiver now!



Push-Pull Audio With Resistance Coupling

New! Better! Oversize audio transformers. Two 245's in push-pull fed by 227 stage of resistance coupled amplification.

Proven Screen Grid Circuit

Developed especially to take full advantage of the new super powerful 224 AC Screen Grid Tube. Permits a new detection method, known as power detection. The detector tube is no longer overloaded. It takes the amplifier signals at full strength and passes them to the audio system without the crowded "fuzziness" so objectionable in powerful receivers not employing screen grid tubes. The Davis employs a proven screen grid circuit—used and endorsed by the industry's leading engineers.



Thorough Shielding

Every part totally enclosed and shielded. Absolutely free of noise in operation. Shuts out stray interferences and brings keen selectivity.

New Audio System

This wonder receiver employs an entirely new system of audio amplification. The output is from two 245's in push-pull arrangement. This stage is fed by a 227 resistance-coupled stage, resulting in a clarity and richness of tone never before thought possible. The magic depth and fidelity of reception at all frequencies is well-nigh incredible. Gone is every semblance of mechanical reproduction. All the body and brilliance of the original broadcast pours forth with absolute realism.



Oversize Pack

Giant power transformers and filter choke. 50 percent oversized units to insure permanently against breakdown. Humless AC operation always! No service problem.



New Silver 724 Screen Grid Super



A smashing new Silver Marshall achievement. A Superheterodyne Receiver with five 224 screen grid tubes. Eight tuned circuits, two radio frequency and six intermediate frequency. Accurately built circuit assures uniform gain over

entire band. An equalized oscillator furnishes uniform output over the whole frequency range.

FINE SELECTIVITY

Superheterodyne principles of selectivity and gain with double tuned circuits give unusually high selectivity and remarkable fidelity. Incorporates one 224 in R.F., one as first detector, two in intermediate, one as second detector, one 227 oscillator, two 245 in push pull and one 280. 20 1/2 in. wide, 10 in. deep and 7 3/4 in. high.

ACCURATE TUNING

The intermediate frequency amplifier is assembled as a separate unit, assuring careful tuning and eliminating all possibility of detuning due to variations in the circuit capacity.

No. 797—Complete kit of parts. Less Tubes.		
LIST.....	\$87.50	NET..... \$52.50
No. 772—SM 724 Factory Wired. Less Tubes.		
LIST.....	\$99.50	NET..... \$59.70
No. 799—SM 724 D.C. Kit.		
LIST.....	\$68.50	NET..... \$41.10
No. 798—SM 724 D.C. Set Wired.		
LIST.....	\$82.50	NET..... \$49.50

S-M 714 PRE-SELECTOR SCREEN GRID SUPERHETERODYNE TUNER

Successor to the great S-M 710 Sargent-Raymont Seven of 1928 and the improved 712 Turner of last season, the 714 accomplishes a feat never before successfully carried out—the building of a double pre-selector



or tuned-radio-frequency circuit into a single-control screen-grid superheterodyne for all A.C. operation. Such sharpness of tuning is achieved with a total of eleven tuned circuits, as would have been absolutely unbelievable until one remembers the screen-grid achievements of S-M receivers in 1929. The two dual-selector r.f. circuits absolutely prevent the cross-modulation usually expected in ultra-sensitive supers, and insure the complete suppression of the second resonance "spot." The 714 is unhesitatingly recommended as a tuner for use with the very best amplifiers in any installation, or wherever interference is worst. Tubes required: 1-24 r.f. amplifier, 1-24 first detector, 1-27 oscillator, 2-24 i.f. amplifiers, 1-27 second detector. Requires separate power unit and amplifier, giving filament current at 2.5 volts and B supply at 180 volts—such as the S-M 677B.

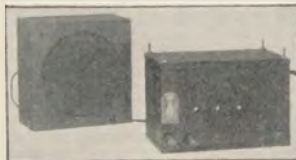
Complete Parts for 714 with metal cabinet. Less Tubes and Power Supply—Not Wired. LIST.....\$76.50

Your Price	\$45.90
Factory Wired 714 Chassis with Metal Cabinet. Less Tubes and Power Supply. LIST.....	\$87.50
Your Price	\$52.50

SILVER MARSHALL

770 AUTO SET

Real Radio on the Highway
MAKE YOURS THE "SINGING AUTOMOBILE" WITH
A S.M. 770 AUTO-SET INSTALLATION



A battery operated auto receiver, built to stand the gaff and give real reception. Only 12 in. long, 7 1/2 in. high and 6 1/4 in. deep, snugly fitting under cowl, mounted on brackets—no mutilation of instrument panel. Sensitive and selective, with positive direct control. Con-

venient, highly decorative illuminated dial. Ideal for motorboat and aeroplane installation where a remote control coupling unit is not necessary.

SUPERIOR QUALITY PARTS

The 770 Auto-Set kit: Chassis, cabinet and shielding assembly, 3-gang condenser, condenser block, 2 chokes, R.F. coils, cable, key switch, dial, transformer, escutcheon, knobs, sockets, resistors, .025 condensers, by-pass condensers, Potentiometer, and all necessary hardware. Uses three 224, one 112A and one 171A tubes.

The S.M. 770 Auto-Set kit of parts.		
LIST.....	\$61.40	YOUR PRICE..... \$36.84
No. 770—Auto-Set, factory wired and tested.		
LIST.....	\$79.50	NET..... \$47.70
No. 771—Auto-Set accessories: eight suppressors, one ignition coil, mounting brackets, wire and filter condensers.		
LIST.....	\$17.50	NET..... \$10.50
No. 771R—Same as 771, but with four inch long mounting brackets.		
LIST.....	\$18.00	NET..... \$10.80

870 "AUTO" MAGNETIC SPEAKER

Designed for use with 770 Auto-Set. Takes maximum output of 171A tube. Octagonal case of three-ply brown mahogany. 9 1/2 in. wide, 3 in. deep.

No. 789—LIST.....	\$15.00	NET..... \$9.00
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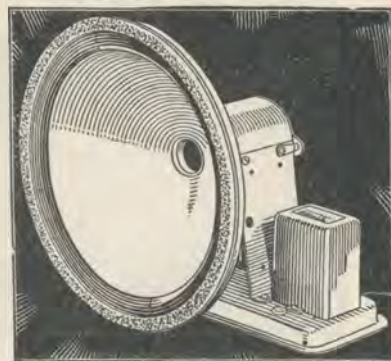
EXTRA RESISTORS

No. 4765—Resistor with terminal arrangement for quick connection to ignition coil or distributor head.		
LIST.....	\$1.50	YOUR PRICE..... 90c
No. 4766—Resistor as suppressor on spark plugs.		
LIST.....	\$1.25	NET..... 75c

S-M Electro-Dynamic Speaker

SERIES 860

The 860 Series of Auditorium Speakers have a curve which rises slowly from 30 cycles to well over 8000 cycles with no pronounced peak—crisp speech and perfect reproduction of music. Voice coil impedance is 12 ohms and if several 862's or 863's are used on the same amplifier the voice coils should be connected in series. The 860 series have a 12 inch cone.



The 862 and 863 speakers are built without input transformers. However, where the output of an amplifier having a standard 4000-ohm output impedance is to be transmitted over some distance to a group of speakers, it is best to use a transformer similar to the Silver-Marshall 233U..

Type 860—Designed for 110-volt, 60-cycle operation with built-in input transformer. Draws 40 watts.		
List Price.....	\$60.00	Your Price..... \$36.00
Type 861—Same as above, but for D.C. operation.		
List Price.....	\$48.50	Your Price..... \$29.10
Type 862—Same as 860 less input transformer.		
List Price.....	\$55.00	Your Price..... \$33.00
Type 863—Same as 861 less input transformer.		
List Price.....	\$43.50	Your Price..... \$26.10

738 Short Wave Super-Converter



SUPER-CONVERTER Makes a Short Wave Superheterodyne of Your Set

The newest and most startling sensation—a self-contained all-A.C.-operated converter which makes a short-wave superheterodyne out of any broadcast receiver. The antenna lead is removed from the broadcast receiver and connected to the antenna post of the 738; two leads are then run from the converter to the antenna and ground posts of the broadcast set. Tuning control is by a single dial which tunes the oscillator circuit. All sensitivity and selectivity possessed by the broadcast receiver contribute also to the short-wave performance; operation is much simplified by the absence of any critical regeneration control. The price includes a complete set of eight coils to cover the wave length range of from 18 to 206 meters. Cabinet 11x11x7- $\frac{3}{4}$ inches.

Tubes — 1-224 as the first detector, 227 oscillator and a 226 as the rectifier to supply plate current. Cabinet — black crackle finish — included. 50-60 Cycle 105 to 120.

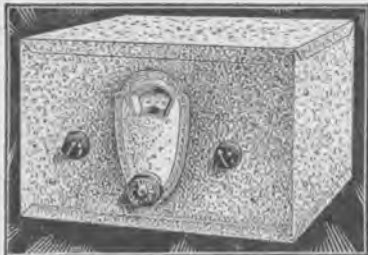
Complete kit of parts and metal cabinet for 738 Super Short Wave Converter not wired, less tubes. LIST \$59.50

Your Price \$35.70

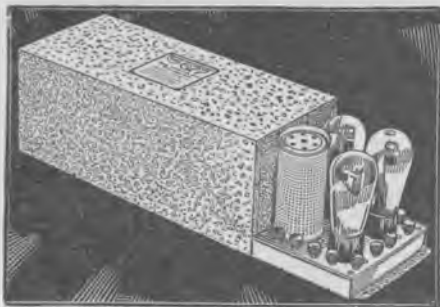
Factory wired 738 Super Short Wave Converter with metal cabinet. Less tubes. LIST \$69.50

Your Price \$41.70

(Price includes coils)



S-M 677B POWER AMPLIFIER FOR 714 TUNER OR SIMILAR TUNERS



Two-stage light socket amplifier, wherein the new 245 tubes are employed to best advantage, achieves undistorted amplification. As the amplifier is ordinarily expected to be used with any standard type of dynamic speaker of 90 volt (1900 to 2000 ohms), field having a center-tapped primary, no output transformer or choke is included. For use with 280 tube, and will furnish required ABC power to the amplifier itself and, in addition, heater, and 180 volts B, to the 714 or any equivalent receiver. 105 to 120 volts, 60 cycle. RCA licensed.

SM 677B Power Amplifier, Factory Wired, Less Tubes. LIST PRICE \$82.50

Your Price \$49.50

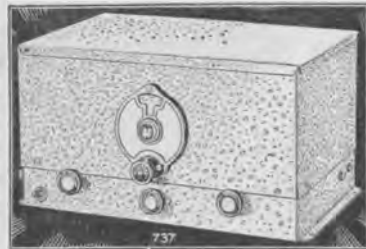
SM 677B Power Amplifier Kit, Not Wired, Less Tubes. LIST PRICE \$68.50

Your Price \$41.10

The New S-M 737 "BEARCAT"

SHORT-WAVE

The S-M Short Wave "BEARCAT," is just that! It's an all A. C. short wave receiver in a self-contained cabinet similar to the 712 except for the dark brown crackle finish and includes power pack. The hum level in either the oscillating or non-oscillating state with a pair of HEAD PHONES in the SPEAKER tip jacks is remarkably low. It's a short wave receiver that a "ham" will enjoy operating and you know that there is no more critical short wave user in the market. The National variable ratio dial gives smooth control and effectively spreads the bands for close tuning.



THE "BEARCAT" OF THEM ALL

Nothing like the new S-M 737 Short-Wave Set has ever been seen. All A.C. operation, with built-in power supply—one-dial tuning, with a real gang condenser—screen-grid circuit, with 2-24 screen-grid tubes. Other tubes required: 1-27, 1-45, 1-80.

16.6 METERS TO 600 METERS

Four plug-in coils cover a wave-length range including both amateur and American and foreign short-wave broadcasting (16.6 to 200 meters). Two extra coils extend the wave-length range to cover all American broadcasting. The 737 presents astonishing quality in a remarkably inexpensive receiver. The First All-Electric Short-Wave Set on the American market.

List Price, Comp. in cabinet without tubes \$139.60

YOUR PRICE.....\$83.76

OUR TERMS

Our terms are cash with order or C. O. D. as you choose. The prices shown in this book are subject to a 2% discount if the full payment accompanies the order.

Signola - 6

BATTERY OPERATED



SENSATIONAL OFFER

Never before has there been a quality receiver offered at anywhere this discount. Never before has a 6-tube set of this beautiful appearance been offered at this price. Never before have you seen such beauty nor such a wonderful value in a radio set.

This cabinet is of genuine walnut, richly hand rubbed and polished. The panel is finished in soft walnut to harmonize with the cabinet.

The drum is illuminated. No gears—no backlash. New cable method of connecting the batteries or eliminators.

IT'S RICH APPEARANCE

The elegance of the case, the richness and simplicity of the panel, the nicely proportioned arrangement of controls and the general air of beauty of this very compact set gives it a most captivating and charming appearance, remarked by all who first view it. This marks a distinct advantage in selling as you well know. Then, lift the lid. Neatness and thoroughness are instantly apparent. "A fine set" is the instant impression.

SHIELDED CONSTRUCTION

The entire base is completely shielded. The coils are solenoid space wound of the latest design and engineered properly. No interstage couplings. The audio unit is also entirely separate. This set requires 5—301-A tubes and 1 type 112-A or 371-A power tube. The tuning condensers are mounted on one shaft and controlled by one single knob in the face of the panel. The battery cable is connected directly to the color-coded terminals. There are no binding posts for battery connections. Two Thordarson R-200 transformers are included in the list of quality parts in this receiver.

The size of the cabinet is 11¼ inches high, 14¼ inches deep and 19½ inches wide.

List Price (without tubes).....\$100.00

YOUR PRICE**\$12.95**

R T A Set Analyzer

ANALYZES ALL TYPES OF SETS



With this R.T.A. Testing Outfit you will be able to service all types of radio receivers. As the instruction book which accompanies it gives individual data on most commercial sets on the market, its operation can be quickly mastered. Just owning the set analyzer and being able to use it will make you a welcome addition to the staff of the radio dealers who are being driven almost crazy trying to properly service the new all-electric sets. With this outfit it will be a simple matter for you to take a radio set that has gone wrong and by means of a few simple tests locate the trouble. This means all types of sets—the old battery set, A.C. receivers, and the new screen grid sets. Tubes also can be tested with this outfit.

WILL ESTABLISH YOU AS AN EXPERT

When you become a Radio Serviceman you will absolutely have to have such a testing outfit. The R.T.A. is equal to the best commercial test sets on the market. When you walk into a customer's home with an impressive outfit like this, it gives you prestige and inspires confidence. When a customer sees you starting to work with this equipment, he's bound to feel that you know your stuff.

SPECIFICATIONS

The R.T.A. Testing Outfit is housed in a well constructed case measuring 11 inches long, 11 inches wide and 4 inches deep. The meters are guaranteed to be accurate. They are mounted on an engraved bakelite panel behind which is a spacious compartment for carrying tools, etc. The case is covered with a durable karratol and all external fittings are highly nickel plated. A large leather handle makes the outfit easy to carry.

No. 125—R.T.A. Set Analyzer (Fully wired). List \$75.00.

YOUR PRICE.....**\$29.50**

Readrite Radio Servicer



FOR THE RADIO SERVICE MAN TESTS SETS, TUBES, POWER UNITS LINE VOLTAGES AND PROVIDES LARGE SPACE FOR TOOLS.

At last—an ideal service man's tester that is complete in every detail. A new unique method of plug-in meters allows the testing of every kind of AC and DC radio sets as well as all kinds of AC and DC tubes.

This new complete radio service tester fulfills the wants of every radio service man and engineer.

Entirely New Plug-In Meters

Plug-in meters are: 0-10 volts AC or DC, double range milliammeter 0-20-100 with trip switch, 0-500 high resistance B eliminator voltmeter, 0-150 volts AC. 30 inch test leads and cord with four and five prong adapters for plugging into receiver and shield grid adapter are also included. In-built switch allows grid bias to be easily read. Overall size, 11x7 $\frac{1}{2}$ x14 inches wide. Ship. Wt. 20 lbs.

DeLuxe Model, List.....\$55.00 Your Price.....\$33.00

Readrite Tube and Set Analyzer

An Instrument Every Radio Man Should Have—Readrite Test Kit No. 9

Will make every kind of test on tubes and circuit. Locates faults quickly without switches or other cord connections. A complete and flexible outfit every service man or experimenter will want to own. Full instructions and tube chart. Contains 9 meters fitted with tip jacks: 0-50 volts DC; 0-500 volts DC; 0-8 volts DC; 0-15 volts AC; 0-6 volts AC; 0-150 volts AC and 0-10 milliamps; 0-300 milliamps, black metal case with leather handle, size 7x10x4 inches high.

Has four meter tube tester connected with five foot cord, plug and adapters, also adapters for testing shield grid tubes. Also a five-foot polarity cable with tips for special test meter. Power rheostat, grid switch, four and five prong sockets with interchangeable meters all on marked bakelite panel. Shipping weight 10 pounds.

List.....\$35.00 Your Price.....\$21.00



READRITE UNIVERSAL TEST SET



Universal Test Set consists of No. 215 Universal Tube Tester and a special high resistance voltmeter providing a range of 0-300 volts. Plugs into the set socket for testing tubes. Quickly locates defective circuit wiring, open transformers, poor contacts and shorts. Equipped with a voltmeter of 0-10 volts and double scale milliammeter of 0-20-100. Tester is provided with 30 inch cord, a five prong plug and four prong adapter, also shield grid adapter.

A high grade instrument throughout. Weight, 6 pounds.

List.....\$17.50 Your Price.....\$10.50

New Readrite Set and Tube Tester



TESTS SCREEN GRID TUBES

Set analyzer or tube tester for newest A.C. sets, including screen grid, with 226, 227 and 245 tubes. Has equivalent of six meters although only three meters are supplied. But these are equipped with double scales and switches for using each scale. Following meters are used: 0-10, 0-140 A.C. or D.C. for testing filament and line voltages. D.C. voltmeter, 0-60 and 0-300, for testing

plate and grid voltages, and also "B" batteries. Milliammeter, 0-20 to 0-100. The A.C. voltmeter is of the repulsion type and operates equally well on A.C. or D.C. This meter is of exceptionally high quality and not comparable to vane type A.C. meters. Separate jacks are supplied for using the meters individually with the pair of tipped cords supplied for this purpose. A grid jack makes possible the testing of grid voltages, as well as the grid condition of tubes. A cable with clips is furnished for making connection with your radio set for testing screen grid tubes. No adapter is necessary for testing either the A.C. or D.C. screen grid tubes. One adapter permits both 4 and 5-prong tubes being tested. Two sockets. Comes complete with compact carrying case, and this cover has spring clips inside for holding the five-conductor cable plug and adapter and also the prongs of individual tipped cord and a screen grid cable. Baked enameled finish. Web strap and handle. No. 245—List, complete.....\$20.00

NET.....\$12.00

READRITE 210 TUBE TESTERS



Contains a 0-6 DC voltmeter, a 0-10 DC milliammeter, grid bias switch, rheostat, socket, and binding posts. Connects to batteries or eliminator or to set sockets with cord and plug No. 21. Quickly tests tubes operating at 5 volts or less. Especially recommended for 201A and 199 type tubes. A fine inexpensive tester for the dealer, service man, or set builder. Includes instructions and tube chart. Shipping weight, 5 pounds. List.....\$7.50 Your Price.....\$4.50
Adapter for small tubes, use with above tester. Wt. 8 oz. List.....\$0.60 Your Price.....\$0.36

READRITE 215 TUBE CHECKER

Equally suited for either AC or DC tubes and set servicing. It is complete with cord and plug and adapter. Has grid switch and two binding posts for connecting B eliminator voltmeter for testing plate voltage. Besides testing all circuits, either AC or DC, this tester will check all tubes including power tubes. Equipped with two sockets for testing both four and five prong tubes. Complete with instructions and tube chart. Shipping weight, 5 pounds. List.....\$12.00 Your Price.....\$7.20

READRITE Home Tube Tester—Type AA

Designed for home use by set owners. Very simple in operation. Enables set owner to locate weak tubes. Meter hand indicates clearly tube condition without any calculations of any kind. Meter removable and can be used for other testing. This tester also detects shorts between grid and filament. Full instructions for operating tester included. Ship. wt. 3 lbs.

For any five volt tubes.
List \$3.00 Each \$1.80
For any three volt tubes.
List \$3.00 Each \$1.80



New No. 400 Readrite Counter Tube Tester



DIRECT A.C. CONNECTION

A COUNTER TESTER FOR THE DEALER.

Connects directly to A.C. line. Equipped with new precision built, strictly accurate, milliammeter. Simplified tube reading list furnished with instructions. Size $8\frac{1}{4} \times 4 \times 3\frac{1}{2}$ inches high.

TESTS MUTUAL CONDUCTANCE—Provides Standard Tests and mutual conductance grid change test.

EIGHT SOCKETS—Tests practically all general use tubes, including screen grid, pentode and rectifiers. Baked enamel finish. Seamless case.

No. 400—List \$20.00 Your Price \$12.00

READRITE No. 450 Tube Short Tester



Plugs into socket of No. 400 tube tester. Handy, sturdy and complete. A real trouble saver. Diameter 3 inches.

Three lights instantly show "shorts". Position of lever switch indicates parts shorted. Requires $4\frac{1}{2}$ volt C battery. Complete with lamps and plug.

No. 450—List \$3.50 Your Price \$2.10

Weston Transmitting Meters



The Weston Thermo-Couple type of ammeter is one of the most noteworthy contributions to the art of radio transmission as well as to the art of electrical measurement.

It is a type of instrument originated and developed by this Corporation, which owns all controlling patents.

THERMO-AMMETERS

A radiation ammeter is absolutely essential in the transmitting set because it is the only means of knowing the

value of the power being radiated. Without this knowledge, there is no assurance of transmission or of the distance or range covered.

MODEL 425 — $3\frac{1}{4}$ in. DIAMETER

Amperes	List Price	Your Price
1	\$13.50	\$10.13
1.5	13.50	10.13
2	13.50	10.13
3	13.50	10.13
5	13.50	10.13
10	14.50	10.88
15	14.50	10.88
20	14.50	10.88

THERMO-MILLIAMMETERS

Thermo-couple type milliammeters for the accurate measurements of small A.C. currents on low and high frequency, including radio frequency.

MODEL 425 — $3\frac{1}{4}$ in. DIAMETER

Milliamps.	List Price	Your Price
125	\$15.00	\$11.25
250	15.00	11.25
500	15.00	11.25

WESTON

Model 564

Volt-Ohmmeter

Model 564 is a compact, completely self-contained radio instrument for voltage and resistance measurements and for checking continuity of circuit.

Not only is it a valuable aid in radio service work but it can also be used to considerable advantage in radio laboratories when extreme accuracy is not of prime importance.



THE VOLT-OHMMETER AND ITS USES

Typically Weston in design and manufacture this instrument can be relied upon to render a high character of dependable service notwithstanding its moderate cost.

Its equipment consists of a Model 301, $3\frac{1}{4}$ inch diameter meter with ranges of 3, 30, 300 and 600 volts and two resistance ranges 0-10,000 and 0-100,000 ohms. These six ranges are brought out to binding posts as shown in the illustration above. Two toggle switches serve to connect the meter in circuit. All voltage ranges have a resistance of 1000 ohms per volt. A pair of 30 inch cables with long test prods is provided with each instrument.

The overall dimensions are $5\frac{1}{2} \times 3\frac{3}{8}$ inches x $2\frac{1}{2}$ inches deep (excluding binding posts) and the weight is 2.3 pounds including the self-contained "C" Battery.

Voltage Measurements

To make voltage measurements, connect one of the test leads to the "—" Binding Post above the meter and the other to one of the posts marked 3 V., 30 V., 300 V. or 600 V. depending on the range desired. Set the toggle switch at the left to "Volts." The instrument is then available for use as a voltmeter.

Resistance Measurements

To make resistance measurements set toggle switch at the left to "Ohms" and the toggle switch at the right to R or R/10 depending on whether the use of the 100,000 ohm scale or 10,000 ohm scale is desired. Then connect the test leads to Binding Post X-X. To compensate for changes in potential of the self-contained $4\frac{1}{2}$ volt "C" Battery, short circuit the Binding Post X-X and adjust the pointer of the meter to the zero ohm position by turning the voltage adjuster located at the top of the name plate.

Continuity Tests

When checking continuity of circuit follow the same procedure as outlined for Resistance Measurements. The sensitivity of the meter can be changed to either 1 or 10 milliamperes by operating the toggle switch on the right side of the instrument. This simplifies checking up trouble in high or low resistance circuits.

MODEL 564—VOLT-OHMMETER

List Price \$37.50 Dealer's Price \$28.13

WESTON

A NAME FAMOUS IN EVERY
ELECTRICAL FIELD

WESTON, stands for unusual achievement in radio. The models here shown combine unusual precision, ruggedness and beauty at reasonable cost.

There are Weston Radio Instruments for Receiving and Sending Sets, for both the Expert and the amateur.

FLUSH TYPE 2 INCH PANEL INSTRUMENTS

DC., AC., and THERMO
COUPLE INSTRUMENTS

D. C. Filament or Plate
Voltmeters—
MODEL 506



Resistance 125 ohms per volt	List Price	Your Price
3, 5, 7, 8 or 10 volts.....	\$ 7.00	\$ 5.25
15, 50, 100, 150 or 200 volts.....	7.00	5.25

D.C. Double Range Voltmeters—Model 506

Resistance 125 ohms per volt. 3 Binding Posts with Push Button. For use only when minus of the "A" battery is connected to minus of the "B" battery. Voltmeters: 140|7, 150|7.5 or 200|8 volts. List, \$9.00. Your Cost.....\$6.75

Resistance 125 ohms per volt. 4 Binding Posts without Push Button. For use in connection with a commercial form of range changing switch. Voltmeters: 140|7, 150|7.5 or 200|8 volts. List, \$8.25. Your Cost.....\$6.19

	List Price	Your Price
D.C. Filament Ammeters—Model 506		
1, 1.5, 3, 5, 10 or 15 amps.....	\$ 7.00	\$ 5.25

D.C. Plate Milliammeters—Model 506

1.5 MA.....	9.00	6.75
5 MA.....	8.00	6.00
10, 15, 25, 50, 100, 200, 300 or 500 MA.....	7.00	5.25

A.C. Voltmeters—Model 517

1.5, 2, 3, 5, 10, 15, 25 or 50 volts.....	\$ 8.00	\$ 6.00
130 or 150 volts.....	10.00	7.50
250 or 300 volts.....	12.00	8.00

A.C. Ammeters—Model 517

1, 2, 3, 5, 10 or 20 amps.....	\$ 8.00	\$ 6.00
30 or 50 amps.....	10.00	7.50

A.C. Milliammeters—Model 517

15, 25, 50, 100, 250 or 500 MA.....	\$ 8.00	\$ 6.00
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Thermo-Ammeters—Model 507

1, 1.5, 2, 3 or 5 amps.....	\$12.50	\$ 9.38
10, 15 or 20 amps.....	13.50	10.13

*Thermo-Milliammeters—Model 507

125, 250 or 500 MA.....	\$14.00	\$10.50
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*Cannot be used on direct current.

Wavemeter Galvanometer—Model 507

115 MA (Resistance 5.2 Ohms).....	\$14.00	\$10.50
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A.C. PORTABLE INSTRUMENTS

Model 528

Model 528 is alike in size and shape to (Model 489) but is supplied in a mottled red and black bakelite case to distinguish it from Model 489. Scales are silver gray with black markings. Pair of 30 inch cables supplied with voltmeters.



Voltmeters:	List Price	Your Price
150/15 volts.....	\$13.50	\$10.13
300/150 volts.....	15.50	11.63
600/300 volts.....	18.50	13.88
*150/8/4 volts.....	16.50	12.38

Ammeters:	List Price	Your Price
1, 3, 5, 10, 15 or 20 amps.....	\$13.50	\$10.13
30 or 50 amps.....	15.50	11.63

Milliammeters:	List Price	Your Price
15, 25, 50, 100, 250 or 500 MA.....	\$13.50	\$10.13

*Supplied with pin tipped 30 inch flexible cables for plugging into connection jacks on instrument.

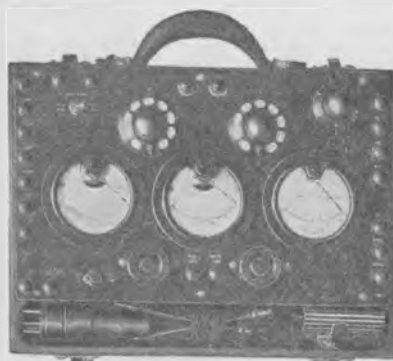
WESTON

THE BEST MAKERS FOR BEST RESULTS

A complete line of Weston Instruments for radio use distinguished for the same refinements in manufacture and extreme accuracy of performance which have characterized all Weston Measuring Instruments in the electrical field for the past forty years.

A.C.-D.C. RADIO SET TESTER

Model 547



A complete AC-DC. Set Tester housed in a black Bakelite case measuring 12 3/4 x 9 x 3 3/4 inches—Weights approximately 10 lbs. and is equipped with a removable snap-on cover. The panel mounts three 3 3/4 in. diameter Weston models—an eight range DC. Model 301 for 750|250|100|50|10|5 volts, 100|5 milliamperes—a double range DC. Model 301 for 100|20 milliamperes and a five range AC. Model 476 for 750|150|16|8|4 volts. All tests are made with the use of three rotary switches, tester plug with five prong adapter, several selective switches and binding posts.

Model 547. List Price, \$125.00

DEALERS PRICE.....\$93.75

COUNTER TUBE CHECKER

Model 533

Checks all AC. or DC. tubes having filament voltages of 1.5, 2.5, 3.3, 5 or 7.5 volts including filament type rectifier tubes, Kellogg tubes, and the AC. or DC. screen grid tubes with the aid of an adapter.



The Checker is equipped with UX and UY sockets, 2 binding posts for bringing out heater connections for the overhead heater tube and a binding post for making connection to the control grid of the screen grid tubes. Model 533 mounts a line voltage adjusting dial, a five point filament voltage dial, two push buttons and two instruments (2 in. diameter)—an AC. voltage indicator and a double range DC. plate milliammeter (80/20 MA.).

List Price, \$67.50

DEALERS PRICE.....\$50.63

WESTON

D.C. PORTABLE INSTRUMENTS

MODEL 489

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



	List Price	Your Price
Voltmeters: 150 5 or 200 8 volts. (Resistance 125 ohms per volt).....	\$13.50	\$10.13
Ammeters: 1, 10 or 30 amps.....	13.50	10.13
10 1, 15 3 or 30 3 amps.....	15.50	11.63
BATTERY ELIMINATOR VOLTMETER—MODEL 489		
—1000 OHMS PER VOLT		
	List Price	Your Price
Voltmeters: 200 8 or 250 50 volts.....	\$22.50	\$16.88
750 250 10 volts	28.00	21.00
Multiplier for increasing the range of 200 8 or 250 50 volt instrument to 500 volts	12.50	9.38

FLUSH TYPE 3 1/4 in. PANEL

D.C., A.C. and THERMO-COUPLE INSTRUMENTS.

Bakelite cases are supplied on Model 301 voltmeters above 150 volts and can also be supplied on the other instruments (Models 301, 476 and 425) to match voltmeters at an additional cost of \$.75 each. Case diameter 3 3/8 inches.



	List Price	Your Price
D.C. FILAMENT OR PLATE VOLTMETERS—Model 301		
1, 1.5, 2, 3, 5, 7, 8, 10 or 15 volts (Resistance 62 ohms per volt).....	\$ 8.00	\$ 6.00
20, 25, 30, 50 or 100 volts (Resistance 200 ohms per volt).....	8.00	6.00
150 volts (Resistance 200 ohms per volt).....	11.00	8.25
200 volts (Resistance 250 ohms per volt).....	11.00	8.25
D.C. Filament Ammeters—Model 301		
1, 1.5, 2, 3, 5, 8 10 or 15 amps.....	8.00	6.00
D.C. Plate Milliammeters—Model 301		
1, 1.5, or 2 MA.....	\$12.00	\$ 9.00
5 MA.....	10.00	7.50
10, 15, 20, 25, 30, 50, 100, 150, 200 300, 500 or 800 MA.....	8.00	6.00
A.C. Voltmeters—Model 476		
1.5, 2, 3, 5, 10, 15, 25 or 50 volts.....	\$ 8.00	\$ 6.00
150 volts	10.00	7.50
250 or 300 volts	12.00	9.00
150 8 4 volts	15.00	11.25
A.C. Ammeters—Model 476		
1, 2, 3, 5, 10 or 20 amps.....	\$ 8.00	\$ 6.00
30 or 50 amps.....	10.00	7.25
A.C. Milliammeters—Model 476		
15, 25, 50, 100, 250 or 500 MA.....	\$ 8.00	\$ 6.00
Thermo-Ammeters—Model 425		
1, 1.5, 2, 2.5, 3, 4 or 5 amps.....	\$13.50	\$10.13
6, 8, 10, 15 or 20 amps.....	14.50	10.88
Thermo-Milliammeters—Model 425		
125, 250 or 500 MA.....	\$15.00	\$11.25
*Wavemeter Galvanometer—Model 425		
115 MA (Resistance 5.2 ohms).....	\$15.00	\$11.25
*For horizontal or 45° mounting only.		

PORTABLE MOUNTING BASE

For use with metal case Models 301 and 425 instruments only on circuits of less than 150 volts. Carried in stock in alligator finish.

Mounting Base, List Price.....	\$2.75
YOUR PRICE	\$2.20

WESTON

Model 563

DC Circuit Tester

FOR RESISTANCE MEASUREMENTS AND CONTINUITY TESTS

Uses of Meter

The Model 563 is an instrument for checking resistance values and continuity of circuit during the process of manufacture and for service and installation work in many types of electrical apparatus. A few typical examples are as follows:

Telephone Apparatus and Circuits.

Radio Transmitting and Receiving Sets.

Fire and Burglar Alarm Systems.

Household Electrical Appliances.

Ignition Systems of Automobile, Motor Boat and Airplane Engines.

Small Electric Motors and Transformers.
Electric Refrigerators, Oil Burners, etc.



GENERAL DESCRIPTION

This Model is a compact, completely self-contained portable instrument. It is accurate within 2%.

Its equipment consists of a Weston Model 301, 3 1/4 inch diameter meter having two resistance ranges—5,000 and 50,000 ohms—mounted in a black Bakelite case with a Bakelite panel; a toggle switch for range selection; a self-contained 1.5 volt flashlight cell (Eveready Cell No. 935); a leather strap carrying handle and a pair of 30-inch leads with test prods.

A feature of this instrument as a voltage adjuster located at the top of the instrument case to compensate for change in potential of the self-contained battery. To make this compensation it is only necessary to short circuit the binding posts and adjust pointer to zero ohm position on the scale by turning adjusting screw.

Dimensions: 5 1/2 x 3 3/8 x 2 3/8 inches. Approximate weight: 2 pounds.

Model 563—Range 5,000/50,000 ohms.

List.....\$21.00 Dealer's.....\$15.75

New R.T.A. Emblem Ring



HERE IT IS AT LAST. A beauty too. Sterling Silver, set with the Association Emblem. It's the R. T. A. Ring you have been waiting for.

We have designed this beautiful ring to meet the many requests we have had from members wishing for just such a ring, not only for its beauty, but to serve as a means of identifying them with the Radio industry.

Special Student Price..... \$3.00

MY RING SIZE IS RING SIZES

DAYRAD

Counter Checker



TYPE C



Tests ALL standard A.C. and D.C. receiving and rectifying tubes direct from the light socket — Same as Type B.

In addition Type C meter has two voltage scales 0-20, 0-400 so that such parts may be tested as B and C Batteries, B Eliminators, Auto Transformers, Audio Choke Coils, Resistors, R. F. Coils and R. F. Chokes.

Equipped with standard D'Arsonval movement instrument. Ranges 0-20 MA, and 0-20, 0-400 Volts.

Complete with full instructions—(110 v. 60 cyc.)

DEALER'S NET PRICE.....\$22.80

180 Test Oscillator



This instrument combines a variable frequency Oscillator with a range of 1500 to 550 Kc. with fixed frequency Oscillators of 175 and 180 Kc. with a vernier for the variations required for aligning i.f. stages of super-heterodyne receivers. It is equipped with an Output meter for visually indicating resonance. It operates on 110 volts A.C. 60 or 25 cycle or 110 volts D.C. or external batteries for filament supply and on one small B battery for plate supply. A compartment is provided for the B battery. The signal intensity may be varied over wide limits.

The instrument is completely shielded and is mounted in a durable carrying case. Special leads and complete instructions are furnished. Tube and battery not furnished.

NET PRICE TO DEALER.....\$57.50

DAYRAD

Type B

A.C. Tube Checker



MODEL "B"

The Model "B" Tube Checker will accurately test all of the following types of tubes: 112, 120, 199, 201A, 171, 226, 227, 210, 222, 224, 240, 245, 250, 280, 281, Kellogg and Cardon.

The instrument may be plugged into any 110 volt 60 cycle A. C. source and is supplied complete with extra leads for special types of tubes.

The following features combine to make it the most practical and popular radio tube checker obtainable:

Table of correct readings engraved on the panel.

Foolproof—no rheostats or other adjustments to regulate.

Housed in moulded bakelite box with neat leather carrying case.

Tests both plates of type 80 rectifier tubes separately.

Equipped with standard milliammeter, genuine D'Arsonval movement (either Jewell or Weston meter.)

Highest quality of materials and construction throughout.

Size overall 7 in. x 5½ in. x 2¾ in.

Price to Dealer \$19.60

DAYRAD

Radio Set Analyzer



Speed and simplicity in operation as well as extreme accuracy have been brought to the fore in this compact instrument.

New tests made necessary by modern service methods are provided for in addition to the usual functions of the analyzer.

The purchaser is backed by thorough servicing data, compiled by engineers in constant touch with radio service problems. A handbook is supplied which not only describes the operation of the analyzer, but also contains over forty charts listing average readings made on various types of receivers. Only one selector switch is used to connect meter ranges to points under test.

Any DC Meter reading may be reversed by means of a push button for this purpose.

No reading is obtained until button which operates desired meter is depressed.

Both plates of type 80 rectifier tubes may be tested separately. Both UY and UX sockets are mounted on the panel, eliminating the use of adapters when inserting tubes.

Rectified current may be tested in circuits using Raytheon tubes. Power Pack secondary voltages may be read on the 800 volt AC range.

A self-contained continuity test is provided. Resistance values may be read on the DC Meter.

DC Ranges 0-20-100 Mils. 0-20-100-200-600 Volts. AC Ranges 0-4-8-160-180 Volts. Wide flush flange type meter. Carrying case of Bakelite.

PRICE TO DEALER \$58.50

Size overall—10½ in.x7½ in.x3½ in. Shipping Wt. 10 lbs.

PORTABLE COMBINATION

Consists of the Day-Rad Analyzer and the Model "B" AC Tube Checker in a genuine leather covered carrying case.

PRICE TO DEALER \$82.00

Size overall—15½ in.x10 in.x4 in. Shipping Wt. 15 lbs.

Model "B" Tube Checker is licensed under Weston patent No. 1704566.

Berky Test-O-Fone

TRADE MARK

LIST \$6.50

NET

\$3.90



THE TROUBLE FINDER

The Berky Test-O-Fone is a practical and inexpensive testing device for finding open and closed circuits, shorts and grounded circuits.

Every set builder and service man will quickly see the advantages of this compact tester. It replaces the old cumbersome method of testing with head phones, a "C" battery in series with it and many dangling loose wires that are hard to handle and not conveniently portable.

METHOD OF TESTING

Open Circuit—place one test rod on each end of circuit. If no click is detected in the TEST-O-FONE the circuit is open.

Short Circuit—Place one test rod on each side of circuit to be tested and if a click is detected in TEST-O-FONE the insulation is broken down.

Closed Circuit—To determine a continuous circuit, place one test rod at each end of circuit. If click is audible in TEST-O-FONE the circuit is complete.

The Berky TEST-O-FONE takes the guesswork out of radio troubles. In a jiffy you can accurately test transformers, condensers, and other parts of the set as well as the wiring. Burgess "C" battery is contained inside the TEST-O-FONE and when exhausted can quickly be replaced by removing the headband.

A new and valuable addition to the service equipment of every dealer and set builder—a wonderful seller.

Retail Price\$6.50

YOUR COST**\$3.90**

Beede Combination Tube and Set Tester

NO. 250

Tests all sets and tubes including
Screen Grid

The Beede Test Set is both a set and tube tester and is of inestimable value to those dealers to whom price is a consideration.

To the small dealer who does not care to invest a considerable sum in testing apparatus and to the larger dealer who has a number of service men and does not care to furnish an expensive set to each, the Beede Set fills a long felt want.

The set was designed to be used more in a comparative capacity than to get exact values of the different tests.

The design makes the set extremely simple to operate. Tests can be made in minimum of time and results should be satisfactory.

As most dealers handle a limited number of different types of sets, by making a complete series of tests on a set known to be in good or normal working condition, and making a permanent record of the readings other sets of the same type may be tested and comparison made with the record on file.

Following ordinary tests for receiving can be made: "B" test; "C" test; cathode voltage on 5 prong tubes; "A" supply for AC or DC sets; all tube tests including screen grid; AC line voltage test, Shpg. wt., 6 lbs.

No. 250, List Price \$25.00. Net.....\$15.00



BEEDE METER KIT No. 80

This handsome meter kit comes complete with the four meters described above, namely No. 50, No. 55, No. 60, No. 75, and adapter for converting from four to five prongs, and a leatherette carrying case. It is very valuable for repair men.

List Price.....\$15.00
Net 9.00

BEEDE TESTABAT No. 900

The Beede Testabat is a meter designed to attach permanently to any storage Battery and by simply pushing a button gives an accurate reading of its condition. Tells when to Charge and when to Stop Charging.

Provided with non-corrosive lead terminals. Dial in three colors.

Accurate—Clean—Safe—Convenient. (Display cards furnished for dealers.)

List Price.....\$1.75 Net.....\$1.05



FORMICA

Made from Anhydrous Redmanol Resins
SHEETS TUBES RODS

BLACK		WALNUT	
Size	Each	Size	Each
7x18x1/8	\$1.29	7x18x1/8	\$1.35
7x18x3/16	1.92	7x18x3/16	2.02
7x21x3/16	2.24	7x21x3/16	2.35
7x24x3/16	2.55	7x24x3/16	2.68
7x26x3/16	2.77	7x26x3/16	2.91
7x28x3/16	2.98	7x28x3/16	3.13
7x30x3/16	3.20	7x30x3/16	3.36

Odd size panels can be furnished in either black, mahogany or walnut finish at 1 1/4 c net per square inch in 3/16-in. thickness, and 1 3/4 c per square in. in 3/16-in. thickness.

Beede Radio Necessities

FOR SET USERS AND REPAIR MEN

Beede Socket Test Meters are for making tests directly at the socket. Note how easily they are applied. Simply remove the tube and insert the meter and know the true condition at the heart of your set. With a Beede Socket Test Meter any set user can quickly and easily determine minor troubles and save expense and inconvenience. Beede Socket Test meters are just as necessary for a set user as a tire gauge is for a motorist. The four Beede Socket Test meters are as follows:

No. 50—0-300 volts, for testing the plate voltage of tubes in any set.

List.....\$3.00 Net.....\$1.80

No. 55—Grid Bias Meter, 0-50 volts. For checking up the proper "C" voltage.

List.....\$3.00 Net.....\$1.80

No. 60—A-C Filament Meter, 0-7 1/2 volts. For testing the filament voltage at the tube.

List.....\$3.00 Net.....\$1.80

No. 75—A-C Line Tester, 0-150 volts. Plugs into any receptacle or light socket and gives correct line voltage.

List.....\$3.00 Net.....\$1.80

(We also furnish an adapter for converting from 4 to 5 prongs.)

List.....\$1.00 Net.....\$0.60



BEEDE VOLTMETER

Beede volt meters cover the scale of from 0 to 50 volts. Designed for testing "B" batteries. Gives accurate reading in one volt divisions. Handsome full nickel finish. Every dealer should have one.

List Price.....\$1.00
Net60



BEEDE "A" BATTERY TESTER

This is not a hydrometer. It is a meter with a sharp spur on the bottom which is used for one terminal and a cord with a sharpened point which is used for the other connection. It tells you when it is time to charge the battery, and second, when the battery has been charged sufficiently. Nothing is left to chance with an accurate meter of this type.

List Price.....\$1.25
Net74



BEEDE 0-300 VOLTMETER

Beede 0-300 Voltmeter for B Eliminator Testing
This high resistance voltmeter is used to check the voltage of "B" Eliminator and radio "B" battery circuits. This instrument in the hands of the service man and the set owner enables him to determine quickly the exact voltage required for the plate circuit of all tubes, and when such circuits are at fault. Supplied with 19 in. red and black cords to show polarity.

List Price.....\$3.00 Net.....\$1.80



SOCKET PLUG-IN TEST METERS

Tell the exact voltage at each tube. Just remove tube and plug in meter. Made in five types. Four to use in sets and one for plugging to wall socket, to test AC line voltage.

Ship. Wt. 1½ lbs.



	List	Net
1788—0-7½ volt for AC filament.....	\$2.50	\$1.50
1789—0-300 volts DC	3.00	1.80
1790—0-600 volts DC	4.50	2.70
1791—0-50 volts for grid bias test.....	3.00	1.80

READRITE PANEL METERS

Well made meters that check your circuits accurately. Require 2-5/64 inch hole. Rim is 2-5/16 inches diameter. Back clamps furnished. Metal silvered dials. Ship. Wt. 1 lb.



Voltmeters for Measuring "A" and "B" Voltage

1936—0-6 volts	\$1.00	\$.60
1958—0-8 volts	1.00	.60
1959—0-150 volts	1.50	.90
1965—0-8-100 volts	1.75	1.05
Ammeter for measuring filament current		
1961—0-10 amps.	\$1.00	\$.60
Milliammeters for measuring plate current		
1937—0-10 milliam.	\$1.75	\$1.05
1964—0-25 milliam.	1.00	.60
1975—0-100 milliam.	1.00	.60
1976—0-400 milliam.	1.00	.60
AC Voltmeters		
1938—0-6 volts	\$3.00	\$1.80
1939—0-10 volts	3.00	1.80
1962—0-15 volts	3.00	1.80

MUTER KNIFE THROW SWITCHES

Specifications—Black molded Bakelite base. Highly nicked brass contacts with molded insulated handles. Specially adapted for connection of battery circuits with surface mountings.

SINGLE POLE DOUBLE THROW



Base 2½ in. long, ¾ in. wide. Packed in individual boxes. Jobbers standard quantity, 25. Weight per 100, 7 lbs. No. 2010. List.....60c Your Price.....36c

DOUBLE POLE DOUBLE THROW



Base 2½ in. long, 1¾ in. wide. Packed in individual boxes. Jobbers standard quantity, 25. Weight per 100, 14 lbs. No. 2020. List.....85c Your Price.....51c

TRIPLE POLE DOUBLE THROW



Base 2½ in. long, 2 in. wide. Packed in individual boxes. Jobbers standard quantity, 10. Weight per 100, 20 lbs. No. 2030. List.....\$1.25 Your Price.....75c

Walnut Consoles The "GLENCOE"



This beautiful console cabinet is one of the biggest values in this catalog. Note the gracefulness of design; the carefully matched burl walnut french doors; the highlighting of the front of the cabinet; the beautifully carved legs and stretcher. This cabinet is a fine example of the new 1931 style. It is the work of the experienced furniture artists, and it will reflect good taste in any home or surroundings. You can offer this cabinet as a leader and make highly satisfactory profits.

The Glencoe is made of carefully selected five-ply walnut top, front and sides. The doors are made of five-ply matched burl walnut, veneered. Finished in antique walnut, beautifully highlighted and hand rubbed.

DIMENSIONS

The cabinet is 49 inches high, 26 inches wide and 15 inches deep. The maximum panel space is 9½ by 22 by 11½ inches deep.

No. 1076—The GLENCOE. List \$55.00.

DEALER'S PRICE.....\$24.50

Selected Rare Walnut

The "VICTORIA"



CONSOLE OF GENUINE FIGURED WALNUT CONSTRUCTION

The VICTORIA console has dignity, grace, design—everything you have ever asked for in furniture. And because it is one of the finest of ultra modern consoles, it is especially suited to house the modern A.C. receivers. Its panels are of genuine matched burl walnut. The legs are beautifully turned and fluted and braced by a sturdy straight stretcher. To complete the beauty of its rhythm the grille of the console is beautifully shaped back of a genuine matched walnut panel. It stands 47½ inches high, 24½ inches wide and 13½ inches deep.

No. 1078—VICTORIA CONSOLE

LIST \$35.00

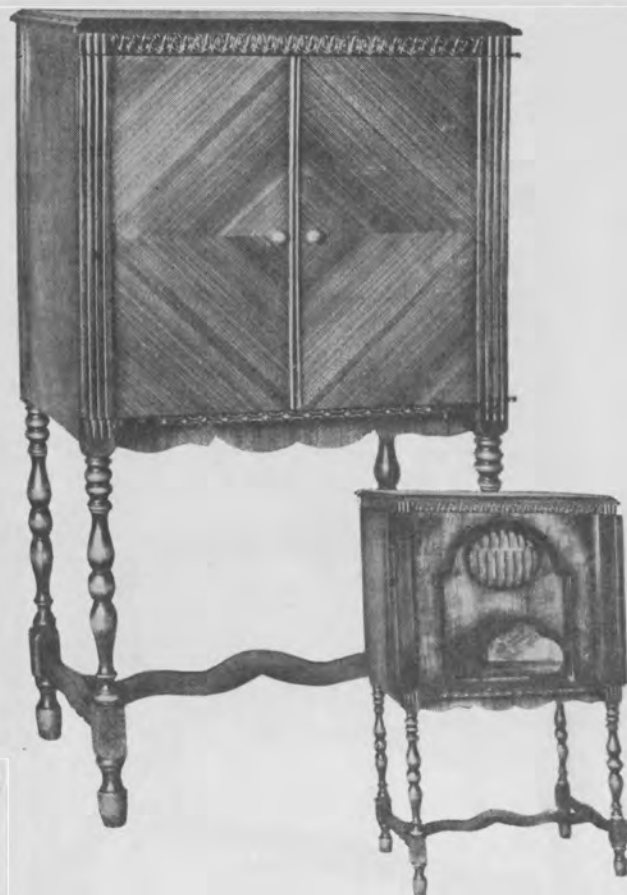
DEALER'S \$12.95

WINNETKA CONSOLE

The modern urge for better furniture in the home finds real expression in this beautifully designed and attractively finished console. Five-ply diamond matched walnut doors, impart an appearance seldom found in Radio cabinets. The top and sides are made of carefully selected five-ply walnut. This cabinet features a substantialness in construction and design that makes it good for a lifetime of service. Attractively scrolled maple overlays enhance the attractiveness of the doors which are so arranged that they swing back against the side of the cabinet when open.

DESIGNED FOR ALL STANDARD A. C. SETS

This handsome console of diamond matched walnut is 46 inches high, 15 inches deep and 24 inches wide. The spacious set compartment measures 21 inches wide, 13¼ inches deep and 9½ inches high. It has been especially designed for all standard A.C. sets.



CONSOLE ONLY

This console with its beautiful diamond matched walnut doors and panels is offered at a price far below its actual value. Highly recommended to those who want the finest.

No. 163-R—Console Only.

List \$55.00

Your Price.....\$19.50

SPEAKER TABLE

Dignity and substantial character are the features that stand out in this speaker table. All the desirable features of quality, grace and strength have been put into this beautiful table. Beautifully finished in five-ply walnut top, front and sides. Will fit attractively in most every home.

R. C. A. 100-A SPEAKER

Equipped with genuine R.C.A. 100-A Speaker this table offers the utmost in quality. The wonderful reputation of this speaker is known throughout the Radio world.



DIMENSIONS

Top size is 15½ inches by 24 inches. Height 29 inches.

No. 117R. Table only.

List, \$22.50

YOUR PRICE.....\$4.50

Real Console Value

The RAVENSWOOD is equipped with the well known Newcombe-Hawley air column speaker and famous Borkman Unit. This is the last word in tone reproduction and not only satisfies the desire for the orthophonic effect but completely captivates the lover of real music and beautiful sound.

The RAVENSWOOD offers the most in convenience in a minimum of space. The plywood used in its construction is of the highest grade. All materials are selected with the utmost care and every detail of construction is carefully worked out by master craftsmen. The upper doors fold back against the sides of the cabinet giving full access to the receiver. The receiver compartment is in a convenient pull-out drawer that offers quick and easy installation. The lower door opens in a spacious compartment for batteries, eliminators, or your all-electric A.C. power pack.

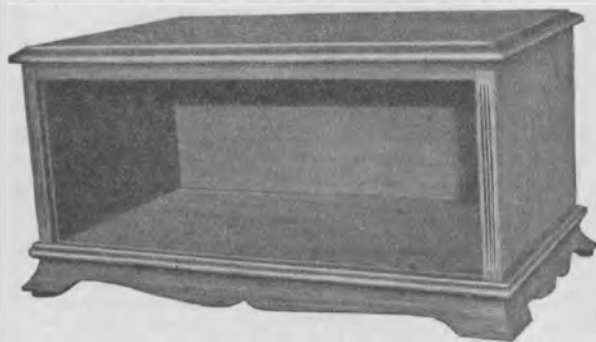
The RAVENSWOOD is simple in design yet richly attractive in appearance. Finished in a dark walnut, hand rubbed.



The outside dimensions of the RAVENSWOOD are: Height 47 in. Width 25½ in. Depth 14½ in. Will take sets up to 9 inches high by 22 inches long by 13 inches deep.
List Price\$75.00

YOUR PRICE.....\$10.95

Solid Walnut Cabinets

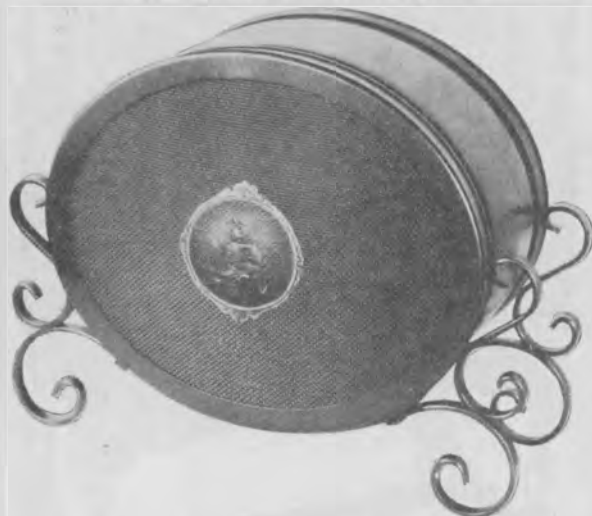


A cabinet combining high grade workmanship with beauty of line and finish. Equipped with nickel plated hinge and stop. Made of solid walnut with American Walnut finish. Panel slides in. Full 10 inches deep back of panel. Feet are shaped from solid strips running full length of cabinet.

Packed in individual shipping cartons. A beautiful cabinet priced right.

SIZE	LIST PRICE	YOUR PRICE
7x18	\$10.00	\$3.95
7x21	12.00	3.95
7x24	13.00	6.30
7x26	14.00	7.05
7x28	15.00	7.45
7x30	16.00	7.95

NEWCOMBE-HAWLEY DRUM SPEAKER Speaker Value That Speaks



Newcombe-Hawley Drum Speakers enjoy wide popularity for TONE QUALITY. They are of true EXPONENTIAL DESIGN having a centerline air column length of 54 inches EMBODYING ACCEPTED ACOUSTIC PRINCIPLES. Their correct construction provides a maximum response and a complete frequency range.

The unit is the ULTRA-SENSITIVE BALDWIN CONCERT. It is readily responsive to the faintest impulses. It covers the full musical scale, recreating every tone from a whisper to a full symphony without blast or blare. These drum speakers are attractively housed in an overall metal drum with convex shaped grille and beautiful ornamental iron base.

List Price.....\$35.00 Your Price.....\$3.85

UTAH X-30 SPEAKER



Here is more evidence of Utah's ability to put out a speaker that outshines the field in brilliancy of performance and dollar for dollar value. Equipped with a cone that has such exclusive features as a naturelike voice motor and a special processing which eliminates adjusting, it is indeed a product which insures consistent, excellent reproduction. In

a cabinet of genuine walnut plywood finished in antique brown, it is a treat for the eye with its subtle simplicity. Front and back are identically alike. Dimensions 11 1/2 in. high, 15 in. wide, 8 1/2 in. deep.

No. X-30. List.....\$30.00 Each.....\$8.45

UTAH "No. 65" SPEAKER



Made of 5-ply genuine walnut, finished in antique Brown — beautifully embossed. Front and back have same grill and appearance. Width 16 1/2 in., height 18 in., depth 6 in. Packed 1 to carton. Weight 28 1/2 lbs.

This model speaker contains the famous Utah Dynamic Chassis described above and combines a rich

quality of tone with the popular style cabinet.

	List	Each
No. 65—110 volt A.C. Operation.....	\$27.50	\$16.50
No. 65R—6-12 volt Battery Operation.....	27.50	16.50
No. 65D—110-220 volt D.C. Operation.....	32.50	19.50

UTAH XB SPEAKER FOR CONSOLES



You will say it is wonderful when you hear it. Something new and amazing because of its low price. The metal frame around the edge of the cone permits easy fastening in any console. This new Utah cone will take all the volume without a rattle. Just the speaker for the new powerful electric sets. And what a tone — mellow, clear, reproduces high and low notes with faithful life-like

fidelity. Buy one and see for yourself.

Contained in plain baffle board square box 9 1/2 x 9 1/2 x 5 in. Makes mounting very easy and supplies needed baffle surface.

No. XB—List.....\$12.00 Your Price.....\$4.85

Cordonic Extension

TAPESTRY WALL SPEAKERS

With The Exclusive Cordonic Condenser
Speaker Plate



A. C. accessory profits take on a new meaning through the development of this outstanding line of extension tapestry wall speakers. Here is a proven superior principle of sound amplification—hailed by authorities as the “most direct conversion of electrical energy into sound.” So simple in construction that there is only one moving part—no magnets, coils, or paper cones to burn out or get out of order. Ideal plate size, permitting an almost unlimited variety of designs. Multiplied volume—complete absence of vibration or tone distortion—new brilliance and a wider range of high and low frequencies—an automatic universal adapter that permits use with any standard receiver—plus distinctive tapestry designs—all features that make the new CORDONIC Tapestry Speaker line the most practical and profitable A. C. accessory in existence.

One, Two, Three, Four and Six Plate Sizes—
With a wide variety of distinctive tapestries.

Automatic Universal Adapters



This device makes it possible to operate from one to fifteen CORDONIC Condenser Speakers with no decrease in volume along

with the Speaker in the Set.

To connect the Universal Adapter is a very simple operation and does not require any change whatsoever in the circuit wiring.

CORDONIC

Tapestry Wall Speakers

Model No.	DESCRIPTION	List Price	Your Price
W-100	One Cordonic Plate, Wall Speaker; One Rosette Hanging Cord, On-and-Off Switch. 25 ft. Speaker Extension Cord. Tapestry title "Seagulls." Size 10 1/2"x12 1/4". List with Adapter	\$19.50	\$11.70
	Extra Tapestry Speakers. Each.....	9.50	5.70
W-101	Same specifications as W-100, except tapestry title "Autumn Tints." Size 12"x15". List with Adapter.....	19.50	11.70
	Extra Tapestry Speakers. Each.....	9.50	5.70
W-200	Two Cordonic Plate, Wall Speaker; One Rosette Hanging Cord, On-and-Off Switch. 25 ft. Speaker Extension Cord. Tapestry title "Venice." Size 12"x18 1/4". List with Adapter	22.50	13.50
	Extra Tapestry Speakers. Each.....	12.50	7.50
W-201	Same specifications as W-200, except tapestry title "Dutch Windmill." Size 16 1/2"x12 1/2". List with Adapter	22.50	13.50
	Extra Tapestry Speakers. Each.....	12.50	7.50
W-300	Three Cordonic Plate, Wall Speaker Two Rosettes and Hanging Cords, On-and-Off and Reversing Switch Combination. 35 ft. Speaker Extension Cord. Tapestry title "Venice." Size 16"x25 1/4". List with Adapter	27.50	16.50
	Extra Tapestry Speakers. Each.....	17.50	10.50
W-301	Same specifications as W-300, except tapestry title "The Coach." Size 25 1/2"x16". List with Adapter	27.50	16.50
	Extra Tapestry Speakers. Each.....	17.50	10.50
W-400	Four Cordonic Plate, Wall Speaker; Two Rosettes and Hanging Cords, On-and-Off and Reversing Switch Combination. 35 ft. Speaker Extension Cord. Tapestry title "Flower Girl." Size 20 1/2"x27 1/4". List with Adapter	32.50	19.50
	Extra Tapestry Speakers. Each.....	22.50	13.50
W-401	Same specifications as W-400, except tapestry title "Vase of Flowers." Size 24 1/2"x28 1/4". List with Adapter	32.50	19.50
	Extra Tapestry Speakers. Each.....	22.50	13.50
W-402	Same specifications as W-400, except tapestry title "Minuet." Size 28"x21". List with Adapter.....	32.50	19.50
	Extra Tapestry Speakers. Each.....	22.50	13.50
W-404	Same specifications as W-400, except tapestry title "The Convoy." Size 36"x15". List with Adapter....	32.50	19.50
	Extra Tapestry Speakers. Each.....	22.50	13.50
W-600	Six Cordonic Plate, Wall Speaker; On-and-Off and Reversing Switch Combination. 50 ft. Speaker Extension Cord. Tapestry title "Venetian Feast." Size 38"x21". List with Adapter	40.00	24.00
	Extra Tapestry Speakers. Each.....	30.00	18.00
W-601	Same specifications as W-600, except tapestry title "Napoleon." Size 37"x26 1/4". List with Adapter.....	40.00	24.00
	Extra Tapestry Speakers. Each.....	30.00	18.00

IMPORTANT—When ordering this Speaker be sure to specify whether it is for use with a battery or all-electric receiver—also whether it is to be used on 60-cycle current or 25-cycle current.

Loud Speaker Units

FAIRFAX "GREEN CAP" UNIT

A sensitive, heavy duty unit, expressly built to withstand the power of modern A. C. operation. Will stand output of largest power amplifier without distortion and retain the full range of tonal frequency. It will remain constant in its faithful reproduction of voice and music, under the most severe tests. The uniformity of its manufacture, incorporating the best materials and workmanship that money can buy, gives to it that volume, that quality of reproduction that permanence and durability which guarantees to the listeners everything brought in by radio, the faintest whispers as well as tumult of the crowd. The "GREEN CAP" unit challenges competition. It is ideally adapted to home as well as auditoriums of every kind furnishing public announcements and amusements.



List Price **\$6.00** Your Price **\$3.00**



UTAH "PHONO" SPEAKER

For attaching to tone arm of phonograph. An ideal speaker that will give satisfactory service with any phonograph. Furnished with or without stand. All nickel finish. Complete with long cord and phone tips. With base as illustrated.

List Price\$8.00
Your price 4.80

DE LUXE UTAH UNIT

This unit includes the tripod patented feature of suspension construction. The great advantage of this exclusive patented design is that it enables Utah units to stand extreme power without blasting and makes possible a faithfulness of reproduction few other diaphragms can approach. Accurately assembled and well finished. This new patent is now used in all Utah Units.

List Price\$7.50
Your Price\$4.50



UTAH PIANO SPEAKER

Each year brings new thoughts—new developments. And so we submit the latest engineering triumph in speaker accomplishment—the Utah Piano Speaker.

By installing the Utah Piano Speaker an upright or baby-grand piano can be quickly converted into a high class radio reproducer, without in any way interfering with the piano mechanism or harming it.

The Utah utilizes to the best advantage the sound producing qualities of the piano soundboard.

The Utah Piano Speaker is equipped with a 25-foot cord, so that radio receiver may be placed at a distance—or in another room from the piano.

List Price **\$10.00** Your Price **\$6.00**

The Universal Microphone

1931 Line

UNIVERSAL BABY MIKE—(New Type)



Baby Mike is a real microphone, single button with circuit switch and 25-foot cord. The case is 3 inches high. The button is gold plated and the response of far better quality than would be expected for the low price of \$7.50. A sheet of instructions is included.

List Price, as shown.....\$7.50

Dealer's Price.....\$5.25

NEW MODEL "KK"

ALL STEEL—TURNED FROM THE SOLID BAR
A rugged, solid two-button microphone, with a very minimum of hiss; a gold plated diaphragm of only .001 thickness is used.

Only the finest of materials and workmanship enter into the construction of Model "KK," and its frequency range is all that can be desired in a carbon microphone, namely from 35 to 6000 cycles; the buttons are of 200 ohms resistance each.

Many of these "KK" models are in use and are giving more than satisfactory service.

Model "KK" is beautifully gold plated. Each unit is carefully tested before shipment. Diameter, 2 1/4 inches; thickness, 1 1/4 inches.

Made in three sensitivities: S—very sensitive; M—medium sensitive (standard); D—highly damped.

Compare this Model "KK"—listing at \$50.00 with any \$75.00 microphone on the market.

List Price, Microphone Only.....\$50.00
Dealer's Price.....\$35.00



MODEL "BB" MICROPHONE



A two-button microphone built especially for voice pickup, public address work and for amateur broadcasters and experimenters. Its frequency range is from 50 to 4000 cycles, 100 ohms per button, and operates on 6 volts and 8 to 10 mils per button. Accurately machined, and silver plated. Each unit carefully tested before shipment.

Blueprint of hook-up included with each unit. Diameter, 3 inches; thickness, 1 1/4 inches.

List Price, Microphone Only.....\$25.00
Dealer's Price.....\$17.50

Model "A"

A single button microphone built of high-class material and finished in satin silver.

Model A will handle frequencies from 50 to 3000 cycles—the single button is 100-ohm, resistance and requires 6 volts at 8 to 10 mils for operation. The diaphragm is damped. Model A is 3 inches in diameter by 1 1/4 inches thick.

List Price of Model A Only \$15.00
Dealer's Price.....\$10.50



The Greatest Achievement in LOUD SPEAKERS

The MAYER Speaker unit used in the L'ECLAIRE is exceptionally pleasing in tone, covering with excellent volume the entire musical scale. A baffle board of three ply wood veneer gives full mellowness that is equalled by none other. The full mellowness of the low frequency is emphasized by such instruments as the bass viols, tubas, tympani and the pedal notes of the pipe organ.

The MAYER engineers have achieved a truly masterful speaker. It is correct from every acoustical engineering standpoint, with a balanced armature and permanent magnet. It is rigidly constructed and will take extreme power without distortion.

THE LAMP

The base and graceful columns are made of beautifully twisted wrought iron in antique dull gold. The wrought iron ornament in the center of the base adds a touch of smartness and individuality found only in lamps of the better class.

Equipped with two General Electric keyless sockets mounted on a moveable brass arm, eight feet of best quality silk cord with two-piece plug, and a high grade nickel plated switch mounted on the base.

HAND PAINTED PARCHMENT SHADE



This beautiful shade is the inspiration of a famous French artist. This is the type of shade, tried and true, that shades the mellow light over the big living room and completely obscures the loud speaker. Finished in dark brown with light shadings to perfectly match the base. The shade is nine inches in diameter at the top and eighteen inches in diameter at the bottom.

COMBINATION OF BEAUTY AND EFFICIENCY

Be the first dealer in your community to feature this marvelous idea—a combination of beauty and efficiency. It will sell every customer on sight and each customer will bring you ten additional customers.

DIMENSIONS

The L'ECLAIRE Lamp Speaker is 25 inches high over all. The base is 6 inches wide and 14 inches long.

List, \$65.00

YOUR PRICE.....**\$5.95**

Lamp Speaker

Speaker Concealed in a Beautiful Lamp



BIGGEST VALUE ON THE MARKET

Never before has such a low price been placed on a lamp of this quality, to say nothing of the additional feature of a marvelous loud speaker. Just think of it—lamp and speaker for less than the cost of either one.

For several years Radio loud speaker experts have been collaborating with famous interior decorators in designing a loud speaker that would harmonize with the home furnishings. The result of their joint work is the beautiful L'ECLAIRE LAMP SPEAKER illustrated and described in detail on this page.

Conservative in design, yet the L'ECLAIRE has the modern note and is particularly appropriate for use against the wall, or on a long narrow table, end table, mantle or bookcase.

YOUR PRICE

\$5.95

Ray-O-Vac Radio Batteries

AT LOWEST PRICES EVER QUOTED

The name Ray-O-Vac is synonymous with quality in the Radio Battery field. The new low prices enable you to give your customers the best in the market at the cost of ordinary batteries.



Ray-O-Vac's have always been famous for their amazing staying power. Now a new type of construction makes them last from 10 per cent to 15 per cent longer! Internal short circuits are almost entirely eliminated and all the current-reducing elements are permitted to give their full strength in service. You can see the evidence of this new construction in the pitchless tops that are characteristic of Ray-O-Vac Batteries.

Radio sets operated by direct current are assured smooth amplification of every radio signal because direct current is non-pulsating. There are no gaps in the flow of the energy, and when the voltage is uniform, the reception is smooth and even, without distortion or inequalities.

Your trade wants good "B" batteries. Give them Ray-O-Vacs.

RAY-O-VAC EXTRA-HEAVY DUTY 8303

After months of experiment work the French Battery Company announces with extreme satisfaction the new EXTRA HEAVY-DUTY Ray-O-Vac "B" No. 8303—the outstanding battery achievement of all time! It's an extra large battery, with extra large capacity. But it's proportioned to fit all console type radios and all radio consoles. It contains 30% more energy than even the Heavy-Duty Ray-O-Vac No. 9303, noted for its long life. This new Extra Heavy-Duty Ray-O-Vac lasts 30% longer—affords superb reception from the first day's use to the last.

No. 8303, 45 volt, extra Heavy-Duty, packed 5 to case.
List Price\$4.25
1 to 4, each\$3.14 Case Lots, each 2.91



Ray-O-Vac Super 9303

The new Master Super Size 45-volt "B" Battery. Built with 30 cells for long life. Has screw post terminals and one intermediate tap at 22½ volts. This is the big over-size battery that is recommended for all multiple tube sets and is especially recommended for sets requiring more than 16 milliamperes of current.

No. 9303, 45 Volts, Packed 6 to a Case.

LIST PRICE EACH \$3.75

1 to 5, each\$2.70 Case Lots, each\$2.55

We carry new, fresh stock of this well known battery ready for immediate shipment in the popular sizes and styles.

RAY-O-VAC RADIO BATTERIES

Ray-O-Vac "C" Battery

Low Resistance Long Life

Ray-O-Vac "C" Batteries are designed for use on all circuits specifying "C" battery for the purpose of putting a negative bias on the grid of the tubes. Long life and low internal capacity make them ideal for this purpose. Batteries Nos. 231-R and 551 have variable voltage terminals. Battery No. 531-R has one positive and one negative screw binding post.

No. 231-R, 4½ Volts. Packed 50 in a Case.



LIST EACH 60c

1 to 49, each.....	38c
Case Lots, each.....	35c
No. 531-R, 4½ Volts. Packed 150 in a Case. List ea.	40c
1 to 149, each.....	28c
Case Lots, each.....	26c
No. 551, 7½ Volt. Packed 100 in a Case. List ea.	75c
1 to 99, each.....	56c
Case Lots, each.....	52c

RAY-O-VAC No. 2303 VERTICAL

A vertical type of battery built from 30 cells giving 45 volts with one intermediate voltage tap at 22½ volts. This battery is specially designed for superhetrodyne and other multiple tube sets requiring large battery capacity in a small space. Has screw post terminals. Size 8x7½x3½ inches. Weight each 9.3 lbs. No. 2303, 45 volts. Packed 6 in a case.



List Price Each \$2.50
1 to 5, each.....\$1.83
Case Lots, each..... 1.73

DRY CELL "A" BATTERY

Especially constructed to maintain their high voltage throughout their entire life. They are built especially for radio work. They last longer and insure better reception because of the special formula used in their construction.

Quantities 1 to 49
List.....50c Your Price.....37

Quantities 50 or Over
List.....50c Your Price.....32c



22½ VOLT RAY-O-VAC "C" BATTERY

This famous Ray-O-Vac Battery with the low internal resistance. It is designed and recommended for use in any set requiring a negative bias of 18 to 22½ volts on the grid circuit. This battery may also be used as a 22½ volt "B" in portable and semi-portable sets. It is not recommended for any "B" battery service where conditions will permit the use of a larger battery. It has four binding post taps: —4½ volts, —16½ volts, —22½ volts, and C-.

NO. 5151 22½ VOLTS
Packed 5 in a carton, List Price each \$1.50
1 to 5, each\$1.13
Carton of 5, each 1.05



The New 1930 Series of Havlin All Electric Clocks

A New Popular Priced Line That Will Sell

The Havlin all-electric has no springs, jewels, escapements, pendulums or any of the ordinary clock mechanism. It requires no winding—no adjusting—no repairing—no attention.

A miniature electric motor, revolving at a fixed speed drives the usual indicating hands, thus translating the electric time pulsations which are now to be found in any light socket in your home into visible, readable, carefree time.

BEDFORD

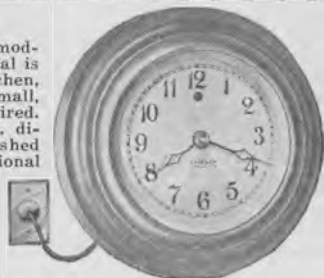


A large, graceful tambour model, combining a delightful simplicity of design with rare elegance and beauty of appearance. This attractiveness is greatly enhanced by charming raised panels, large 5½ in. dial, artistic hands and convex glass. Handsomely finished in dark walnut.

No. 503—List.....\$15.95 Your Price.....\$8.61

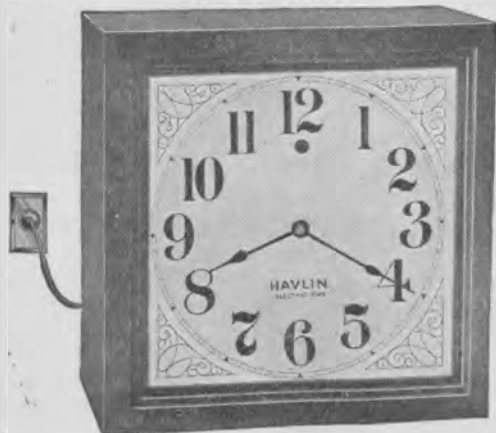
LOUISE

This attractive wall model, with large 5½ in. dial is ideally suited for kitchen, office or wherever a small, neat wall clock is required. Its graceful case, 8 in. diameter, beautifully finished in a variety of optional colors, makes the LOUISE a universal popular model. Guaranteed for one year. Standard duco enamel finishes are Ivory, Pastel Green or Gray.



No. 502—List.....\$9.95 Your Price.....\$5.37

WESTPHAL



This large wall model of the square type is the ideal timekeeper for stores, large offices, factories, public buildings, etc. Its large 13 in. dial may be read at great distances and the powerful improved HAVLIN motor insures absolute reliability, freedom from winding or other attention and correct time always. Handsome wood case of dark walnut finish enhances the appearance of any location in which it is placed. Size 15 in. square.

No. 504—List.....\$15.95 Your Price.....\$9.57

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The New 1930 Series of Havlin All-Electric Clocks

**A FAST SELLING SPECIALTY
FOR RADIO DEALERS**

Now! Carefree, dependable electric time is yours! It comes to you over your present electric light wires — furnished at no extra charge by your light company. The only equipment you need to take advantage of this valuable service is one of the many Havlin all-electric clocks that plug into any light socket.

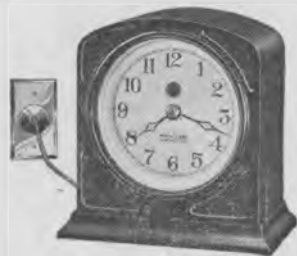
MARY LOU

A dainty upright model, in a graceful and exquisitely beautiful case of genuine bakelite, embellished with pebbled panels. Ideal for lady's boudoir, yet appropriate for desk, mantel or table use. The lowest priced model in the entire electric clock field, MARY LOU brings modern electric time-keeping within the reach of everyone.

Comes in beautiful dark walnut finish. Absolutely accurate—fully guaranteed. Size 5 in. high, 4 in. wide.

No. 501—List.....\$7.95

YOUR PRICE \$4.29



KENNERLEY

A popular Gothic cathedral design appealing in its simplicity and striking in its beauty, which is further enhanced by exquisite raised panels, a large 5½ in. dial, artistic hands and convex glass. One of the outstanding values of the entire clock field, that brings modern, accurate carefree electric time-keeping within the reach of all. Finished in beautiful dark walnut. Size 10 in. high, 7½ in. wide.

No. 505. List.....\$14.95

Your Price...\$8.07



HAVLIN ALARM

An all-electric alarm clock combining Havlin accuracy with all the desirable features of the most dependable electric alarm. Graceful Bakelite case. Alarm easily set to ring at any desired time during twenty-four hour period. Continues to ring until shut-off. Convenient "shut-off" switch on front of case. Popularly priced electric alarm clock that will awake the heaviest sleeper. Sited as appointment clock for desk or office. Wonderful addition to the Havlin line. In dark walnut finish only.

List\$12.95

YOUR PRICE \$6.99

43

CeCo Tubes

Best By Performance

At first CeCo tubes were advertised as being "Best by Test"; today public opinion of millions of actual users declares them "Best by Performance." The best proof of CeCo popularity lies in the fact that the factory has been forced to increase its production capacity by five times in the last three years.



3
Vital
Reasons
for
Featuring
CeCo
Tubes

1. LONG LIFE. One of the country's foremost quality lines. Noted for their longer life and uniform characteristics.

2. A PRECISION PRODUCT Every step in the manufacture of CeCo Tubes is conducted with such exacting care and precision that they class as a true precision product. The finest materials and latest scientific machinery make CeCo's real first quality tubes.

3. EXTREMELY SENSITIVE Moisture and detrimental gases are evacuated so perfectly that CeCo's are extremely sensitive. They catch and reproduce the faintest signals with surprising volume—fine for DX work.

End Your Tube Troubles for a Year With CeCo's

X171
Power Amplifier, Fil. volts 5. Fil. amperes 5. Plate volts 90-180.
2N1066—Type J71.
List, \$2.25. Net... **\$1.21**

X171A
Power Amplifier Tube. Fil. volts 5. Fil. amperes .25. Plate volts 90-180.
2N1067—Type J71A.
List, \$2.25. Net... **\$1.21**

X200A
Special D. C. Detector Tube. Fil. volts 5. Fil. amperes .25. Plate volts 67-90.
2N1050—Type H.
List, \$4.00. Net... **\$2.16**

X201A
Standard D. C. Detector and amplifier Tube. Fil. Volts 5. Fil. amperes, .25. Plate volts 45-185.
2N1051—Type AX.
List, \$1.25. Net... **68c**

X210
Power Amplifier Tube, Fil. volts 7.5. Fil. amps. 1.25. Plate volts, 425.
2N1060—Type L10.
List, \$9.00. Net... **\$4.86**

X112A
Power Amplifier, Fil. volts 5, Fil. Amps. .25. Plate volts 90-180.
2N1062—Type F12.
List, \$2.25.
Net... **\$1.21**

X120
Power Amplifier. Small base, long prongs,
2N1070—Type E.
List, \$3.00.
Net... **\$1.62**

V199
Old Style Midget Base Dry Cell Tube, Short prongs.
2N1059—Type B.
List, \$2.75.
Net... **\$1.48**

X199
Dry Cell Tube with Standard Base and long prongs.
2N1069—Type BX.
List, \$2.50.
Net... **\$1.35**

X240
High Mu Amplifier for resistance and impedance amplifiers.
2N1078—Type G.
List, \$3.00. Net... **\$1.62**

Nationally Known for Their fine Quality and Lasting Worth

A LABORATORY TUBE

CeCo tubes are made in one of the largest plants in the world devoted exclusively to the manufacture of radio tubes. They have an exceptionally well equipped laboratory which is never idle. It is always busy endeavoring to further improve a line which is already noted for very satisfactory performance.

X222DC
Shield Grid Amplifier for D.C. circuits.
2N1072—Type R.F. 22.
List, \$4.50.
Net... **\$2.38**

Y224AC
AC Shield Grid Amplifier. Fil. volts, 2.5. Fil. amps, 1.75. Plate volts 180. Has 5 prong base.
2N1074—Type AC 24.
List, \$3.30.
Net... **\$1.78**

X226
AC Amplifier Tube. Fil. volts 1.5. Fil. amps. 1.05. Plate volts 90-135.
2N1076—Type M26.
List, \$1.75.
Net... **94c**

Y227
AC Detector. Heater type Fil. volts, 2.5. Fil. amps, 1.75. UY 5 prong base.
2N1077—Type N27.
List, \$2.20.
Net... **\$1.19**

SPEC. R. F.
Special Radio Frequency Tube. Fil. volts, 5. Fil. amps., .25 Plate volts, 67-140.
2N1063—Type K. List, \$3.00.
Net... **\$1.62**

X245
Power Amplifier Tube. Delivers practically as much undistorted output as the 210 tube, Fil. volts 2.5. Fil. amps. 1.5. Plate volts 250.
2N1065—Type L45.
List, \$2.00.
Net... **\$1.08**

X250
Super Power Amplifier Tube. Handles three times the undistorted output of the 210. Fil. volts 7.5. Fil. amps. 1.25. Plate volts 4.50.
2N1079—Type L50.
List, \$11.00.
Net... **\$5.94**



X280
Full Wave Rectifier. Fil. volts 5. Fil. amps. 2. Output 125 mils. 300 volts AC.
2N1080—Type R80.
List, \$1.90.
Net... **\$1.03**

X281
Half Wave Rectifier. Fil. volts 7.5. fil. amps. 1.25, 110 mils. 750 volts AC.
2N1068—Type R81.
List, \$7.25.
Net... **\$3.91**



MARVIN

MASTER-BUILT

RADIO TUBES

6 MONTHS GUARANTEE
50% DISCOUNT

MARVIN tube construction has permitted the manufacturer to authorize us to replace without charge over a period of 6 MONTHS from date of purchase, any MARVIN tube that proves defective. This is a vital advantage to you AT NO ADDITIONAL COST. The big discount on MARVIN and the 6 Months guarantee gives you an advantage over your competitors.

X201A Detector Amplifier

For the radio and audio amplifier of battery operated receivers. Filament 5 volts, amperes .25, plate voltage 135 maximum.

No. M458. List \$1.25
YOUR PRICE..... 63c

X200A Super Detector

A super sensitive detector tube often used in place of 201A to attain greater sensitivity. Standard UX base.

No. M457. List \$4.00
YOUR PRICE..... \$2.00

X112A Power Amplifier

A last stage power amplifier drawing 2.5 amps. at five volts, maximum plate voltage 180.

No. M453. List \$2.25
YOUR PRICE..... \$1.13

X226 A.C. Amplifier

The general purpose tube for use in the radio and audio frequency stages of many modern A.C. sets. Filament volts 1.5, amperes 1.05, max. plate voltage 180.

No. M462. List \$1.75.
YOUR PRICE..... 88c

Y227 A.C. Detector-Amplifier

The heater type five prong base, A.C. tube. Standard in many modern A.C. circuits. Voltage 2.5 with plate voltage of 45-90.

No. M463. List \$2.20
YOUR PRICE..... \$1.10

X171A Power Amplifier

A power amplifier for the last audio stages. Draws 0.5 amps. at five volts with a plate voltage of 180.

No. M454. List \$2.25
YOUR PRICE..... \$1.13



X199-V199 Dry Cell Detector-Amplifier

Draws 0.6 amps. at 3.3 volts, plate voltage 45-90. No. M456—X199 with UX base. List \$2.50.

YOUR PRICE..... \$1.25
No. M455—V199 with small UV base. List \$2.75
YOUR PRICE..... \$1.38

X120 Dry Cell Amplifier

A power amplifier serving in the last stage of receivers using 199 tubes. Draws .133 amps. at 3.3 volts, plate voltage 135.

No. M478. List \$3.00
YOUR PRICE..... \$1.50

X281 Half Wave Rectifier

Serving in power amplifiers and B supplies. Filament volts 7.5; amps. 1.25; maximum plate voltage 650.

No. M468. List \$7.50
YOUR PRICE..... \$3.75

MARVIN TUBES

Uniform in Quality

The MARVIN process which achieves uniformity in every operation and constantly maintains that uniformity, assures the steady presentation of tubes, one as uniform as the other. The super-fine qualities of MARVIN tubes are the products of scientific thought and manufacture.

PROFIT WITH MARVIN

MARVIN tubes are ideal for replacement purposes and as standard for new receiver sales. The attractive discount of 50% coupled with their unusual efficient performance means more profits for the service man and dealer.

Y224 A.C. Screen Grid

Standard as a radio frequency amplifier in carefully shielded circuits with five prong Y power base. Filament volts 2.5, amperes 1.75 maximum plate voltage 180.

No. M461. List \$3.30
YOUR PRICE..... \$1.65

X245 A.C. Power Amplifier

A power output tube intended for use in the last audio stage. Filament of volts 2.5, filament amperes 1.5, maximum plate voltage 250.

No. M465. List \$2.00
YOUR PRICE..... \$1.00



X280 Full Wave Rectifier

Of high emission, serving in most A.C. sets or power packs. Filament volts 5; filament amperes 2; A.C. volts 300 D.C.M.A. 125.

No. M467. List \$1.90
YOUR PRICE..... 95c

X222 D.C. Shield Grid

D.C. shield grid four element amplifier for radio and audio frequency. Filaments volts 3.3, amps. .132. Plate voltage 180.

No. M460. List \$4.50
YOUR PRICE..... \$2.25

X250 Super Power Amplifier

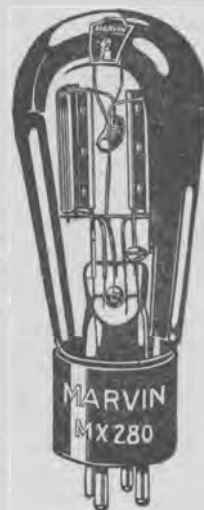
Power tube for voltages up to 450. Filament volts 7.5, and amps. 1.25.

No. M466. List \$11.00
YOUR PRICE..... \$5.50

X210 Heavy Duty Amplifier

Serves in the last stage of certain radio receivers for powerful amplification. Plate voltage 425 maximum, with filament volts of 7.5.

No. M459. List \$9.00
YOUR PRICE..... \$4.50



Cunningham Tubes

CX301A

Amplifier Detector Tube. Filament draws .25 amp. at 5 volts.

List, \$1.25. Net..... **88c**

CX300A

Super Sensitive Detector. Filament draws ¼ amp. 5 volts. B voltage, 22 to 45 volts.

List, \$4.00. Net..... **\$2.80**

C299

Old Style Midget Base Dry Cell Tube. Fil. takes .06 ampere at 3 volts. Plate 45-90 volts.

List, \$2.75. Net..... **\$1.93**

CX299

Dry Cell Tube with Standard Base. Filament takes .06 amperes at 3 volts. Plate 45-90 volts.

List, \$2.50. Net..... **\$1.75**

CX220

Standard Base Dry Cell Power Tube. Filament takes .125 amperes at 4 volts. Plate, 135 volts.

List, \$3.00. Net..... **\$2.10**

CX345

Power Amplifier. Fil. voltage 2.50. B voltage 250. C voltage, 50.

List, \$2.00. Net..... **\$1.40**

CX350

Super Power Amplifier. Filament takes 1.25 amperes at 7½ volts. 425 volts of B and 84 volts of C recommended.

List, \$11.00. Net... **\$7.70**

CX112A

Power Amplifier. Filament takes .25 amperes at 5 volts. 135 volts of B and 9 volts of C recommended.

List, \$2.25. Net..... **\$1.57**

CX371A

Power Amplifier. Filament takes .25 amperes at 5 volts. 180 volts of B and 40½ volts of C recommended.

List, \$2.25. Net..... **\$1.57**

CX310

Power Amplifier. Filament takes 1.25 amperes at 7½ volts. 425 volts of B and 35 volts of C recommended.

List, \$9.00. Net..... **\$6.30**

CX340

High Mu Amplifier. For resistance and impedance amplifier. Filament takes ¼ ampere at 5 volts.

List, \$3.00. Net..... **\$2.10**

CX326

AC Amplifier Tube. Filament draws 1.05 amperes at 1½ volts AC. For either AF or RF amplification.

List, \$1.75. Net..... **\$1.23**

CY327

AC Detector. Heater Type. Filament draws 1.75 amperes at 2½ volts AC. Has special 5-prong base.

List, \$2.20. Net..... **\$1.57**

CX380

Full Wave Rectifier. Output 125 mils. 300 volts AC. Filament takes 2.5 amps. at 5 volts.

List, \$1.00. Net..... **\$1.33**

CX381

Halfwave Rectifier. Output 85 mils. 700 volts AC. Filament takes 1.25 amperes at 7½ volts.

List, \$7.25. Net..... **\$5.08**

C11

Cell Tube. Filament takes .25 amperes at 1.1 volts. Plate voltage, 22½-90.

List, \$3.00. Net..... **\$2.10**

CX12

Standard Base Dry Cell Tube. Filament takes .25 amperes at 1.1 volts. Plate 22½-90 volts.

List, \$3.00. Net..... **\$2.10**

CX322

Shield Grid Amplifier. Filament takes .132 amperes at 3.3 volts. Amplification constant 300.

List, \$4.50. Net..... **\$3.10**

CY324

AC Shield Grid Amplifier. Plate voltage (max): 180 grid voltage —1.5; screen voltage (max.), 75; plate current, 4 MA; screen current, 9.3 MA; heater, 1.75 amps, at 2.5 volts. 5 prong base; amplification factor, 420.

List \$3.30. Net..... **\$2.31**

C376

Ballast Tube (Current Regulator). Operating current, 1.7 amperes. Mean voltage drop, 50. Permissible variation, 10 volts.

List, \$6.50. Net..... **\$4.55**

C386

Ballast Tube (Current Regulator.) Operating current, 2.05 amperes. Mean voltage drop, 50. Permissible variation, 10 volts.

List, \$6.50. Net..... **\$4.55**

CX374

Voltage Regulator Glow Tube. Regulator B Eliminator voltage where the current is 50 mils. or less.

List, \$4.75. Net..... **\$3.33**

Electric Time Switch Clock

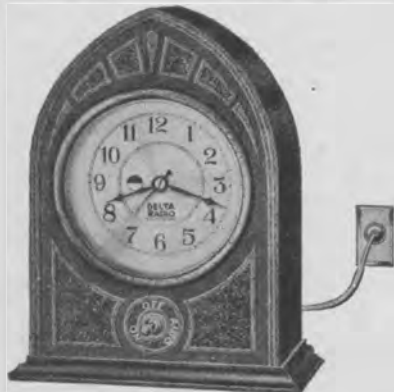
A modern Electric Time Keeper operating from the Alternating Current Light Socket that keeps perfect time, with the following advantages:

- 1—Accurate Synchronous Electric Observatory Time.
- 2—Turns on the Radio Set automatically at any hour. Turns off the Radio Set automatically at any hour.
- 3—Built-in Radio Antenna for use in those places where an outdoor antenna cannot be erected, where indoor antennae are not efficient due to steel or reinforced type of building construction; also eliminates the trouble and expense of installing and taking down antennae when moving from one location to another.

URNS RADIO SET "ON" OR "OFF"

The Clock has eye value, is moderately priced and there is no aggravating tick to annoy or disturb one. The clock is housed in a handsome genuine bakelite case of gothic design, with a decorated front piece.

The Automatic feature permits you to set the clock so that it will turn the Radio Set on in the morning and arouse you from your slumber by the gentle strains of music instead of the customary shock of the ordinary alarm clock.



No. 150—List \$14.75 Dealer's \$8.85

PREMAX

COPPERED STEEL GROUND ROD

Why bother with makeshifts—pipes, solder and flimsy clamps—when the Premax Ground Rod costs so little? It is so easy and quick to install—so efficient and convenient—that thousands of dealers and service men are using it exclusively.

The Premax Ground Rod is made of coppered steel, ¾ inches in diameter, with the end pointed for easy driving. Furnished in either four or six foot lengths. Specially designed clamp makes a perfect electrical connection in the twinkling of an eye. Heavy set-screw and nut, tightened with screw driver, fastens wire permanently.

Special design clamp is adjustable and may be locked at any point on the rod. Especially adapted to lightning arrester installation, where perfect outside grounding is absolutely vital. The top portion of the rod, projecting above the ground, is especially treated to insure a permanent, clean connection and resist exposure to the elements.

Try the Premax Ground Rod. You'll never again tolerate old-fashioned methods. Display it and include it in your radio installations. Suggest it to set owners who want better reception. It is a positive guarantee of perfect ground rod performance, plus the utmost in ease of installation.

No. GR-4—(4 ft.)—LIST 45c DEALER'S, each 27c

Lots of 6 or more..... **24c**

No. GR-6—(6 ft.)—LIST 65c DEALER'S, each 39c

Lots of 6 or more..... **35c**



"Marveltone"

**Take Your Favorite
Music With You**

VALUE — APPEARANCE

"Marveltone" Portable Phonographs are built with a range of prices to suit every purse, and our low wholesale prices give you a good round profit on every sale.

Do not confuse with ordinary low-priced portables. The "Marveltone" has a case covered with genuine leatheroid, waterproof, durable and guaranteed not to fade. Carefully constructed of three ply fir veneer which has four times the strength of straight lumber of the same thickness. Motor-board made of same stock. Tone chamber is covered with heavily nickeled metal grill.

**MADE IN
RED
BLACK
BLUE
and
BROWN**



The "Marveltone"

Both record compartment and outside of case are covered with heavily embossed design of unusual beauty. Record compartment in gold. Creates favorable impression with your customer at a glance. Genuine guaranteed American made motor that plays two full selections. Heavily nickel-plated tone-arm and reproducer. Strong, clear tone, great volume, roomy record compartment, finest workmanship throughout. Measures 13¼ inches long, 5½ inches deep, and 10½ inches wide.

LIST \$20.00 YOUR PRICE \$8.50

Portable Phonographs

"Marveltone" Portable Phonographs are easy to carry, easy to pack in car or suitcase. Just fill them with your favorite records, snap the lock and be on your way. No matter where you go you can have music and entertainment at will. Each "Marveltone" has marvelous tone quality and astonishing volume.



"Marveltone" DeLuxe

Both the case and big roomy record compartment of this deluxe "Marveltone" have an elaborate embossed design adorably colored with shaded gold. Must be seen to be appreciated. All hardware double nickel-plated including the long continuous piano hinge. Heavy nickel-plated trunk locks. Tone chamber is covered with heavily nickeled metal grill.

LATEST TYPE S TONE-ARM COVERED REPRODUCER

Equipped with latest type S tone-arm and covered metal reproducer. Gives full rich reproduction without blasting on latest electric records. Has guaranteed American made motor which plays two full selections. Case measures 11¼ inches wide, 14¾ inches long, 7¾ inches high.

List \$30.00 Your Price \$11.50

Television Apparatus

EXPERIMENTAL TELEVISION APPARATUS. Television in its present stage being an undeveloped art, we display Television apparatus here and offer it for experimental purposes only. We do not advocate its use nor do we offer Television material under any guarantee whatsoever. THIS IS EXPERIMENTAL EQUIPMENT AND IS NOT SUBJECT TO RETURN FOR CREDIT OR REFUND UNDER ANY CONDITION. We cannot guarantee its safe delivery and in the event of damaged shipments the purchaser is advised to file claim with the carrier. We offer on display here only merchandise made by NATIONALLY KNOWN, REPUTABLE MANUFACTURERS.

I.A.C. COMPLETE ESSENTIAL TELEVISION KIT

MODEL 52

A television essential kit comprising—1 bakelite scanning disc, 48 holes; universal motor; speed control; motor chuck; telescope with 2 lenses; screws and lense bracket bakelite sub-base for motor; receptacle cord and plug; sub-base with socket for television lamp; picture frame shield; bakelite pillars; four stage television amplifiers; brackets, screws and hardware. Television and amplifier tubes are not included.



No. 52. List \$52.00. Your Price \$31.50

MODEL 65

No. 65. Same as Model 52, but includes television tube.
List \$65.00. YOUR PRICE \$39.00

MODEL B-1

No. B-1. Special television kit, but without amplifier or television tube.

List \$37.50. YOUR PRICE \$22.50

TELEVISION TUBE AND PHOTO ELECTRIC CELLS

A television tube with a UX four-prong bakelite base. Striking voltage 100; minimum current, 5 mils. maximum, 80 mils; internal resistance, 1000 ohms; plate area, 1 1/2 in. sq. No. 52. LIST \$10.00.

YOUR PRICE \$6.00

No. 53. Photo-Electric cell, 1 1/4-in. bulb diameter. LIST \$20.00.

YOUR PRICE \$12.00

No. 54. Photo-Electric cell, 3-in. bulb diam. LIST \$37.50.

YOUR PRICE \$22.50



TELEVISION AMPLIFIER

The ICA four stage amplifier, complete with all resistors and coupling condensers. Wired so that two power tubes may be used in parallel. Any power tube will serve, although two MV6, 171 or 210 in the output are recommended. Battery connections on all stages are mounted on the amplifier. Tubes not included. No. 115. LIST \$17.50.

YOUR PRICE \$10.50

I. C. A. Short Wave Converter Unit



For use with regular sets, Television tuning, or to pull in D.X. stations.

The I.C.A. converter can be used with regular sets without any change of set wiring whatsoever. Just plug in the adaptor which is supplied with the converter into the radio set and connect the serial and ground wires of the radio receiver to the binding posts of the converter unit and tune in the regular manner.

SPECIFICATIONS

Wave length range 16 to 210 meters. Has 4 plug-in Bakelite coils and 4 wave length ranges.

No additional tubes or batteries are required.

Converter is supplied complete with nothing else to buy.

No. 116A For A.C. Operated Sets. List \$22.50 YOUR PRICE \$13.50

No. 117 For Battery Operated Sets. List \$22.50 YOUR PRICE \$13.50

NET \$22.50 YOUR PRICE \$13.50

I. C. A. UNIVERSAL TELEVISION MOTORS

Non-sparking ICA Universal Motor for operating receiving scanning disc. Universal motor (AC or DC). Easily controlled by rheostat. With 1/4 in. shaft.

No. 716. LIST \$27.00.

NET \$16.50

No. 162. Special single Phase 1-15 H.P., 110 volts, 60 cycle motor. Resistance controlled—1800 R.P.M. Will operate 12 in. to 24 in. scanning discs. 1/4 in. shaft. LIST \$35.00.

NET \$21.00

No. 163. Chuck to fit 1/4 in. motor shaft. LIST \$3.50.

NET \$2.10

Speed Regulating Rheostat

Motor speed regulator, No. 164. List \$3.00.

YOUR PRICE \$1.80

RAYTHEON KINO LAMP

A Neon type tube for Television receivers. Offers a plate 1 1/2 in. square with a glow area of 2 1/4 sq. in. Uniform glow over the entire plate provides perfect reproduction qualities. Starting voltage 220 to 235 volts.

No. 715. LIST \$7.50.

YOUR PRICE \$4.50

I. C. A. COILS FOR SHORT WAVE RECEIVER



Ship to shore type short wave coils are really the heart of short wave reception. The success of short wave reception depends entirely upon the quality of the coils. These I. C. A. coils are without question the most efficient coils which have ever been produced in commercial quantities. They will operate with short wave variable condensers of .00015 mfd. Coils of the plug-in type and are very convenient for instant interchange. Each coil is marked with the wave length range on it. The set consists of 8 coils, which cover the active short wave range of 14 to 157 meters.

No. 62—Set of 8 Short Wave Receiver Coils, I. C. A.
LIST.....\$20.00 DEALER'S.....\$12.00

I. C. A. BROADCAST BAND COILS



For those who desire to receive on broadcast band with the I. C. A. Conqueror Receiver listed above. These band coils embody the same principles as the short wave coils excepting that they cover a wave length range of 140 to 600 meters which is the entire broadcast band.

The set is composed of 4 coils, 2 for 140 to 300 meters and 2 for 300 to 600 meters.

No. 63—Set of 4 Broadcast Band Coils.
LIST.....\$17.50 DEALER'S.....\$10.50

I. C. A. POWER PACK FOR A. C. OPERATION



In order to operate a short wave receiver the plate filament and grid voltages must be absolutely constant in value under all operating conditions. This Power Pack is so constructed as to take care of these conditions. This Power Pack is supplied as a separate unit and can also be used with any receiver in which the total plate current load is not more than 50 milliamperes. It will furnish plate and filament current for 8-227, 2-245 and 1-224.

This pack uses a 280 Rectifier.
Model 24 I. C. A. Power Pack less rectifier tube.
LIST.....\$34.50 DEALER'S.....\$20.70

I. C. A. EAR PHONE ADAPTER

The new Ear Phone Adapter is specially designed for use so that one can listen to D.X. without disturbing the rest of the family. The volume desired, either loud or soft, can be regulated from the volume control of the set. Finished in black bakelite, it is handsome and efficient. Comes complete with cord and special connector.

No. 78—I. C. A. Ear Phone Adapter.
LIST.....\$1.50
DEALER'S......90



54

PACENT

Electric Pickup Booster

GIVES YOU THE VOLUME
YOU WANT WITH SUPERB
QUALITY

Hundreds of owners of Radio Receivers have found that their sets give admirable radio reproduction but don't give the desired volume from records played electrically. These Receivers need only the addition of a booster stage to give wonderful volume and quality from phonograph records when played electrically through the audio system.



NOW THE PROBLEM IS SOLVED

In the Electric Pick-up Booster Pacent again contributes to the advancement of pick-up performance. Here is a compact, inexpensive unit for use with radio sets having a power detector and one stage of audio, that gives a tremendous boost to pick-up volume, without the slightest trace of distortion.

The Pacent Electric Pick-Up BOOSTER does not require any circuit or connection changes in the radio set. It can be connected by anyone in two minutes time to operate at full efficiency. Once connected, no changes are needed in going from radio to recorded entertainment, or vice-versa. A mere throw of the change-over twitch, built in the Pacent Booster, and the trick is done instantly.

No. 43—LIST \$10.00, without Tube (Type 227).

Dealer's Price\$6.00

TELEVISION SHORT WAVE RECEIVER

THE CONQUEROR A. C. MODEL EMPLOYING 5 TUBES



The I. C. A. Conqueror, which is in every sense of the word a true short wave receiver designed to take the fullest advantages of short wave and broadcast wave lengths.

It is very simple to operate and gives no hum.

It is a special development of the tuned radio frequency amplifier, tuned regenerative detector type with three stages of high gain perfect tone quality audio amplification. Tubes required are 8-227, 1-245 and 1-224. Eight short wave coils are furnished with the set, which cover the range from 14 to 157 meters. Additional coils can be supplied on special order to cover any range from 140 to 600 meters.

The success of short wave reception depends entirely upon the quality of the coil. The I. C. A. Conqueror uses an entirely new and unique type of coil which is of the same type as those used in most ship to shore receivers. The unit as it comes to you is so arranged that the set is partly wired and can easily and quickly be assembled by anyone without technical knowledge. It requires no tools except a screw driver and no soldering is necessary. A set of blueprints, hook-up diagrams and assembly chart are supplied with each kit.

The power supply is furnished separately, being specially designed power pack No. 64, our No. 9H3404.

No. 47—I. C. A. Conqueror Short Wave Receiver, complete with set of short wave coils, but without power pack, for A.C. operation, LIST.....\$65.00

Dealer's Price\$39.00

55

PACENT

New Master Phonovox

Twelve months of research in Pacent's Radio and Talking Picture laboratories make possible this marvelous new Master Phonovox. This new model possesses many important features not to be found in any other pick-up.

It has a radically different design, which not only results in improved operation, but enhances its appearance as well.



FEATURES OF IMPROVED PHONOVOX

Low center of gravity insuring better record tracking; lateral play of armature exceeds lateral cut of record grooves, resulting in better reproduction; built in volume control combined with radio-record changeover switch; fold back head for easy needle changing; special Cobalt Magnets; pole pieces specially milled, heat-treated and precision ground; correct needle pressure through scientific design of head; ball-bearing swivel tone-arm.

No. 107—List \$15.00 DEALER'S \$9.00

SPECIAL HI-OUTPUT PHONOVOX

There has been added to the line of Pacent Phonovoxes the NEW 107 SPECIAL HI-OUTPUT PHONOVOX recently developed by Pacent laboratories, resulting in the most perfect electrical reproduction of records now available. The NEW 107 SPECIAL HI-OUTPUT gives the highest output of any electric pick-up on the market, making possible a much finer tone quality and a greatly increased volume on any kind of phonograph records.

The NEW SPECIAL HI-OUTPUT PHONOVOX is literally startling, and when played through a power amplifier, or any regular radio receiver, gives marvelous quality and more than twice the volume ever before obtainable.

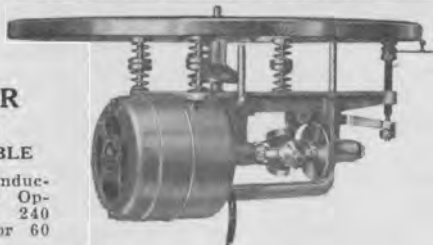
No. 107—List \$20.00 DEALER'S \$12.00

PACENT ELECTRIC PHONOGRAPH

MOTOR

WITH TURNTABLE

Silent induction type. Operates on 240 Volts, 50 or 60 Cycles, A.C.



Completely insulated against noise throughout—no commutator, no brushes, no sparking—this new model provides a motor of squirrel cage induction type, with a felt friction cone driven turn-table—the whole motor spring suspended.

The main motor frame is die-cast of special alloy, heavily ribbed to strengthen it and at the same time is designed for minimum weight. Lubrication is made positive by spring-fed wick to every moving part. The worm and worm gear run in special grease. All bearings are phosphor bronze, cast integral with the main frame casting and carefully line reamed. The motor may be overloaded, in fact, stalled indefinitely without damage to windings.

List Price.....\$25.00 DEALER'S.....\$15.00

I. C. A. Variotone

FOR PANEL MOUNTING

The model 66 Variotone tone control is designed especially for those who desire to mount it on the panel of the radio set. It is compact in size, measuring only 2 1/4 inches in diameter. Advantageous to set owners as well as dealers who wish to modernize their sets by installing a tone control.



All that is necessary to connect the panel mounting Variotone to the radio set is to drill a 3/8 inch hole in the panel, mount the Variotone on the panel, and place the adapters under the power tubes. Where only one power tube is used place one adapter under the power tube, cut off the second adapter and connect the wire lead to the ground post of radio set.

No. 66—List Price \$2.75 Dealer's \$1.65

I. C. A. VARIOTONE TONE CONTROL



The Variotone is scientifically designed for the regulation and control of tonal quality. By its use old receivers may be made to sound as pleasing as new ones and modern receivers are given a new tonal quality. The Variotone has single dial control. The adjustment is continuously variable—simply turn the knob slightly for any desired effect. The Variotone attaches instantly without the use of any tools.

No. 75—I. C. A. Variotone Tone Control.

List\$3.75

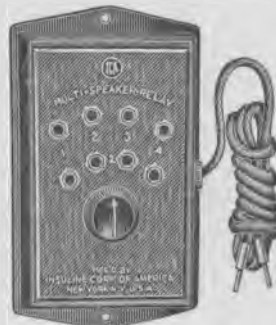
Dealer's Price \$2.25

I. C. A. MULTI SPEAKER RELAY

This is a new compact device with which a set owner, serviceman and radio dealer can easily test, compare and operate a number of loudspeakers at one time. A turn of the knob switches from one speaker to the other without loss of a single note or volume giving instant comparison of tone quality in a positive and practical way.

The capacity of this Multi Speaker Relay is four speakers for comparison or to play two speakers at any one time.

Sturdily built on bakelite with a brown crystalline finish.



No. 79—Multi Speaker Relay. List.....\$2.75

Dealer's Price\$1.65

Filtervolt

LINE NOISE ELIMINATOR

**Suppresses Hum
Purifies Reception**

A real actually efficient device for reducing line noises to a minimum. Filters out the distortions, the clicks, rattles, crackles, and din caused by apparatus which is operated from the same electric trunk line as Electric Radio Sets or Eliminator Sets. Vacuum Cleaners, Oil Burners, Telephone Bells and Dials, Elevators, Electric Refrigerators, Flashing Signs, Player Pianos, Sewing Machines, Vibrators, etc.—all appliances operating in or near the home are contributing causes of distorted reception annoying noises emitted from the loud speaker. They may be effectively suppressed to a negligible point by placing the Filtervolt between wall outlet and receiver. Every dealer should use one in demonstrating sets in his store. It also keeps down service calls on receivers. Every set owner will want one the moment he has seen and heard a demonstration operation. Good looking Japanned case. Compact, only 4x5x5 1/2 in. Operates on A.C. or D.C. 25-60 cycles, 110, 220 or 32 volts. Works with eliminators perfectly. No. 301. LIST \$15.00.



SPECIAL NET PRICE\$9.00

MUTER INTERFERENCE FILTER

Clear-Toned, perfect music coming from your speaker. Or a program to which you are listening intently for every word. Then, suddenly—crackle—sizzle—roar! The program distorted, cut up, ruined.

How many times has this happened to you? Probably only a nearby motor or electrical appliance, acting as a broadcasting station of its own, setting up local disturbance. But the end, just the same, of radio enjoyment.

End this nuisance of man-made static once and for all with the MUTER DEPENDABLE INTERFERENCE FILTER.

Made in two types:
1. The Junior: For direct connection to radio set. Capacity type, with large factor of safety for use on 110 volt A.C.

List \$5.00 YOUR PRICE \$3.00

2. The Senior: For use in connection with electrical or mechanical devices causing local disturbances. Capacity inductance—rated for use on 110 volt A.C., on devices not exceeding 5 amp. current draw. The Senior may also be used in the same manner as the Junior, in direct connection with the radio set, offering an additional inductance to eliminate disturbances.

List \$7.50 YOUR PRICE \$4.50



THERMATROL INTERFERENCE FILTER 110 VOLT

A light duty filter for reducing A.C. line interference.

Why put up with snaps and cracks that spoil reception when a Thermatrol Interference Filter will quiet them? Much of this noise comes to the set over the A.C. line or is broadcast by appliances in the home.

By simply plugging this wonderful device in the light socket ahead of the set you quiet noises coming over the A.C. line. This will usually also stop the snap you get when lights are turned on or off.

Much interference is broadcast by household appliances. To eliminate this, it is only necessary to plug the filter in the light socket ahead of the appliance.

NO EXPENSIVE INSTALLATION—JUST PLUG IT IN.
List.....\$3.50 YOUR PRICE.....\$2.10



The EAR OF THE AIR



IT'S **NEW**

AND IT STICKS TO ANYTHING/ ANYWHERE

SAMPSON
STIKTAPE AERIAL
INSTANTLY INSTALLED

YOUR RADIO SET IS NO BETTER THAN ITS AERIAL

YOUR RADIO IS NO BETTER THAN ITS AERIAL. STIKTAPE AERIAL is made of a new alloy of great capacity, is non-corrosive and very sensitive to broadcast reception. The back of this alloy is coated with adhesive rubber, which will stick to anything, including wood, glass, stone, wall-paper and all painted surfaces.

STIKTAPE can be hidden from view, if desired, behind picture moulding, base-board or under the carpet or rug, without loss of efficiency. As far as ease and economy of installation are concerned, no other aerial known to the industry can even slightly compare with STIKTAPE. As far as reception is concerned, we invite you to compare STIKTAPE with a good outside aerial. STIKTAPE will bring in the same stations just as loudly, and note, particularly, the comparative interference elimination with the use of STIKTAPE AERIAL.

STIKTAPE AERIAL

STIKTAPE AERIAL comes in a roll approximately 50 feet in length. This roll is more than enough for any modern make of Radio Receiver. STIKTAPE is so sensitive to broadcast waves that frequently not over 30 or 35 feet is necessary to provide the very best of reception.

STIKTAPE is the least expensive, easiest to install and the most efficient aerial yet devised.

List Price.....\$1.00 YOUR Price.....60c

-X-L-LINK



One wire from the light socket to an XL Link in the set supplies regulated power, aerial and ground connection and fire protection. It will simplify your installation service.

Completely Links Your Radio With Your Light Socket IT REGULATES LINE VOLTAGE

Every dealer interested in the satisfaction of his customers will recommend the XL Link voltage regulator for the most efficient A.C. set operation. The XL Link affords an unusually neat and attractive unit with buffed silver finish and brown bakelite trim, built to the usual high standards of XL products. Besides offering a compact voltage regulator, the XL Link GIVES A CONVENIENT AERIAL AND GROUND CONNECTION.

This is an exclusive XL feature. Unusually convenient for dealers when demonstrating sets where aerial and ground connections are not available or on installations in apartment houses, hotels and homes.

List Price.....\$5.75 YOUR COST.....\$3.45

X-L SENTINEL

Automatic Radio and Electric Time Switch

A fool proof time switch for shutting off radio receivers, hall and night lights, small window displays and signs, soldering irons, chargers and many other electrical devices. It requires no winding—is entirely automatic in action—hence nothing can be forgotten.



The X-L Sentinel

is a boon to small shop keepers who wish to shut off small window displays and signs several hours after closing time. Will repay its cost many times over in current saved. Dealers and service men can make their service calls pay by soliciting sales for this desirable accessory.

The X-L Sentinel

is carefully designed and constructed of the highest grade material obtainable. Finished in beautiful satin silver with brown bakelite trim. It is made to operate on all voltages from 4 to 250, both direct and alternating and regardless of cycle. It will carry 5 amperes at 110 volts and 3 amperes at 220 volts. It bears the usual X-L guarantee.

Made in two models. Type ADC for A.C. or D.C. electric sets. Type AB for sets using A and B batteries.

List Price **\$6.75**

Dealer's Price **\$4.05**



greatest conductor of electricity. The magnetic field built up by gold actually draws station to the receiver attached to a Gold Wave Aerial.

List Price **\$3.00**

Dealer's Price **\$1.80**

SERVICE KITS



A Handy Outfit for Every Radio Service Job

Have the right tool at the right time—no time lost.

One of the greatest aids to a radio expert is a good kit of tools. This kit contains ten practical tools designed by men who know exactly what was required for Radio Service work and for set building.

All in a very attractive dark blue and gold case.

CONTENTS

Three inch screw driver for small work	Countersink
Five inch screw driver	Center Punch
Scriber for layout work	Small end wrench
Reamer for enlarging holes	Medium end wrench
Plier—long thin semi-round nose	Large end wrench

No. 100, List Price **\$3.50** Your Price **\$2.10**

STANDARD SERVICE KIT



Carrying this Radio Tool Chest, fitted with the tools you need on a job, will give you that professional appearance which gives you prestige with your customers. People are impressed by externals and judge by what they see. While they cannot see inside your brain to learn what you know about Radio, they can see what tools you have.

This handsome Radio Tool Chest comes complete with the necessary tools and has a carrying handle. Its dimensions are 14 in. long, 6½ in. high, and 6 in. deep. It is made of an almost indestructible green metal that does show wear, scratches, or discolorations, and has a snugly fitting inner tray. Were you to attempt to duplicate this outfit at retail prices, you would find it would cost over \$10.00.

CONTENTS

Three inch screw driver for small work	Large end wrench
Five inch screw driver	Can solder paste
Scriber for layout work	Small end wrench
Reamer for enlarging holes	Medium end wrench
Pliers—long thin semi-round nose	Sampson electric soldering iron
Three feet rosin core solder	(One year guarantee)
Countersink	

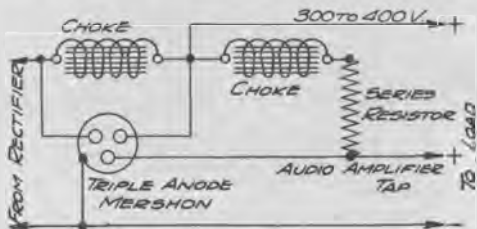
No. 101. List Price **\$10.00**

Your Price **\$6.00**



MERSHON

Electrolytic
Condenser



Although just recently released for general distribution, Mershon Condensers have been manufactured for nine years. More than 3,000,000 of them are in use today, incorporated in the receivers of a long list of prominent radio manufacturers.



MULTIPLE ANODE Upright

SELF HEALING—Not injured by high-voltage surges.

HIGH CAPACITY—In small space.

UNLIMITED LIFE—Actually improves with use.

COSTS LESS per Mfd.

ADDS PROTECTION TO THE POWER CONVERTER—by absorbing voltage surges.



SINGLE ANODE Upright

For use as the Main Filter Condenser in . . .

TRANSMITTERS, RECEIVERS, POWER AMPLIFIERS and for REPLACEMENTS in B-ELIMINATORS and A. C. POWER PACKS.



Inverted SINGLE ANODE

SPECIFICATIONS

Mershon No. FS0208—Upright. Total Cap. 8 mfd. Dia. 1 3/4"	List \$2.50	Dealer's price \$1.50
Mershon No. JS0208—Inverted. Total Cap. 8 mfd. Dia. 1 3/4"	List \$2.50	Dealer's price \$1.50
Mershon No. FS0218—Upright. Tot. Cap. 18 mfd. Dia. 1 3/4"	List \$3.50	Dealer's price \$2.10
Mershon No. IS0218—Inverted. Tot. Cap. 18 mfd. Dia. 1 3/4"	List \$3.50	Dealer's price \$2.10
Mershon No. CD0116—Upright. Tot. Cap. 16 mfd. Dia. 2 1/2"	List \$4.25	Dealer's price \$2.55
Mershon No. BT0124—Upright. Tot. Cap. 24 mfd. Dia. 3"	List \$5.50	Dealer's price \$3.30

TOBE FILTERETTE SENIOR



Designed for application to household apparatus creating a more intense type of interference than that which may be suppressed by use of a Filterette Junior. This unit is provided with a cord and attachment plug to facilitate connection to the power line.

Maximum potential: 110 volts D. C. or A. C.

Maximum current: 5 amperes.

List \$7.50

Dealer's Price \$4.50

TOBE FILTERETTE NO. 110 P. L. LINE FILTER



Designed for use only at the power input connection to a receiver which operates from the power line.

For maximum satisfaction this Filterette must be used in conjunction with Tobe Shielded Lead-in Wire and

Ground Cable. Must not be used with electrical appliances.

Maximum potential: 110 volts A. C. or D. C.

Maximum current: 5 amperes.

List \$12.50

Dealer's Price \$7.50

TOBE FILTERETTE NO. 110 P. O.

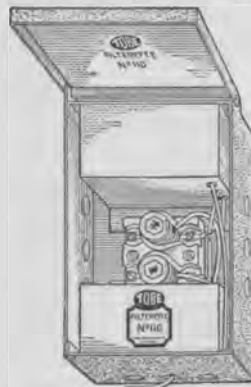
For 110 volt A. C. or D. C. apparatus requiring a combined capacitive and inductive type Filterette. Recommended for certain types of refrigerators, battery chargers, electric signs, heating pads, dish washers, barbers' clippers, drink mixers, washing machines and other household apparatus.

Maximum potential: 110 volts A. C. or D. C.

Maximum Current: 5 amperes.

List \$12.50

Dealer's Price \$7.50



TOBE FILTERETTE No. 22

For 220 volt A. C. motors, generators, chargers, transformers, house lighting plants, etc. Outside dimensions 10 in. x 6 3/8 in. x 3 1/8 in.

List \$15.00

Dealer's 9.00

TOBE Antenna Plug



DON'T ENVY "DX" FANS

No doubt you have envied the transoceanic radio receiving stations, with their Beverage antenna extending mile after mile, strung on telegraph poles, and supplying many receivers each tuned to a different frequency or channel. Little wonder that transoceanic radio service is now so reliable!

Yet have you considered your electric light line as just such an antenna. It extends mile after mile, whether overhead or underground, in the country or the city. And you can utilize it as an antenna simply by providing a safe means of coupling your receiver to the line in a radio-frequency sense, but not in the usual electric current sense.

IMPROVES RECEPTION

The TOBE Socket Antenna Plug makes any socket or convenience outlet an antenna. Improves radio reception, whether used alone or as a "booster" in combination with usual antenna or loop. Also: More Distance, Better Tone, Less Static, Easier to Install, No Lightning Hazard. May be Used Anywhere. Costs Less, A Cure for "Dead Spots" and "Shadows." Supplied complete with long flexible cord.

List Price.....\$1.50 Your Price.....\$0.90

TWO CELL RAY-O-VAC SEARCHLIGHT



The companion in the dark. It searches out the road exposing those objects that will endanger

your trail. By turning the head of the Searchlight you may change this light instantly from the narrow 300 foot piercing ray to a diffused broad white light. Heavy nickel case with safety shut-off. Complete with battery and bulb.

22S—List Price \$1.75 Your Price \$1.10

PRESS TO FEED ELECTRIC SOLDERING IRON

One hand will do the work of two with this new soldering iron. It embodies a barrel, magazine heating element, wire and plug. The porcelain lined barrel is made of high grade steel and has a highly polished nickel plated surface. The porcelain lining prevents the heat from entering the handle. The solder magazine is black oxidized metal. The heating element consists of nichrome wire and is highly insulated inside and outside to prevent element from burning out.



Takes all standard sizes up to and including No. 10 Rosin Core Solder wire; equipped with 5 ft. of insulated wire and two-piece detachable plug.

List Price.....\$3.75 Net.....\$2.44

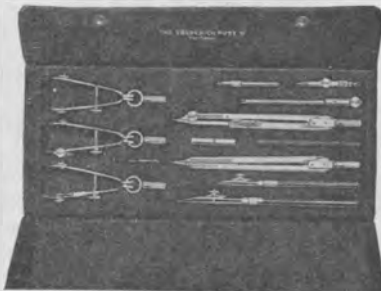
NORTHERN SOLDERING IRON



A real quality soldering iron designed especially for electrical and radio use. This iron is used in hundreds of industrial plants proving its ruggedness and dependability. Medium weight and perfectly balanced. Handle of black ebony wood. Guaranteed for 1,500 hours. Ventilated shank. Full nickel plated. Six foot asbestos cord. Separate plug. For 105 to 115 volt current.

List Price.....\$3.50 Your Price.....\$2.10

Imported Drawing Set



German Silver and Steel. Silk Velvet Lined Case.

Materials used are carefully selected to afford the greatest efficiency in combining strength, density, elasticity and lightness. Workmanship and finish are perfect. All sets are put up in artificial leather pocketbook style cases, lined with beautiful green silk velvet.

Especially adapted for drawing circuits and other radio drafting work. Possesses remarkable qualities.

A set of 13 pieces containing a 4½ inch Ruling Pen with release, 5½ inch Ruling Pen with release, 3½ inch Bow Divider, 3½ inch Bow Pencil, 3½ inch Bow Pen, 5½ inch Plain Divider, 5½ inch Compass with fixed needle point leg, divider part, pen part, pencil part and lengthening bar with straightening device. Metal handle, Key and Lead Box.

List Price.....\$12.00

NET \$5.85

NOW IT'S COMPLETE AFTER TWO YEARS OF COMPILING

The First Radio Encyclopedia Ever Published

Edited by SIDNEY GERNSBACK, Editor of "Radio Listener's Guide and Call Book (Radio Review)." Editor of "Money Making." Author of "Wireless Course in Twenty Lessons" — "One Thousand and One Formulas" — "Practical Electricity Courses" — etc.



S. GERNSGACK'S RADIO ENCYCLOPEDIA is the only standard work ever published in America attempting to classify alphabetically the countless words used in the highly specialized science of RADIO.

The ENCYCLOPEDIA is written in plain English so that everybody can understand the definitions and descriptions.

This is not a Dictionary, but a real Encyclopedia of Radio.

The book contains as a supplement a classified cross-index designed to bring together radio references under one heading having relations in common.

All circuits new and old are described by word and picture and every part and apparatus used in Radio is explained and made understandable by means of photographs and drawings.

The work contains 1,980 definitions, 549 photographs, drawings and diagrams. Size of book is 9 x 12 inches, nearly an inch thick, 168 pages printed on strong heavy paper, specially made for books of this kind. It is bound in stiff Keratol covers, and sewed and gold stamped.

List.....\$2.00

Net.....\$1.50

SELECTUNER

STATION SELECTOR AND STATIC REDUCER

This new device is one of the greatest accessories that a set owner could add to his set. It is a station selector and static reducer that cuts right through conflicting stations. To the operator that goes after distance this device is indispensable. Requires no circuit changes. Made of genuine Bakelite, handsomely finished in gold and black. Small and compact.



No. 93. LIST \$1.50.

NET\$.90

DYNATROL CONNECTS DYNAMIC SPEAKER AND SET

AN ELECTRIC POWER CONTROL

The "Dynatrol" relay successfully solves the problem of power control and current supply. It automatically throws on and off all current supply for set and speaker at its source the moment the set switch is thrown. It controls the current for speaker and set at the same time from the single control set switch. It provides a two-way outlet from one wall socket. By cutting off the current from the speaker, automatically, as soon as reception is shut off it eliminates costly waste of current, paying for itself in a month's time. All metal. Working parts concealed. Black lacquer and nickel finish. Simple: just plug into wall socket; speaker and set plugs are plugged into the Dynatrol relay. Automatic, fool proof, convenient, necessary and—PAYS FOR ITSELF. Shipping weight 1½ lbs. No. 92. LIST \$2.50.



NET\$1.50

RESISTOVOLT

Automatic Voltage Control

RESISTOVOLT automatically protects AC tubes from blowouts caused by line surges and overloading. Also acts as a fuse in case of short circuit thus protecting set wiring as well as the tubes. RESISTOVOLT plugs into house current outlet—set plug, plugs into RESISTOVOLT. Housing body made of perforated Japanned metal with nickel plated end pieces.



No. Made in Two Models.

232—LIGHT DUTY "RESISTOVOLTS" for sets consuming up to 125 watts.

233—HEAVY DUTY "RESISTOVOLTS" for sets consuming up to 250 watts.

LIST PRICE \$1.75

YOUR PRICE \$1.05

TUNGAR CHARGERS

G-E TUNGAR Chargers enjoy an enviable reputation. They are quiet in operation absolutely safe and highly efficient. In attractive black and green case with carrying handle. Complete and ready to connect. Over 600,000 Tungars now in use.

TRICKLE CHARGER

List...\$10.00 Your Price...\$7.00

2 AMP. & TRICKLE CHARGER

List...\$14.00 Your Price...\$9.80

5 AMP.

List...\$24.00 Your Price...\$16.80



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CARRY A

Test-O-Lite

IN YOUR POCKET

Safe — Convenient — Time-Saving



Locates burnt-out fuses instantly, electric light and motor troubles, faults in circuits in electric irons, vacuum cleaners, washing machines and other household electrical appliances; in automobile spark plugs, electric radio sets, etc.

A tiny lamp in the top of TEST-O-LITE detects trouble.

TEST-O-LITE is as neat as a fountain pen, is attractively finished in Bakelite and is so substantial that it will last a lifetime.

Every Radio Service Man should carry one always in his pocket. You never know when you may need it most.

LIST\$1.50 YOUR COST\$.98

Falck Claroceptor

TAKES OUT LINE NOISES



The electric lighting wires of a city are endless antennae which collect not only signals from broadcast stations but also electrical interference noises caused by telephones, street cars, elevators, electric motors and countless electric devices used within and outside the home. These disturbances flood into A.C. radio sets through the wall socket connection and are heard as blare, squeal, fry and scratch—"Man-made static."

But now it is possible to block out these noises from the set by means of the Falck Claroceptor. By plugging in a Claroceptor between the wall socket and set, the disturbing foreign noises are grounded and only the current passes through to the radio. Lowering the noise level permits the signals of distant stations, that were previously drowned out by the disturbing noises, to be heard and tuned in. Thus the distance range is increased. By keeping out of the set the broadcast station signals picked up by the lighting wires, tuning is refined and thus selectivity is improved.

You will notice the difference immediately upon installing a Claroceptor. Inexpensive sets sound like very costly ones. Costly sets deliver that eloquence of tone their makers intended for them.

MADE BY PIONEER MANUFACTURERS

The Falck Claroceptor is contained in a neat black metal case measuring 3½ in.x5½ in.x2½ in. It is made by pioneer manufacturers of radio equipment—the makers of The Falck Radio, Falck Battery Chargers and Eliminators and the Advance Crystal Detector.

LIST\$7.50 YOUR PRICE\$4.50

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Table Type Clarostat



The Clarostat in accessory form instead of as a radio part. This handy device requiring neither tools nor knowledge of radio to apply to any radio receiver, is proving a favorite with those seeking a means of controlling volume and tone of usual loud-speaker. May also be employed as a regeneration control, stabilizer, plate voltage control, sensitivity control and so on. An unusual explicit direction sheet included in the carton.

The Table Type Clarostat is finished in handsome statuary bronze and nickel, with felt bottom to prevent scratching of fine furniture. Provided with two connection cords with tips, together with tip connector block. Genuine bakelite knob. Altogether a handsome addition to any set. Resistance may be inserted in series or in parallel with any circuit, according to connections made with cords.

Model	Resistance Range	Carrying Capacity
Table Type	10-500,000 ohms	8 watts
List Price.....	\$2.50	Net Price..... \$1.63

Standard Clarostat



All around variable resistor for B-eliminators and radio receivers with universal resistance range in several turns of control knob. Compact, permanently sealed, fool-proof, ample heat radiation. One-hole mounting with crimped face to prevent turning of body. Panel mounting (7/16 in. hole) or baseboard mounting with bracket supplied. Connections made to solderless terminals. Heavily nickel-plated. Genuine polished bakelite knob.

Standard Type Clarostat is standard equipment on majority of B-eliminators. Also employed in radio receivers as volume control, regeneration control, oscillation control, variable grid leaks, and other purposes requiring silent, durable, accurate, and wide range variable resistance. Employed in amateur transmitters. Specified in most radio power circuits for handling 20 watts of energy or less.

Model	Resistance Range	Carrying Capacity
Standard Universal	100-5,000,000 ohms	20 watts
List Price.....	\$2.25	Net Price..... \$1.46

Muter Clarifier

New output tone filter. Improves tone quality and protects the loud speaker unit by keeping current out of speaker windings. Permits the use of high voltage and current with new power tubes. This clarifier is placed between the set and speaker. Recommended for all types of receivers using a power tube. Easily attached without changing wiring. Has binding posts for phone cord. Richly finished enamel case.



List Price.....	\$5.00	Net Price..... \$3.00
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Power Clarostat

The variable resistor for power application. Current-carrying capacity of 40 watts permits use in place of wire-wound knob. Compact, permanently sealed, fool-proof, ample heat radiation. One hole mounting, with crimped face to prevent turning of body. Panel mounting ($\frac{7}{16}$ in. hole) or baseboard mounting with bracket supplied. Connections made to solderless terminals. Heavily nickel-plated. Genuine polished bakelite knob.

Power Type Clarostat is now standard equipment on majority of heavy duty radio power units supplying A-B-C requirements, such as Raytheon, BA, Q.R.S. 400-mil. rectifier, Raytheon BH, American Power Pack, etc. In the low-range model, it is used for line-voltage control and protection of rectifier tube against flashovers. Universal range model used for controlling filament current in series-filament circuits. Many applications in radio transmitters, where heavy-duty device is required. Invaluable in laboratory work.



Model	Resistance Range	Carrying Capacity
Filament Control	$\frac{3}{4}$ -10 ohms	40 watts
Low Range	25-500 ohms	40 watts
Universal Range	200-100,000 ohms	40 watts
List Price.....	\$3.50	Net Price..... \$2.28

Volume Cont'l Clarostat

A compact, inexpensive variable resistor of ample resistance range and current-handling capacity for application in the radio receivers. Incorporating same design and precise construction as the larger Clarostats. Permanently sealed, fool-proof, ample heat radiation when used within rating of 8 watts. One-hole mounting with crimped face to prevent turning of body. Panel mounting (7/16 in. hole) or baseboard mounting by means of bracket. Connection made to solderless terminals. Heavily nickel-plated. Genuine polished bakelite knob.



Volume Control Clarostat is specified by leading radio authorities for use as volume and tone control, plate voltage control, regeneration control, stabilization control, grid suppressor and other applications in the usual receiving set and in the usual loud-speaker circuit. Not intended, however, for use in radio power units, where heavier Standard and Power types must be used.

Model	Resistance Range	Carrying Capacity
Volume Control	10-500,000 ohms	8 watts
List Price.....	\$1.50	Net Price..... 98c

Duplex Clarostat

Unique variable resistor comprising two Clarostats in one, with set-screw adjustment instead of knob for each independent section. A device of many usual and unusual uses. Ideal for resistance, network of usual B-power unit, providing two separate and independently adjustable voltage taps

in addition to maximum tap. May be employed as potentiometer with variable total resistance and variable mid-tap.

Duplex Clarostat consists of heavy metal case containing two separate and independent Clarostat units adjusted by means of slotted screw shafts recessed in attractive bushings to prevent tampering, but always ready to be adjusted with screwdriver. Supplied for mounting on panel with threaded nipples extending through holes and clamped by decorative units, with slotted screw shafts adjustable from outside, special bracket is also supplied for convenient mounting on base board.



Model	Resistance Range	Carrying Capacity
Duplex	100-5,000,000 ohms	10 watts
List Price.....	\$2.25	Net Price..... \$1.46

X-L Products

LESSEN STATIC — HELP TUNE MORE SHARPLY

Bring your set set up to maximum sharpness with

X-L VARIO DENISERS

Practically all of the popular high-grade circuits now use X-L Products. Endorsed by leading radio engineers, designers and builders and used in every high-grade circuit or receiver today. Perfect reception is always assured because of the accurate values and dependable service these well known units give. Broad and positive capacity range that assures exact oscillation control easily obtained with both Model "N" and Model "G" Vario Denisers.

X-L BINDING POSTS

X-L "Push-Post" has many superior features. No screwing—no shearing of wires—no jarring loose. Easy to enter wires. Furnished with attractively plated markings. Excels in looks, action, service and convenience.

Marking	Marking
B 22½	Aerial
B 45	Ground
B 90	Loudspeaker
B Ampl.	A—
C—	A plus
C plus	B—
Loop	B plus
List.....\$0.15	Each.....\$0.10
Per 100	9.00



X-L NEUTRALIZING CONDENSERS



For use in Neutrodyne, Brownie-Drake, Roberts-McMurdo Silver's Knockout and any circuit where balance is

is required. Extreme micrometer adjustment. Model N.—List.....\$1.00 Each.....\$0.70 6 Lots.....\$0.60

X-L VARIABLE CONDENSER



Designed to insure correct and permanent value for any tube or circuit within its range. Used in Super-Het, replacing fixed condensers. Complete with grid lead clips.

Capacity	List	Each	6 Lots
.00002 to .0001.....	\$1.50	\$1.05	\$0.90
.0001 to .0005.....	1.50	1.05	.90
.0005 to .001.....	1.50	1.05	.90

X-L BINDING POST STRIP

Handsome polished panel with seven mounted push-posts engraved A minus, A plus, B minus, B det., B Ampl., Ground and Aerial.



List.....\$1.50 Each.....\$0.90

ACME FILTER CONDENSER



ACME PARVULT FILTER CONDENSERS are made in all standard mfd. capacities for 200, 400, 600, 1000, and 1500 volts D. C. continuous operation, and are supplied with right-angle mounting lugs at the bottom and screw binding-posts with soldering lugs at the top for vertical installation. Care should be taken to order condensers with ratings that are not lower than the D.C. working voltages of the amplifier in which they are to be

used. When in doubt ask advice from some technical expert or write us direct.

Series	Mfd.	List Price	Your Price	Series	Mfd.	List Price	Your Price
200	1	\$1.25	\$0.75	600	1	\$3.00	\$1.80
200	2	2.25	1.35	600	2	5.50	3.30
200	4	4.00	2.40	600	4	8.00	4.80
400	1/2	2.00	1.20	1000	1	5.00	3.00
400	1	2.50	1.50	1000	2	7.00	4.20
400	2	3.50	2.10	1500	1	6.50	3.90
400	4	6.00	3.60	1500	2	12.00	7.20
400	4	6.00	3.60	1500	4	20.00	12.00

DURHAM METALLIZED DURHAM

RESISTORS and POWEROHMS

A high-resistance element scientifically perfected to resist all moisture and atmospheric changes. Brass terminals attached by a special process to the metallized glass core give electrically tight connections. Noiseless. A grid-resistor of permanent and accurate resistance value.

Range	List	Each	Range	List	Each
2,500 ohms	\$1.00	\$0.60	.25 megohm	\$0.50	\$0.30
5,000 ohms	1.00	.60	.5 megohm	.50	.30
10,000 ohms	1.00	.60	.75 megohm	.50	.30
50,000 ohms	.75	.45	1. megohm	.50	.30
25,000 ohms	.75	.45	2. megohm	.50	.30
30,000 ohms	.75	.45	3. megohm	.50	.30
50,000 ohms	.75	.45	4. megohm	.50	.30
100,000 ohms	.75	.45	5. megohm	.50	.30

DURHAM GRID RESISTOR MOUNTING

Single mounting of exceptionally high resistance.

List.....\$0.50 Each.....\$0.30

DURHAM POWEROHMS

A recently perfected power resistor which is widely used by "B" eliminator manufacturers. Constructed from special heat dissipating material.

2.5 Watt Type (1-13/16" long)		5 Watt Type (3" long)			
Range	List	Each	Range	List	Each
5,000 ohm	\$1.25	\$0.75	5,000 ohm	\$1.50	\$0.90
10,000 ohm	1.25	.75	10,000 ohm	1.50	.90
25,000 ohm	1.25	.75	25,000 ohm	1.50	.90
50,000 ohm	1.25	.75	50,000 ohm	1.50	.90
100,000 ohm	1.25	.75	100,000 ohm	1.50	.90

CELATSITE

CELATSITE is made in two types. The flexible, stranded wire and trimmed, copper bus bar wire. Both have a non-inflammable "spaghetti" covering that will not ignite from hot soldering iron. Strips easily and does not dry out.



ACME FLEXIBLE CELATSITE

Put up in individual boxes containing 25 ft. coils. 16 strands of No. 18. A color for each circuit.

Color	Length	List	Each	Color	Length	List	Each
Black	25 ft.	\$0.80	\$0.48	Red	25 ft.	\$0.80	\$0.48
Yellow	25 ft.	.80	.48	Brown	25 ft.	.80	.48
Green	25 ft.	.80	.48	White	25 ft.	.80	.48

ACME TWISTED A.C. CELATSITE HOOK-UP WIRE

For A.C. filament hook-up. One strand Red and one of Black twisted together. Packed 12 ft. coil in individual carton.

Per 25 ft.—List.....\$1.75 Each.....\$1.05

SOLID CELATSITE

Makes a very neat job. No. 14 wire with non-inflammable covering. Can be bent and rebent without cracking. 30 in. lengths.

Color	Length	Per Your Cost	Color	Length	Per Your Cost
Black	\$0.10	\$0.06	Red	\$0.10	\$0.06
Yellow	.10	.06	Brown	.10	.06
Green	.10	.06	White	.10	.06

ACME SPAGHETTI TUBING

High dielectric strength. Perfect insulation, glossy finish. SPECIFY COLOR, 30 inch lengths.

Specify Color, Per Length.....\$0.10
Your Cost.....\$0.06



SM 818 HOOK-UP WIRE

Fabric-covered hook-up wire No. 20. Turned copper—one serving of silk and one of cotton. Packed 25 ft. each to a carton. List.....\$0.50 Each.....\$0.30

MUTER DEPENDABLE "B" SOCKET POWER UNIT



It has long been known that the most vital part of a "B" Eliminator is the filter and that the most important unit of the filter is the condenser block. Therefore Muter's obtained a condenser of the finest quality—one that will handle any "B" Unit and still have a very wide margin of safety. This block is made by the most advanced methods and made to last. To make certain that no trouble would be experienced in voltage control the makers selected one of the most modern methods of obtaining voltage taps. Fixed resistors replace the old variable type because they have been found to be best. The special high grade fixed resistors are accurate and permanent, assuring constant voltage at all times.

It employs either a half wave or full wave rectifier tube insuring long life and stability. The rating is 30 mills at 180 volts and it delivers 180 volts to the power tube. Easily handles up to ten ordinary tubes, including power tubes. Very attractive in appearance, the case of metal with brown lacquer finish and black Bakelite front panel. Size 6 1/4 in. wide, 7 in. high, 8 1/4 in. long. Shpg. wt., 20 lbs.

No. 3000—Has 180-volt output at 30 mils. Uses type 280 rectifier.

List, (less tube).....\$22.50

YOUR PRICE.....13.50

No. 3025—Has 220-volt output at 40 mils. Uses type 280 rectifier.

List (less tube).....\$25.00

YOUR PRICE.....15.00

GENUINE RAYTHEON RECTIFIER Tubes

The Raytheon Tube has revolutionized the "B" eliminator. May be used in all well known "B" eliminators such as Greene, Majestic, All American, Acme, Kingston, Valley, Burns, E. T., Webster and many others.

Long life. No filament. Greater economy and reserve power enough to run a 10 tube set. Uninterrupted service. No liquids. So developed that a single tube utilizes both halves of the alternating current for rectification.

A dependable rectifying tube—the talk of the radio world.

THE RAYTHEON RECTIFIER TUBES ARE GUARANTEED FOR 1000 HOURS

TYPE BA-350 M. A.

Light socket power units employ this type to provide enough voltage to operate any receiver using standard 201-A tubes in series and power amplification.

List \$7.50

YOUR PRICE.....\$4.50

TYPE BH-85 M. A.

Designed for heavy duty applications of light socket power. Used in many power amplifiers and complete A.C. operated receivers. Rating 85 m. a. output at 200 volts.

List \$4.50

YOUR PRICE.....\$2.70



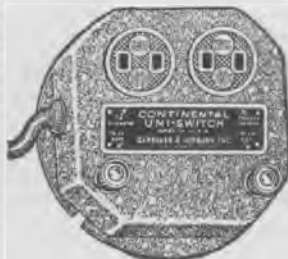
CONTINENTAL RELAY SWITCH

An Automatic Double Throw Switch that entirely does away with all switches connected with your radio receiver except the off and on switch and transforms your receiver into a complete electric power unit when used in conjunction with six volt Storage Battery Charger and B-Eliminator.

When the receiver is turned on, the Continental automatically disconnects the Trickle Charger and puts the B-Eliminator in operation. By turning off the receiver, the Continental reverses the operation by turning on the Trickle Charger to charge the "A" Battery and disconnects the B-Eliminator.

Can be used with any Radio receiver employing three or more tubes of the six volt type and can be used with Trickle Charger and Storage Battery alone or with B-Eliminator alone.

List.....\$3.00 Your Price.....\$1.80



RELIABLE AUTOMATIC RELAY



A standard "AB" relay for use with trickle charger and "B" Eliminator. Particularly desirable because of its compactness.

Makes any set fully automatic. Simply switching on the set automatically switches the eliminator on, and the charger off. This relay can also be used with "B" batteries. Can be used on all sets using 301A tubes.

List.....\$3.50 Your Price.....\$2.10

SPEAKER COMPARATOR

This high grade speaker comparator has been designed for the use of the dealer who wants to compare and analyze the characteristics of every type of reproducer speaker. This unit is so constructed that it permits the quick switching from one speaker to another without even the loss of a single note.



SIMPLE TO OPERATE

A slight turn of the knob is all that is necessary to switch from one speaker to another. Has a comparing capacity of three speakers. May also be used as a selector for various speakers when they are located in different rooms. A wonderful seller.

List Price.....\$3.00 Your Price.....\$1.80

TEMPLE COMPARATOR



This instrument is indispensable to any radio dealer for proper demonstration and comparison of loud speakers.

Comparison between speakers regarding naturalness and volume can only be made by a quick change from one to the other. The Temple Comparator allows from two to five speakers to be compared. The small jacks hold the tip terminals of the conventional speaker cord in good electrical contact and still permit of easy and quick insertion and control. Can also be used as a selector for various speakers in different rooms.

Retail Price.....\$3.50 Your Price.....\$2.10

BRACH ANTENNA KIT

This kit simplifies the buying of a complete aerial assembly. It contains every unit needed, each of which conforms to the requirements of the National Board of Fire Underwriters. Packed in individual cartons with complete instructions for installation. Wt. 4 lbs.



CONTENTS

- 1 Approved Lightning Arrester with \$100 Insurance Policy.
- 100 Ft. 7-Strand No. 24 Gauge Aerial Wire.
- 50 Ft. Insulated Lead-in wire, No. 14 Gauge.
- 1 Instant Adjustable Ground Clamp.
- 1 Antenna Lead-in Insulator.
- 2 Porcelain Aerial Insulators.
- 2 Screw Eyes.
- 3 Porcelain Extension Knobs.
- 1 Complete Instrument Sheet.

List Price.....\$2.00 YOUR PRICE.....\$1.20

Master Underground Antenna REDUCES STATIC

The New Improved Master Underground Antenna



Size 5 1/2 in. Diam.
13 1/2 in. Long.
Standard Lead-in Wire, 15 ft. Only a small hole in the ground is necessary.

ADVANTAGES LIGHTNING

The lightning danger when using a Master Underground antenna is no longer present. During a thunderstorm when you get nothing but a jumble of noise from your overhead antenna, no longer do you need to worry about lightning traveling over your aerial wire down to your living room, endangering both the lives of people near a radio set as well as the radio set itself. Reception is possible with a minimum of noise right through a thunder storm. No lightning arrester necessary.

DOES NOT DETERIORATE

With the old copper wire on the roof, engineers recommend either a new antenna wire or that the wire be scraped from time to time, as the efficiency drops after the overhead antenna has been in use for several months. The Master Underground Antenna is permanent in the ground and no new installation is necessary every six months or a year as is the case with a plain copper wire in the air. There is nothing to deteriorate Master Underground Antenna and it will last for years at its maximum efficiency.

ATMOSPHERIC

Atmospheric conditions do not cause the havoc in radio reception when using an underground antenna that they do when an overhead antenna is used. Fading is partially eliminated, static is reduced, and the daylight receiving range is increased.

VOLUME NOT REDUCED

Contrary to the general opinion that an underground antenna will result in a weaker signal, the Master Underground Antenna, if installed under the right conditions, will give even a stronger signal than the average outside antenna. Conductivity of the ground plays an important role here, as coils with a super abundance of certain metals and also very dry, sandy soil, cause a reduction in the strength of the signal received unless extra precautions are taken to guard against it. But in the average soil, fairly moist, so that the conductivity is good, the Master Underground Antenna will deliver as strong, if not a stronger signal than the average outside antenna.

List Price.....\$7.50 Your Price.....\$2.10



The automatic filament control which eliminates all forms of hand rheostats from every type of radio receiving circuit and by perfect self-adjustment permits the uniformly efficient operation of vacuum tube filaments.

No moving parts. Permits the use of any type of tubes or any combination of tubes.

Amperite operates on the Thermo-Electric principle. It consists of a special treated filament hermetically sealed in a glass tube and surrounded by an inert gas. The filament has the unique property of changing in resistance automatically as the "A" battery voltage changes. Thus the vacuum tube filament is constantly operated at maximum efficiency—for the best volume and longest life.

GUARANTEE—Every Amperite is guaranteed to function perfectly and against any defect in construction. If found defective in any respect replacement will be made without charge.

Type Tube	Volts	Type Tube
1-A 201-A or C301-A	6	4-A I Amp.
4-V UV199, C299	4-4 1/2	5-A 1 1/2 Amp.
6-V UV199, C299	6	622 Shielded Grid
112 CX112, CX371	5	226 UV226 or CX326
220 CX220	3	227 U227 or C327
3-A 3/4 Amp.		

List.....\$1.10 Each.....\$0.66

NEW DOUBLE AMPERITE MOUNTING

List.....\$0.70 Each.....\$0.42

CODE PRACTICE SET

Set consists of a key and buzzer mounted on a polished wood base. Buzzer reproduces accurately the high pitched sounds of code stations. Connect a dry battery to the binding posts on the set by means of a short piece of wire, press the key and a buzzing sound will be produced. In a very short time your ear will become accustomed to the various combinations of dots and dashes representing different letters and numerals. Chart included with each set. Base size, 7 inches long by 4 1/4 inches wide.



Each.....\$2.89

STANDARD RADIO KEY

A heavy type of Radio key designed for larger capacity radio work. The arm, base and supporting post are made of heavy cast brass. The whole key is of rugged construction, so it will stand up well under rough usage. The contact points are 3/16 in. diameter, which assist materially in the dissipation of the heat produced. They are made of a metal which will resist arcing.



Each.....\$2.69

S O S HYDROMETER

Simple, Durable and Accurate. Easy to read and ready to use.

The S O S Hydrometer is to be used in testing Radio "A" and automobile batteries. The Charlyn balls of the S O S Hydrometer will never change in specific gravity, and will at all times give an accurate test. They are employed by the leading battery manufacturers as "Built in Hydrometers," in farm lighting plants, radio batteries, and power units. This assures the accuracy and durability of the S O S. The rhyme tells the condition of charge.

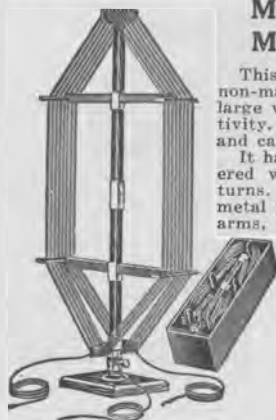
Swim all three, charged fully,
Sinks the white, charge still right,
Sinks the green, charge is lean,
Sinks the red, charge is dead.

List Price.....\$0.75 Each.....\$0.45



SINK WHITE CHARGE RIGHT
SINK GREEN CHARGE LEAN
SINK RED CHARGE DEAD

MATHIESON LOOP MASTER CONSOLE



This collapsible loop aerial of the non-magnetic type is known for its large volume with exceptional selectivity. Open, it measures 40x21", and can be folded into box 22x4x5".

It has special dark green silk covered wire, and is wound in single turns. Frame of solid walnut, with metal parts gold plated and bakelite arms, also three taps.

It revolves on its base, by turning it in the proper direction, it is possible in most instances to tune out objectional stations and tune in a new one. It serves as a wave trap which you will find a very big feature and a great help in receiving.

List Price.....\$12.50
Net 7.50

Braidite

Flexible stranded hook-up wire with double moisture-proof covering. Covering can be pushed back for soldering. Coils of 25 ft. Wt. 6 oz.

No. 422. Red
No. 443. Green
No. 444. Yellow

No. 445. Brown
No. 446. Black

List each 35c Your Price, per coil 23c



Flexibus Push Back Wire

A flexible colored hook-up wire that has proven popular with set builders. Makes set wiring easy. Permits wiring circuits in different colors. Packed 25 foot rolls in cartons. Wt. 6 oz.

No. 401. Black
No. 402. Yellow
No. 403. Red

No. 404. Green
No. 405. Brown

Your Price, per roll.....45c



Acme Parvolt Bypass

Because of their proved qualities these condensers are standard equipment in many of the finest receivers on the market and are universally recommended by radio engineers for bypass work.

ACME PARVOLT BY-PASS CONDENSERS are designed for operation in direct current circuits in which a maximum working voltage of 200 is present and in alternating currents in which the working voltage does not exceed 100.



Mfd.	Your Price	List Price	Mfd.	Your Price	List Price
0.1	\$0.85	\$0.51	1.0	\$1.25	\$0.75
0.25	.95	.57	2.0	2.25	1.35
0.5	1.00	.60	4.0	4.00	2.40

Perfection Battery Cable



Made of flexible stranded conductors, rubber insulated and covered with

braided fabric for A, B, and C connections. Each conductor of separate color in accordance with R. M. A. code standards, and in addition a marker enables you to make the connections with double accuracy. Very handy and useful, for it slips in between doors, or through small drilled holes, etc. This is a DeLuxe cable that should be used on every set you build.

The cable is 6 feet in length and contains 6 conductors.
List Price.....60c Your Price.....24c

BEE-VAC Junior BRUSH



Bee-Vac Junior, the Super-Quality Vacuum Brush, has an instant appeal—not only to the housewife for use on overstuffed furniture, clothing, stair carpets, etc.—but also to the business man and storekeeper as well. Cleaning automobile upholstery, billiard tables, office furniture and fixtures, show cases, etc., are but a few of the thousand and one uses for this wonder brush. It has a

super efficient 3/4 h. p. Birco universal motor of finest construction. Bronze bearings are protected by dust-proof coverage. A perfected oiling system eliminates bearing and lubrication troubles, giving the motor long life. Complete with 20 foot cord.

THE CLEANER THAT BEATS COMPETITION

The Bee-Vac is a combination of 100% cleaner value and low consumer price which does away with high-pressure selling, costly demonstrations, or discussion of mechanical details. It meets and beats canvasser competition and puts a dependable, guaranteed, long-lived cleaner within the reach of every housewife. It is easily sold on a substantial margin of profit, and stays sold without service.

TWO YEAR GUARANTEE

Every part of the Bee-Vac, motor and all, carries an unrestricted guarantee for TWO full years—twice as long as the usual electric cleaner guarantee. This guarantee is backed by 18 years of manufacturing experience and nearly two million dollars in resources.

List Price.....\$19.50 NET.....\$12.75

A M-PLUS STORAGE BATTERY

18 MONTHS GUARANTEE

The plates in A M - PLUS Radio batteries are extra thick, insuring the even, smooth, flow of current so necessary for good reception. The case is the genuine all-rubber Ahbell container — absolutely leak-proof; clear and safe for handling in the home. Provided with substantial wire bail handle for easy carrying.



Every A M-PLUS battery is guaranteed for 18 months and with reasonable handling will far outlast that period. Each battery is thoroughly inspected before shipment and fully charged, ready for immediate use. Our special "house-box" packing insures safe delivery—no chances for damage or spilling. 110 ampere hour capacity.

List\$16.00
Your Cost 8.60



Carter

FILTER CONDENSER

Constructed of the same high grade materials as the By Pass Condenser.

Cap Mfd.	Wk. D.C.	Vol. A.C.	List Price	Net Price
.1	300	150	\$0.80	\$0.48
.25	300	150	.95	.57
.5	300	150	1.20	.72
1.0	300	150	1.75	1.05
2.0	300	150	2.75	1.65
4.0	300	150	4.75	2.85
6.0	300	150	6.75	4.05
.1	400	200	1.00	.60
.25	400	200	1.20	.72
.5	400	200	1.40	.84
1.0	400	200	2.00	1.20
2.0	400	200	3.50	2.10
4.0	400	200	6.50	3.90
6.0	400	200	8.50	5.10
.1	600	300	1.25	.75
.25	600	300	1.60	.96
.5	600	300	1.60	.96
1.0	600	300	3.00	1.80
2.0	600	300	5.50	3.30
4.0	600	300	10.00	6.00
6.0	600	300	15.00	9.00
.1	1000	500	1.50	.90
.25	1000	500	1.80	1.08
.5	1000	500	3.00	1.80
1.0	1000	500	5.50	3.30
2.0	1000	500	10.00	6.00
4.0	1000	500	18.50	11.10
6.0	1000	500	30.00	18.00

CARTER MOLDED CONDENSERS



Carter Condensers are molded in bakelite to protect them from moisture. They are not affected by climatic or temperature changes. Only best grades of mica and foil used. Guaranteed accurate. Tinned terminals facilitate soldering.

MOLDED MICA CONDENSERS (Without Clips)

Capacity	List	Each	Capacity	List	Each
.00005 Mfd.	\$0.40	\$0.24	.002 Mfd.	\$0.50	\$0.30
.001 Mfd.	.40	.24	.0025 Mfd.	.50	.30
.00025 Mfd.	.40	.24	.005 Mfd.	.70	.42
.0005 Mfd.	.40	.24	.006 Mfd.	.85	.51
.001 Mfd.	.50	.30			

MOLDED MICA CONDENSERS (With Clips)

.0001 Mfd.	\$0.50	\$0.30	.00025 Mfd.	\$0.50	\$0.30
.00015 Mfd.	.50	.30	.0005 Mfd.	.50	.30

CARTER BY-PASS CONDENSERS

Vacuum impregnated with a high melting point wax. Non-inductive wound increases the efficiency. Guaranteed to stand full rated voltage.

Type	Capacity	Working Volt	List	Each
101 Round	.1 Mfd.	180 DC	\$0.75	\$0.45
102 Round	.25 Mfd.	180 DC	.75	.45
105 Round	.5 Mfd.	180 DC	.90	.54
110 Round	1. Mfd.	180 DC	1.25	.75

CARTER CONTAINER TYPE BY-PASS CONDENSERS



An Efficient, Compact Style Condenser
Being non-inductive wound they are ideal for bypassing both R. F. and A.F. circuits because of the short path offered to the alternating currents. Encased in rugged metal cases, but insulated inside with a heavy layer of fibre. Size of case 1 1/4 x 2 inches, the thickness varying according to capacity. Fitted with mounting lugs, with the terminals projecting from the opposite end.

201 Con.	.1 Mfd.	200 DC	\$0.75	\$0.45
202 Con.	.25 Mfd.	200 DC	.75	.45
205 Con.	.5 Mfd.	200 DC	.90	.54
210 Con.	1. Mfd.	200 DC	1.25	.75
220 Con.	2. Mfd.	200 DC	1.90	1.14
240 Con.	4. Mfd.	200 DC	4.00	2.40

NEW CARTER "HI-OHM" VOLUME CONTROL
A non-inductive, wire protected, high resistance volume control. With carbonized resistance element. Complete with Bakelite arrow pointer knob.

500,000 Ohm	List	\$2.00	Each	\$1.29
200,000 "		2.00		1.20
100,000 "		2.00		1.20
50,000 "		2.00		1.20
25,000 "		2.00		1.20

NEW CARTER "HI-POT"

Potentiometer type with three terminals. Insures accurate and dependable control.

500,000 Ohm	List	\$2.25	Each	\$1.35
25,000 "		2.25		1.35
10,000 "		2.25		1.35

CARTER PORTABLE VOLUME CONTROLS

Case of black bakelite highly finished. Made in two types. One for volume control on Radio Set, also ideal for phonograph pick-up combination. The other for use with the new A.C. sets. Works equally well on other type receivers. Speaker and Pick-up.

List	\$2.50	Each	\$1.50
List	\$2.00	Each	\$1.20

CARTER RESISTORS



CARTERS are very popular resistors and are used to reduce 6 volt current to 5 volts as required for different tube combinations.

Also resistors for the 299 Tube.

For 301A Tubes		For 229 Tubes	
No. Tubes	Res.	No. Tubes	Res.
1	4 ohm	1	40 ohm
2	2 ohm	2	25 ohm
3	1 1-3 ohm	3	15 ohm
4	1 ohm	4	10 ohm
5	4-5 ohm	5	8 ohm
6	1-3 ohm	6	6 ohm

List \$0.25 Each \$0.15

GRID RESISTORS

100 ohm	500 ohm
200 ohm	750 ohm
300 ohm	1000 ohm

List \$0.30 Each \$0.18

CENTER TAPPED RESISTORS

Carter Center Tapped Resistors are used for A.C. filament circuits. They are small and convenient to mount. Furnished as follows:

6 Ohm	20 Ohm
10 Ohm	40 Ohm
15 Ohm	60 Ohm

List \$0.25 Each \$0.15



CARTER UPRIGHT RESISTORS

Designed for upright mounting. Requires very little space. Furnished in the same sizes as the flat resistors.

For 229 Tubes		301A Tubes	
No. Tubes	Res.	No. Tubes	Res.
1	40 Ohm	1	4 Ohm
2	25 Ohm	2	2 Ohm
3	15 Ohm	3	1-1/3 Ohm
4	10 Ohm	4	1 Ohm
5	8 Ohm	5	4/5 Ohm
6	6 Ohm	6	2/3 Ohm

List \$0.25 Each \$0.15

UPRIGHT CENTER-TAPPED RESISTORS

Same construction as the above, except it is center tapped. Particularly designed for A.C. Filament Circuits.

6 Ohm	60 Ohm
10 Ohm	100 Ohm
15 Ohm	200 Ohm
20 Ohm	400 Ohm
40 Ohm	

List \$0.50 Each \$0.30



PORTABLE JACK

A handy extension for speaker to any part of the house or lawn. Substantially made.

List Price \$0.75
Your Price \$0.45



CARTER TIP JACK

Compact, neat cord tip jack. 1/4-in. hole mounting. Heavy contact spring.

Your Price, each \$0.07
Lots of 1060

Carter



CARTER "IMP" SHORT JACK SWITCH

A new, small Jack Switch. Has positive snap action. Extends $\frac{3}{8}$ inch back of panel, and is $1\frac{1}{4}$ inches overall. Insulated for metal panel mounting. Furnished with "ON" and "OFF" name plate.

Ship. wt. 4 oz.

Single pole, double throw. List Price.....60c Net.....36c
 Double pole, single throw. List Price.....70c Net.....42c
 Double pole, double throw. List Price.....90c Net.....54c



IMP JACK

Cord tip jacks of large size and substantial construction.
 List Price.....30c Your Price.....18c

CARTER FLAT PLUG



A radical departure from ordinary types of plugs. Cord tips held in place without screws. Easily inserted or withdrawn. The flat bakelite handle fits close to the panel and presents a neat, finished appearance. The cords hang from the bottom of the handle instead of projecting out of the end of the handle as in ordinary types.

List Price.....75c Net Price.....45c

CARTER ONE WAY PLUG



Provided with spring terminals that holds the cord tips tight. Molded bakelite handle.

List Price.....50c Net Price.....30c

CARTER NAME PLATES — The Standard Everywhere



Fit under Standard Jack lock nut; marked —'Detector,' '1 Stage,' '2 Stage,' '3 Stage,' 'Loud Speaker,' 'Telephone,' 'Radio,' 'Loop,' 'Fit under "IMP" or No. 10 Tip Jack lock nut; marked—"Aerial," 'Speaker,' 'Ground.'

Price Each.....5c Net.....3c

"IMP" POWER SWITCH

(For 110 Volt Circuits)



Compact rugged construction, self-contained, metal shell and other parts insulated. Quarter turn snap-switch construction. Double contact. For use in regular 6 volt filament or 110 volt circuit.

List Price.....75c Net.....45c

CARTER JACK SWITCHES

CARTER was the first to make Jack Switches. Since their introduction, we have endeavored to improve and advance their quality and today they hold a high place in radio.

Each switch comes complete with black moulded knob and "On" and "Off" nameplate. Mounts in single $\frac{3}{8}$ inch hole on panels $\frac{1}{8}$ to $\frac{3}{16}$ inch thick.

Insulated for Mounting on Metal Panels, extra, each.....5c

Gold Plated Exposed Parts, extra, each.....10c

SINGLE POLE; SINGLE THROW

Two spring, closes one contact. Used to close "A" battery circuit, meter circuits, etc.

No. 2—Jack Switch, Price, each.....75c Net.....45c

SINGLE POLE; DOUBLE THROW

Three spring; opens one and closes one contact. For switching from long to short wave, meter circuits, battery circuits, etc.

No. 3—Jack Switch, Price each.....90c Net.....54c

DOUBLE POLE; SINGLE THROW

Four springs; closes two contacts. Used for switching speakers, batteries, resistances in parallel, etc.

No. 4—Jack Switch, Price each.....\$1.00 Net.....60c

DOUBLE POLE; DOUBLE THROW

Six springs; opens two and closes two contacts. Can be used to switch a battery from charger to set, compare speakers, etc.

No. 6—Jack Switch, Price each.....\$1.25 Net.....75c



CARTER MIDGET RHEOSTAT

Smallest made—only $1\frac{1}{2}$ in. in diam. Projects back of panel only $\frac{1}{4}$ in. The all metal frame dissipates heat quickly. A very popular seller.

2 Ohm	20 Ohm
3 Ohm	30 Ohm
6 Ohm	50 Ohm
10 Ohm	

List.....\$0.50 Each.....\$0.30

HEAVY DUTY "MIDGET" CONDENSER

Provided with a resistance strip $\frac{3}{4}$ in. wide which affords more radiating surface. Thoroughly reliable. Contact arm of new and unique design with smooth action. Code MW.

$1\frac{1}{5}$ Ohm	6 Ohm
$1\frac{1}{2}$ Ohm	10 Ohm
2 Ohm	20 Ohm
3 Ohm	30 Ohm

List.....\$0.75 EACH.....\$0.45



NEW CARTER WIRE WOUND TAPERED VOLUME CONTROL

Designed especially for use in the new A.C. circuits, to be placed across Aerial and Ground for sensitive volume control. Ideal for circuits where the useful range of adjustment is crowded into a small arc or portion of the knobs rotation. Dissipates 5 Watts.

Ohm	List	Each
400.....	\$1.25	\$0.75
750.....	1.25	.75
1000.....	1.50	.90
3000.....	1.50	.90
5000.....	1.75	1.05
6000.....	1.75	1.05
10000.....	2.25	1.35

CARTER TAPERED POTENTIOMETERS

Ohm	List	Each
400.....	\$1.50	\$0.90
750.....	1.50	.90
1000.....	1.75	1.05
3000.....	1.75	1.05
5000.....	2.00	1.20
6000.....	2.00	1.20
10000.....	2.50	1.50

CARTER "IMP" RHEOSTAT

All-metal frame and self cooling. The last word in a high-grade small-frame design. One of the most popular types. Project back of panel less than $\frac{3}{8}$ in. and is only $1\frac{1}{8}$ in. in diameter.

2 Ohm	20 Ohm
3 Ohm	30 Ohm
6 Ohm	50 Ohm
10 Ohm	

List.....\$1.00 Each.....\$0.60

CARTER "IMP" RHEOSTAT—With Filament Switch

Standard Imp Rheostat with a built in Filament Switch. A most convenient device, eliminating filament switch knob from front panel.

2 Ohm	6 Ohm
3 Ohm	10 Ohm

List.....\$1.50 Each, less 2%.....\$0.90



CARTER "IMP" POTENTIOMETER

Same design as Carter Imp Rheostat. Small and rugged. Fitted with binding post terminals.

Ohm	List	Each
200.....	\$1.25	\$0.75
400.....	1.25	.75

CARTER "SHORT" JACKS

Smallest made for compact construction, widely spaced. Mounts in $\frac{3}{8}$ in. hole.

..... Type 1—Open Circuit Output.

List Price.....\$0.25 Your Price.....\$0.15

..... Type 2A—Single Closed Circuit.

List Price.....\$0.30 Your Price.....\$0.18



CARTER "IMP" BATTERY SWITCH

Quarter turn Snap Switch. Positive contact, "Off" and "On" name plates and pointer. One hole mounting. Half size.

List Price...\$0.65 Your Price...\$0.39



ALLEN SOLDERING PASTE



The most important factor in good radio reception is perfectly soldered connections and joints. Noises, squeals, hums, and whistling are many times caused by poorly soldered connections in the lead-in ground, or the set itself.

Allen's radio soldering paste is specially developed in the laboratories of the world's largest manufacturers of soldering fluxes. Builders of dependable radios and electrical appliances depend on ALLEN Fluxes.

Packed in handy fifteen and twenty-five cent tins.
Handy 15c Tins, 9c; Handy 25c Tins, 15c

ALLEN SOLDERING SET



This set consists of 1 high grade soldering iron, 1 three blade scraper for cleaning the metal or wire. 1 box of AL-

len soldering paste, 3 ft. of soft solder, and a book of instructions on "How to Solder Radio Joints."

List Price.....75c Net.....40c

CORROSION CURE



This new item is a fast seller. Just a small amount of this Corrosion Cure applied to your battery terminals will prevent corrosion falling upon furniture and rugs.

List Price.....30c Net.....19c

HEMCO TUBE REJUVENATOR



This tube rejuvenator can be used to bring to life tubes of the 199 type, after they have become weak through long service. It is simple and easy to operate. It is provided with a cord and plug that fits directly into your electric light outlet.

The weak tube is inserted into this socket, the current turned on, and the transformation process takes place. A good source of easy profit.

List Price (199 type only) \$6.00 NET 95c

GROUND CLAMP



This Mutter Ground Clamp is made according to R. M. A. approved standards of heavy, soft tinned copper. Easily fitted to all types and a positive contact insured.

List Price.....15c Net.....9c

"E-Z" PHONE PLUG

An exceptionally well made plug. It is small and neat appearing. Shorting impossible. Black only.

List Price.....50c Net.....25c

WINDOW LEAD-INS

Highly impregnated tape with wide tinned copper strip. Soldered Fahnestock clips, 12 inches long.

List Price.....40c Net.....12c

KESTER ROSIN CORE SOLDER

Radio Engineers recommend it. In conquering the problem of radio frequency, radio engineers and manufacturers learned the importance of using only a pure rosin flux for all soldered joints. Tests show where acids, paste, and compounds either spatter, fume or run over surrounding delicate parts. This causes high leakage and reduces resistance. Kester Radio Solder has for many years been in use by many telephone companies on their delicate work, and now it has the endorsement of the leading radio engineers and most manufacturers of radio parts and sets.



List Price.....25c Net.....17c

BATTERY CLIPS

A lead coated steel clip with special springs. It is an excellent large size for use in making "A" battery connections.

List Price.....15c Net.....9c

BUS BAR WIRE

Annealed square copper wire heavily tinned, assures you of a neat wiring job. Two foot lengths.

List Price.....3c Net.....2c

ANTENNA WIRES

A very flexible stranded wire composed of 7 strands of No. 22 copper wire. 100 foot rolls.

List Price.....75c Net.....45c

LEAD-IN WIRE

Designed especially for use as lead-in and ground wire. The insulation is readily removable and the tinned copper is easily soldered. Rubber insulation, 50 foot lengths.

List Price.....75c Net.....45c

SOLDERING LUGS



Flat soldering lugs with two holes to make your work easy, they are tinned and will make good electrical contact.

List Price, per doz.....10c Net.....6c

AERIAL INSULATORS

Made from "Insula" glass by the McKee Glass Company. They are about 4 in. long and will not break.

List Price.....25c Net.....15c

MUTER LIGHTNING ARRESTER

Over a million of this well known lightning arresters are in use. It is approved for out-door and in-door use by underwriters in United States and in Canada. It consists of a brown porcelain shell 3 1/4 in. long and 1 1/4 in. wide.



List Price.....35c Net.....25c