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Q U A L I T Y

Radio Apparatus



RADIO ELECTRIC SERVICE CO., Inc.

N. E. COR. SEVENTH and ARCH STREETS

PHILADELPHIA, PA., U. S. A.

INTERNATIONAL SHORT AND LONG WAVE RADIO

International Short and Long Wave Radio is two complete sets in one. It has two wave bands, either of which operates simply by turning the switch on the front panel.

On the short-wave band (75 to 200 meters) you get broadcasts which are not received on ordinary sets. These broadcasts include police calls, aircraft stations, amateur short wave phone stations, television and others. On the long wave band (200 to 550 meters) you get clear, rich toned reception of the regular broadcast programs.

Two Sets in One

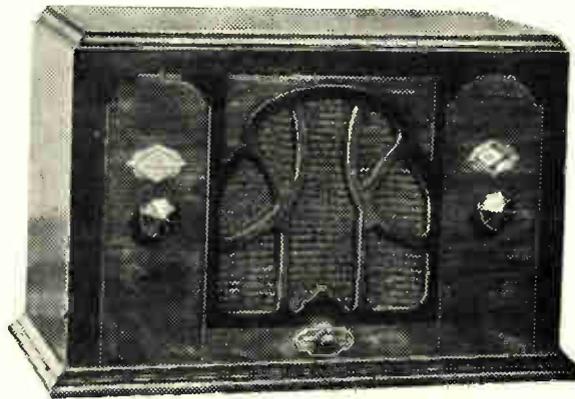
Short Waves

Long Waves

Not an Adapter

Radio's Greatest Thrill

Fully Guaranteed



Model TS-51

*The New International
Operates on an Exclusive
Principle*

The Only Set of Its Kind

*Requires No Special
Location*

No Long Aerial Needed

Works Anywhere

A four tube receiver using one 335, one 324, one 347 and one 380 tube. Equipped with 6½" dynamic speaker housed in walnut finished cabinet size: 14½" wide, 9½" high, 7½" deep. Complete with Cunningham tubes.

List Price, \$24.50 Complete

YOUR COST, \$14.25

SIMPLEX SUPER-HETERODYNE MIDGET RECEIVERS

FAMOUS FOR THEIR FINE TONE QUALITY

A new and improved super circuit giving extraordinary selectivity and power. Brings in distant stations with unbelievable ease. Brilliant lifelike reproduction. The best performing midget super we have ever heard.



Simplex Model K Midget 5 Tube

OUTSTANDING FEATURES

Super-Heterodyne
Pentode Output
Multi Mu
Built-in Antenna

10 K.C. Separation
Illuminated Dial
Rugged Ball Bearing
Condenser

Rust-Proof Chassis
Cabinets of Figured Walnut
Six Tuned Circuits
Fully Shielded

MODEL K MIDGET 5 Tubes

Uses two 24, one 35, one 47 and one 80 tubes. 9" wide, 12" high, 6½" deep.

List Price, With Tubes, \$32.50

YOUR COST. \$19.11

MODEL L MIDGET 7 Tubes

Automatic volume control. Uses three 24, two 35, one 47, and one 80 tubes. 13½" wide, 17¼" high, 7½" deep.

List Price, with Tubes, \$49.50

YOUR COST, \$29.11

F O R E W O R D

We are pleased to present to the trade our new complete catalog, listing all the latest and best in radio, and trust it will prove of interest to the radio service man, engineer, amateur and experimenter.

We offer to the service man a complete replacement service for all makes of sets, packs, eliminators. We also maintain a complete and efficient repair department where 24 hour service is rendered on all repair work.

To the amateur and experimenter we offer all the latest developments in short wave transmitting and receiving apparatus, television equipment and accessories. The amateur will find listed in these pages everything needed in the pursuit of his hobby, "ham radio."

All orders for ham supplies will be handled by a licensed amateur, assuring you of intelligent and prompt service at all times.

The broadcast or sound engineer will find a complete line of microphones, speakers, amplifiers and associated apparatus for complete sound installations.

In the preparation of our catalog and in the building of this enterprise nothing has been untouched in order to retain the goodwill, confidence and prestige which has enabled this organization to expand to the position of the leading radio supply house in the East.

RADIO ELECTRIC SERVICE CO., Inc.

Terms and Conditions

PRICES—All prices are quoted F. O. B. Philadelphia and are subject to change with varying markets.

TERMS—Terms are cash with order or C. O. D. On all C. O. D. shipments amounting to \$10.00 or over, 25% of total amount should be sent with order.

SHIPMENTS—Please give shipping instructions on all orders, specifying parcel post, express or freight. Where no particular carrier is specified, we will ship the best way.

PROMPT SERVICE—Wherever possible orders will be shipped the same day as received. In the event of delay we will notify the purchaser immediately, specifying the best possible delivery date.

TEST EQUIPMENT

Jewell Analyzers, Tube Checkers, Test Panels

PATTERN 444 SET ANALYZER



Pattern 444

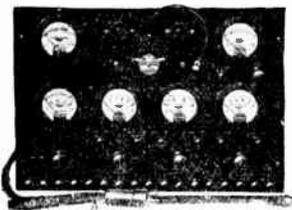
The Jewell 444 Set Analyzer is the most complete radio service instrument ever built. Tests every circuit in any receiver regardless of the type of tubes used.

Full wave rectifiers, variable mu, output Pentodes, and Pentodes having direct connected fifth element may be accurately tested under actual working conditions.

In addition to the set socket tests twenty-four measuring ranges are available for external testing with test leads. The following ranges are provided in the 444: A. C. Meter—0-4-8 Amperes, 0-20-120 Milliampers, and 0-4-8-160-800 volts. D. C. Meter—0-12-60-120 Milliampers, 0-6-12-30-60-120-300-600 volts, 0-1000-10,000-100,000 ohms, and low- medium, and high output ranges.

	List Price	YOUR COST
Pattern 444 Set Analyzer with Complete Equipment	\$112.00	\$82.32

No. 578 TEST PANEL



No. 578 Test Panel

The Pattern 578 Test Panel permits an accuracy and convenience of testing that is a time saving asset to any service shop.

Six 3½-inch instruments are mounted on the panel, four of which are arranged to give simultaneous readings of filament, grid, and plate voltage and current.

	List Price	YOUR COST
Test Panel Complete with Adapters, Test Leads and Battery	\$200.00	\$150.00

No. 560 TEST OSCILLATOR

The Pattern 560 Test Oscillator is designed and built to meet the needs of the radio service man.

The Jewell Oscillator is convenient to use, as all batteries are self-contained. Adjustable to any frequency in the broadcast band—550-1500 K.C. and intermediate frequencies from 125-185 K.C.. Uses two 230 tubes and is furnished with or without output meter.



No. 560 Oscillator

	List Price	YOUR COST
560 Oscillator with Tubes, Batteries, Test Leads, and Output Meter	\$102.00	\$74.77
Same Less Output Meter	82.00	60.26

Jewell Pattern No. 219 Tube Seller and No. 209 Tube Checker



This popular-priced Tube Seller offers the advantage of the large 213 Demonstration Meter used with the well known 209 Tube Checker.

The pattern 219 operates on 110 volt, 60 cycle A. C. current and tests all types including the new Pentodes if used with special adapter.

Jewell 219 Tube Seller Complete with Large Demonstration Meter and Tube Checker

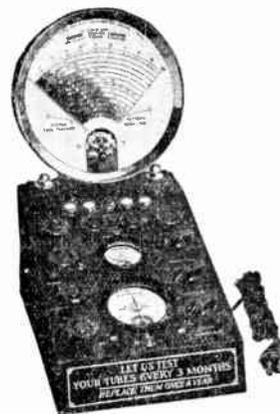
List Price, \$68.50
YOUR COST, \$50.35

Jewell 213 Demonstration Meter Only for Use with 209 Tube Checker

List Price, \$38.50
YOUR COST, \$28.30



JEWELL PATTERN No. 214 TUBE SELLER



This is the finest tube merchandiser and the most convenient tube checker ever produced at a price within reach of the small radio dealer. It is complete in every detail for rapid and accurate tube testing.

There are two test sockets and four sockets for pre-heating. Rotary filament voltage switch, line voltage control, and indicating pilot light. Also has indication for shorted tubes. A real tube testing outfit that will increase your tube sales.

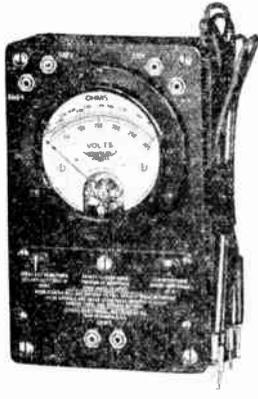
Pattern 214 Tube Seller Complete as Shown for Operation on 110 Volt, 60 Cycle A. C.

List Price, \$125.00

YOUR COST, \$91.89

TEST EQUIPMENT

Jewell Volt-Ohmmeter, Resistance Meters Rectifier Type Instruments



**VOLT-OHMMETER
Pattern 574**

A handy and useful instrument for continuity and resistor checking. Meter has double scale reading 0-100,000 ohms and 0-300 volts. Has self contained 4½ volt "C" battery with compensator for changes in battery voltages.

**Pattern 574
Volt-Ohmmeter**
List Price, \$35.00
YOUR COST, \$25.73



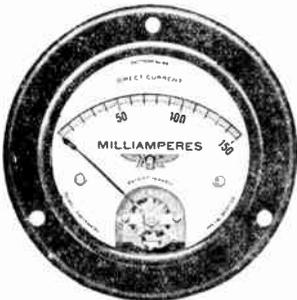
**OHMMETER—Pattern 89
VOLTMETER—Pattern 89**

For the radio service man who relies upon resistance, continuity and independent voltage tests, the Pattern 89 Ohmmeter and the Pattern 89 Voltmeter provide a combination that is unequalled for convenience, accuracy and speed in testing by any other equipment of comparable price.

Pattern 89 Ohmmeter with either 0-1000, 0-3000, 0-10,000 or 0-30,000 ohms, including battery and test leads.

List Price, \$16.50 **YOUR COST, \$12.38**
Pattern 89 Voltmeter with 0-30-300-600 volt scales and test leads.
List Price, \$25.00 **YOUR COST \$18.38**

The Famous Jewell Trio of Panel Mounting Instruments



The Jewell Trio of radio instruments is popular for building special test panels and service instruments; for use on experimental laboratory apparatus, and in amateur transmitting. Patterns 88, 68, and 78 comprise a new series of instruments available in flush type bakelite cases that duplicate the old Patterns 54, 64, and 74 in metal cases.

Patterns 54 and 88 D. C. Instruments

High range instruments are supplied with external resistors, having molded bakelite heads which are amply large to take care of various requirements. These instruments are not recommended for testing the voltage of B power supply.

Patterns 64 and 68 Radio Frequency Instruments

These instruments are thermo-couple type, extremely accurate, and have a guaranteed overload capacity of 50%. Losses are very low, being less than half the minimum required by the Navy.

Patterns 88, 68, and 78 are furnished for mounting in cases of molded bakelite. Flange diameter, 3½", case diameter, 2¾". Approximate shipping weight, 3 lbs.

Patterns 54, 64, and 74 are furnished in metal cases in both flush and front of panel mounting types. The flange diameter is 3¾"; case diameter, is 3". Approximate shipping weight, 3 lbs.

Patterns 54 and 88—D. C.		List Price		YOUR COST	
0-8, 10, 15, 30, 50 volts		\$ 7.50	\$ 5.52	50-050 galv.	9.00 6.62
0-150 volts		9.50	6.98	5, 10, 15, 25, 50, 100, 150, 200, 250, 300, 500 milliamperes	7.50 5.52
0-300 volts		12.00	8.82	0-1 milliamperes	9.00 6.62
0-500 volts		15.50	11.40	0-1.5 milliamperes	9.00 6.62
0-750 volts		19.00	13.97	0-2 milliamperes	9.00 6.62
0-1000 volts		22.50	16.54	0-3 milliamperes	9.00 6.62
0-1500 volts		28.50	20.95	0-200 microamperes	13.00 9.56
0-2000 volts		34.50	25.36	0-300 microamperes	11.50 8.45
0-2500 volts		42.50	31.24	0-500 microamperes	11.50 8.45
0-3000 volts		49.50	36.38		
0-1, 1.5, 2, 3, 5, 10, 15 amperes		7.50	5.52		
Patterns 64 and 68—R. F.		List Price		YOUR COST	
0-5, 1, 1.5, 2, 2.5, 3, 5, 10, 15A		\$13.35	\$ 9.80		
0-100 galvanometer		15.00	11.03		

Pattern 68 (Vacuum Thermocouple)

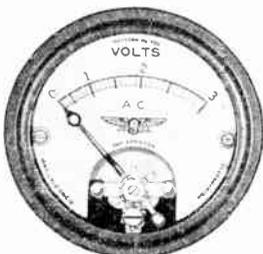
	List Price	YOUR COST
0-10 milliamperes	\$40.00	\$29.85
0-25 milliamperes	37.50	27.56
0-50 milliamperes	35.00	25.68
0-100 milliamperes	32.50	23.89

Patterns 74 and 78—A. C.

	List Price	YOUR COST
0-3, 5, 10, 15, 20, 30 volts	7.50	5.52
0-150 volts	9.50	6.98
0-300 volts	12.00	8.82
0-3-15-150 Triple Range volts	13.50	9.92
0-25, 50, 100, 200, 300, 500 milliamperes	7.50	5.52
0-1, 2, 3, 5, 10, 15 amperes	7.50	5.52

JEWELL 2-INCH INSTRUMENTS

These instruments are of matched size and appearance.

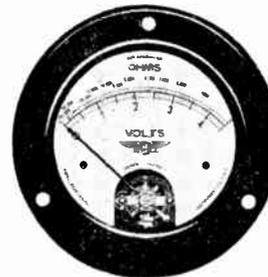


Pattern 190 Flush Type

Pattern 135 D. C.

	List Price	YOUR COST
0-5, 8, 10 volts	\$7.00	\$4.46
0-100 or 0-150 volts	7.50	4.78
0-10, 15, 25, 50, 80, 100, 300 or 500 milliamperes	7.00	4.46
0-3, 0-5 amperes	7.00	4.46
Double scale with push button switch. Pattern 135B. 0-7.5-150 volts or 0-8-200 volts	9.00	5.74
Shipping weight, 3 lbs.		

RESISTANCE METER—Pattern 88



Jewell Pattern 88 and 135 D. C. Instruments are available with scales calibrated for both voltage and resistance measurements. These accurate panel mounting instruments have a great number of uses about the service shop, or in special design test units. A combination continuity-resistance meter and voltmeter can be easily made by mounting one of these instruments, a small flashlight battery, and a switch on a panel. As an auxiliary to a large test panel, it will greatly speed the movement of repair work in any shop.

Pattern 88 with 2¾" body diameter, 3½" flange diameter, and bakelite case is furnished in the following ranges:

	List Price	YOUR COST
0-1,000 ohms, 0-1.5 volts	\$10.00	\$7.35
0-3,000 ohms, 0-1.5 volts	10.00	7.35
0-10,000 ohms, 0-4.5 volts	10.00	7.35
0-30,000 ohms, 0-4.5 volts	11.00	8.09
0-100,000 ohms, 0-4.5 volts	12.50	9.38
0-500,000 ohms 0-15 volts	12.50	9.38

TEST EQUIPMENT

Weston Set Testers, Oscillators, Meters

I. F. & R. F. OSCILLATOR—Model 590

A very complete and practical signal generator having an intermediate frequency range of approximately 110 to 200 kilocycles and a broadcast range of 550-1500 kilocycles. Frequencies between 200 and 550 and above 1500 kilocycles may be obtained by means of harmonics.

Model 590 will align I. F. stages and gang condensers, determine sensitivity of receivers, check R. F. transformers and condensers, make selectivity tests and check the oscillator stage of radio receivers.

Dimensions: 16¼ x 6¾ x 5¼ inches. Approximate Weight: 15 pounds.



Model 590 I.F. and R.F. Oscillator

	List Price	YOUR COST
Model 590 (without Output Meter, Tubes or Batteries)	\$105.00	\$77.18

OUTPUT METER—Model 571

A rugged portable instrument that is especially useful in checking radio sets, sound projection equipment and public address systems during both manufacture and servicing. Its equipment consists of a five range copper oxide rectifier type voltmeter enclosed in a sturdy bakelite case. The ranges, 150, 60, 15, 6 and 1.5 volts, are brought out to two binding posts through a dial range-selector switch. Model 571 has a non-inductive impedance of 4000 ohms for all ranges.

Size: 5½ x 3¾ x 2½ inches. Scale length: 2.36 inches. Approximate Weight: 1 pound, 10 ounces.



Model 571 Output Meter

	List Price	YOUR COST
Model 571	\$30.00	\$22.05

A. C.-D. C. RADIO SET TESTER—Model 566, Type 3

An A. C.-D. C. set tester housed in a black bakelite case measuring 12¾ x 9 x 3¾ inches—weighs approximately 10 pounds and is equipped with a removable, snap-on cover. The instrument equipment consists of two ¾ inch panel instruments—a 9 range A. C. Model 476 for 1000-200-16-8-4 volts, 8-4 amperes and 100-20 milliamperes and a 10 range D. C. Model 301 for 1000-250-100-25-10 volts, 0-100,000—0-10,000 ohms and 100-25-2.5 milliamperes. Two ranges (rectifier type output meter) of 100-5 volts A. C., are available at pin jacks.

Checks sets with Pentode tubes without use of adapters. Has adjuster for checking self-contained battery when making continuity and resistance tests.

The ranges of the D. C. Volt-Ohm-Milliammeter are controlled by a 23 point bi-polar switch. The ranges of the A. C. Volt-Am.-Milliammeter are controlled by a dial switch. Two tube sockets are provided, a UX and a UY.



Model 566-3 Radio Set Tester

	List Price	YOUR COST
Model 566-3	\$115.00	\$84.53

A. C.-D. C. RADIO TEST SET—Model 565

A complete A. C.-D. C. Test Set embodying the features of a tube checker operative from the A. C. line, a modulated R. F. Oscillator (three frequencies) and a double range ohmmeter and continuity set tester. The set is completely housed in an oak case measuring 11¾ x 13¾ x 4¼ inches, weighs approximately 15 pounds and has removable snap-on cover. Model 565 is equipped with three ¾ inch diameter instruments—an 8 range A. C. Model 476 for 1000-200-16-8-4 volts, 100 milliamperes and 4 and 8 amperes—an 11 range D. C. Model 301 for 1000-250-100-50-25-10 volts, 0-100,000—0-10,000 ohms and 100-25-2.5 milliamperes and a triple range D. C. Model 301 for 100-20-2 milliamperes.

All tests are made using one 23 and one 7 position selector switch, tester plug with five prong adapter, several selective switches and binding posts.



Model 565 Radio Set Tester and Tube Checker

	List Price	YOUR COST
Model 565	\$187.50	\$137.82

PORTABLE VOLT-OHMMETER—Model 564

A very useful instrument for measuring resistance voltage and for continuity testing. An especially valuable aid in radio service work and in radio laboratories when extreme accuracy is not of prime importance.

Its equipment consists of a ¾ inch diameter meter with ranges of 600-300-30-3 volts, and 0-10,000—0-100,000 ohms. All six ranges are brought out to binding posts, two toggle switches serving to connect the meter in circuit. All voltage ranges have a resistance of 1000 ohms per volt. A pair of 30 inch cables with test prods is provided.

To compensate for changes in potential of the self-contained 4.5 volt battery it is simply necessary to short circuit the binding posts X-X and adjust the pointer on the meter to the zero ohm position by turning the voltage adjuster located at the top of the name plate.



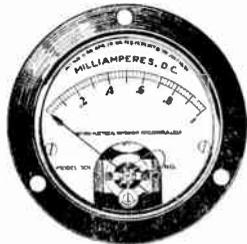
Model 564 Volt-Ohmmeter

	List Price	YOUR COST
Model 564	\$37.50	\$27.57

TEST EQUIPMENT

Weston Panel Mounting Radio Instruments

A complete line of flush panel mounting instruments for every radio purpose. A.C. and D.C. Voltmeters, Ammeters and Milliammeters, Thermo Couple and A.C. Rectifier Type Instruments.



Model 301 3/4" Panel D. C. Instrument

	List Price	YOUR COST
Model 301 D. C. Voltmeters		
1, 1.5, 2, 3, 5, 7, 8, 10, 15, 20, 25, 30 volts (62 ohms per volt)	\$ 8.00	\$ 5.88
50 or 100 volts (resistance 200 ohms per volt)	8.00	5.88
150 volts (resistance 200 ohms per volt)	10.00	7.35
200 volts (resistance 250 ohms per volt)	10.50	7.72
300 volts (resistance 666 ohms per volt)	14.00	10.30
500 volts (resistance 666 ohms per volt)	16.00	11.76
10, 15, 50 or 100 volts (1000 ohms per volt)	12.00	8.82
150 or 200 volts (1000 ohms per volt)	14.50	10.66
300 volts (1000 ohms per volt)	16.00	11.76
500 volts (1000 ohms per volt)	17.50	12.86
750-250-100-50-10-5 volts (1000 ohms per volt)	25.50	18.74

Furnished in bakelite cases at no extra cost.

*D. C. Filament Ammeters—Model 301

	List Price	YOUR COST
Ammeters: 1, 1.5, 2, 3, 5, 8, 10 or 15 amperes	\$ 8.00	\$ 5.88

*D. C. Plate Milliammeters—Model 301

Milliammeters: 1, 1.5 or 2 milliamperes	10.00	7.35
5, 10, 15, 20, 25, 30, 50, 100, 150, 200, 300, 500 or 800 milliamperes	8.00	5.88

†D. C. Microammeters—Model 301

Microammeters: 200 microamperes	13.50	9.92
500 microamperes	12.00	8.82

Volt-Ohmmeter—Model 301

Volt-Ohmmeters: 4.5 volts, 100,000 ohms or 15 volts, 500,000 ohms	12.00	8.82
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Resistance, volt ranges, 1000 ohms per volt.

A. C. Rectifier Type—Model 301

Voltmeters: 3, 5 or 15 volts (1000 ohms per volt)	14.00	10.30
50, 100 or 150 volts (1000 ohms per volt)	15.00	11.03
1, 1.5, 3, 5 or 15 volts (2000 ohms per volt)	16.50	12.13
50 volts (2000 ohms per volt)	17.50	12.86
100 volts (2000 ohms per volt)	18.50	13.60

2000 ohms per volt instruments should be used in the horizontal or 45° positions.

Milliammeters: 1, 2 or 5 MA.	12.50	9.19
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State position in which instrument is to be used.

Microammeters: 500 microamperes	14.50	10.66
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Should be used in horizontal or 45° positions.

*A. C. Voltmeters, Ammeters and Milliammeters—Model 476

Voltmeters: 1.5, 2, 3, 5, 10, 15, 25 or 50 volts	8.00	5.88
150 volts	10.00	7.35
250 or 300 volts	12.00	8.82
150-8-4 volts	15.00	11.03
Ammeters: 1, 2, 3, 5, 10 or 20 amperes	8.00	5.88
30 or 50 amperes	10.00	7.35
Milliammeters: 15, 25, 50, 100, 250 or 500 milliamperes	8.00	5.88

*Thermo-Ammeters—Model 425

Ammeters: 1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 15 or 20 amperes	13.50	9.92
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*Thermo-Milliammeters—Model 425

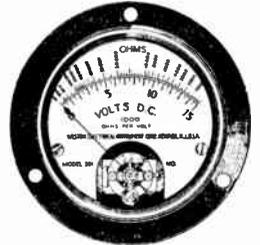
Milliammeters: 120, 250 or 500 milliamperes	15.00	11.03
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Cannot be used on Direct Current.

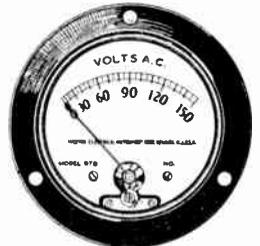
†*Wavemeter Galvanometer—Model 425

Galvanometers: 115 milliamperes (Resistance 5.2 ohms)	15.00	11.03
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Cannot be used on Direct Current.



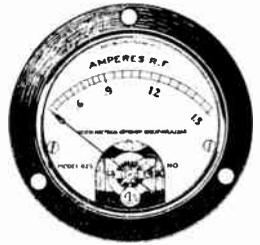
Model 301 Volt-Ohmmeter



Model 476 3/4" Panel A. C. Instrument



Universal 23 Point Bipolar Instrument Switch



Model 425 3/4" Panel Thermo Instrument



WESTON PHOTRONIC CELL

The latest development in light sensitive cells. The Photronic Cell is amazing in performance. Requires no exciting voltage. Has an output of approximately 5 milliamperes in direct sunlight. It is almost limitless in application and low in cost.

Weston Photronic Cell

List Price, \$10.00 YOUR COST, \$7.50

WESTON RELAY

Sensitive Relay for Use With Photronic Cell
List Price, \$13.50 YOUR COST, \$10.13

Send for special folder describing this cell and giving relay hookups.



Model 634 Relay

TEST EQUIPMENT

Weston 2-inch Flush Type Panel Instruments

Very popular instruments for use in portable apparatus where space is limited.

D. C. Filament or Plate Voltmeters—Model 506

	List Price	YOUR COST
Voltmeters: 3, 5, 7, 8, 10, 15, 50, 100 or 150 volts (Resistance 125 ohms per volt)	\$7.00	\$4.46
200 volts (Resistance 200 ohms per volt)	7.00	4.46

D. C. Filament Ammeters—Model 506

Ammeters: 1, 1.5, 3, 5, 10 or 15 amperes	7.00	4.46
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D. C. Plate Milliammeters—Model 506

Milliammeters: 1.5 milliamperes	9.00	5.74
5 milliamperes	8.00	5.10
10, 15, 25, 50, 100, 200, 300 or 500 milliamperes	7.00	4.46

†Volt-Ohmmeter—Model 506

Volt-Ohmmeter: 3 volts (Resistance, 125 ohms per volt), 0-10,000 ohms	7.00	4.46
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†Stocked in flush type wide flange case, black finish.

A. C. Voltmeters, Ammeters and Milliammeters—Model 517

Voltmeters: 1.5, 2, 3, 5, 10, 15, 25 or 50 volts	8.00	5.88
130 or 150 volts	10.00	7.35
250 or 300 volts	12.00	8.82
Ammeters: 1, 2, 3, 5, 10 or 20 amperes	8.00	5.88
30 or 50 amperes	10.00	7.35
Milliammeters: 15, 25, 50, 100, 250 or 500 milliamperes	8.00	5.88

Thermo-Ammeters—Model 507

Ammeters: 1, 1.5, 2, 3 or 5 amperes	12.50	9.19
10, 15 or 20 amperes	13.50	9.92

*Thermo-Milliammeters—Model 507

Milliammeters: 120, 250 or 500 milliamperes	14.00	10.30
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*Wavemeter Galvanometer—Model 507

Milliammeters: 115 milliamperes (Resistance 5.2 ohms)	14.00	10.30
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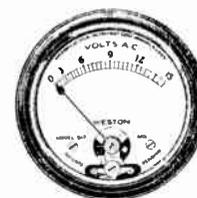
*Cannot be used on direct current.

Bi-Polar Voltmeter Switch—23 Active Positions

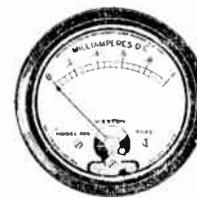
Consists of two single-pole, multiple-point switches, mounted on the same shaft so that they may turn together, but electrically insulated from each other. The center or common contacts on the two switches are brought out to soldering lugs for connection to the instrument. The other contact points are brought out at the sides of the switch as soldering lugs arranged in pairs.

The switch is equipped with a Bakelite dial which has a series of openings through which a paper can be seen showing an index of the various points where voltage is to be measured.

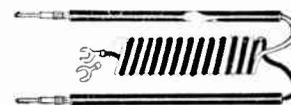
	List Price	YOUR COST
Bi-Polar Switch—23 active positions	\$11.00	\$8.09
Bi-Polar Switch (similar to above but with 9 active positions)	4.25	3.12



Model 517
A. C. Voltmeter



Model 506
D. C. Milliammeter

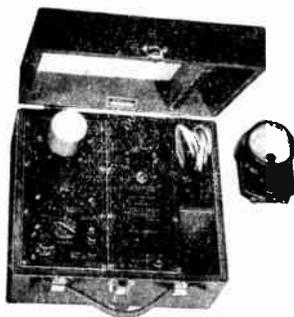


WESTON TEST LEADS

A serviceable pair of 50-inch Test Leads with hardened, polished steel contact points—securely soldered connections—strong covering material to withstand wear and abrasion—insulated for high potentials—tested at 5,000 volts.

Weston Test Leads, \$1.25
YOUR COST, \$0.93

DAY-RAD OSCILLATOR



Type 330 Multi-Frequency Oscillator Complete with Tube, Batteries and Adapters

\$35.00 Net

Type 50 Output Meter for above Oscillator, \$10.00 Net

A Multi-Frequency Oscillator at a popular price. Covers the broadcast band from 600 to 1500 K.C. and intermediate frequencies of 130, 175 and 180 K.C.

Completely shielded and dry battery operated from self contained batteries. A high quality job in every respect, with an accuracy within one-half percent. Housed in an attractive walnut finish cabinet with removable hinged cover.

DAY-RAD TUBE CHECKERS



Tests all standard tubes, including Pentodes, the new 2-volt and the new 6-volt auto radio tubes.

Also tests many special types such as Kellogg, Cardon, etc.

Testing procedure is extremely simple. The tube to be tested is inserted in the designated socket and test is made by pressing push buttons and observing the meter readings. While the main tests are for

“end of life” this instrument will also indicate shorts, open circuits and other troubles in radio tubes.

Meter is a genuine D'Arsonval movement (Weston or Jewell) cased in moulded Bakelite with colored push buttons for quick identification.

TYPE L DAYRAD TUBE CHECKER

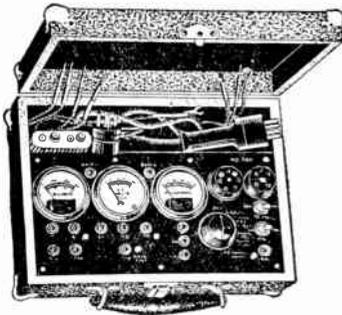
110 volts, 60 cycles	\$22.50 Net
110 volts, 25 cycles	23.50 Net

TEST EQUIPMENT

READRITE TYPE

Set Analyzers, Oscillators, Tube Checkers, Meters

No. 700 ANALYZER



A complete, accurate and reliable analyzer and circuit tester. One of the most popular set testers ever built. Equipped with an improved type selector switch for testing all parts of the tube circuits by plugging into the sockets of the set under test. Selection for testing filament, plate, grid and cathode voltages is accomplished quickly and accurately.

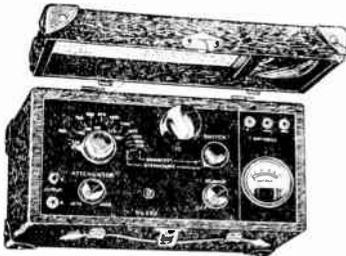
Plate current, line and power supply voltage is also measured. The grid swing test for tubes is used, making testing of all types of tubes simple and thorough. A 4½-volt "C" battery is furnished for grid and continuity tests. Capacity and resistance charts are also furnished for checking condensers and resistors. Checks resistors as high as 100,000 ohms.

The eight scale readings are available for external use by using tip jacks provided on the panel. Meter ranges—0-60-300-600 volts D. C., 0-10-140-700 volts A. C. and 0-20-100 milliamperes D. C. Housed in a strong leatherette covered case with snap fasteners and carrying handle. Size 10¼" x 3½" x 8".

No. 700 Readrite Analyzer

List Price \$25.00 YOUR COST \$14.70

No. 550 TEST OSCILLATOR



A compact test oscillator for test and alignment. An absolute necessity for servicing modern broadcast receivers. The intermediate range is 120 to 185 K.C. and the broadcast range 550 to 1500 K.C. Sold with or without output meter.

550 Oscillator with Output Meter

List Price, \$35.00
YOUR COST, \$20.58

550 Oscillator Less Output Meter

List Price, \$30.00
YOUR COST, \$17.64

No. 575 OUTPUT METER

Especially designed for use with the No. 550 Test Oscillator, but can be used with any type oscillator or as separate meter for maximum resonance indicator. Has high and low tap.



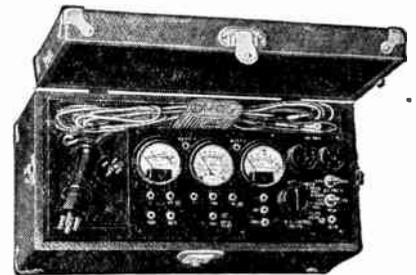
No. 575 Output Meter

List Price, \$5.00
YOUR COST, \$2.94

NO. 600—ANALYZER AND CIRCUIT TESTER

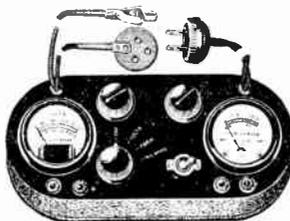
The No. 600 contains the same equipment as No. 700. The carrying case is larger with leatherette covering and equipped with lock. Room is provided for carrying tubes, tools and supplies. The test equipment and panel is in a removable tray in the top of the case. The tray equipment may be used separately as a complete test panel for shop purposes. Size 14½" x 7" x 7½".

List Price, \$30.00 YOUR COST, \$17.64



No. 850 CAPACITY TESTER

For measuring capacities of paper and electrolytic condensers. A very handy instrument for the radio service shop. Checks paper condensers from .008 to 10 mfd. and all capacities in electrolytic condensers. D.C. voltage for electrolytic testing is obtained from the plate of a rectifier tube by use of a special adapter. Housed in a neat metal case with or without cover.



No. 850 Capacity Tester

List Price, \$15.00 YOUR COST, \$8.82

No. 850 Capacity Tester With Cover

List Price, \$17.00 YOUR COST, \$10.00

No. 800 CAPACITY TESTER

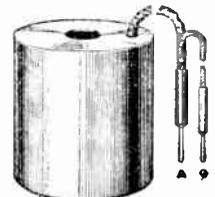


For checking capacity of paper condensers only from .008 to 10 mfd. Plugs into 110 volt line. Gives direct capacity readings on A.C. voltmeter. Mounted in attractive steel case.

List Price, \$8.00 YOUR COST, \$4.71

No. 525 EXPLORING COIL

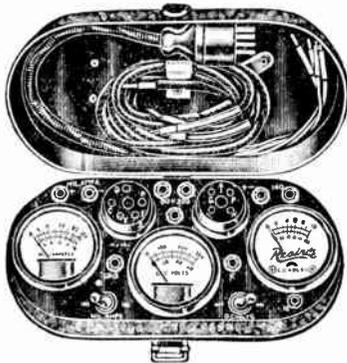
Used in R. F. circuit testing by placing over one of the tubes and inducing oscillation into the grid R. F. circuits. Can be checked for continuity alignment, etc.



List Price, \$3.50 YOUR COST, \$2.06

TEST EQUIPMENT

SET AND TUBE TESTER—Model 245-A



Accurate set testing can be done with this handy outfit.

Tests all sets including screen grid and pentode. Has three double scale meters, A.C.-D.C. 0-10-140 volts, D.C. volts 0-60-300 and D.C. Milliammeter 0-20-100. All ranges available at tip jacks for external use.

Furnished with complete instructions and charts. Housed in steel case. Beautifully finished in black enamel and equipped with leather handle.

Model 245A Tester

List Price, \$20.00 YOUR COST, \$11.76

DIRECT READING OHMMETER—Model 500



A complete direct reading Ohmmeter. Tests Resistors up to 10,000 ohms. Can also be used as D.C. Voltmeter 0-4.5 volts. Contains small 3 cell flashlight cell and zero adjusting rheostat. Supplied with two five foot test leads and prods. A high grade instrument indispensable for service work.

Model 500 Ohmmeter

List Price, \$6.00 YOUR COST, \$3.60

COUNTER TUBE CHECKER—Model 400



An ideal instrument for counter tube checking. Equipped with an extremely accurate milliammeter in a shielded metal case which gives all tube readings on a single scale. Push button gives second reading for mutual conductance test.

Plugs into A.C. line and tests all tubes, including the new pentodes.

Model 400 Checker

List Price, \$20.00 YOUR COST, \$11.76
For 25 Cycles add 75c Net

RESISTANCE METER



Same instrument as used in Model 500 Ohmmeter. Requires 4½ volt battery for voltage source.

Model 501 Resistance Meter

List Price, \$2.50 YOUR COST, \$1.47

D. C. POCKET METERS

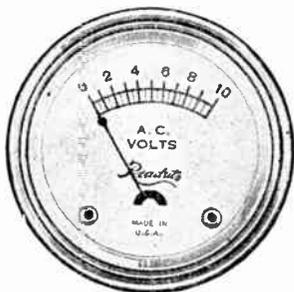


Readrite Pocket Meters for testing dry cell A and B batteries. Each instrument is hand calibrated and guaranteed.

	List Price	YOUR COST
No. 1—For Dry Cells, 0-40 amps.	\$0.75	\$0.45
No. 50—For B Batteries, 0-50 volts	1.00	.59
No. 18—Volt Ammeter, 0-8 volts, 0-40 amps.	1.25	.74

PANEL MOUNTING METERS

Furnished in all popular ranges in A.C. and D.C. Voltmeters, Ammeters, and Milliammeters. Choice of narrow rim or wide flange type.



A.C. VOLTMETERS

	List Price	YOUR COST
No. 314—0-4 volts	\$2.50	\$1.47
No. 353—0-6 volts	2.50	1.47
No. 352—0-10 volts	2.50	1.47
No. 351—0-15 volts	2.50	1.47
No. 348P—0-150 volts	4.00	2.36
No. 247P—0-600 volts	6.00	3.53
No. 249—0-750 volts	7.00	4.12
No. 355P—0-10-140 volts	4.00	2.36

A.C. AMMETERS

	List Price	YOUR COST
No. 360—0-1 amps.	\$2.50	\$1.47
No. 361—0-3 amps.	2.50	1.47
No. 362—0-5 amps.	2.50	1.47
No. 363—0-10 amps.	2.50	1.47
No. 364—0-50 amps.	3.00	1.77

A.C. MILLIAMMETERS

	List Price	YOUR COST
No. 370—0-25 M.A.	\$2.50	\$1.47
No. 371—0-50 M.A.	2.50	1.47
No. 372—0-100 M.A.	2.50	1.47
No. 373—0-250	2.50	1.47
No. 374—0-500	2.50	1.47

D.C. VOLTMETERS

	List Price	YOUR COST
No. 602—0-3 volts, 175 ohms	\$1.00	\$0.59
No. 326—0-6 volts, 550 ohms	1.00	.59
No. 605—0-5 volts, 410 ohms	1.00	.59
No. 335—0-8 volts, 850 ohms	1.00	.59
No. 310—0-10 volts, 1475 ohms	1.00	.59
No. 316—0-15 volts, 2914 ohms	1.00	.59
No. 333—3-0-3 volts, 550 ohms	1.00	.59
No. 607—0-25 volts, 1625 ohms	1.00	.59
No. 608—0-25 volts, 7720 ohms	2.50	1.47
No. 337—0-50 volts, 3250 ohms	1.00	.59
No. 337H—0-50 volts, 15440 ohms	3.00	1.77
No. 339—0-100 volts, 6500 ohms	1.25	.74
No. 339H—0-100 volts, 30888 ohms	3.00	1.77
No. 342—0-150 volts, 9750 ohms	1.50	.89
No. 342H—0-150 volts, 46320 ohms	3.00	1.77

No. 346P—0-300 volts, 92640 ohms	3.00	1.77
No. 347P—0-500 volts, 154400 ohms	4.00	2.36
No. 246P—0-60-300 volts	4.00	2.36
No. 609—0-750 volts, 231600 ohms	5.00	2.94

D.C. MILLIAMMETERS

	List Price	YOUR COST
No. 311—0-10 M.A.	\$1.75	\$1.03
No. 315—0-15 M.A.	1.00	.59
No. 325—0-25 M.A.	1.00	.59
No. 350—0-50 M.A.	1.00	.59
No. 390—0-100 M.A.	1.00	.59
No. 391—0-150 M.A.	1.00	.59
No. 392—0-200 M.A.	1.00	.59
No. 399—0-300 M.A.	1.00	.59
No. 394—0-400 M.A.	1.00	.59
No. 395—0-20-100 M.A.	1.75	1.03

PUBLIC ADDRESS EQUIPMENT

On the following pages the sound engineer will find listed a full line of equipment for public address installations, including amplifiers, microphones, speakers matching transformers, etc.

WEBSTER AMPLIFIERS

By WEBSTER ELECTRIC CO., RACINE, WIS.

In this new group of power amplifiers Webster engineers have combined designing skill and long manufacturing experience to develop a product of outstanding merit.

These amplifiers are completely A. C. operated. No current is supplied for external units except for the field of a D. C. dynamic speaker, as with model BD-27-45. They can be operated from a standard high impedance Electric Phonograph Pickup, Radio Receivers or R. F. Tuners.

Two stages of amplification are used with a "227" tube in the first stage and two "245" in the power stage with one "280" f. w. rectifier. Though compact in size and light in weight they retain the same quality and richness of tone, full frequency response range and volume as found in larger and more costly amplifiers.

There are many applications for amplifiers as small and efficient as these, for use in homes, small halls, stores and with portable sound or motion picture equipment. Several standard models are described below for these numerous applications, however, changes can be incorporated for special uses like home recording and other purposes. Prices and information will be given on application.



Model BD-27-45 is designed for use with a D. C. Dynamic Speaker, without input transformer, having a field coil D. C. resistance of 1800-2000 ohms. To use an A. C. Dynamic Speaker the CR-35-B choke-resistance unit should be connected across the field terminals of the amplifier.

For 110 volt, 50-60 cycle operation.

Model BD-27-45 Code: BAXSD.

List Price (Less Tubes), \$57.50

YOUR COST, \$34.50

SPECIFICATIONS

Tubes Used: 1st Stage 1-227. Power Stage 1-245. Rectifier 1-280.

Input: Works out of standard high impedance pickup or a radio detector tube.

Output Impedance: To dynamic voice coil of 6-10 ohms.

Maximum Undistorted Power Output: 4.5 watts.

Gain at 1000 cycles: 52 D. B.

Frequency Characteristics: Flat from 40 to 10,000 cycles.

Power Consumption: 50 watts.

Input Signal to Obtain Maximum Output: .5 volts R. M. S.

Overall Dimensions: 13 3/4" long x 6" wide x 6 3/4" high. Shipping weight, 29 lbs.



Webster Choke and Resistance Unit CR-35-B

This unit consists of a combined choke and resistance which equals the resistance of the dynamic field—1800 to 2000 ohms. It is to be connected in place of the field coil when using an A. C. dynamic or magnetic type of speaker, with Model BD-27-45 Power Amplifier. Code: BCIWR.

List Price, \$6.00

YOUR COST, \$3.60

List Prices Slightly Higher West of the Rockies

"JANETTE" ROTARY CONVERTERS

For converting D. C. current to 110 volt A. C. for portable public address amplifiers, electric phonographs, etc., also used to operate A. C. radio sets in D. C. districts furnished in a type and size for every need up to 2500 watts.

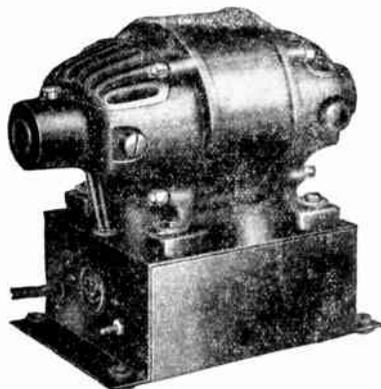
32 VOLTS D. C. TO 110 VOLTS 60 CYCLE

Type	Output Watts	Input Amperes	Bearings	R.P.M.	List Price	YOUR NET COST
CA-20	110	6.5	Sleeve	3600	\$42.50	\$31.22
CA-18	150	8.5	Sleeve	3600	47.50	34.61
C-13	300	15.0	Sleeve	3600	60.00	44.10
CB-11	400	19.0	Sleeve	3600	100.00	73.50

The above machines are without filters and should not be used for radio sets.

115 VOLTS D. C. TO 110 VOLTS A. C. WITH FILTERS

Type	Output Watts	Input Amperes	Bearings	R.P.M.	List Price	YOUR NET COST
CA-20-F	110	1.9	Sleeve	3600	\$49.50	\$36.39
CA-18-F	150	2.4	Sleeve	3600	54.50	40.08
C-13-F	300	4.0	Sleeve	3600	75.00	55.13
CB-12-F	500	6.4	Sleeve	3600	95.00	69.85



PUBLIC ADDRESS EQUIPMENT

MODEL C-74-50

A 3 stage, 250 Push Pull Amplifier particularly suited for use with a close speaking double button microphone for public address and announcing systems. Convenient connections and a toggle switch are provided with a fixed current supply for the microphone. Variable input and output impedances make this unit suitable for most any kind of installation equipped with a voltage regulating switch to take care of line voltages from 90-130 volts.

SPECIFICATIONS

Tubes Used: 1st Stage, 1-227; 2nd Stage, 1-245; 3rd Stage, 2-250; Rectifier, 2-281.
 Input: Low impedance of 200 ohms for microphone and pickup. The high impedance input is 40,000 to 50,000 ohms, at 100 cycles.
 Output Impedances: 4, 8, 16 or 500 ohms.
 Maximum Undistorted Power Output: 15 Watts.
 Power Consumption: 175 Watts.
 Input Signal to Obtain Maximum Output: .25 volts R. M. S. on high impedance input.
 Number of Stages: 3. Field Current Supply: None.
 Speakers: Model C-74-50 power amplifier is designed for use with A. C. Dynamic Speakers only. It will efficiently operate five large dynamic speakers or about 25 magnetic speakers.
 Overall Dimensions: 18 3/4" L x 10 1/4" W x 7 1/4" H (less tubes). Shipping Wgt., 55 lbs.



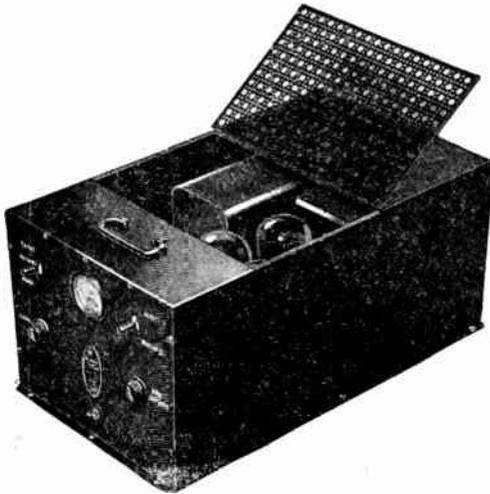
Operation	Model	List Price (Less tubes)	YOUR COST
For 110 Volts, 50/60 Cycle	C-74-50	\$160.00	\$94.08

MODEL CP-74-50

This is also a 3 stage unit similar to the C-74-50 with the addition of a built-in mike control and input mixing panel. Fully enclosed in ventilated metal case with carrying handles. Control panel equipped with meter and mike current control, switch for radio, pickup or mike input, master volume control and A.C. line switch.

SPECIFICATIONS

Input, 2-button microphone, high or low impedance pickup or radio tuner. Other details same as C-74-50.
 Overall Dimensions: 18 3/4" L x 10 1/4" W x 8 3/4" H (less tubes). Shipping weight, 55 lbs.



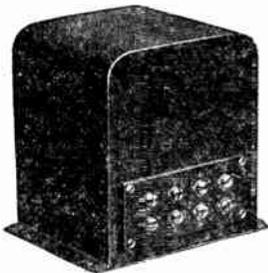
	List Price (less tubes)	YOUR COST
Model CP-74-50	\$205.00	\$120.54

WEBSTER TRANSFORMERS AND CHOKES

OUTPUT TRANSFORMER OT-850

To couple two 245 or 250 tubes to 500 ohm line or voice coil of 2, 4, 8, or 16 ohms.
 Shipping weight, 15 lbs.

List Price, \$15.00
 YOUR COST, \$8.82



OUTPUT TRANSFORMER OT-845

To couple two 845 type, 50-watt tubes to 500 ohm line or voice coil impedances of 2, 4, 8 or 16 ohms.

Shipping weight, 15 lbs.

List Price, \$15.00
 YOUR COST, \$8.82

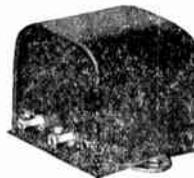


MICROPHONE TRANSFORMER MT-665

Designed for use with single or double button microphone or low impedance pickup, 200 ohm center tapped primary secondary feeds into primary of standard audio transformer. A quality transformer at a low price.

Shipping weight, 5 lbs.

List Price, \$5.00 YOUR COST, \$2.94



MICROPHONE TRANSFORMER MT-713

An exceptionally high quality transformer to couple any standard two button microphone to grid of amplifier tube.

Due to primary impedance of 1000 ohms at 60 cycles this transformer has excellent low frequency response.

Shipping weight, 7 lbs.

List Price, \$10.00
 YOUR COST, \$5.88



PUBLIC ADDRESS EQUIPMENT

ELECTRAD AMPLIFIERS

With this issue of our catalogue, ELECTRAD offers an entirely new line of vastly improved amplifiers. While fundamentally the justly famous direct coupled circuit is utilized, the engineering staff of ELECTRAD has completely redesigned each individual unit to a point that makes it the leading amplifier of its general class.

In the smaller units, the grid return has been made directly to ground, rather than to a point of higher potential, as in the past. This tends to greater stability in the amplifiers, absence of annoying hum and the ability to use any conventional coupling method, such as resistance-capacity coupling, all grounds being common.

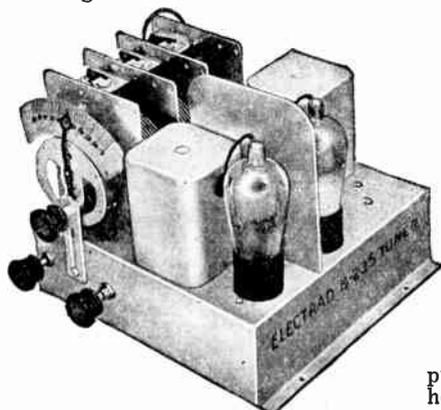
The elimination of the "hum-bucker" adjustment, accomplished by a greatly improved filter circuit in the power pack in conjunction with a unique resistance-capacity filter in the screen grid circuit of the '24 tube in the B-245 amplifier is a

great convenience, as it eliminated the necessity for adjustment.

In the higher powered units, such as the D-250 amplifier, which uses two 250 tubes in push pull, or the E-250 which used four 250's in dual push pull, an entirely new circuit is used. The voltage amplifier stages consist of a '24 and a '27 whose circuit is similar to the B-245, and the power amplifier stage is added, making three stages in all. The '27 is coupled to the power output stage through a high quality coupling unit.

The care that has gone into the selection of the components of these circuits is reflected in high power and excellent frequency characteristics.

Liberal safety factors have been allowed in the design of all of these amplifiers which gives to them a life factor and a dependability seldom equalled in amplifiers of anything like the cost.



ELECTRAD "B-235" TUNER

The new Electrad "B-235" Tuner is designed to work into the "B-245" Loftin-White Amplifier or for any other tuner use, requiring a compact unit with exceptional sensitivity and selectivity.

It uses two "235" type tubes, has three tuned stages and draws its voltage supply direct from its companion unit, the "B-245" Amplifier.

Dimensions: 7 3/4", 9 1/8", 8 3/4". Net Weight: 7 1/4 lbs.

List Price (Less Tubes), \$30.00

YOUR COST, \$17.64



"B-245"

The B-245 Amplifier has a power output of 1.6 watts, entirely sufficient for home use or small auditorium. While ordinarily only one speaker is used with this amplifier, two may be used for greater power distribution.

This amplifier may be either resistance coupled or transformer coupled to an existing radio receiver, with remarkable improvement in the tone quality of the receiver.

For small public address systems for phonograph or radio installations, for the laboratory technician or experimenter, this is a practical, inexpensive power amplifier.

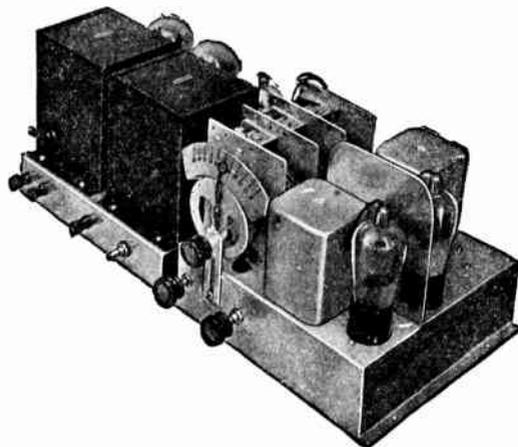
Specifications

B-245
 Power consumption—40 watts
 Tubes required—One '24, one '45, one '80
 Audio frequency stages—2
 Rated maximum undistorted output—1.6
 Rated gain at 1,000 cycles—54 db
 Rated gain at 100 cycles—50 db
 Rated gain at 10,000 cycles—50 db

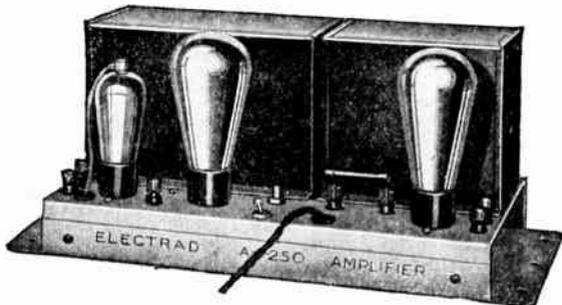
Input volts for maximum output—.15 volts
 Input direct to '24 control grid
 Output direct from '45 plate
 Dimensions overall—Length 9 1/2", width 6 3/4", height 7"
 Net weight, exclusive of tubes—15 lbs.

List Price (Less Tubes) \$32.50

YOUR COST, \$19.11



The "B-245" Amplifier coupled to the Electrad "B-235" Tuner makes a neat, compact and remarkably efficient radio receiver.



"A-250"

The same general applications apply to the B-250 amplifier as apply to the B-245 with the exception that considerably more power, approximately 4.6 watts, is available.

This power is sufficient to operate four (4) large Dynamic Speakers, supplying over 1 watt of sound energy to each speaker. Field excitation current is available for one (1) 2,500 ohm field.

Specifications

Power consumption—85 watts
 Tubes required—One '24, one '50, one '81
 Rated maximum undistorted output—4.9 watts
 Rated gain at 1,000 cycles—55 db
 Rated gain at 100 cycles—52.5 db
 Rated gain at 10,000 cycles—51.5 db
 Input volts for maximum output—.28 volts

Hum level—.4 volts
 Input direct to '24 control grid
 Output direct from '50 plate
 Speaker field current supply—2,500 ohm resistor attached, which may be removed when field current is desired
 Dimensions overall—Length 16 1/2", width 7 3/8", height 7 1/4"
 Net weight, exclusive of tubes—23 lbs.

List Price (Less Tubes), \$69.50

YOUR COST, \$40.83

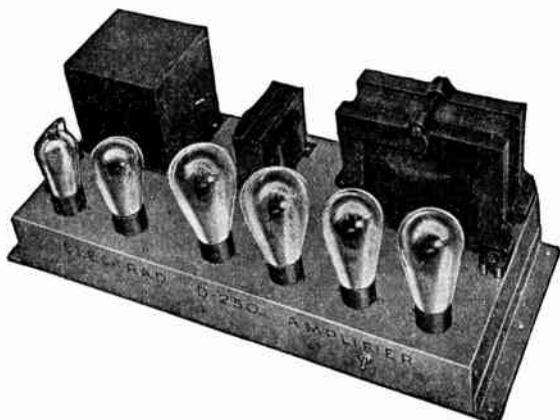
PUBLIC ADDRESS EQUIPMENT

ELECTRAD AMPLIFIERS

Model "D-250"

The D-250 amplifier is a logical application of high powered output tubes to a simple, efficient circuit. Basically, the direct coupled stage is fed through high quality audio coupled units, into the push-pull power output stage so that excellent frequency characteristics are realized with extremely high power.

The overall gain of this amplifier is approximately 76 decibels which is entirely sufficient to operate from a low impedance phonograph pick-up or any other low source of input.



Specifications

- Gain at 1000 cycles—76 db
- Gain at 100 cycles—75 db
- Gain at 10,000 cycles—54 db
- Undistorted power output 14.4 watts
- Hum level—.5 volts
- Primary watts—170
- Tubes—one '24, one '27, two '50's, two '81's
- Input direct to grid of '24
- Overall dimensions—Length 22", width 9", height 10½"
- Net weight—exclusive of tubes—63 lbs.

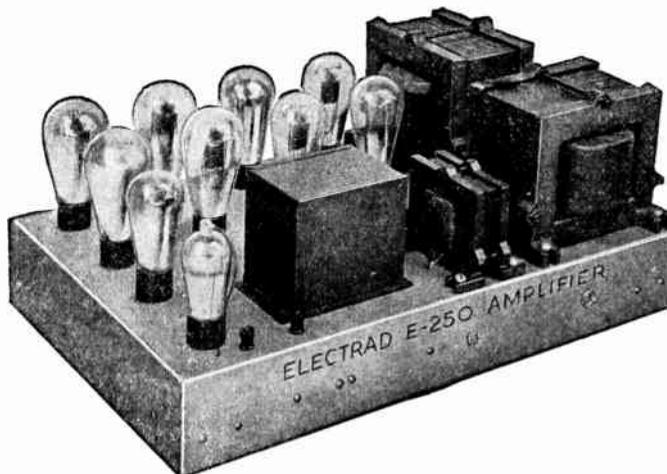
List Price (Less Tubes), \$95.00

YOUR COST, \$55.86

Model "E-250" Electrad Amplifier

Specifications

- Gain at 1000 cycles—76 db
- Gain at 100 cycles—75 db
- Gain at 10,000 cycles—54 db
- Undistorted power output 21.9 watts
- Hum level—.5 volts
- Primary watts—315
- Tubes—one '24, one '45, four '50's, four '81's
- Input direct to grid of '24
- Output supplied to your specifications
- Overall dimensions—Length 23", width 15", height 10½"
- Net weight—exclusive of tubes—115 lbs.



A giant in power, yet compact, the E-250 is an interesting addition to the Electrad line of direct coupled amplifiers. It was designed for installation where tremendous output power is necessary to cover an exceptionally large area, or to overcome high noise level such as in air ports, convention halls, ball parks, or college stadiums.

By utilizing four (4) 250 tubes in a special push-pull parallel circuit, the E-250 delivers 21.9 watts of undistorted energy. This is sufficient to supply 20 dynamic speakers with more than one (1) watt of energy to each speaker.

Similar to the other direct coupled amplifiers developed by Electrad, the input to the E-250 may be taken from a high impedance phonograph pick-up, a microphone or a radio tuner.

The coupling to a radio tuner may be either resistance, capacity or transformer.

List Price (Less Tubes), \$195.00

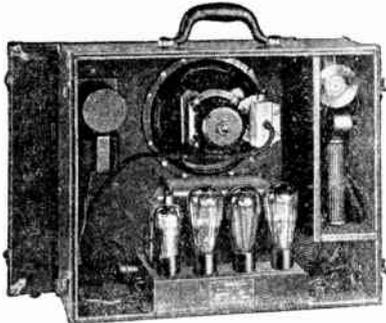
YOUR COST, \$114.66

Electrad Amplifiers are made to suit every purpose and need. We are prepared to furnish estimates on complete installations for public address systems for schools, churches, auditoriums or other public buildings. Write us giving your specifications and we will be glad to co-operate with you.

PUBLIC ADDRESS EQUIPMENT

NEW LOW PRICED PAMS BY SAMSON

PAM MIDGET



The Midget with the Voice of a Giant is an apt description of this new Samson portable PAM address system. Just imagine a two-year-old child (weight less than 30 pounds) addressing an audience of 500 persons in clear, distinct tones ranging from bass to soprano. This will give you an idea of the effectiveness of this modern marvel. It consists of a PAM 71 speaker amplifier, MIK 71 microphone amplifier, and a dynamic loud-speaker compactly and permanently fitted into a small carrying case. All of the accessories—microphone, cords, plugs, etc.—are stored in separate compartments of the case made especially for the purpose. For gatherings up to 500 people the Midget PAM Address System offers exceptionally high-quality equipment at an extremely low price. It has a wide variety of uses including:

- Department Stores—For style shows, beauty lectures, special sales demonstrations, and employees' training courses.
 - Business Houses—For sales meetings, special demonstrations, and employees' gatherings.
 - Trade Shows—For sales demonstrations at industrial exhibitions, trade shows, etc.
 - Outdoor Sales Demonstrations—For traveling sales demonstrations, advertising, etc.
 - Churches and Parish Houses—For social gatherings, entertainments, and the meetings of the various church organizations.
- The Midget PAM Address System is completely a.c. operated, including button current supply for the microphone. Volume is controlled by a variable control built into the microphone handle and operated by the same hand that holds the microphone.

List Price, \$115.00

Complete with amplifier, speaker, 2-button hand microphone with volume control, tubes, 50 feet of cable, installed in carrying case.

LESS CUSTOMARY DISCOUNT

PAM 71

Tubes required—one 224, one 280, two 245's. Number of stages—two. Rated maximum undistorted output—3.2 watts. Gain with its own special speaker—appr. 65 db. Input volts for maximum undistorted power output—0.15. Power consumption—53 watts at 110 volts 60 cycles. Source impedance—up to 500,000 ohms. Hum level below maximum undistorted power output with own special speaker—50 db. Field current supply—100 volts 70 ma with 1400-ohm field. Dimensions—10 $\frac{1}{4}$ " long, 6 $\frac{1}{4}$ " wide, 6 $\frac{1}{2}$ " high. Net weight exclusive of tubes—7 $\frac{1}{2}$ lbs.

List Price, \$39.50

List Price—Complete Set of Tubes, \$4.80
LESS CUSTOMARY DISCOUNT

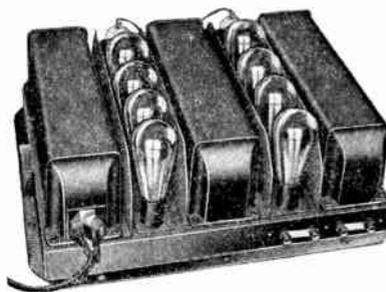
**MIK 71
MICROPHONE AMPLIFIER**

This amplifier is designed to be used exclusively with PAM 71. Compactness and light weight are its principal features aside from the inherent qualities of dependability and long life which are characteristic of all Samson products. It comes equipped with a cord for attachment to PAM 71, through which it gets its power supply. It operates entirely from a.c., including the microphone button current supply. Volume is controlled by the microphone to which it is connected, same in appearance as MIK 80.

List Price, \$19.50

LESS CUSTOMARY DISCOUNT

NEW PAM 29



Latest Samson creation with an undistorted output of 18.6 watts. Tubes required—Two 224's (screen grid), four 281's and four 250's. This job is without a parallel for both inside and outside amplification requirements, where tremendous volume and undistorted tone quality is desired. Will easily handle one to fifteen dynamic speakers or units. Output impedance, 2000 or 500 ohms.

This amplifier is designed to be operated from the output of the detector tube of a radio set, the output from a magnetic phonograph, pick-up, or any preamplifier unit.

List Price, \$225.00
LESS CUSTOMARY DISCOUNT

THE 7100 COMBINATION

The 7100 Combination unites a PAM 71 amplifier with a dynamic speaker specially designed for the purpose. It has a wide and varied field of usefulness where low cost, compactness, light weight, and portability are the chief considerations. This dynamic speaker is approximately 25% more efficient than any ordinary dynamic speaker. Field current is furnished by the amplifier. A 3-foot cable with UX plug attached is supplied to connect the speaker to the amplifier. If necessary the speaker cable can be lengthened to suit the particular requirements of the installation. The amplifier has two input terminals to take the output of a magnetic phonograph pickup, radio tuning unit, or MIK 71 microphone amplifier. The pickup should generate at least 0.5 volts for satisfactory operation and to obtain full power output of the amplifier.

LIST PRICE, \$49.50

7100 Combination—PAM 71 amplifier with matched dynamic speaker (chassis only) and 3-foot cable with UX plug attached.

List Price—Complete Set of Tubes, \$4.80
LESS CUSTOMARY DISCOUNT

PAM 85



The PAM 85 is similar to the power amplifier stage of the PAM 80 and is designed to be operated from the voltage amplifier stage of the PAM 80. It has exactly the same power output and operating characteristics. Any number of PAM 85 power stages can be operated from the PAM 80, thus allowing the addition at any time of more power for any installation without discarding equipment previously purchased. Each PAM 85 comes with cord and plug to attach to the PAM 80 or to its preceding PAM 85.

Tubes required—two UX-250's, two UX-281's. Number of stages—one. 800 cycle gain (with PAM 80)—104.9 decibels. Maximum undistorted power output—9.3 watts.

List Price, \$67.50

List Price, Complete Set of Tubes, \$22.00
LESS CUSTOMARY DISCOUNT

PAM 80



The PAM 80 is a combined voltage and power amplifier with facilities for additional power amplification and the supply of energy for microphone operation. It replaces, at less than half the price, voltage and power amplifiers that were formerly made separately.

PAM 80 has tremendously high amplification (gain). It has about twice the db gain of any other amplifier of its power and in its price range. High amplification heretofore has been apt to cause instability, but PAM 80 is entirely stable under all normal operating conditions.

PAM 80 is made to operate two accessory amplifiers, PAM 85 power amplifier and MIK 80 microphone unit. By the addition of a proper number of PAM 85's the PAM 80 may have an undistorted audio frequency power output of from 9.3 watts to 100 watts or more without the danger of high-voltage rectifier tubes and without expensive power tubes. Outlets in the form of sockets provide an extremely flexible method of connecting PAM 80 to PAM 85 and MIK 80.

Tubes required—One UY-224, one UX245, two UX-250's, two UX-281's. Number of stages—three. 800 cycle gain—104.9 decibels. Maximum undistorted power output—9.3 watts for not more than 5% voltage harmonic. Maximum input volts for above output—0.16 r. m. s. Power consumption—150 watts at 110 volts, 1.5 amperes, 60 cycles. Maximum temperature rise above surrounding air—19° Centigrade. Rated source impedance—up to 500,000 ohms. N.B.—Any source of this impedance or less, capable of delivering 0.16 volts, r. m. s., to input, is satisfactory. Rated load impedance—4,000 ohms. Range 2,000 ohms up.

N.B.—Efficiency decreases below 2,000 ohms and above 4,000 ohms. Distortion increases below 4,000 ohms.

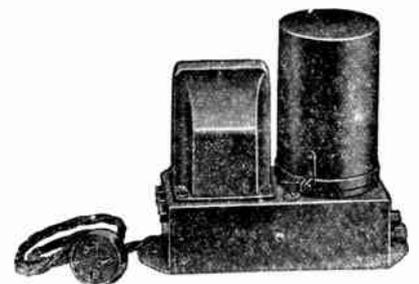
Dimensions (including clearances for tubes)—Length, 16 $\frac{1}{4}$ "; width, 9 $\frac{1}{4}$ "; height, 7 $\frac{1}{2}$ ". Net weight (without tubes)—21 lbs. 8 oz.

List Price, \$97.50

Price, Complete Set of Tubes, \$24.70
LESS CUSTOMARY DISCOUNT

MIK 80

MICROPHONE COUPLING UNIT



MIK 80 is designed for use solely with PAM 80. Taking advantage of the high amplification of PAM 80, it requires no tubes. It comes equipped with a cord and plug for attachment to PAM 80, through which it gets its power supply. It operates entirely from a.c., including button current supply. A 1000-ohm variable volume control is provided, but not built into the unit for the sake of portability and convenience. Terminals for the microphone are tip jacks, color coded.

List Price, \$22.50

LESS CUSTOMARY DISCOUNT

PUBLIC ADDRESS EQUIPMENT

AmerTran Products

AmerTran Series 80 Amplifiers

AmerTran Amplifiers type PA (series 80) provide an economical means of obtaining excellent reproduction of sound in large volumes. They are available in four sizes, the largest having sufficient output to flood a 2,500-seat auditorium with high-quality music or speech. On the other hand, the same amplifier could be employed for distributing audio-frequency power to numerous loud speakers in an apartment house or to hundreds of head 'phones in a hospital. Models for smaller installations and for home use are also available.

Easily Installed

As these units are of compact design, they may be located exactly where they are needed, for example, next to the radio tuner. Installation may be accomplished in fifteen minutes' time with the aid of a screw driver, it being necessary only to place tubes in the various sockets, insert a plug in the base outlet, and attach wires from ground, audio-frequency source, and speakers.

All Prices Less Tubes

Foolproof

All models are mounted on a rugged metal chassis of the type pictured below with parts and wiring completely enclosed, thus providing protection against tampering, damage in transit, and accidental contact with high-potential wires. A snap switch and two controls—input voltage and bias—are the only adjustable parts.

Portability

As they are of convenient size and may be transported without danger of damage, these units are ideal for temporary installations.

Electrical Design

Series 80 amplifiers are assembled from parts which are electrically identical to those sold separately under the AmerTran trade mark. Therefore, these units share the distinction of being considered "The Standard of Excellence for Audio Reproduction."

Send for Bulletin 1079

Type PA-83
Two Stages
Push-Pull Output
245-Type Tubes

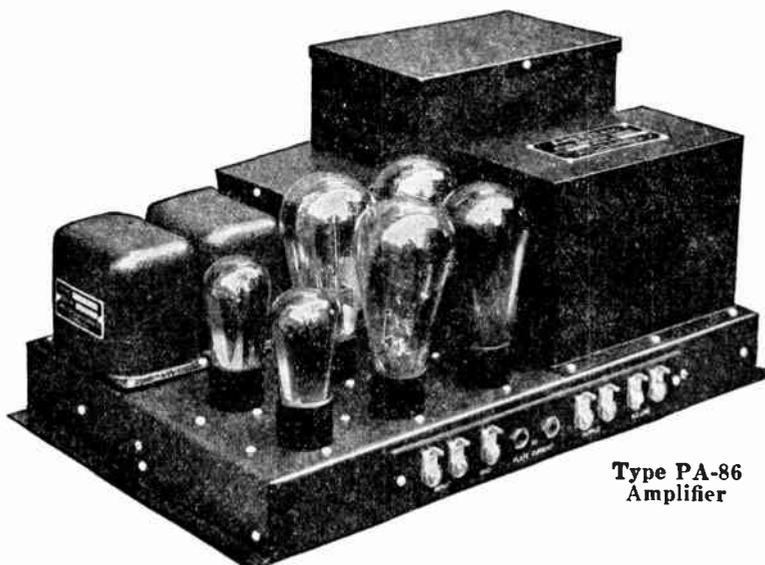
List Price
\$145.00

YOUR COST
\$85.26

Type PA-84
Three Stages
Push-Pull Output
245-Type Tubes

List Price
\$160.00

YOUR COST
\$94.08



Type PA-86
Amplifier

Type PA-85
Two Stages
Push-Pull Output
250-Type Tubes

List Price
\$180.00

YOUR COST
\$105.84

Type PA-86
Three Stages
Push-Pull Output
250-Type Tubes

List Price
\$195.00

YOUR COST
\$114.66

PUBLIC ADDRESS EQUIPMENT

Amer-Tran Audio Transformers

Since 1921 Amer-Tran Audio-Frequency Transformers have been manufactured to satisfy the demand for amplifier equipment of the highest quality. In every respect the best obtainable materials and workmanship are utilized in their construction, and the finished products represent the closest possible approach to the ideal that engineering genius can provide. Everywhere they are considered the "Standard of Excellence for Sound Reproduction."

All Amer-Tran Audio Transformers are made with core laminations of the best quality high-permeability alloy and a core structure which provides low distributed capacity, low capacity coupling, and high inductance coupling. Where center-tap connections are employed these are brought out between sections or coils which are so arranged as to give absolute magnetic and inductive symmetry and balance. All moisture is thoroughly removed from the windings during manufacture and a special moisture-proof insulating compound provides absolute protection against corrosion in all climates.

An Amer-Tran Audio Transformer is available for every amplifier need, the complete line including 34 standard models. Send for Bulletin 1050.

INTERSTAGE AUDIO TRANSFORMERS

	Type No.	List Price	YOUR COST
Amer-Tran De Luxe for 1st stage use, ratio 3:1 (Fig. 1)	1st Stage	\$8.00	\$4.71
Amer-Tran De Luxe for 2nd stage use, ratio 4:1 (Fig. 1)	2nd Stage	8.00	4.71
Between single tubes (1st or 2nd stage), ratio 3.5:1 (Fig. 2)	AF-8	5.00	2.94
Between output of 1 tube and 2 grids, ratio 2.5:1 (Fig. 1)	151	12.00	7.06
Between output of 2 tubes and 2 grids, ratio 1.75:1 (Fig. 3)	710	20.00	11.76

OUTPUT TRANSFORMERS (Fig. 1)

Two 210 type tubes to 2,000-4,000-ohm magnetic speaker	152	12.00	7.06
Two 210 type tubes to 10-15 ohm dynamic speaker	200	12.00	7.06
Two 245 or 171 type tubes to 2,000-4,000-ohm speaker	442	12.00	7.06
Two 245 or 171 type tubes to 10-15-ohm dynamic speaker	443	12.00	7.06
One 250, 210, 245, or 171 type tube to 10-15-ohm speaker	115	15.00	8.82
Two 250 or 245 type tubes to 1-9 dynamic speakers in series parallel or 200-ohm line (Fig. 3)	678	22.00	12.94

PENTODE OUTPUT TRANSFORMERS (Fig. 1)

Two 247-type tubes to 500-ohm line	6150	15.00	8.82
Two 247-type tubes to 2,000-4,000-ohm magnetic speaker	6152	15.00	8.82
Two 247-type tubes to 10-15-ohm dynamic speaker	6200	15.00	8.82

DETECTOR-TO-LINE TRANSFORMERS (Fig. 1)

Detector to 500-ohm line—level 10 db.	994	15.00	8.82
Detector to 200-ohm line—level 10 db.	805	15.00	8.82

PHONOGRAPH PICK-UP TRANSFORMERS (Fig. 1)

5,000, 6,000, or 8,000-ohm pick-up to 1st stage DeLuxe	389	8.00	4.71
500, 1,000, or 2,000-ohm pick-up to grid of tube	406A	15.00	8.82
500, 1,000, or 2,000-ohm pick-up to 200 or 500-ohm line	806A	18.00	10.79

LINE-TO-GRID TRANSFORMERS

500-ohm line to grid of tube (150,000 ohms)—level 0 db. (Fig. 1)	547A	15.00	8.82
200-ohm line to grid of tube (150,000 ohms)—level 0 db. (Fig. 1)	923A	15.00	8.82
500-ohm line to two 50,000-ohm grids (211 or 845 type tubes)—level +20 db. (Fig. 3)	3664	22.00	12.94

TUBE-TO-LINE TRANSFORMERS

Two 250 or 245 type tubes to 200-ohm line or 1-9 15-ohm dynamic speakers in series parallel (Fig. 3)	678	22.00	12.94
Two 250 or 245 type tubes to 500-ohm line—15-ohm monitor winding (Fig. 3)	3332	22.00	12.94
Two 210 or 112 type tubes to 500-ohm line—15-ohm monitor winding (Fig. 3)	3540	22.00	12.94
20,000 ohms to 500-ohm line, 2 mA. d.c. in pri., low level (Fig. 1)	993	12.00	7.06
Two 211 type tubes to 500-ohm line (Fig. 4)	3810A	68.00	40.00
Two 845 type tubes to 500-ohm line (Fig. 4)	4116A	68.00	40.00



Fig. 1



Fig. 2



Fig. 3

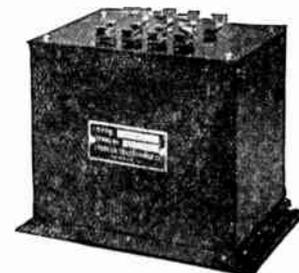


Fig. 4

Note: Mounting shown in Fig. 1 is also available with terminals taken out at base.

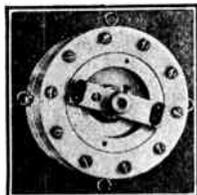
There Is an Amer-Tran Audio Transformer to Satisfy Every Amplifier Need

PUBLIC ADDRESS EQUIPMENT

AMERICAN MICROPHONES

American Microphones have found high favor among sound engineers, broadcast stations and amateur phone operators due to their excellent construction and wide frequency response.

AMERICAN MICROPHONE—Model "A1"

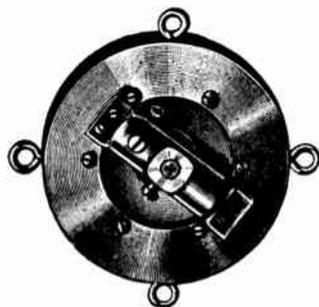


An extra large two button microphone extremely rugged in construction, built especially for all broadcasting purposes. Only the best materials are used. The diaphragm is of special duralumin .002 thickness, with pure gold contacts on each surface under the buttons. This model is three and one half inches in diameter, by one and three-quarter inches thick, the frequency range being from 30 to 7500 cycles; 100 ohms per button, requiring 6 volts with not over 10 mils per button. Very beautiful in appearance, being of brush nickle (steel) finish. This microphone compares with any other microphone on the market in appearance and quality of tone. Each unit carefully inspected and tested before shipment, and shipped you under the American Microphone Company guarantee.

requiring 6 volts with not over 10 mils per button. Very beautiful in appearance, being of brush nickle (steel) finish. This microphone compares with any other microphone on the market in appearance and quality of tone. Each unit carefully inspected and tested before shipment, and shipped you under the American Microphone Company guarantee.

List Price per Unit \$72.00
YOUR COST 36.00

NEW MODEL "SD"



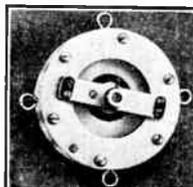
A rugged two button microphone, built of only the finest material obtainable, with a very minimum of hiss. This unit uses a duralumin diaphragm .002 thickness, with pure gold contacts below each button, the same diaphragm as you obtain in the large A-1 unit.

Model "SD" has a frequency range from 30 to 6500 cycles, which is greater than that of competitive models, which use

entirely Gold Plated Diaphragms, that cannot give you the frequency response desired. Buttons 100 ohm resistance each. Many of these "SD" models are in use in Broadcasting Stations throughout the country, producing very satisfactory results, with an increasing demand. Made in three sensitivities: A—very sensitive; B—medium sensitive (standard); C—dampened. You may compare this unit with any other \$75.00 unit on the market, many of which will not compare even in construction and material used, and none can compare with the superior quality of tone rendered by the "SD" unit.

List Price of Model "SD" Only \$50.00
YOUR COST 25.00

AMERICAN MICROPHONE—Model "CD"



A two button microphone, built only for voice pick-up, faithfully reproducing all the notes and sounds within the audible range of the human voice. It is especially built for Public Address work; amateur broadcasters, and experimenters. A great many radio broadcasting stations use this model entirely, when announcing record programs. Its frequency range is from 45 to 3500 cycles, impedance 100 ohms per button and operates on 6 volts, and not over 10 mils per button. This microphone is of brush nickle (steel) finish. Each unit carefully inspected and tested before shipment, and shipped to you under the American Microphone Company guarantee.

operates on 6 volts, and not over 10 mils per button. This microphone is of brush nickle (steel) finish. Each unit carefully inspected and tested before shipment, and shipped to you under the American Microphone Company guarantee.

List Price per Unit \$23.00
YOUR COST 11.50

NEW MODEL "SJ"



This unit is a single button microphone built for use where only the voice is necessary. It is entirely handmade throughout, and not die cast, as competitive models. Extremely rugged in construction, using the best material obtainable.

Model "SJ" will handle frequencies from 70 to 3000 cycles; the single button is 100 ohm resistance. Our ever increasing demand for this unit has caused us to treble production on this item alone.

List Price of Model "SJ" Only \$12.50
YOUR COST 6.25

MICROPHONE CALL LETTER SHIELDS



A great many Radio Stations are using these shields to equip remote control microphone stands. Made of solid bronze with raised letters on both sides. Can also be furnished for goose neck stands by inverting call letters. Six letters are allowed on each side where necessary.

Per Shield, letters both sides \$10.00
YOUR COST 6.00

MICROPHONE CABLES

	List Price	Your Cost
6 Foot Cable, Three Coded Conductors (Terminals Both Ends)	\$ 1.50	\$0.90
12 Foot Cable, Three Coded Conductors (Terminals Both Ends)	2.40	1.44
25 Foot Cable, Three Coded Conductors (Terminals Both Ends)	5.00	3.00
50 Foot Cable, Three Coded Conductors (Terminals Both Ends)	10.00	6.00

SHIELDED MICROPHONE CABLES

	List Price	YOUR COST
6 Foot Shielded Cable with Terminals Both Ends	\$1.75	\$1.05
12 Foot Shielded Cable with Terminals Both Ends	2.50	1.50
25 Foot Shielded Cable with Terminals Both Ends	4.00	2.40
50 Foot Shielded Cable with Terminals Both Ends	6.00	3.60

Microphone Springs

A good quality nickel-plated spring for all suspension type microphones.

List Price, 5c Your Cost, 3c

Potentiometer with Switch

Yaxley 400 ohm potentiometer with integral switch for controlling microphone current.

List Price, \$1.50 Your Cost, 90c

PUBLIC ADDRESS EQUIPMENT

MICROPHONE STANDS

RESCO MICROPHONE DESK STAND



This desk stand contains a ring six and one-quarter inches in diameter, built to accommodate Models "CD" and "A1" of the American Microphone Company and will also fit any large two button microphone now in use. Four point suspension ring for standard microphone mounting.

Ring is turned from solid brass seamless tubing, mounting on extra heavy cast iron base which cannot easily upset.

Microphone cable passes through hole in base preventing damage or cutting of cable.

Finished in polished nickel or bronze. State finish desired when ordering.

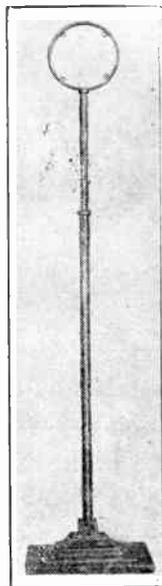
Desk Stand with 8 Springs
List Price, \$7.50 YOUR COST, \$4.50

RESCO MICROPHONE ADJUSTABLE FLOOR STAND

An extra heavy floor stand with extra heavy base weighing 18 pounds, so that all possibility of tipping is eliminated. The top ring is 6 1/4" in diameter, four point suspension to accommodate all large microphones now in use. Total height, 6 feet. It is smoothly operated with very positive clamp lock, preventing falling of stand while extended. Finished in nickel or bronze.

Stand with Set of 8 Springs

List Price, \$15.00
YOUR COST, \$9.00



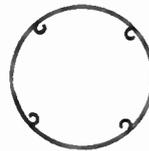
RESCO HANDY MIKE RING

A carrying case to be used on remote control jobs, where it is most convenient to carry the unit around. Also very fine for public address work on trucks, where the announcer drives and announces at the same time. Complete with springs and handle ready to install unit.

Mike Ring with Handle and 8 Springs

List Price, \$7.50 YOUR COST, \$4.50

MICROPHONE RING



A 6 1/2" microphone ring for suspension work. Has loop for hanging. Finished in nickel or bronze.

List Price, \$4.00 YOUR COST, \$2.40

RESCO MICROPHONE BANQUET STAND

A beautifully finished stand, adjustable from 12 to 24 inches. The top ring is 6 1/4" in diameter, four point suspension built to accommodate any large microphone on the market. Finished in polished nickel or statuary bronze. An ideal stand for banquet work or for use in church pulpits.

Weight of base, 6 pounds, so that there is no possibility of tipping.

Stand with 6 1/4" ring and 8 springs.

List Price, \$12.50
YOUR COST, \$7.50



FEDERAL ANTI-CAPACITY SWITCH

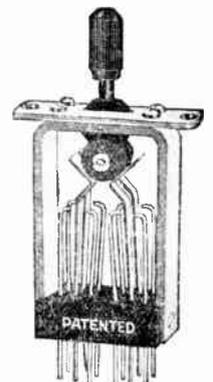
All Anti-Capacity Switches are equipped with a highly-polished nickel-plated face plate. Springs are of phosphor bronze, silver-plated for good conductivity. The insulating block in which the springs are mounted is phenol plate—the best insulating material known. The cam arrangement is of the roller type, providing smooth and easy lever action.

No. 1424, 4 P. D. T.—12 Spring	\$2.90	\$1.74
No. 1425, D. P. D. T.—6 Spring	2.45	1.47
No. 1427, D. P. S. T.—4 Spring	2.45	1.47

List Price	YOUR COST
\$2.90	\$1.74
2.45	1.47
2.45	1.47



No. 1424



No. 1425

PUBLIC ADDRESS EQUIPMENT

RACON REPRODUCERS

The Perfect Mouth-Piece for Your Sound System

A type for every sound need. Racon horns and units are used in the great majority of sound system installations and are well and favorably known for their ability to stand up and give perfect satisfaction at all times.

RACON TRUMPETS

3 1/2-Foot Trumpet

Bell 22 inches round. Length 3 1/2 feet.

STORMPROOF—Equipped with metal beaded edge, cast aluminum ferrule and suspension ring. Guaranteed for one year.

For outdoor use in all climates and weathers. Weight 9 1/2 pounds.

List Price, \$40.00

YOUR COST, \$23.52

DELUXE—Equipped with metal beaded edge, cast aluminum ferrule and suspension ring.

For indoor use or temporary outdoor use. Weight 7 pounds.

List Price, \$25.00

YOUR COST, \$14.70

REGULAR—Equipped with metal beaded edge, metal ferrule and suspension ring. Adapted for 7/8-18 inch threaded unit.

For indoor use only. Weight 6 1/2 pounds.

List Price, \$20.00

YOUR COST, \$11.74

Extra charge for Giant Unit Adapter



6-Foot Trumpet

Bell 30 inches round. Length 6 feet.

STORMPROOF—Equipped with metal beaded edge, cast aluminum throat and 4 inch suspension ring.

For outdoor use in all climates and weathers. Single unit horn. Weight 21 pounds.

List Price, \$65.00

YOUR COST, \$38.22

REGULAR—Equipped with metal beaded edge, cast aluminum throat, and 4 inch suspension ring. For indoor use only in all climates. Weight 17 pounds.

List Price, \$50.00

YOUR COST, \$29.40



BABY

Electrodynamic Horn Unit. 6 volt excitation. 1 1/4 amp. consumption. Approximately. 15 ohm voice coil impedance.

Continuous operating capacity, 5-7 watts.

Peak load cap., 18 watts.

Weight 6 1/4 pounds.

List Price, \$25.00

YOUR COST, \$14.70



HI-POWERED MAGNETIC UNIT

Continuous operating capacity, 2 watts.

Impedance 2000 ohms.

Adaptable for public address use only.

Weight 4 pounds.

List Price, \$25.00

YOUR COST, \$14.70



JUNIOR

Electrodynamic Horn Unit.

6-8 volt field excitation. 1.1 amp. consumption. Approximately.

15 ohm voice coil impedance.

Continuous operating capacity, 6-8 watts.

Peak load capacity, 20 watts.

Weight 11 pounds.

List Price, \$40.00

YOUR COST, \$23.52



GIANT

Electrodynamic Horn Unit.

6-8 volt field excitation. 1.1 amp. consumption. Approximately.

15 ohm voice coil impedance.

Continuous operating capacity, 7-10 watts.

Peak load capacity, 25 watts.

Weight 20 pounds.

List Price, \$70.00

YOUR COST, \$41.16



MASTER

Electrodynamic Horn Unit.

6-8 volt field excitation. 1.1 amp. consumption. Approximately.

15 ohm voice coil impedance.

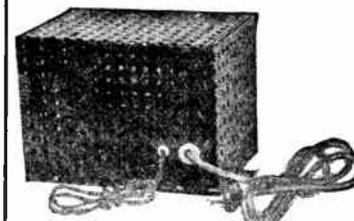
Continuous operating capacity, 6-8 watts.

Peak load capacity, 25 watts.

Weight 13 1/2 pounds.

List Price, \$60.00

YOUR COST, \$35.28



FIELD EXCITER

Supplies proper field excitation for Racon Electrodynamic Horn Units.

Humless. Does not overheat.

Weight 9 pounds.

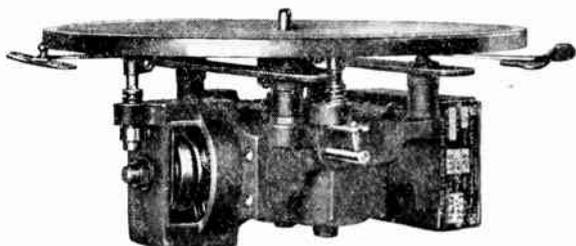
List Price, \$20.00

YOUR COST, \$11.76

Units Can be Furnished with 110 or 220 D. C. Fields at No Extra Cost

PUBLIC ADDRESS EQUIPMENT

NEW 2 SPEED PHONOGRAPH MOTORS



Green Flyer Model "D"—Two Speed
110 Volt, 60 Cycle A. C.

The new Model "D" Green Flyer Two Speed Phonograph Motor is designed for the new long playing records which operate at 33½ R.P.M. Has speed changing mechanism for playing either the new records or the old 78 R.P.M. records.

Motor is induction type with ample power for the heaviest of pickups, assuring unvarying speed under load. All gears are completely enclosed and run in oil, making for unusually quiet operation. Long oversize self-lubricating bearings.

Speed changing mechanism lever operated from motor board.
Model "D" Green Flyer Two Speed Motor Complete with 12" Turntable

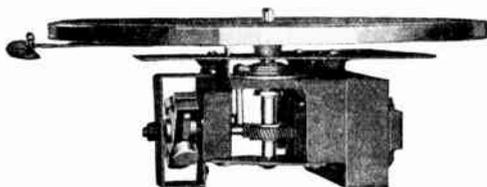
List Price, \$15.50

YOUR COST, \$11.18

For Automatic Stop add \$1.25 Net

Can also be furnished for other voltages and frequencies and for 110 or 220 D. C.

SINGLE SPEED MOTORS



Green Flyer

GREEN FLYER MOTOR

A very fine and powerful motor furnished for either 78 R.P.M. or 33½ R.P.M. records.

Induction type motor, open construction, allowing perfect ventilation.

Green Flyer Motor Complete with 10" Turntable

Model "A", 78 R.P.M.—List Price, \$12.50

YOUR COST, \$8.75

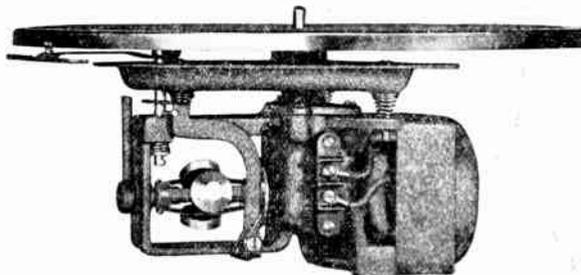
Model "B", 33½ R. P. M.—List Price, \$14.50

YOUR COST, \$10.85

For 12" Turntable add 50c Net

For Automatic Stop, add \$1.25 Net

Can also be furnished for other voltages and frequencies and for 110 or 220 D. C.



Blue Flyer

BLUE FLYER MOTOR

The highest quality single speed motor obtainable. Quiet running induction type motor with long oversize self-lubricating bearings. Furnished for either 78 or 33½ R. P. M. records.

Blue Flyer Motor Complete with 10" Turntable

Model "E", 78 R.P.M.—List Price, \$15.00

YOUR COST, \$10.50

Model "F", 33½ R.P.M.—List Price, \$17.00

YOUR COST, \$11.95

For 12" Turntable add 50c Net

For Automatic Stop add \$1.25 Net

PHONOGRAPH PICKUPS

Hydro Magnetic Pickups are famous for their wide frequency response and high output. Especially adapted for use in public address installations and for sound picture work. Full floating double action armature and finely balanced arm insuring perfect tracking.



Standard type Hydro Pickup without volume control. 11¼" overall. Length 9½" from center pin to needle point. Can also be furnished 8¾" length at same price. Statuary bronze finish.

List Price, \$10.50

YOUR COST, \$4.25

THEATRE TYPE PICKUP

Special long arm pickup for theatre use and for home talkies.

15½" overall length. Not equipped with volume control.

List Price, \$12.50

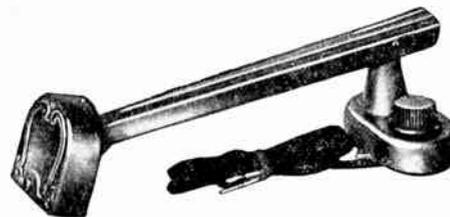
YOUR COST, \$5.65

HYDRO PICKUP HEAD ONLY

For use on phonograph tone arms.

List Price, \$8.00

YOUR COST, \$3.75



Standard type Hydro Pickup with volume control mounted on base. 8¾" overall. Length, 7¾" from center pin to needle point. Can also be furnished in 11¼" length at same price. Statuary bronze finish.

List Price, \$12.50

YOUR COST, \$5.65

All Pickups furnished in standard high impedance unless otherwise specified.

AMATEUR TRANSMITTING APPARATUS

Amateur operators and experimenters will find listed on the following pages a complete line of short wave transmitting and receiving apparatus. Our ham department is under the personal supervision of a licensed amateur and you can be assured that your orders will receive prompt attention and intelligent interpretation. All apparatus is guaranteed as represented and is covered by our own as well as the manufacturer's guarantee against mechanical or electrical defects.

THE FAMOUS JEWELL TRIO



The Jewell Trio is familiar to all transmitting amateurs. Furnished in all popular types and ranges.

Patterns 88, 68, and 78 are furnished for panel mounting in cases of molded bakelite. Flange diameter, 3 1/2", case diameter 2 3/4". Approximate shipping weight, 3 pounds.

Pattern 68—R. F. Thermo-Couple Antenna Ammeters, 0-.5, 1, 1.5, 2, 2.5, 3, 5, 10, 15 Amp.

Any Range, List Price, \$13.35
YOUR COST, \$9.81

Pattern 78 A. C. Voltmeter—0-3, 5, 10, 15, 20, or 30 volts.

List Price, \$7.50 **YOUR COST, \$5.52**

0-150 Volts

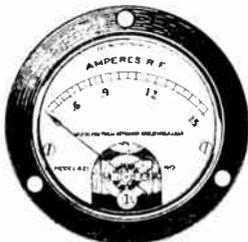
List Price, \$9.50 **YOUR COST, \$7.13**

Pattern 88 D. C. Milliammeters—0-5, 10, 15, 25, 50, 100, 150, 200, 300, 500 M.A.

Any Range, List Price, \$7.50
YOUR COST, \$5.52

WESTON RADIO INSTRUMENTS

The Weston Model 301, 476, and 425 Panel Mount Instruments are standard equipment on thousands of installations. Furnished in 3 1/4" cases of bakelite or metal.



Model 425 Thermo-Couple Antenna Ammeters—0-1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 15, or 20 amperes.

List Price \$13.50
YOUR COST, \$9.93

Model 476 A. C. Filament Voltmeters—0-3, 5, 10, or 15 volts.

List Price, \$8.00 **YOUR COST, \$5.88**

0-150 Volts

List Price, \$10.00 **YOUR COST, \$7.35**

Model 301 D. C. Milliammeters—0-50, 100, 150, 200, 300, 500 or 800 mills.

List Price, \$8.00 **YOUR COST, \$5.88.**

For other Jewell or Weston Meters
See Pages 3 to 7

SIGNAL KEYS, RELAYS, SOUNDERS

R-48 Signal Key

The most popular key we carry. Made of brass polished and lacquered. Contacts of coin silver. A well balanced good looking key.

List Price, \$2.80 **YOUR COST, \$1.68**



Signal Heavy Duty Standard Transmitting Keys



Standard Wireless Key—Brass Base
Made very sturdy. Coil silver contact. Polished and lacquered brass parts.

	List Price	YOUR COST
R-62—1/8" Contacts	\$3.50	\$2.10
R-63—1/4" Contacts	3.70	2.22
R-64—3/8" Contacts	3.90	2.34

Junior Key—112K



112-K Key
A low priced key for the junior operator. Iron frame on wood base. A very sturdy key.

List Price, \$2.25
YOUR COST, \$1.35

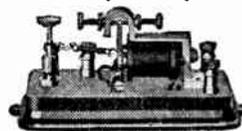
High Frequency Buzzer



This type buzzer is the same as used on our R-68 practice set. It is adjustable. Has standard resistance of 2 ohms. Can be furnished in special Type R-60 resistances on quantity orders. Black crystallized lacquer finish.

List Price, \$1.25
YOUR COST, 75c

Pony Relay



A favorite with amateurs for low power work. A well made unit mounted on wood sub-base with cast iron base. All metal parts polished and lacquered. Has a variety of uses around the ham shack.

	List Price	YOUR COST
M-105—20 ohm	\$5.00	\$3.00
M-106—50 ohm	5.25	3.15
M-107—75 ohm	5.75	3.45

Sematic Key

Semi-Automatic and Double Action



M-200
This is a professional key of the latest design with a minimum number of adjustments. It can be used as a double action or semi-automatic key. Heavy black cast base with nickel-plated brass parts.

List Price, \$16.00
YOUR COST, \$10.98

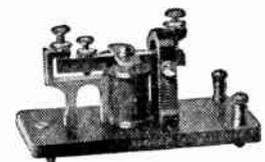
Wireless Practice Set



R-68 "Signal" Wireless Practice Set
Just the instrument for those who want to learn the code. The code is printed on a little brass plate fastened to base.

Equipped with our Type R-60 High Frequency Buzzer.
List Price, \$3.40
YOUR COST, \$2.04

Sounders



Sounder
Sounding plate, bar frame and bridge of lacquered brass. Aluminum sounding bar and rubber covered coils. Mounted on mahogany finish base.

	List Price	YOUR COST
M-102—4 ohm	\$3.25	\$2.28
M-103—20 ohm	3.50	2.45
Black enamel bar frame. Aluminum sounding bar and brass bridge. Mahogany finished base.		
	List Price	YOUR COST
112-S—4 ohm	\$2.50	\$1.75
113-S—20 ohm	2.75	1.93

TRANSMITTING APPARATUS

R. E. L. TRANSMITTERS, RECEIVERS, WAVEMETERS -- Complete Kits and Parts

Radio Engineering Laboratories' products are well known to the amateur fraternity, as they have been building precision short wave equipment for a number of years. Pioneers in the development of short wave apparatus REL is always able to offer equipment of the most advanced design and construction. We are pleased to present herewith a complete line of REL Products, designed especially for the transmitting amateur.



The best value in amateur radio today. Complete ready for operation. Plug in the tubes, connect the power supply and let 'er go.

30 WATT PUSH PULL TELEGRAPH TRANSMITTER CAT. 271—CODE "EGUFT"

The Cat. No. 271 push pull transmitter is a compact newly designed set for amateur purposes. It is completely built and tested ready for immediate operation. Any type of UX tube may be employed. However, for maximum output it is suggested to use either the 245, the 210 or the DeForest 510 type tubes. When using the DeForest 510 tubes an output of 30 watts will be obtained.

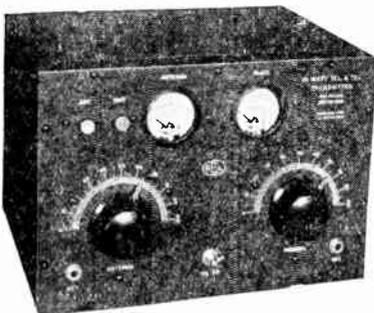
The set is regularly furnished with one grid coil and one plate coil for either the 10, 20, 40 or 80 meter bands. When ordering please specify the coil desired. Meters are not furnished. Mounting brackets for meters are supplied which are designed to be adapted to any type or size of meter which the amateur may have on hand. The power supply used will depend upon the tubes employed. Dimensions 15½" x 7" top x 4" high. Net weight 4¾ pounds.

Cat. No. 271 Transmitter Completely Built

List Price, \$17.50

YOUR COST, \$15.75

Additional Coils for Other Amateur Bands, YOUR COST, \$2.70 per band



The ideal amateur low power phone and code transmitter. Neat in appearance, easy in operation. In reality a miniature broadcast station.

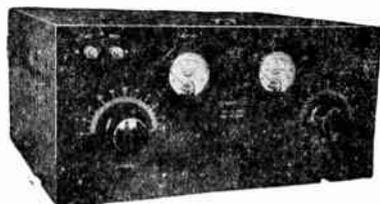
10 WATT TELEGRAPH & TELEPHONE TRANSMITTER KIT CAT. 209—CODE "EGUHZ"

The Cat. No. 209 kit is a low power transmitter adapted to both voice and code transmission. It is designed to employ a 210 type tube as oscillator and a 250 type tube as modulator. Three plug-in coils are regularly furnished for the 20, 40 and 80 meter band. Any standard single button hand microphone may be used with this set. Dimensions 9" x 13" front x 10" deep. Net weight, 13 pounds.

Cat. No. 209 Transmitter Kit

List Price, \$68.00

YOUR COST, \$61.20



A medium powered set which will enhance the beauty of any amateur station. Makes an ideal RF power amplifier.

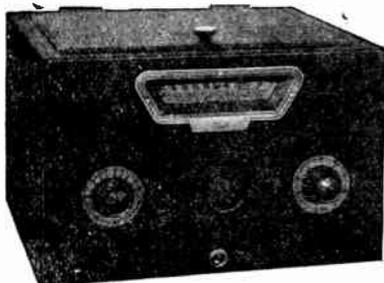
50 OR 75 WATT TELEGRAPH TRANSMITTER KIT CAT. 206—CODE "EGUKI"

The Cat. No. 206 kit can be used as a single tube transmitter directly connected to an antenna or else it can be used as an RF power amplifier following either a master oscillator or a crystal control circuit. Supplied either for use with 50 watt or 75 watt tube depending upon the purchaser's specifications when ordering. Designed for 40 and 80 meter band operation. If desired and so specified, inductances for the 20 and 40 meter band can be supplied instead. Dimensions 9" x 19" front x 16" deep. Net weight 35½ pounds.

Cat. No. 206 Transmitter Kit

List Price, \$94.00

YOUR COST, \$84.60



BAND SPREAD RECEIVER CAT. 278—CODE "EIRSU"

An efficient Band Spread Receiver specially designed for amateur purposes. Compact, rugged and light in weight; features which will make it adaptable to airplanes, automobile, portable, point to point and similar uses. It is regularly furnished with 20, 40 and 80 meter plug-in coils which are designed to give full dial spread tuning of each of the amateur bands.

Coils for other band spreading can be supplied upon specifications. Coils for spreading the 25 and the 49 meter short wave broadcast channels are regularly carried in stock and can be furnished with this receiver at extra nominal cost.

The astonishing efficiency obtained with the REL Cat. No. 278 Receiver is mainly due to the correctly proportioned coils. The novel Tank and Vernier Condenser allows a unique method for obtaining a definite capacity ratio to each winding employed. Uses two 236 and one 238 6 volt Heater Tubes.

List Price, \$45.00

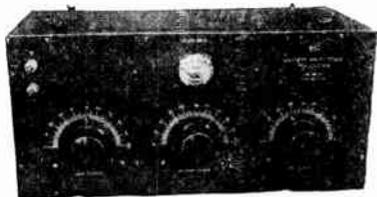
YOUR COST, \$28.50 Wired and Tested

GENERAL INFORMATION ON ABOVE KITS

Each of the above kits is furnished with all necessary well designed parts so that the purchaser can easily and quickly assemble the set as per the concisely written instructions furnished. Tubes, power supply or antenna equipment not included. Any type of power supply may be used providing it furnishes sufficient plate and filament voltage to operate the tube or tubes to be employed. A drilled and engraved metal panel and a metal cabinet is furnished with each kit thus assuring a commercial-like transmitter when completed. Any of the above kits may be purchased completely built and tested at a nominal additional charge.

TRANSMITTING APPARATUS

R.E.L. PRODUCTS



The traffic handler de luxe for the amateur who desires the utmost in frequency stability and tone quality.

10 WATT MULTI-STAGE TELEGRAPH TRANSMITTER KIT CAT. 215—CODE "EGUIC"

The Cat. No. 215 kit employs a multi-stage master oscillator power amplifier circuit using the following arrangement: A UY-227 tube as master oscillator, a UY-224 tube as screen grid buffer stage and a UX-245 or a UX-210 tube as power amplifier. Regularly supplied with one set of plug-in inductances for each stage. When ordering specify the band on which operation is desired so that the correct coils can be furnished. Additional coils for any other band may be purchased extra. Dimensions, 9" x 19" front x 10" deep. Net weight, 18½ pounds.

Cat. No. 215 Transmitter Kit—YOUR COST, \$56.00

Additional Coils for Other Amateur Bands—YOUR COST, \$7.00 per band



Cat. No. 225—An ideal modulator unit for the phone man.

10 WATT MODULATOR KIT CAT. 225—CODE "EGUJF"

The Cat. No. 225 kit is designed to operate in conjunction with the Cat. No. 215 kit so as to obtain a high grade telephone transmitter. 100% modulation of the carrier wave plus perfect tone reproduction. Employs one type 250 tube as modulator and one type 227 tube as speech amplifier. May be operated from the same power supply source as used with the Cat. No. 215. Designed to use a single button carbon microphone. Easily changed so that a two button microphone may be employed.

The illustration on the left shows the clean cut business-like appearance of the Cat. No. 225 modulator kit. Dimensions 9" x 13" front x 10" deep. Net weight, 21 lbs.

Cat. No. 225 Modulator Kit—YOUR COST, \$42.00



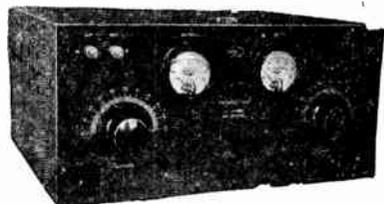
The most popular transmitter circuit for the average medium power amateur station. Easy to connect, easy to operate and results beyond compare.

50 OR 75 WATT M. O. P. A. TELEGRAPH TRANSMITTER KIT CAT. 222—CODE "EGULA"

The Cat. No. 222 kit can be directly connected to an antenna and employed as a master oscillator power amplifier type of telegraph set thus assuring absolute frequency stability such as is obtained from crystal control. The master oscillator circuit employs a 210 type tube which feeds the power amplifier. This may use either a 50 watt or 75 watt tube depending upon what the purchaser specifies. The master oscillator is furnished with two plug-in inductances designed for 40 and 80 meter bands. The power amplifier is regularly furnished with inductances for 40 and 80 meter band operation. If specified inductances for 20 and 40 meter band operation can be furnished instead. The Cat. No. 222 is a compact, well shielded transmitter, which will fulfill every requirement for a highly efficient radio station. Dimensions, 9" x 28" front x 16" deep. Net weight, 49½ pounds.

Cat. No. 222 Transmitter Kit

List Price, \$130.00 YOUR COST, \$117.00



An amateur phone set of medium power which will transmit the voice with true fidelity over great distances.

50 WATT TELEGRAPH & TELEPHONE TRANSMITTER KIT CAT. 263—CODE "EGUMO"

The Cat. No. 263 kit when completed makes an efficient 50 watt transmitter adaptable to both voice and code transmission. It employs a 203A type of tube as oscillator—a 845 type of tube as modulator and a 250 type tube as speech amplifier. Designed to operate with ordinary single button hand microphone. With slight alterations can be used with two button microphones. Inductances regularly furnished are for 40 and 80 meter band operation. If so specified inductances for 20 and 40 meter band operation can be furnished instead. Dimensions, 9" x 28" front x 16" deep. Net weight, 72 pounds.

Cat. No. 263 Transmitter Kit

List Price, \$166.00 YOUR COST, \$149.40



The big boy—250 watts of real power for those who want to rival commercial short wave stations.

250 WATT TELEGRAPH TRANSMITTER KIT CAT. 264—CODE "EGUNS"

The Cat. No. 264 kit can be used as a single tube transmitter directly connected to an antenna or else it can be used as an RF power amplifier following a master oscillator or crystal control circuit. It is designed to employ a 204 A type tube. Inductances for the 40 and 80 meter bands are regularly furnished. If the purchaser desires to operate in the 20 and 40 meter bands correct inductances for these bands can be supplied instead of the ones regularly included. Dimensions, 9" x 28" front x 16" deep. Net weight, 43 pounds.

Cat. No. 264 Transmitter Kit

List Price, \$138.00 YOUR COST, \$124.20

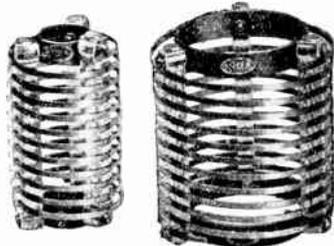
GENERAL INFORMATION ON ABOVE KITS

Each of the above kits is furnished with all necessary well designed parts so that the purchaser can easily and quickly assemble the set as per the concisely written instructions furnished. Tubes, power supply or antenna equipment not included. Any type of power supply may be used providing it furnishes sufficient plate and filament voltage to operate the tube or tubes to be employed. A drilled and engraved metal panel and a metal cabinet is furnished with each kit thus assuring a commercial-like transmitter when completed. Any of the above kits may be purchased completely built and tested at a nominal additional charge.

TRANSMITTING APPARATUS

REL PRODUCTS

TRANSMITTING INDUCTANCES

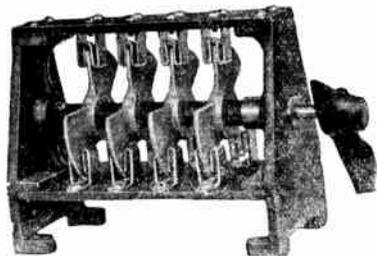


REL Inductances are wound with flat nickel-plated copper ribbon and mounted on moulded glass supports. Complete elimination of all unnecessary material makes the REL Inductors 95% air dielectric, assuring low losses and low distributed capacity. Furnished in three sizes.

- Type S for 20 and 40 meters—3" dia., 6" long, 11½ turns.
- Type L for 40 and 80 meters—5" dia., 6" long, 11½ turns.
- Single Units, S or L—List Price, \$5.50; YOUR COST, \$3.30
- Double Units, S or L—List Price, \$11.00; YOUR COST, \$6.60
- Two ½" dia., 15" long glass rods furnished with double units.
- Type LL for 160 meters—8" dia., 6" long, 11½ turns.
- Single Units LL—List Price, \$11.00; YOUR COST, \$6.60
- Three REL Sure Grip Clips with Each Unit.

ANTENNA CHANGEOVER SWITCH

The REL Cat. No. 269 four pole, double throw, Rotary Drum Type Switch is suitable for a variety of purposes in radio installations. Its chief radio uses are:



1. As an antenna changeover switch.
2. As a means of changing over from C.W. to phone in multi-stage transmitters.
3. As a wave changing switch.

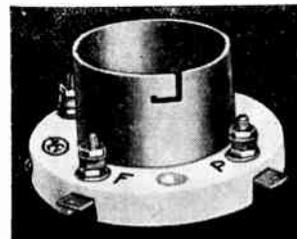
The switch is insulated to stand voltages up to 3500. It is ruggedly constructed, employing front and rear aluminum castings. The rotar shaft is of heavy bakelite and carries the four switch blades. May be either panel or base mounted. A metal pointer handle is regularly furnished. Base dimensions—2¾" x 5½" x 4½" high. Net weight, 1¾ lbs.

Cat. No. 269 Changeover Switch—List Price, \$12.50
YOUR COST, \$9.20

50-WATT TUBE SOCKET

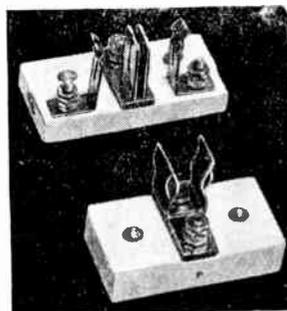
The REL Cat. No. 131-A Socket fits all standard 50-Watt tubes such as 03A, 11, 45, 72, etc.

Base is of heavy glazed Isolantite with one-piece contacts of phosphor bronze. Designed to give both bottom and side wiping contact. All metal parts are nickel-plated. The finest 50-watt socket ever built.



Cat. No. 131-A, 50-Watt Socket—List Price, \$2.75
YOUR COST, \$1.62

250-WATT TUBE MOUNTINGS



These improved mountings fit all standard double-ended tubes such as 04A, 49, 51, 61, 69, etc.

Mounting blocks are of glazed Isolantite. The grid clip is of one-piece construction and the filament clips are of heavy spring bronze. Designed to carry 20 amperes. All metal parts nickel-plated. A real mounting for those big bottles.

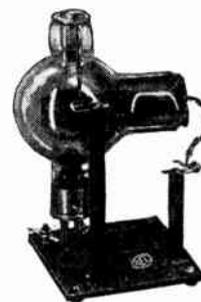
Cat. No. 128A End Mountings
List Price, \$4.75 pair
YOUR COST, \$3.08 pair

852 TUBE HOLDER

Designed especially for use with this popular amateur short wave tube. Also furnished for the 860 Screen Grid Tube. Heavy insulated base with engraved terminal markings. Hard rubber pillars with fahnestock clips for grid and plate connections.

Filament contacts plug into rigid bayonet prongs, insuring positive contact. The tube is tightly held in position. The ideal tube mounting for the ultra short wave transmitter.

Cat. No. 129-852 Tube Holder
List Price, \$2.50
YOUR COST, \$1.70



REL RADIO FREQUENCY CHOKES

CATALOG NO. 132 CHOKE



A very efficient slot wound choke for use in low power transmitters and short wave receivers. May also be used as grid chokes in higher power transmitters. Will work efficiently at all waves between 15 and 90 meters. Maximum current carrying capacity 50 milliamperes, inductance .9 millihenries D. C., resistance 12.9 ohms.

Designed for vertical mounting for space saving and short leads.

Dimensions, 2¼" x ½" diameter.

Cat. No. 132 R. F. Choke

List Price, \$1.10 YOUR COST, 75c

CATALOG NO. 250 CHOKE

Designed for use in transmitters employing up to 1000 watts. Single layer wound on bakelite tubing. Current carrying capacity, 500 milliamperes.

Cat. No. 250A—For wave lengths 15 to 90 meters. Inductance, .26 millihenries D. C.; Resistance, 2.5 ohms. Size, ¾" dia. x 4½" long.

List Price, \$1.30 YOUR COST, 90c

Cat. No. 250B—For wave lengths 90 to 200 meters. Inductance, .73 millihenries D. C.; Resistance, 7.1 ohms. Size, 1" dia. x 6" long.

List Price, \$2.20 YOUR COST, \$1.51

Cat. No. 250C—For wave lengths 200 to 500 meters. Inductance, 2.1 millihenries D. C.; Resistance, 22 ohms. Size, 1½" dia. x 7½" long.

List Price, \$4.50 YOUR COST, \$3.09



TRANSMITTING APPARATUS

NATIONAL SHORT WAVE EQUIPMENT

The National Company, of Malden, Mass., enjoy an enviable reputation for their development work on short wave receiving apparatus. Their short wave thrill box receivers have become famous the world over for their consistent long distance reception of short wave broadcasts and have found high favor among short wave fans, amateur and commercial operators alike. Their latest developments include the new SW3 Receiver especially designed for amateur CW and phone reception and the new NC5 short wave converter designed for use with any broadcast receiver.

Double Screen Grid 5 Tube Short Wave Thrill Boxes



The National 5 tube short wave receivers, Type SW5 and SW45, have been designed in response to a continuous demand for sensitive, single dial short wave receivers capable of giving consistent loud speaker reception of foreign short wave stations as well as meeting the requirements of both the amateur and commercial operator.

Both A. C. and battery operated models are available, the battery model using the new 2 volt tubes, which makes it very economical on A and B batteries. The A. C. models are designed to use the UY235 tubes in the R. F. and detector stages.

Both models are thoroughly shielded and housed in an attractive all metal cabinet. Circuit comprises a stage of tuned screen grid R. F., screen grid detector, 2 stages of audio using push pull in the final stage. Four pair of coils are furnished to cover the range from 15 to 115 meters. Coils for other ranges are also available as listed on the following pages.

Power packs for the A. C. models are in separate units to avoid any A. C. hum which would result from their inclusion in the tuner cabinet. Power pack uses 280 rectifier tube and furnished with handy cable and plug to facilitate connections. See next page for proper power pack.

Models Recommended for Different Types of Reception

ACSW5 five tube A. C. operated Thrill Box uses two UY235 variable mu screen grid tubes and three UY227 tubes (two of the latter tubes in push pull in the final audio stage).

	List Price	YOUR COST
Complete Kit of Parts for ACSW5, including Cabinet.....	\$79.50	\$46.75

ACSW45 five tube A. C. operated Thrill Box same as above model excepting two 245 tubes in push pull in the final audio stage.

	List Price	YOUR COST
Complete Kit of Parts for ACSW45, including Cabinet.....	\$79.50	\$46.75

DCSW5 five tube battery operated Thrill Box using the new 2-volt tubes, two UX232 tubes, one UX230 tube and two UX231 tubes in push pull in the final audio stage. Can be used with the new Eveready air cell battery.

	List Price	YOUR COST
Complete Kit of Parts for DCSW5, including Cabinet.....	\$75.00	\$44.10

Any of the above kits can be supplied completely assembled, wired and tested by the Jackson Research Laboratories at additional list price of \$10.00, YOUR COST \$6.00.

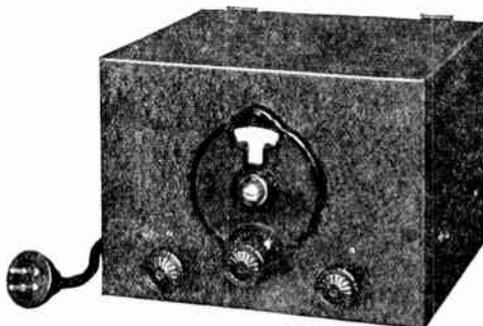
National 3-Tube Special Amateur Band Receiver

THE GREATEST HAM RECEIVER EVER BUILT

The latest development of the National Co. is the new SW3 Receiver, designed especially for the transmitting amateur. This model employs the same circuit and other essential features as the now famous SW5 receivers, except it is built more compact and uses only one stage of audio.

Without a doubt the SW3 is the best short wave receiver ever developed for the amateur operator.

A special feature of particular interest is the volume control which is calibrated in the R system for use as an audibility check.



SW3 Receiver

Furnished in Either A. C. or D. C. Type

ACSW3 for Full A. C. Operation

DCSW3 for Battery Operation

As standard equipment the SW3 is furnished with three sets of band-spread coils for the 20, 40, and 80 meter amateur bands. Additional coils can be obtained for operation on other frequencies. Coils designed for either the SW3 or SW5 are interchangeable. The A. C. model uses the new UY235 variable mu tube in the R. F. and detector stages and a 227 in the audio stage.

The D. C. model uses the new 236 and 237, 6-volt heater tubes. This model can be operated from a filament transformer and B eliminator, making it a universal A. C. or battery model.

SW3 National Short Wave Receiver with three sets band spread coils for 20, 40, 80 meter bands—

List Price, \$55.00
YOUR COST, \$32.34
Specify for A. C. or Battery

NATIONAL SHORT WAVE EQUIPMENT

VELVET-VERNIER DIALS

The original National Velvet-Vernier Dial with its smooth, matchless mechanism, which gives perfect control for highly selective circuits. Even and regular motion with no backlash. In the type "G" and "H" dials the scale is projected onto a ground glass screen on the dial opening by a brilliant illuminator and the dial therefore reads the same when viewed from any position. An added attraction of the Type "H" Drum Dial is the changing color or rainbow effect as the dial is turned.

TYPE "A" DIALS

Genuine bakelite dial using the Velvet-Vernier mechanism. Very popular for use on wave meters and other precision apparatus.



Type "A"

- Cat. No. Dia.
 VACC3—3 3/8" Counter Clockwise 0-100 (180°)
 VACC4—4" Counter Clockwise 0-100 (180°)
 VAC 4—4" Clockwise 200-0 (360°)
 VACE4—4" Clockwise 150-0 (270°)

List Price, Any Model, \$2.50
YOUR COST, \$1.47

PROJECTION DIALS

This dial employs a disc mechanism and is designed for use when the tuning condenser shaft is at right angles to the front panel. This is a monocolour projector dial, standard color is green.



Types "G" and "H"

Cat. No.	List Price	YOUR COST
VGCC—Counter Clockwise (180°)	\$3.75	\$2.21
VGE —Clockwise (150-0) (270°)	3.75	2.21

Type "G"—Disc Projection Dial

Type "H"—Drum Projection Dial

U. S. Patents Nos. 1,790,939; 1,789,912; 1,751,658; Des. 79,378.

The Type "H" dial employs the proved and popular National Velvet-Vernier drum mechanism with its powerful non-conducting drive and spring take-up. When furnished as a monocolour projector dial, standard color is green.

Cat. No.	List Price	YOUR COST
VHCC Monocolor—Counter Clockwise (0-100) (180°)	\$5.00	\$2.94
VHC Monocolor—Clockwise (100-0) (180°)	5.50	3.24
VHCCR Rainbow—Counter Clockwise (0-100) (180°)	5.00	2.94
VHCR Rainbow—Clockwise (100-0) (180°)	5.50	3.24
VHCE Monocolor—Clockwise (150-0) (270°)	5.00	2.94

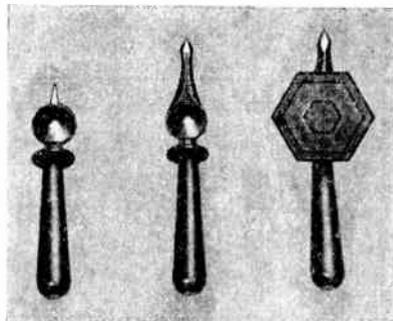
DIAL LEVER INDICATORS

These lever indicators are designed for transmitter control panel use. They have well defined bronze pointers and insulated handles.

- Type S
 List Price, \$2.75
YOUR COST, \$1.62
- Type M
 List Price, \$3.00
YOUR COST, \$1.77
- Type J
 List Price, \$3.75
YOUR COST, \$2.21

Etched scales (0-100) furnished on request with J & M indicators.

Dress up that transmitter panel with these attractive levers.



S M J

TYPES "B" AND "C"

A Vernier Port Dial with a variable ratio adjustment.

Both types are identical except that Type "C" is furnished with illuminator. This dial is easily and quickly attached without special tools.

- Cat No.
 VB C—Clockwise 200-0 (360°)
 VB D—Dual Range 0-100-0 (180°)
 List Price, Either Model Type B, \$2.50
YOUR COST, \$1.47



Types "B", "C", "M"

List Price, Either Model Type C, \$3.00 **YOUR COST, \$1.77**

Type "BM" 3" Dial

Similar in appearance and design to Type "B" except 3" diameter and does not have variable ratio feature.

Cat No.	List Price	YOUR COST
BM D—Dual Range 0-100-0	\$2.00	\$1.18
BM C—Clockwise 200-0	2.00	1.18

PRECISION VELVET-VERNIER DIAL Type "N"



The 4" solid German silver National Velvet-Vernier Dial, Type "N", has been developed for use in amateur and other radio equipment requiring the utmost precision of logging. It is equipped with a real Vernier making accurate reading possible to one-tenth of a division.

Type	List Price	YOUR COST
Type VNB (0-100) 180°, 4" dia.	\$6.50	\$3.83
Type VND (100-0) 180°, 4" dia.	6.50	3.83
Type VNE (150-0) 270°, 4" dia.	6.50	3.83
Type VNC (200-0) 360°, 4" dia.	6.50	3.83

Also available in a 6" diameter with the same type readings. When ordering this type add the figure 6 to our catalog symbols.

List Price, \$15.00 **YOUR COST, \$8.82**

NATIONAL BAND SPREAD CONDENSER

Designed especially for use in frequency meters and other precision apparatus requiring an accurate condenser.

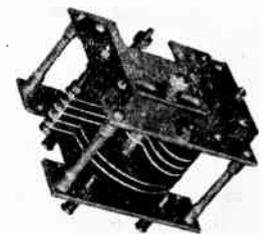
Particularly adapted for use in Dynatron frequency meters.

Type 35-70 Condenser
 List Price, \$4.50 **YOUR COST, \$2.65**

National Grid Grips

This remarkably convenient little Grid-Grip is the most simple method we have seen of attaching a wire to the screen-grid terminal of A. C. or D. C. screen-grid tubes. Easy to operate, never works loose, makes continuous electrical contact.

Made in two sizes.

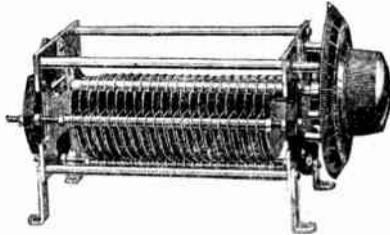


Type	List Price	YOUR COST
Type 24—To Fit Broadcast Set Tubes	\$0.10	\$0.06
Type 12—To Fit Large Type Tubes such as 872	.20	.12

TRANSMITTING APPARATUS

NATIONAL SHORT WAVE EQUIPMENT

TRANSMITTING CONDENSERS Straight Line Capacity



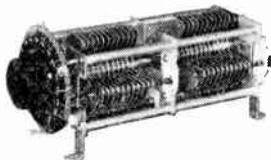
The condensers listed below are standard sizes. Standard insulation for all the TM type condensers is crolite.

Type	Capacity	Voltage	No. Plates	Spacing	List Price	YOUR COST
TM 35A	.000035	6000 v.	7	3/8"	\$7.00	\$4.12
TM 50A	.00005	6000 v.	12	3/8"	8.50	5.00
TM 100	.0001	3000 v.	11	3/8"	7.00	4.12
TM 100A	.0001	6000 v.	23	3/8"	12.50	7.35
TM 150	.00015	3000 v.	17	3/8"	7.50	4.42
TM 150A	.00015	6000 v.	35	3/8"	16.50	9.72
TM 230	.00023-5	3000 v.	23	3/8"	11.50	6.72
TM 230A	.00023-5	6000 v.	51	3/8"	19.50	11.58
TM 350	.00035	3000 v.	35	3/8"	15.00	8.82
TM 450	.00045	3000 v.	43	3/8"	16.50	9.72

These prices include National Velvet-Vernier Type "A" Dials.

Condensers, without dials, \$1.47 net

STANDARD TM CONDENSERS



The National Transmitting Condensers are widely used by the U. S. Government, broadcasting stations and amateur transmitters, and are designed to be mechanically and electrically correct.

Split Stator Type High Voltage Condenser, for use in push-pull circuits. Constructed in standard TM frame. Plates are of heavy gauge polished aluminum with well rounded edges. Insulation is crolite.

Type	Capacity each Section	Rating	List Price	YOUR COST
TMP 230	.00023	3000 v.	\$17.50	\$10.30
TMP 100	.0001	3000 v.	12.50	7.35
TMP 100A	.0001	6000 v.	18.50	10.88

NATIONAL TYPE TMU CONDENSERS Genuine Micalex Insulation

For extreme high power transmitters National Company has developed their TMU line of variable condensers. For 5000 and 7500 volt breakdown. Made in a number of stock capacities. Further details and prices on request.

NATIONAL EQUIMETER CONDENSER (Straight Wave Line)

Made in the following sizes:

Cat. No.	Size	List Price	YOUR COST
EM 50	50 MMF	\$2.50	\$1.47
EM 100	100 MMF	2.50	1.47
EM 150	150 MMF	3.00	1.78
EM 200	200 MMF	3.50	2.06
EM 250	250 MMF	3.50	2.06
EM 350	350 MMF	3.75	2.21
EM 500	500 MMF	4.00	2.36
EM 1000	1000 MMF	5.50	3.24

These prices do not include National Velvet-Vernier Type "A" Dials. Condensers, with dials, \$2.50 extra

NATIONAL EQUITUNE CONDENSER (Modified Straight Frequency Line)

The girder frame construction of this condenser is such as to permit "ganging" when so desired for single control sets. The frame of the condenser may also be used to replace brackets for supporting a sub-panel.

The lower half of the scale is straight frequency line and the upper half is straight wave length line, so as to prevent crowding of stations at the lower dial readings.

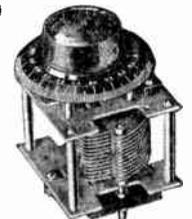
Cat. No.	Size	List Price	YOUR COST
ET 150	150 MMF	\$4.25	\$2.50
ET 250	250 MMF	4.50	2.65
ET 350	350 MMF	4.75	2.80
ET 500	500 MMF	5.00	2.94

Above prices do not include dial.

NATIONAL EQUICYCLE CONDENSER (For Short Wave Receivers)

These Short Wave Type EC Condensers are of a straight line frequency type, 270° rotation, built into our girder frame.

The spacing between plates has been doubled in the smaller sizes and a non-inductive pigtail added to insure positive and silent operation without detuning.



Type	Capacity	No. Plates	Spacing	List Price	YOUR COST
EC 15	.000015	3	.156	\$4.00	\$2.36
EC 50	.00005	9	.156	4.25	2.50
EC 75	.000075	11	.156	4.25	2.50
EC 100	.0001	15	.156	4.50	2.65
EC 125	.000125	19	.156	4.50	2.65
EC 150	.00015	9	.078	4.00	2.36
EC 250	.00025	17	.078	4.50	2.65
EC 350	.00035	23	.078	4.75	2.80
EC 500	.0005	31	.078	5.00	2.94

Above prices do not include dial.

NATIONAL RADIO FREQUENCY CHOKE—Type 90

The National Type 90 Radio Frequency Choke is an especially compact unit, so built as to fit into any standard grid-leak mounting. It is of the proper value for use in all by-passing work on the screen-grid or plate circuits of screen-grid tubes and between the detector and the first audio tube, in accordance with the best audio-amplifier practice. The multi-section winding makes this choke suitable for short wave as well as broadcast work.

List Price, without mounting, \$1.25 YOUR COST, 74c

NATIONAL SHORT WAVE EQUIPMENT

TYPE SE-100 CONDENSERS

The new National Type SE-100 Variable Condenser has been designed especially for short-wave work and is not of the "cut down" broadcast variety. Among the outstanding features is the use of the 270° rotation equicycle plates, insulated front bearing, constant impedance pigtail, single hole panel mounting, as well as provision for baseboard mounting, 1/4-inch shaft and R-39 low-loss insulation. (Also available with equitune plates, 180° rotation, Type SE-100.)



Size 1 1/2" x 1 1/4" x 2". Standard SE-100, capacity 100 mmf., 10 rotor and 10 stator plates. Rotor and stator plates readily removable to alter capacity range to meet special circuit requirements.

	List Price	YOUR COST
Type SE-50—50 mmf. equicycle 270°	\$3.50	\$2.06
Type SE-100—100 mmf. equicycle 270°	3.75	2.21
Type SE-150—150 mmf. equicycle 270°	4.00	2.36
Type SE-50—50 mmf. equitune 180°	3.50	2.06
Type ST-100—100 mmf. equitune 180°	3.75	2.21
Type ST-150—150 mmf. equitune 180°	4.00	2.36

NOTE: As a result of the compactness and efficiency of National short-wave variable condensers they are recommended and specified by leading engineers for use in different circuits described in radio publications. As it is impossible to list all these different sizes we will gladly quote price and delivery on any size or type you may desire.

TUBE AND COIL SHIELDS

Aluminum shields for experimental and custom set work.

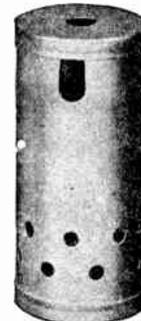
Catalog Symbol	Description	List Price	YOUR COST
TS	Tube Shield with Top Cap and Bottom Mounting Plate	\$0.40	\$0.24
J30	Coil Shield, 2 1/2" dia., 3 3/4" high—square flange at bottom 2 3/4"	.35	.21
B30	Coil Shield, 3" dia., 3 3/4" high	.35	.21
B30	Coil Shield, as above with mounting base	.50	.30



J 30



B 30



TS

National Power Units for AC Short Wave Reception

One of the essentials for humless AC Short Wave reception is the use of a power unit designed especially for that purpose. National power packs have an exceedingly low inherent hum, employing a double section filter using good quality chokes and plenty of condenser capacity. The power transformer has an electrostatic shield between the primary and other windings in order to prevent line disturbances from getting into the power unit and into the Thrill Box.

A special R.F. filter, located between the 280 rectifier tube and the hum filter is a feature of all National power packs designed for short wave use and is one of several important factors contributing to the complete elimination of so-called "tunable hums," frequently encountered in short wave reception.

Catalog Symbol	Description	List Price	YOUR COST
5880-AB	Completely wired power supply for use with the ACSW5 Thrill Box using the '27 tubes in the output stage on 105-120 volts, 50-60 cycle current supply. Less tube	\$34.50	\$20.30
5880-AB-25	Completely wired power supply for use with the ACSW5 Thrill Box using the '27 tubes in the output stage on 105-120 volts, 25-40 cycle current supply. Less tube	39.50	23.24
5880-AB-220	Completely wired power supply for use with the ACSW5 Thrill Box using the '27 tubes in the output stage on 220-230 volts, 50-60 cycle current supply. Less tube	37.00	21.76
5880-AB-S	Completely wired power supply for use with the ACSW45 Thrill Box using the '45 tubes in the output stage on 105-120 volts, 50-60 cycle current supply. Less tube	39.50	23.24
5880-AB-S25	Completely wired power supply for use with the ACSW45 Thrill Box using the '45 tubes in the output stage on 105-120 volts, 25-40 cycle current supply. Less tube	42.50	25.00
5580-AB-S220	Completely wired power supply for use with the ACSW45 Thrill Box using the '45 tubes in the output stage on 220-230 volts, 50-60 cycle current supply. Less tube	39.50	23.24

We have designed special power packs for use with the National Short Wave Thrill Boxes on the different current supplies available in various sections of the United States and in foreign countries.



TYPE R-39 INDUCTANCES

Moulded of "R-39", the new low-loss coil form material developed by the Radio Frequency Laboratories for short-wave use. Forms available with UX four-prong, UY five-prong, or special six-prong base, for use in standard sockets.

The coils listed below are designed for use in the new National SW5 "Thrill Box" and SW3 Receiver.

Color	Range	List Price Per Pair	YOUR COST
No. 10—Brown	9. to 15. meters	\$5.50	\$3.24
No. 11—Black	14.5 to 25. meters	5.00	2.94
No. 12—Red	23. to 41. meters	5.00	2.94
No. 13—White	40. to 70. meters	5.00	2.94
No. 14—Green	65. to 115. meters	5.00	2.94
No. 15—Blue	115. to 200. meters	5.50	3.24
No. 16—Orange	200. to 360. meters	5.50	3.24
No. 17—Yellow	350. to 550. meters	5.50	3.24
No. 18—Purple	500. to 850. meters	6.50	3.83
Forms Only			
4-prong UX base		ea. 1.00	.59
5-prong UY base		ea. 1.00	.59
6-prong Special		ea. 1.00	.59
Socket Only			
6-prong Special with Mountings		ea. .75	.45

SPECIAL AMATEUR COILS

These coils are designed so as to permit 50 dial division spreading on the amateur 20, 40 and 80 meter bands, using the standard National SW Thrill Boxes.

	List Price	YOUR COST
No. 11A—20 meter band (per set of 2)	\$6.50	\$3.82
No. 13A—40 meter band (per set of 2)	6.50	3.82
No. 14A—80 meter band (per set of 2)	6.50	3.82

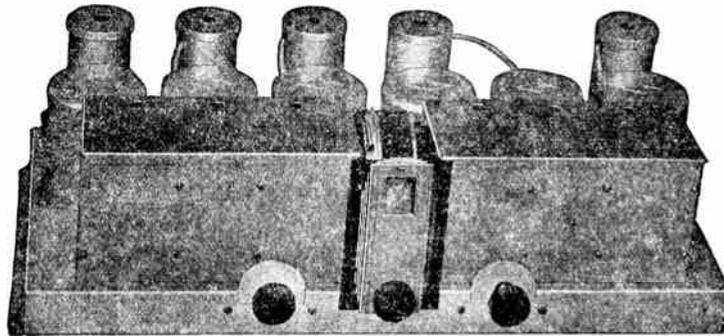
TRANSMITTING APPARATUS

NATIONAL SHORT WAVE EQUIPMENT

New National DeLuxe MB-32 Screen-Grid Tuner

Incorporating the Latest Developments of

G. H. BROWNING, JAMES MILLEN and VREELAND LABORATORIES



FOUR SCREEN-GRID STAGES

Licensed under Vreeland Patents Nos. 1,666,518; 1,682,874; 1,725,433; 1,730,987 and Applications. Licensed under National Co., Inc., Patent No. 1,770,466.

High Selectivity—no tendency to cross talk. Extreme sensitivity (approximately uniform sensitivity of one microvolt per meter over entire broadcast band).

Absolute freedom from oscillation. Elimination of tube hiss and other background noises. Rugged construction. Thorough shielding. Designed for the person who wants "the best." Makes an ideal "radio pick-up" for theaters, hotels, and public address power amplifier systems. Especially designed for use with National Velvetone Power Amplifier, but will give excellent performance with any good power amplifier.

NATIONAL MB-32 FIVE-TUBE TUNER

MB-32W—National 5-Tube Screen Grid Tuner, completely wired and laboratory tested (less tubes).....	List Price	YOUR COST
	\$85.00	\$49.98

A DeLuxe Broadcast Tuner

The MB-32 tuner incorporates the band selector developments of Dr. Frederick H. Vreeland and his laboratory at the Stevens Institute of Technology.

The new UY-235 variable mu tubes are employed in order to give wide range to the sensitivity control without adversely affecting tone quality or selectivity.

There is absolutely no tendency to cross talk. The six tuned circuits give 10 K. C. selectivity. The Vreeland Band selector circuit results in complete elimination of side band suppression, thus making possible the very finest of tone quality when this tuner is used with our flat gain VSA speaker amplifier or any other high grade flat gain audio system.

The sensitivity control system is especially designed to give straight line operation throughout its range. Adjustment of the most powerful local or the weakest distant station is made with same ease.

The detector circuit is such that any standard audio input may be used, resistance, transformer, impedance, or any combination of these being suitable. The impedance must be at least 20,000 ohms, however.

Voltage requirements are not critical. R.F. plate voltage should be between 135 and 200 volts, screen voltage from 60 to 80, while the detector plate voltage may be from 50 to 200 (135 volts recommended), depending upon the maximum output desired. The heater circuit requires 8¾ amperes at 2½ volts.

Furnished with three feet of cable and a non-breakable five-prong plug.

The complete unit measuring 22" long, 10½" wide, 6¾" high, is made of a rigidly constructed steel chassis using precision built National products and other parts of high grade manufacture. All tubes, variable condensers and R.F. transformer coils are thoroughly shielded. Each tuner is individually laboratory tested.

NATIONAL VELVETONE AMPLIFIER

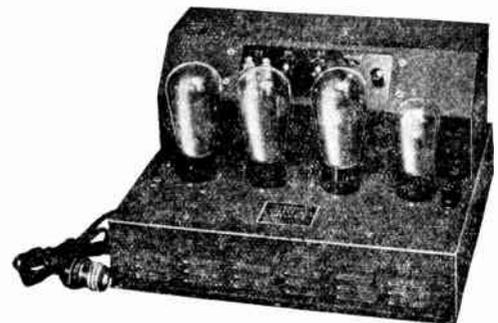
This Velvetone Amplifier has been designed as a universal model to permit its use with our own units and other makes of radio tuners. An unusual A and B voltage panel arrangement permits the securing of the proper voltages for the tuner with which it is used.

The circuit design is electrically the same as our VSA unit. It does not, however, supply the field voltage for a D.C. dynamic speaker. A speaker of the 110 volt A. C. dynamic type should be used with this unit.

The speaker can be very easily mounted on the amplifier chassis; space has been provided for this purpose. Measurements without speaker: 13" long, 11¼" wide, 7¼" high.

National Velvetone Power Amplifier, completely wired and assembled ready for use. List price, completely wired (less tubes) \$97.50

YOUR COST, \$57.33



TRANSMITTING APPARATUS

FLECHTHEIM TRANSMITTING FILTER CONDENSERS

Flechtheim has established an enviable reputation as manufacturers of Superior Filter Condensers. An ever increasing number of transmitting amateurs, broadcast stations, experimenters and school and college laboratories are using Flechtheim Superior Condensers. Furnished in all popular sizes for low, medium and high power transmitters.

Type TC: For Continuous Operating Voltages up to 1000 Volts D. C. (750 rms. RAC)

Type	Capacity	Size	List Price	YOUR COST
TC 100	1 Mfd.	4½"x1¾"x1¾"	\$3.75	\$2.00
TC 200	2 Mfd.	4½"x3½"x1¾"	6.50	3.44
TC 400	4 Mfd.	4½"x2¾"x3¼"	11.00	5.83



Type TC200

Because of their small size and light weight they are excellent for use in portable outfits, aircraft transmitters, etc. Absolutely the best 1000 volt transmitting condenser on the market and very attractively priced. Equipped with neat stand-off insulators, the condenser is enclosed in an all-metal container which protects it against heat or damage. Amateurs who are just beginning with their first transmitter will do well to get these dependable units.

Here is a brand new type of condenser for low power transmitters. Type TC is now more compact, better insulated and of improved design.

Type T: For Continuous Operating Voltages up to 1500 Volts D. C. (1000 rms. RAC)

Type	Capacity	Size	List Price	YOUR COST
T 100	1 Mfd.	5¼"x4¼"x1"	\$4.50	\$2.39
T 200	2 Mfd.	5¼"x4¼"x2"	8.00	4.24
T 400	4 Mfd.	5¼"x4¼"x4"	14.00	7.41



Type T200

"Imitation is the sincerest form of flattery." This well known expression is stated here for reason that many manufacturers have time and again tried to copy our transmitting condensers. However, in the field of transmitting condensers, Flechtheim has been the true pioneer. We have invaluable knowledge which we infuse in the scientific manufacture of our condensers. No one can possibly make a real dependable condenser better or more cheaply. It is needless to pay more, yet more questionable to pay less. There are cheaper condensers on the market, but you get exactly what you pay for, more probably even less. When you buy a Flechtheim condenser, you can rest assured of honest value.

For the more advanced amateurs, type T, familiar to thousands of them is still the best bet for use with the 50 watter with 1000 volts of rectified A. C. on the plate. Also improved in its construction, this type condenser is now better than ever.

Type TH: For Continuous Operating Voltages up to 2000 Volts D. C. (1600 rms. RAC)

Type	Capacity	Size	List Price	YOUR COST
TH 100	1 Mfd.	6"x3¼"x3¼"	\$10.00	\$5.30
TH 200	2 Mfd.	6"x6" x3¼"	15.00	7.94
TH 400	4 Mfd.	6"x8" x6"	25.00	13.23



Type TH200

Porcelain insulators do not make the condenser! There are advertised many non-descript brands of condensers "equipped with porcelain insulators." It doesn't pay to buy inferior condensers merely because exaggerated claims are made for them and a dubious replacement policy tops these claims. It is best to get a condenser well known for its dependabe construction and reliable manufacture. You can't go wrong in getting Flechtheim's.

Type TH is in use by hundreds of broadcasting and amateur stations and is without doubt the best 2000 volt transmitting condenser procurable. Now, in its new form, containing the special cylindrical windings as employed in the higher voltage types of condensers, it is better in every respect. Heavily bushed porcelain insulators provide an ample factor of insulation safety preventing short-circuit to grounded case.

Type HP: For Continuous Operating Voltages up to 3000 Volts D. C. (2200 rms. RAC)

Type	Capacity	Size	List Price	YOUR COST
HP 100	1 Mfd.	6"x4¾"x4¾"	\$20.00	\$10.59
HP 200	2 Mfd.	6"x8¾"x4¾"	32.50	17.20
HP 400	4 Mfd.	6"x8¾"x8¾"	60.00	31.76



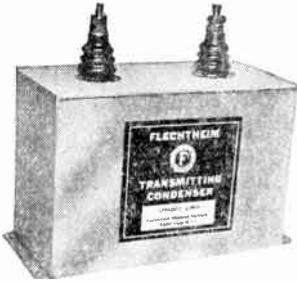
Type HP200

"With type HP in the circuit, your filter condenser troubles come to an end." That is the essence of the remarks of the chief engineers of dozens of stations who have found the solution by their judicious discretion in choosing these jobs to do the filtering of the plate supply.

Conclusive tests show that the resistance of these condensers, which approximate 750 megohms per microfarad remains nearly absolutely constant even after three years of continuous use! The secret lies partly in the special oil-treatment of the paper dielectric.

The first successful 3000 volt transmitting condenser at a reasonably low price! Type HP is performing with fullest satisfactory results at scores of stations. With the allowance of increased power, many stations have purchased these units because of their confidence in our conviction that these units represent the ultimate desirable quality and characteristics required of a high voltage filter condenser.

TRANSMITTING APPARATUS



Type VM 200-2 Mfd.
5000 V. D. C.
3300 rms. RAC.

FLECHTHEIM TRANSMITTING FILTER CONDENSERS

*Over 50% of the Broadcasting Stations
in the U. S. A. Use*

FLECHTHEIM Superior Condensers

Type ZX 100
1 Mfd.
7000 V. D. C.
5000 rms.
RAC.



NON-INDUCTIVE HIGH TENSION TRANSMITTING CONDENSERS

*Rated for Continuous Duty D. C. (direct current, motor-generator) or rms.
RAC, (Root mean square, rectified alternating current).*

Where a condenser is called upon to perform under conditions of continuous duty, as in the case of many broadcasting stations which are "on the air" for sixteen and eighteen hours every day in the week, you will find Flechtheim Superior Transmitting condensers standing up, working silently and dependably playing their role in the high voltage filter circuit. **VERY CONSERVATIVE RATINGS** characterize these fine condensers, yet aside from this, they are scientifically built to stand up under the severe strains imposed upon them by the ever-occurring normal line voltage surges, transient voltages, radio frequency currents and the pulsating D. C. from the rectifier.

Type ZX: For Continuous Operating Voltages up to 7000 Volts D. C. (5000 rms. RAC)

Exhaustive tests have proved the excellence of this high voltage type of condenser. The finest and latest improved materials have gone into the construction of these thoroughly reliable units only after the most rigid tests. And it is an acknowledged achievement to be able to produce a paper-dielectric filter condenser to operate safely at 7000 volts D. C. Already a number of stations have installed these condensers as part of their transmitting filter equipment.

Type	Capacity	Size	List Price	YOUR COST
ZX100	1 Mfd.	10 3/4" x 5" x 5"	\$ 50.00	\$ 45.00
ZX200	2 Mfd.	6 1/4" x 10 1/2" x 10 1/2"	95.00	85.50
ZX400	4 Mfd.	6 1/4" x 21" x 10 1/2"	175.00	157.50

The 1 mfd. unit is cylindrical in construction, whereas the 2 mfd. and 4 mfd. units are rectangular. These condensers are equipped with a grounding lug which grounds the metal container, thus avoiding danger of accidental shock.

Type VM: For Continuous Operating Voltages up to 5000 Volts D. C. (3300 rms. RAC)

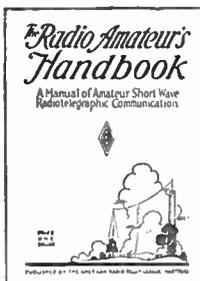
A very popular type with the progressive type of station, type VM is now available in improved construction which slightly increases its physical dimensions and makes it continuous operation at rated voltage a matter of the greatest safety. Scores of stations have found type VM a solution to their filter condenser problems.

Type	Capacity	Size	List Price	YOUR COST
VM100	1 Mfd.	6" x 5" x 5"	\$ 30.00	\$27.00
VM200	2 Mfd.	6" x 14" x 5"	55.00	49.50
VM400	4 Mfd.	6" x 14" x 14"	100.00	90.00

DIMENSIONS: Give Height, Width and Depth of Container—Porcelain Terminals Are 2 1/2" High.

NOTE: Orders for Transmitting Condensers are Shipped Immediately Upon Receipt.

RADIO AMATEUR'S HANDBOOK Ninth Edition

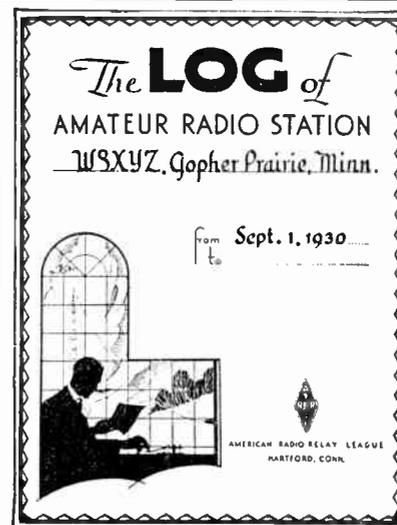


The book that every ham should have. A complete encyclopedia on amateur radio.

Covers every phase of amateur activity. Operating, traffic handling, construction and design.

Fully describes the latest developments in receivers, transmitters, monitors, etc. The greatest reference work ever printed and the biggest dollar's worth you ever bought. Over 150,000 copies sold to date. No ham shack complete without one.

Price Per Copy, \$1.00 Net



A. R. R. L. LOG BOOK

Keep an accurate log of your station as required by the Federal Radio Commission. The A.R.R.L. Log Book is designed especially for the amateur operator.

Price Each, 40c Net

MESSAGE BLANKS

Standard A.R.R.L. message blanks designed by the communications department of the A.R.R.L. Well printed on good bond paper. Size 8 1/2" x 7 1/4". Put up in pads of 100 sheets.

One Pad, 35c
Three Pads for \$1.00

USE FLECHTHEIM CONDENSERS

will give you that P. D. C. note you are looking for. Used by leading amateurs everywhere.

PHILADELPHIA, PENNA.

CARDWELL TRANSMITTING AND RECEIVING CONDENSERS

Cardwell Condensers are too well known to require any introduction from us, being in use in thousands of amateur and commercial installations the world over. Furnished in all popular sizes and for low medium and high power transmitters.

SUGGESTIONS FOR SELECTING TRANSMITTING CONDENSERS

The "Voltage Breakdown" method of rating transmitting condensers has recently been abandoned by The Allen D. Cardwell Manufacturing Corporation due to the manifold confusion and errors that it has brought forth. It is very inaccurate, as the average user has no way of estimating the voltage he will have across his condensers, and there are so many variations in the quantity to which this may extend, due to the multiplicity of circuits, positions, and kinds of current, that it is not to be wondered at that the user gets the wrong condenser more often than the right one. Reference to the tables on the following page will indicate the condenser which may be expected to withstand the maximum current anywhere in a transmitter using tubes and voltages shown.

CARDWELL CONDENSERS

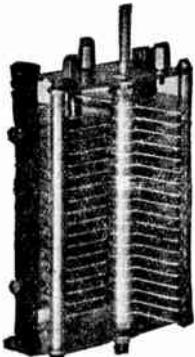
For Medium Powered Installations and Amateur Use

We wish to call particular attention to our Types T-199 and T-183, in which much heavier plates than have previously been used by anyone for condensers of this class, are employed, and the edges are carefully rounded off and the whole job is brought to a very high degree of polish. As a result of this type of construction the condensers will withstand about 60% more voltage before flashing over than would be the case if plates of the ordinary variety were used. In addition to this the extra heavy plates give a freedom from vibration which makes their use for tuning on wavelengths below 30 meters very advantageous as only a very small amount of variation on such high frequencies is necessary to throw off the wave and make signals difficult to read.

A self-cleaning brush contact is used rather than a pigtail. Variance in inductance and capacity caused by the movement of the pigtail as the rotor revolves, very frequently make a great deal of trouble on the short waves, and accordingly Cardwell Condensers are made with the improved contact, which gets rid of most of the difficulties which are inherent in pigtail construction.

For baseboard mounting, any of these smaller condensers can be supplied with a pair of mounting feet at an additional charge of 25 cents. They are ordinarily equipped with three studs for panel mounting in the usual manner.

Vernier Attachment can also be supplied when desired, also locking device for rotor.



T-199

ALSO MADE TO SPECIAL REQUIREMENTS—SEND FOR PARTICULARS

o See also "Midway" Transmitting condensers below.

* Standard receiving condenser spacing.

† Rotor and stator plates have rounded edges and are highly polished overall.

For baseboard mounting any of these condensers can be supplied with a pair of mounting brackets at an additional cost of 25 cents (list). They are ordinarily equipped with three extension posts for panel mounting in the usual manner. The Type 166-B has mounting feet cast integral with end frames.

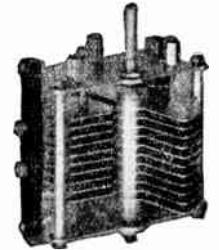
Vernier attachment can also be supplied when desired, except on 166-B, "Balancet" and "Midway" models.

A standard locking device for motor can be supplied for all condensers listed above except 166-B.

FIXED CONDENSERS

Capacity	Air Gap	List Price	YOUR COST	Type	Plate Thickness	No. Plates	Depth (Back of Panel)
.00025	.070"	\$ 4.50	\$ 2.52	501	.040"	12	2 1/2"
.00042	.070"	7.00	4.81	502	.040"	20	3 3/4"
.00088	.070"	10.00	6.86	503	.040"	42	7 1/2"
.00022	.1535"	15.00	10.29	504	.040"	22	5 1/2"

Can be furnished for special capacities on order. Will be furnished with three extension posts for panel mounting unless mounting brackets are specified.



164-B

CARDWELL MIDWAY CONDENSERS—Compactness

The Midway is a small and compact variable air condenser which, without doubt, should find considerable application for many purposes where extremely light weight and reduction of bulk are desirable in receivers, transmitters and oscillator-amplifier outfits. Condensers of this description having a breakdown rating sufficient for transmitters using up to 75 watt tubes may be had in capacities as high as 150 mmfds. A panel surface of only 2 3/4" x 2 1/2" is required and the condensers weigh only 4 to 7 ounces.

*TRANSMITTING

(.070" Air Gap)

(Suitable for transmitters using up to 75-watt tube)

Type	Plates Behind Panel	Max. Cap.	Min. Cap.	Weight (Approx.)	List Price	YOUR COST
408-B	5	22 mmfds.	6 mmfds.	4 oz.	\$2.60	\$1.56
409-B	7	35 "	9 "	4 1/2 oz.	2.80	1.68
410-B	11	50 "	11 "	5 oz.	3.20	1.92
411-B	15	70 "	13 "	5 1/2 oz.	3.60	2.16
412-B	21	100 "	15 "	6 oz.	4.25	2.55
413-B	31	150 "	18 "	7 oz.	5.50	3.30

* Rotor and Stator plates of Transmitting Condensers have edges well rounded and are highly polished overall.

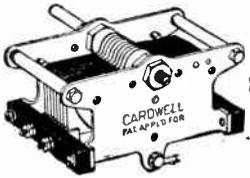
RECEIVING

(.031" Air Gap)

(Also suitable for low power transmitters using 210-type tube)

Type	Plates Behind Panel	Max. Cap.	Min. Cap.	Weight (Approx.)	List Price	YOUR COST
401-B	3	26 mmfds.	7 mmfds.	4 oz.	\$2.10	\$1.23
402-B	5	50 "	8 "	4 1/4 oz.	2.20	1.30
403-B	7	70 "	9 "	4 1/2 oz.	2.30	1.36
404-B	11	105 "	10 "	5 oz.	2.40	1.42
405-B	15	150 "	11 "	5 1/2 oz.	2.50	1.45
406-B	25	260 "	13 "	6 oz.	2.75	1.62
407-B	35	365 "	14 "	7 oz.	3.00	1.77

CARDWELL RECEIVING CONDENSERS



THE TYPE B (SLC) CONDENSER

Illustration of standard Type "B" Condenser. This is "single end" type. Rotor plates are semi-circular.

No. Plates	Max. Cap. (Rated)	Type No.	List Price	YOUR COST
3	.00005	159-B	\$4.00	\$2.36
5	.0001	188-B	4.00	2.36
7	.00015	154-B	4.00	2.36
11	.00025	141-B	4.25	2.50
17	.00035	152-B	4.75	2.80
21	.0005	123-B	5.00	2.94
41	.001	137-B	6.00	3.53

Intermediate Capacities (not listed) may be had on special order, also double and triple condensers.

THE TYPE C (SEMI-SLW) CONDENSER Single

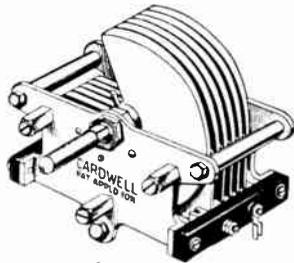
No. Plates	(Rated) Max. Cap.	Type No.	List Price	YOUR COST
o 3	.00005	191-C	\$4.00	\$2.40
o 5	.00009	167-C	4.00	2.40
o 7	.00014	168-C	4.00	2.40
o 13	.00025	170-C	4.25	2.55
o*17	.00035	171-C	4.50	2.70
o 25	.0005	173-C	5.00	3.00
o 71	.0015	176-C	15.00	9.00

* May be obtained in double and triple units from stock. Others on special order.

o May be obtained for right or left rotation. (Add "L" or "R" to type number according as clockwise or counter clockwise rotation to increase capacity is desired.)

NOTE—"C" type (Semi-SLW) condensers are illustrated on preceding page, also typical construction of double and triple units of both "B" (SLC) and "C" (Semi-SLW) "balanced" rotor types. Gang condensers may also be had "straight-in-line" on special order, if desired.

TYPE "E" TAPER PLATE CONDENSERS



The Taper Plate Type "E" Cardwell Condenser, which introduced the Ideal Tuning Curve midway between straight wavelength and straight frequency, was the first logical answer to the demand for a condenser which will give ample separation on all wavelengths.

In the design of most condensers with this kind of a tuning curve, electrical efficiency and mechanical strength have been sacrificed in order to approach straight frequency by the shaped plate method. Large panel space was required and accurate logging was questionable.

Meanwhile Cardwell Engineers perfected a new condenser in which a straight frequency tuning curve is secured by a regular variation of the thickness of the air-dielectric, with a pronounced gain in compactness, efficiency and mechanical strength. The Type "E" Condenser is built into the same frame which is familiar to almost all radio builders as the ultimate in strength and compactness. The fact that it will mount entirely behind a 4" dial proves a tremendous advantage over the eccentric types which require anywhere from 6 linear inches up of panel space, when the plates are open.

STANDOFF INSULATORS



A high grade glazed porcelain standoff insulator. Has a variety of uses around the ham shack. For coil mountings, feeder supports, lead-in insulators, etc.

1 7/8" high, 2 1/8" base diameter. Furnished in Brown, Blue or White.

List Price, 20c
YOUR COST, 10c

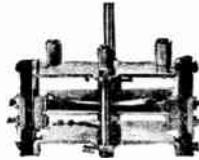
ANTENNA FEEDER SPREADERS

Made of genuine bakelite, 8 inches long with removable end pieces to permit easy insertion of feeder wires. A time and labor saver.

Your Cost, 45c each, \$4.80 per Doz.

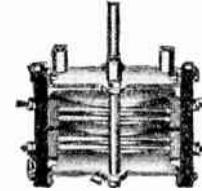
FOR SHORT WAVE RECEIVERS

We recommend for short wave receivers the Types 201-E, 202-E, 191-E, 167-E, 159-B, 188-B, 154-B, 191-C, 167-C, 168-C, and call to your attention particularly the 201-E and 202-E illustrated below. The 201-E has two plates which may be double spaced, affording a low capacity with the rigid construction that makes the Taper Plate Condenser unequalled for Short Wave receivers. See also "Midway" condensers.



201-E

201-E—The Stator Plate is adjustable to afford maximum capacities from 50 to 10 mmfds. (Constant minimum, 7 mmfds.)



202-E

202-E—A Split Stator taper plate receiving condenser with common rotor—stators insulated from each other.

(Useful for tuning Push-Pull circuits.)

TYPE "E" CONDENSERS

Type No.	No. Plates	Capacity	List Price	YOUR COST
*201-E	2	.000050	*See Footnote	
		.000010	\$4.00	\$2.36
202-E (Split Stator)	10	.000300 (Sections in Multiple)		
		.000075 (Sections in Series)	4.75	2.80
		.000150 (Per Section)	4.00	2.36
191-E	3	.000075	4.00	2.36
167-E	5	.000150	4.00	2.36
168-E	7	.000220	4.25	2.50
169-E	11	.000350	4.75	2.80
192-E	15	.000500	5.00	2.94

* Stator plate adjustable.

Double units, not listed above, special and subject to quotation.

Single units with extended shaft and coupling for single control of gangs, \$1.50 extra, list, each.

SANGAMO FIXED CONDENSERS



Sangamo Fixed Condensers are moulded into genuine bakelite to maintain their accuracy. Moisture proof and permanent.

Capacity Mfd.	List Price	YOUR COST	Capacity Mfd.	List Price	YOUR COST
.0001	\$0.40	\$0.24	.003	\$0.60	\$0.36
.00015	.40	.24	.004	.60	.36
.00025	.40	.24	.005	.70	.42
.0005	.40	.24	.006	.85	.51
.001	.50	.30	.0075	.95	.57
.002	.50	.30	.01	1.15	.69
.0025	.50	.30	.012	1.20	.72
			Resistor Clips, 6c Net Extra	.015	1.25
					.75

SILVER-MARSHALL R.F. CHOKES

The most popular R.F. Choke made. Has a variety of uses in amateur apparatus. Furnished in three types.

No. 275—For use up to 600 Meters, Inductance 2 1/2 M.H.
List Price, 90c
YOUR COST, 54c

No. 276—For use above 600 Meters, Inductance 10 M.H.
List Price, \$1.00
YOUR COST, 60c

No. 277—For use below 200 Meters
An efficient short wave choke.
List Price, \$1.50
YOUR COST, 88c

COPPER TUBING

Soft drawn seamless copper tubing for transmitter inductances. Furnished in 3/8" or 1/4" O.D.

3/8" Copper Tubing, per foot	\$0.05 net
1/4" Copper Tubing, per foot	.06 net

We also carry ready wound tubing in stock in all wanted diameters as listed below:

	3/8"	1/4"
2 1/2" Outside Diameter, List Price per Turn	\$0.08	\$0.09
3" Outside Diameter, List Price per Turn	.10	.11
3 1/2" Outside Diameter, List Price per Turn	.12	.15
4" Outside Diameter, List Price per Turn	.14	.17

TRANSMITTING APPARATUS

HAMMARLUND SHORT WAVE EQUIPMENT

HAMMARLUND "COMET" ALL-WAVE SUPER-SET RECEIVER

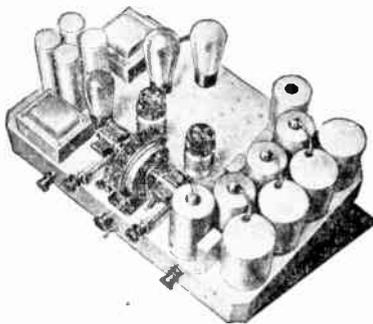
Another Hammarlund triumph—the new sensational all-wave superheterodyne receiver! Replete with striking engineering advancements, it is truly representative of Hammarlund precision production—an 8 tube receiver, using the new variable Mu and Pentode tubes, providing world-wide reception on all wave lengths, 15 to 600 meters.

Two '27's are used as oscillators, two '24's as detectors, two '35's (variable Mu) as intermediate frequency amplifiers, a '47 in the resistance coupled amplifier, and a '80 as the rectifier.

Outstanding Features

- Intermediate band pass tuning stage.
- Variable tone control.
- Projection scale method tuning.
- New type Hammarlund dynamic speaker.
- For maximum efficiency, special plug-in coils are used. These permit full coverage of all the bands. There are five sets of coils, two coils to a set, having the following ranges: 15 to 30; 28.5 to 62.5; 58.8 to 130; 120 to 273, and 240 to 600 meters.

A special cabinet, of Oriental burl walnut, is provided for this receiver. A lid is a



feature of the cabinet. This enables easy installation of the plug-in coils. Incidentally, pockets are provided for the housing of each coil. The entire design of the cabinet is very neat and handsomely finished.

The chassis is 17 7/8" long and 12 3/8" deep. Thus, you will note the set is also very compact.

The receiver operates on 110 volts, 50 to 60 cycles.

	List Price	YOUR COST
Receiver complete, including tubes	\$175.00	\$102.90
Chassis	119.00	69.98
Cabinet	40.00	23.52
Speaker	18.50	10.88
Special Panel, drilled	2.50	1.47

"THE COMET" PROFESSIONAL MODEL

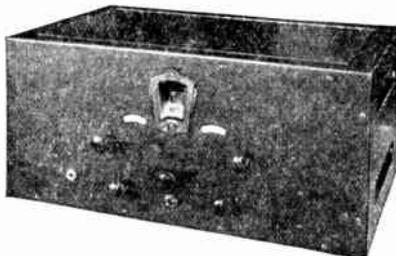
New Hammarlund Short Wave Communication Receiver

A special model of the Hammarlund Comet Receiver, designed for amateur and commercial short wave reception exclusively.

Gives full band spread on the amateur 20-40 and 80 meter bands.

The same outstanding features of the all wave "Comet."

A highly selective and sensitive receiver for amateur phone reception.



"Comet" Band Spread Model
A Real Ham Superhet

Specifications

Range: 14 to 120 meters with 3 sets plug-in coils (2 per set).
 Tubes Required: Two 235's, two 224's, three 227's, one 247 and one 280. Two 227's as oscillators, two 224's as detectors, two 235's as intermediates, one 227 in the audio output stage (to reduce hum level) and one 280 rectifier.
 Chassis complete, less tubes, mounted in walnut case with black crystalline finish panel with 3 sets plug-in coils.

List Price, \$150.00 (Less Tubes)
YOUR COST, \$88.20

HAMMARLUND HIGH IMPEDANCE RF CHOKES



The radio frequency chokes which have been for years recognized as standard throughout the radio industry. Manufactured by special process of winding and impregnating. No resonant period within broadcast band. Low distributed capacity makes them unusually effective for short-wave work. Ideally suited for use in detector plate circuits, B plus and grid return leads of radio frequency tubes and any other place where R. F. filtering is required. Current

carrying capacity of both sizes is 60 mills. This choke coil is a genuine helical winding made under U. S. Pat. dated Jan. 13, 1914.

	List Price	YOUR COST
Code RFC-85 (85 m.h., capacity 3 mmfd., and D. C. resistance of 215 ohms)	\$2.00	\$1.18
Code RFC-250 (250 m.h., capacity 2 mmfd., and D. C. resistance of 420 ohms)	2.25	1.33

HAMMARLUND SHIELDED POLARIZED RF CHOKES

A superior polarized R. F. Choke Coil for use in high gain screen grid receivers. Coil unit thoroughly shielded in an aluminum shell. Minimum external field, affording close, compact receiver design. High impedance to all broadcast frequencies—low distributed capacity—no natural resonant period within broadcast range. Polarity of winding indicated.



	List Price	YOUR COST
Code SPC	\$1.50	\$0.88

HAMMARLUND FLEXIBLE COUPLINGS



An ideal coupling for radio condensers. Permits operation of any number of variable units in tandem without requiring exact shaft alignment. Saves time, money and worry. Sides of coupling are insulated from each other, allowing instruments in gang to be operated as independent electrical units. Tough baked canvas, with brass bushings and hardened set screws.

	List Price	YOUR COST
Code FC	\$0.60	\$0.36

TRANSMITTING APPARATUS

HAMMARLUND SHORT WAVE EQUIPMENT

NEW HAMMARLUND MIDGET CONDENSERS



Again HAMMARLUND produces a genuine leader! The new HAMMARLUND Midget Condensers truly portray brilliant engineering—a real Midget Condenser with perfect tuning characteristics. Produced in "Midline" or straight line capacity models in a wide range of capacities for a multitude of uses. With their many new features, they possess advantages heretofore unavailable. Soldered, non-corrosive brass plates, sturdy frame.

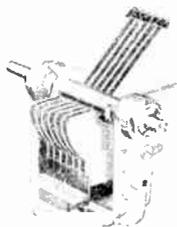
and accurately fitted bearings insure positive and permanent capacities at all settings. Four-point bronze wiping contact provides perfect, constant electrical connection to the rotor. Objectionable inductive reactance of the conventional pigtail is thus eliminated, assuring absolutely noiseless adjustment throughout entire tuning range. Adjustment screw works in a groove—cannot burr the shaft. No nuts or screws are used, everything being riveted, making the condenser vibration-proof, an excellent feature for air, police car and marine work. The smallest condenser is 2 1/2" long and the largest 3 1/2" long. All "Midline" types are 2" wide with plates fully extended. The capacity type is only 1 1/2" wide with plates fully extended.

Code	Plates	Min. Cap. (Mmf.)	Max. Cap. (Mmf.)	List Price	YOUR COST
MC-325M	43	12	320	\$3.50	\$2.06
MC-250M	34	10	260	3.00	1.77
MC-200M	27	10	200	2.80	1.65
MC-140M	19	7	140	2.50	1.47
MCD-140M	*19	*7	*140	4.80	2.83
MC-100M	14	6	100	2.30	1.36
MC-100S	14	6	100	2.30	1.36
MC-75M	11	6	80	2.00	1.18
MC-75S	11	6	80	2.00	1.18
MC-50S	7	5	50	1.80	1.06
MC-35S	5	4	35	1.50	.89
MC-20S	3	3	20	1.50	.89

*Each section of Dual Condensers
M—"Midline" Plates S—Semi-Circular Plates

HAMMARLUND SHORT WAVE CONDENSERS

Hammarlund Short Wave Condensers have always been preferred by short wave experts. Here is the latest perfected model. Double-spaced, non-corrosive brass plates, 1/32" thick, for positive and permanent capacity settings. A constant impedance, double-wiping contact affords absolutely noiseless adjustment. Full-floating rotor mounted in adjustable double-cone bearings. Removable shaft. "Midline" shaped plates to facilitate station separation.

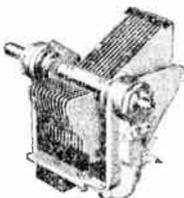


Licensed under Lowenstein Pat. No. 1,258,423

Code	List Price	YOUR COST
Code MLW-150 (150 mmfd. max. capacity)	\$5.00	\$2.94
Code MLW-125 (125 mmfd. max. capacity)	5.00	2.94
Code MLW-100 (100 mmfd. max. capacity)	5.00	2.94

HAMMARLUND "MIDLINE" CONDENSERS

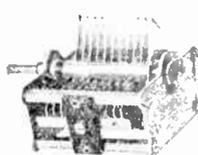
Four years of leadership attest to the remarkable engineering perfection of "Midline" condensers. Special shaped brass plates, full floating rotor, removable shaft, ball and cone bearings, bronze pigtail, rib reinforced aluminum alloy frame. Tested at 1000 volts A. C.



Licensed under Lowenstein Pat. No. 1,258,423

Code	List Price	YOUR COST
Code ML-23 (.0005 mfd. max. capacity)	\$5.50	\$3.24
Code ML-17 (.00035 mfd. max. capacity)	5.25	3.09
Code ML-11 (.00025 mfd. max. capacity)	5.00	2.94

HAMMARLUND TRANSMITTING CONDENSERS



Transmission over short wave-lengths is recognized as the most efficient medium for long-distance amateur communication. The very low losses and high quality of Hammarlund Transmitting Condensers are emphasized in this class of work where ordinary condensers are impossible. Now further improved by the use of "Parmica" the new Hammarlund low-loss insulation. Spacing between plates .083". Breakdown voltage 3500 volts at 500 K.C. using 500 cycle alternator.

Used in famous flights including those of the "Southern Cross," "Yankee Doodle" and the Byrd Expedition.

No.	Capacity	List Price	YOUR COST
TC-12	—105 mmfd.	\$6.00	\$3.60
TC-22	—200 mmfd.	7.00	4.20
TC-43	—390 mmfd.	10.00	6.00

HAMMARLUND EQUALIZING CONDENSERS



A sturdy, accurate neutralizing, balancing or trimming condenser—very small and compact—for use in balancing multiple-tuned circuits or equalizing separate condensers "ganged" for single control. Adjustment of center screw provides even, gradual capacity change over a wide range. Fits into recesses in multiple condenser frames or may be attached directly to binding post of socket or condenser. Best mica dielectric, heavy phosphor bronze spring plate. Highest quality insulating material base.

Code	List Price	YOUR COST
Code EC-35 (2 to 35 mmfd.)	\$0.50	\$0.30
Code EC-80 (20 to 100 mmfd.)	.60	.36

OTHER HAMMARLUND PRODUCTS FOR SHORT WAVE RECEIVERS

Code No.	List Price	YOUR COST
MC-23—Midget Condenser, 100 mmf.	\$2.25	\$1.35
MC-11—Midget Condenser, 50 mmf.	1.75	1.05
MC-5—Midget Condenser, 16 mmf.	1.50	.90
EC-80—Equalizer, range 20 to 100 mmf.	.60	.36
RFC-85—Choke Coil, 85 millihenry	2.00	1.20
RFC-25—Choke Coil, 250 millihenry	2.25	1.35
SWM—Hammarlund Short-Wave Manual	.10	.10
MLW-150—Short-Wave Condenser, 150 mmf.	5.00	3.00
MLW-125—Short-Wave Condenser, 125 mmf.	5.00	3.00
MLW-100—Short-Wave Condenser, 100 mmf.	5.00	3.00
ML-11—Midline Condenser, .00025 mfd.	5.00	3.00

NEW ISOLANTITE COIL FORMS AND SOCKETS



Made of low loss Isolantite these forms and sockets are furnished in 4, 5 or 6 prong type.



Coil forms have row of holes conveniently located for threading wire. Each form has handle at top which has flat surface for coil identification marks.

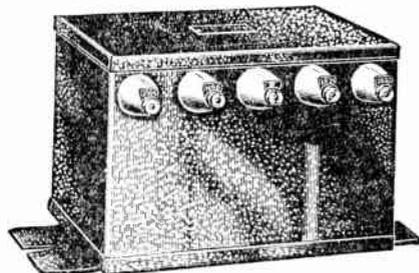
	List Price	YOUR COST
Isolantite Coil Forms	\$1.00	\$0.59
Isolantite Sockets	.75	.45

TRANSMITTING APPARATUS

THORDARSON POWER SUPPLY EQUIPMENT

Used by leading amateurs everywhere due to their high quality and all around performance. A complete line of plate and filament transformers and filter chokes for any power requirement.

PLATE TRANSFORMERS



A heavy duty plate supply transformer for high power transmitters.

Designed for sets using 852, 204A or similar high power tubes.

Built into a heavy steel case with porcelain standoff insulators, preventing grounds to case

and high voltage leakage. Furnished in two sizes as follows:

Cat. No. T2388A

1500-0-1500 Volts and 2000-0-2000 Volts Capacity, 500 V.A.

Dimensions—7½" x 6½" x 8½". Weight, 27 lbs.

List Price, \$30.00 **YOUR COST, \$17.64**

Cat. No. T2389A

1500-0-1500 Volts and 2000-0-2000 Volts Capacity, 1000 V.A.

Dimensions—7½" x 7" x 9½". Weight, 40 lbs.

List Price, \$40.00 **YOUR COST, \$23.52**

MEDIUM POWER TRANSFORMERS

Designed for use with transmitters of medium and low power.

A compact well designed plate transformer with excellent voltage regulation. Housed in crystalline finished steel case. Compound filled for quiet operation. Furnished in two sizes and two voltages.



Cat. No. T2385

550-0-550 Volts and 750-0-750 Volts, 100 V.A. Dimensions—5" x 5¼" x 6" High. Weight, 8½ lbs.

List Price, \$16.00 **YOUR COST, \$9.41**

Cat. No. T2387

1000-0-1000 and 1500-0-1500 Volts, 300 V.A.

Dimensions—7½" x 5¼" x 7"½ High. Weight, 20 lbs.

List Price, \$22.00 **YOUR COST, \$12.96**

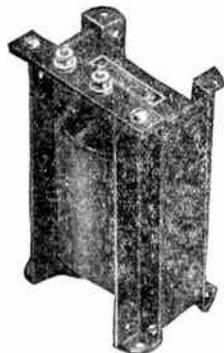
HIGH CURRENT CHOKES

Open frame type chokes made in three sizes. All insulated for 3000 volts.

Type T2071—30 Henry, 150 M.A.
List Price, \$16.00
YOUR COST, \$9.41

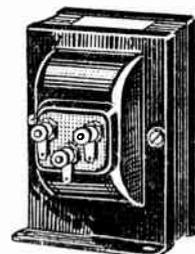
Type T2027—30 Henry, 300 M.A.
List Price, \$22.00
YOUR COST, \$12.94

Type T2073—30 Henry, 500 M.A.
List Price, \$30.00
YOUR COST, \$17.64



FILAMENT TRANSFORMERS

A popular line of filament lighting transformers for 210, 203A and other types of transmitting tubes. Furnished in two voltages and three sizes.



Cat. No. T2230

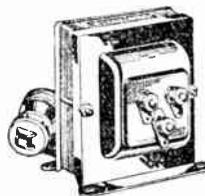
A 7½ volt center tapped filament transformer designed to supply one or two 210, 281 or 250 tubes conservatively rated for cool operation.

Cat. No. T2230—7½ Volts, Center Tapped, 35 V.A.
List Price, \$7.50 **YOUR COST, \$4.41**

Cat. No. T2382—12 Volts, Center Tapped, 80 V.A.
List Price, \$10.00 **YOUR COST, \$5.88**

Cat. No. T2383—12 Volts, Center Tapped, 175 V.A.
List Price, \$15.00 **YOUR COST, \$8.82**

866 FILAMENT TRANSFORMERS



Designed for use with 866 mercury vapor rectifier tubes. Insulated for 5000 volts.

2.5 Volts, 10 Amps. Center tapped.

Dimensions—3½" x 3" x 3¼".

Weight, 3¼ lbs.

List Price, \$12.00

YOUR COST, \$7.06

FILTER CHOKES

Thordarson Filter Chokes have found high favor among amateurs everywhere due to their rugged construction and excellent design. A size for every filtering need.

Type T2376

A 1½ henry, 200 mill choke, especially useful in key click filter circuits. 1600 volt insulation.

List Price, \$5.00 **YOUR COST, \$2.94**



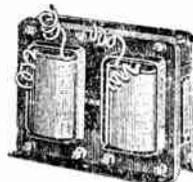
Type T2458

A heavy duty double filter choke, 18 henries, 250 M.A. each coil. Insulated for 2000 volts. A very popular unit for high voltage power supplies. Also makes an excellent modulation choke for phone use.

T2458 Double Choke

List Price, \$19.50

YOUR COST, \$11.47



COMBINATION PLATE AND FILAMENT TRANSFORMERS

Cat. No. T2098

A very popular transformer for low power transmitters. 550 volts each side of center and two 7½ volt center-tapped windings for filament supply. Housed in heavy steel case, compound filled. Rated at 130 M.A.

Dimensions—4½" x 5¼" x 5¼" High. Weight, 13¼ lbs.

List Price, \$12.00 **YOUR COST, \$7.06**

Cat. No. T2950

Same as above except secondary delivers 675 volts each side of center tap.

Dimensions—4¼" x 6¼" x 5¼" high. Weight, 18 lbs.

List Price, \$22.00 **YOUR COST, \$12.96**

TRANSMITTING APPARATUS

RESCO POWER TRANSFORMERS

Especially designed for amateur use Resco Transformers are of extremely rugged construction and are conservatively rated. Housed in heavy cast aluminum cases with mounting feet they can be obtained in all voltage ratings and sizes for any power requirement. Fully guaranteed by the manufacturer and ourselves.

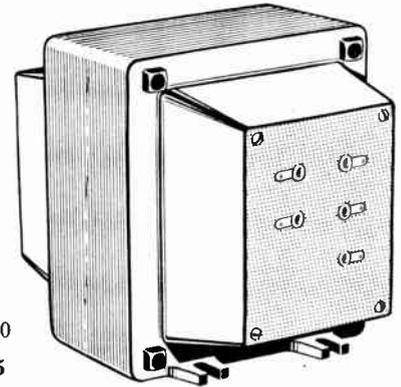


PLATE TRANSFORMERS

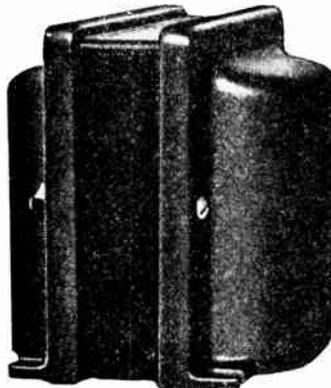
Cat. No. TP-1	Cat. No. TP-2	Cat. No. TP-6	Cat. No. TP-5
Primary 110 volts, 60 cycle 375 V.A.	Primary 110 volts, 60 cycle 850 V.A.	Primary 110 volts, 60 cycle 100 M.A.	Primary 110 volts, 60 cycle 850 V.A.
Secondary 1500-1000-0-1000-1500	Secondary 2000-1500-0-1500-2000	400 volt each side of center and two 7½ volt filament windings.	Secondary 2500-1500-0-1500-2500
YOUR COST, \$10.65	YOUR COST, \$14.25	YOUR COST, \$5.75	YOUR COST, \$15.75

RESCO FILAMENT TRANSFORMERS

All Resco filaments are built oversize, insuring cool and efficient operation at rated load. A type for any tube, including mercury vapor rectifiers. Mounted in heavy steel cases with brown crystalline finish.

Cat. No. TF-10

Primary—110 volts, 60 cycle, 50 watts
Secondary No. 1—7½ volts, 3 amp.
Secondary No. 2—7½ volts, 3 amp.
YOUR COST, \$4.75



Cat. No. TF-40

Primary—110 volts, 60 cycle, 30 watts
Secondary—2½ volts, 12 amp.
For two 866 Mercury Vapor Rectifiers
YOUR COST, \$4.25

Cat. No. TF-20

Primary—110 volts, 60 cycle, 75 watts
Secondary—10 volts, 7 amp.
YOUR COST, \$5.25

Cat. No. TF-50

Primary—110 volts, 60 cycle, 100 watts
Secondary—5 volts, 20 amp.
For two 872 Mercury Vapor Rectifiers
YOUR COST, \$7.85

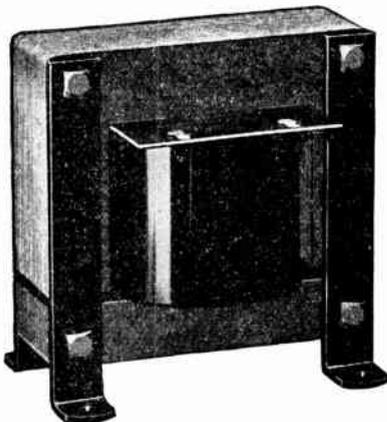
All Resco filament transformers are tested at 7000 volts.

Cat. No. TF-30
12 Volts, 7 Amps., 85 Watts
\$5.75

Resco for Quality
None Better at Any Price

RESCO CHOKES

Especially designed for use in transmitter power supply units where insulation and low D. C. resistance are important factors. Resco chokes are in a class all their own. The smaller units are mounted in steel cases with brown crystalline finish while the larger chokes are open frame mounted as illustrated.



FILTER CHOKES

Cat. No.	Ind.	Current	Resistance	List Price	YOUR COST
630	30 H.	80 M.A.	400 Ohms	\$2.50	\$1.20
650	50 H.	80 M.A.	400 Ohms	3.00	1.65
700	30 H.	100 M.A.	200 Ohms	3.00	1.65
TC-2	30 H.	150 M.A.	150 Ohms	7.50	3.95
TC-1	30 H.	300 M.A.	80 Ohms	12.50	6.75

MODULATION CHOKES

A low resistance high voltage insulation choke especially designed for use as speech chokes in modern radiophone transmitters. These chokes have excellent audio frequency characteristics.

CLASS "B" MODULATION UNITS

Get our prices on Class "B" Modulation Transformers. Circular on request.

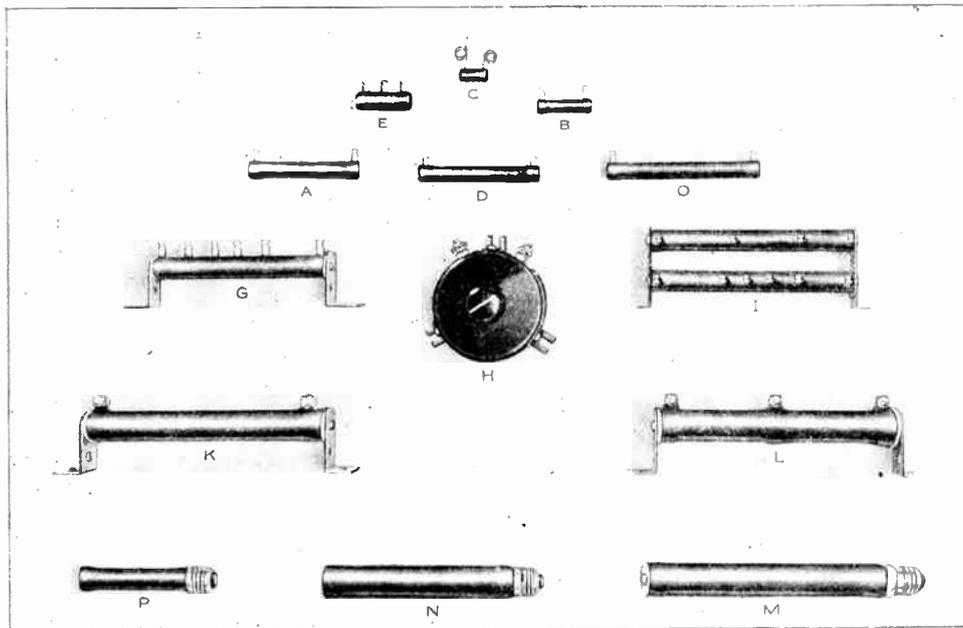
Cat. No.	Ind.	Current	List Price	YOUR COST
TM-2	10 H.	150 M.A.	\$20.00	\$5.95
TM-1	10 H.	300 M.A.	25.00	9.50

WARD-LEONARD VITROHM RESISTORS and RHEOSTATS
for Transmitting Circuits

Known the world over as the Resistor Specialists Ward-Leonard make a complete line of transmitting grid leaks and resistors for every type of tube.

A product with years of satisfactory service behind it.

Used as standard equipment in Marine, Army and Navy equipment and endorsed by leading radio authorities everywhere.



Grid Leaks

Bleeder Resistors

Filament Resistors

Variable Primary Resistors

Order your grid leak to fit the tube as listed below.

Protect those filter condensers with a bleeder resistor of correct value, also helps the note.

TRANSMITTING GRID LEAKS

These transmitting grid leaks are recommended for use with transmitting tubes of the types listed. Standard Lavite construction supplied with convenient mounting brackets and equipped with heavy screw connecting terminals.

Tube	Catalog Number	Fig. 1 Style	Resistance Ohms	Current m. a.	List Price	YOUR COST
'10	507-8	A	10,000	40	\$1.50	\$0.90
'03	507-3	O	5,000	200	3.75	2.25
'52	507-5	D	20,000	95	4.50	2.70
'11	507-8	A	10,000	40	1.50	.90
'03A	507-8	A	10,000	40	1.50	.90
'04A	507-51	L	10,000	75	3.50	2.10

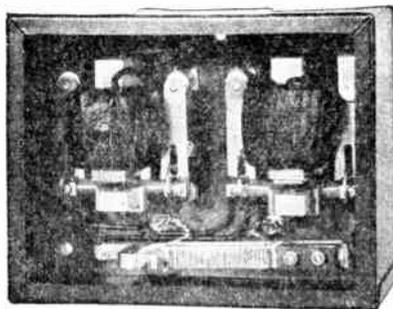
STABILIZING RESISTORS OR BLEEDERS

See Fig. 1, Style O

When the plate potential of radio transmitters is supplied by filtered rectified A. C., it is common practice to connect a stabilizing resistor across the output of the plate supply. The advantages are:

1. Protects the filter condensers from high peak voltages, which lengthens their life.
2. Steadies the note.
3. Tends to eliminate "chirps."
4. Discharges condensers when key is open.

Output Voltage	Catalog Number	Number of Units in Series	Resistance in Ohms	Current m. a.	List Price	YOUR COST
500	507-65		25,000	20	\$2.00	\$1.20
1000	507-65-2	2	50,000	20	4.00	2.40
1500	507-65-3	3	75,000	20	6.00	3.60
2000	507-65-4	4	100,000	20	8.00	4.80



Type TD2

TYPE TD-2

A heavy duty type relay for large transmitters. Mounted on bakelite insulating base. Housed in black metal case with glass cover. Rated for 15 amperes at 110 volts. Back connected for panel mounting.

Dimensions—4 7/8" x 6 1/8" x 3 1/8"

Type TD-2 Relay

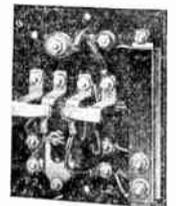
List Price, \$30.00

YOUR COST, \$22.50

TIME DELAY RELAYS

The Ward-Leonard Time Delay Relays are designed especially for use with mercury vapor rectifier tubes such as the 866 and 872 types that require the filament to be brought to operating temperature before applying plate voltage.

These relays are self re-cycling and provide a definite time delay even though the control circuit be broken and remade.



Type TD1-A

TYPE TD1-A

A smaller relay for medium power transmitters. Functions the same as the TD-2 Unit but rated for 4 amperes at 110 volts. Mounted on bakelite base with black enameled metal cover. Back connected for panel mounting.

Dimensions—3 3/8" x 4" x 2 1/2"

Type TD1-A Relay

List Price, \$12.50

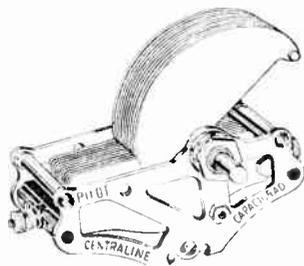
YOUR COST, \$9.38

TRANSMITTING APPARATUS

PILOT PARTS

A complete line of parts for the amateur and experimenter for use in construction of short wave and broadcast receivers and other apparatus.

CENTRALINE CONDENSERS

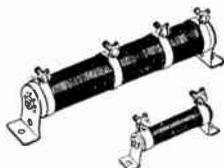


The 1600 series is of a modified straight line frequency type. The instruments are supplied with mounting feet and removable shafts, and because of their reversible feature can be mounted on either clockwise or counterclockwise dials. The insulation is of molded bakelite. They mount in a single hole and can be secured against turning by additional panel screws. Two or more can be "ganged" together by means of a long 1/4 inch shaft, or by No. 12A couplings. Connection to the rotor plates is made by a brass "pigtail," which insures noiseless contact. The No. 1611 condenser is recommended for short-wave receivers, as it has especially wide spacing between the plates. These condensers are the handiest ones made, and are suitable for use in any kind of a receiver, short wave or long wave.

List Price YOUR COST

1611—.00016 mf. maximum	\$1.55	\$0.93
1613—.00025 mf. maximum	1.55	.93
1617—.00035 mf. maximum	1.55	.93
1623—.00050 mf. maximum	1.55	.93

FIXED RESISTANCES



All Pilot wire resistors are wound with Nichrome wire on porcelain tubes, and are impregnated with a black elastic coating that protects them against dampness and corrosion. The resistors are equipped with removable feet, and can be mounted either vertically or horizontally.

The No. 961 is a special filament resistor for 222 type tubes, being supplied with a tap for "C" bias. The next eleven sizes are intended for use as "C" bias resistors. The No. 960 is a "B" power-pack output resistor, for use with any unit that supplies 180-200 volts to it. Taps to give lower voltages are fitted to the resistor. The first twelve resistors are 3/8" in diameter and 1 3/4" long; the No. 953 is 3/8" by 2" long, and the No. 960 3/4" in diameter and 4 1/2" long.

List Price YOUR COST

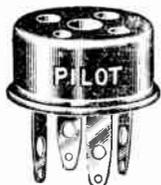
Resistor, 15 ohms, tapped (for 222 tubes)—No. 961	\$0.35	\$0.21
Resistor, 225 ohms—No. 967	.35	.21
Resistor, 900 ohms, center-tapped—No. 959	.35	.21
Resistor, 650 ohms—No. 954	.35	.21
Resistor, 750 ohms—No. 965	.35	.21
Resistor, 850 ohms—No. 955	.35	.21
Resistor, 1,000 ohms—No. 962	.35	.21
Resistor, 1,500 ohms—No. 963	.35	.21
Resistor, 1,200 ohms—No. 956	.35	.21
Resistor, 2,000 ohms—No. 958	.35	.21
Resistor, 2,250 ohms—No. 951	.35	.21
Resistor, 3,000 ohms—No. 964	.35	.21
Resistor, 10,000 ohms—No. 953	.35	.21
"B" Power Pack Resistor, 12,700 ohms—No. 960	1.10	.66

R. F. CHOKE

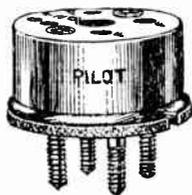


The No. 130 is an 80-millihenry radio-frequency choke coil for general use in short wave and regular broadcast receivers. Its choking effect extends from about 20 meters up to 600, its distributed capacity being very low. Dimensions: 1 1/2" high, 1" diameter.

R.F. Choke Coil, No. 130
YOUR COST, 66c



No. 205



No. 214

TUBE SOCKETS

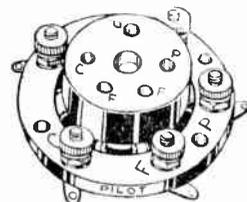
Pilot sockets are made of genuine molded bakelite and hold the tubes firmly but not too tightly. The contact springs and soldering lugs are actually one piece, so there are no losses in the sockets themselves. The No. 212 socket is very popular as a receptacle for the Pilot plug-in coil forms. The No. 216 and No. 217 sockets have a circular through cut in their tops, to guide the pins of the tube into the holes. All binding posts and terminal lugs are marked by letters molded right into the bakelite.

YOUR COST

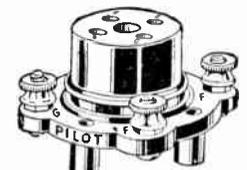
Shock-proof socket, UX and UV tubes (4 prongs)—No. 206	\$0.21
Base type socket, UY tubes (5 prongs)—No. 212	.21
Base type socket, UX, UV tubes (4 prongs)—No. 213	.21
Set builders' socket screw contact, for UX and UV tubes (4 prongs)—No. 214	.09
Set builders' 5 socket, screw contacts, for UY tubes—No. 215	.12
Universal socket, UX and UV tubes (4 prongs)—No. 216	.12
Universal socket, UY tubes (5 prongs)—No. 217	.12



No. 216

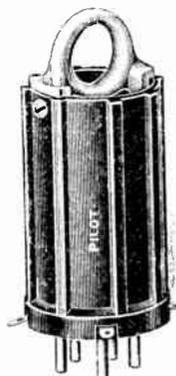


No. 212



No. 206

BLANK COIL FORMS



Amateurs who prefer to wind their own short-wave coils, for hand-covering tuners, super-heterodynes and other special sets, will find the Pilot blank plug-in coil forms very convenient. They have five pins in the base, and fit any standard five-prong UY socket. They also have a handy ring at the top to facilitate withdrawal from the socket. Contact pins and handle are removable. The forms are of genuine bakelite, with ribs on the surface to keep the wire as free as possible. Length of form is 2 1/2", diameter 1 3/4". Blank coil form, with Pins and Handle—No. 185

List Price, 55c
YOUR COST, 33c

COMPRESSION TYPE CONDENSERS

This is a mica dielectric compression condenser, the capacity being varied by a small slotted knob. Molded bakelite case, 2 15/16" long, 1 1/4" wide, 1 3/8" high maximum.



List Price YOUR COST

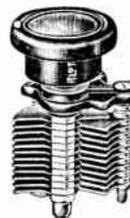
VM80—.00006 to .00005 mf.	\$0.75	\$0.45
VM81—.000045 to .0005mf.	.75	.45
VM82—.00015 to .001	.75	.45

No. 1275 KILOGRAD VERNIER DIAL

The Kilograd is a quick mounting precision dial. It is made of black molded bakelite, and presents a handsome appearance. Both knob and scale turn in the same direction, and there is no slipping or backlash. Two scales are provided, one reading clockwise and the other counterclockwise; the dial may thus be used with any type of variable condenser. It is held securely against the panel by a single inconspicuous machine screw. The dial is 4 inches in diameter.

List Price, 75c YOUR COST, 48c

MIDGET VARIABLE CONDENSERS

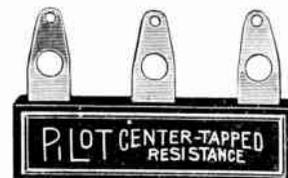


This extremely handy midget variable condenser has a molded bakelite frame and rigid brass plates. It mounts in a single hole, and is supplied with a bakelite knob. Made in four sizes: 5, 7, 13 and 23 plates, respectively. Useful for a wide variety of purposes, such as neutralizing R.F. amplifiers, antenna coupling, tuning verniers, regeneration control, short-wave tuning, etc. Only 1 1/2" wide, 1" to 1 3/4" deep, depending on capacity.

List Price YOUR COST

J5—.000015 mf. maximum	\$0.75	\$0.45
J7—.000025 mf. maximum	.75	.45
J13—.000050 mf. maximum	.80	.48
J23—.000100 mf. maximum	.95	.57

CENTER-TAPPED RESISTANCES



Center-tapped Resistance, 10 ohms—No. 352	\$0.20	\$0.12
Center-tapped Resistance, 20 ohms—No. 354	.20	.12
Center-tapped Resistance, 50 ohms—No. 356	.20	.12
Center-tapped resistance, 75 ohms—No. 358	.20	.12

TRANSMITTING APPARATUS

TOBE CONDENSERS

Tobe-Deustchmann enjoy an enviable reputation among the trade due to their high quality line of condensers which are used and endorsed by leading radio authorities everywhere.

TOBE BY-PASS AND FILTER CONDENSERS

For operation at 200 volts D. C. and 300 volts D. C., respectively. Contained in metal housing. Soldering terminals in bakelite top panel.



200 Volt By-Pass

Type	Mfd.	List Price	YOUR COST	Type	Mfd.	List Price	YOUR COST
210	0.1	\$0.60	\$0.36	310	0.1	\$0.70	\$0.42
225	0.25	.70	.42	325	0.25	.75	.45
250	0.5	.75	.44	350	0.5	.90	.54
201	1.	1.00	.59	301	1.	1.25	.75
202	2.	1.50	.89	302	2.	1.75	1.03
204	4.	3.50	2.06	304	4.	3.50	2.06

TOBE TYPE 300-A CONDENSERS



For use at 300 volts D. C. Contained in a metal housing 2½" x 1" x 1¾". Designed to mount upright. Soldering terminals project through the top of the metal housing.

Type	Mfd.	List Price	YOUR COST
301-A	0.1	\$0.70	\$0.42
325-A	0.25	.75	.45
350-A	0.5	.90	.54
301-A	1.0	1.25	.75

TOBE 600 LINE CONDENSERS

For use in plate voltage supply units and power amplifiers using UX-245, UX-247, and UX-210 power amplifier tubes. May be safely used at voltages up to 1000 volts D. C. Contained in metal housing. Soldering terminals on bakelite front panel.



Type	Mfd.	List Price	YOUR COST
610	0.1	\$1.50	\$0.90
650	0.5	2.00	1.18
601	1.	2.50	1.47
602	2.	4.50	2.65
604	4.	7.50	4.41
611	0.1—0.1	2.75	1.62

TOBE TRANSMITTING CONDENSERS

A new Tobe oil type transmitting condenser. For use in transmitting filter circuits operating at the higher voltages now becoming more common. Guaranteed for two years' use in any transmitting circuit in which the peak voltages do not exceed the rating of the condenser. Mounted in a cast-iron case and provided with heavy-duty porcelain insulators.



Type No.	Capacity	Working Voltage	List Price	YOUR COST
2210	1 mfd.	2000	\$17.00	\$10.00
2220	2 mfd.	2000	28.00	16.47
2250	5 mfd.	2000	56.00	32.94
3510	1 mfd.	3500	35.00	20.58
3520	2 mfd.	3500	60.00	35.28
5010	1 mfd.	5000	60.00	35.28

TOBE 1300 LINE CONDENSERS

For use in plate voltage supply units and power amplifiers using UX-250 power amplifier tubes at voltages up to 1300 volts D. C. Baseboard mounting. Metal housings. Soldering terminals on bakelite front panel.



Type	Mfd.	List Price	YOUR COST
1301	1.	\$3.50	\$2.06
1302	2.	6.00	3.53
1304	4.	11.00	6.47

TOBE SURGPROOF TUBULAR BY-PASS CONDENSERS

Especially designed for use in A. C. operated radio receivers to replace broken down By-Pass Condensers. Contained in fibre tubes and require no provision for mounting other than the insulated flexible leads to the condenser. Loop leads may be cut at any point to provide connecting leads of a desired length. Since this condenser has no exposed metal parts, there is no danger of short circuit when it is installed in sub-panel wiring.



Type No.	Capacity	Working Voltage	Dimensions	List Price	YOUR COST
310 T	0.1 mfd.	300	½" diam. x 1 7/8"	\$0.60	\$0.36
325 T	.25 mfd.	300	¾" diam. x 1 7/8"	.65	.39
350 T	.50 mfd.	300	1 3/16" diam. x 1 7/8"	.70	.42
301 T	1.00 mfd.	300	1 1/8" diam. x 1 7/8"	.90	.54
410 T	.01 mfd.	400	¾" diam. x 1 7/8"	.65	.39
425 T	.25 mfd.	400	1 3/16" diam. x 1 7/8"	.75	.45
450 T	.50 mfd.	400	1 1/8" diam. x 1 7/8"	1.10	.65
401 T	1.00 mfd.	400	1 1/8" diam. x 1 7/8"	1.90	1.12

TOBE 400 LINE CONDENSERS

For continuous operation at 400 volts D. C. in plate supply units using the Raytheon BH or UX-280 rectifier, or in power amplifiers using UX-171 tubes. Contained in metal housing designed to occupy minimum baseboard space. Soldering terminals mounted one above the other on the bakelite front panel.



Type	Mfd.	List Price	YOUR COST
401	1.	\$2.00	\$1.18
402	2.	2.75	1.62
404	4.	4.50	2.65
411	0.1—0.1	2.00	1.18

TOBE UNCASED SURGPROOF CONDENSERS

A complete line of uncase condensers for servicing power packs for A. C. operated receivers. Tobe uncase condensers are provided with flexible leads brought out in a loop which may be cut at any point to provide the length of connecting leads desired. Moisture proof. High resistance Color coded. Ample safety factor. One year guarantee.

Cut at left shows 1 mfd. 300 volt condenser immersed in water for test.

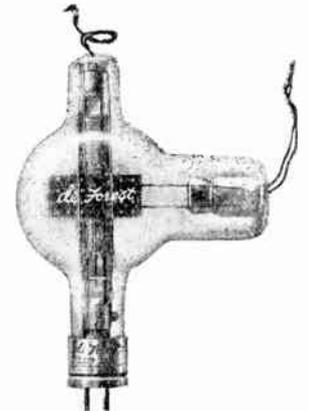
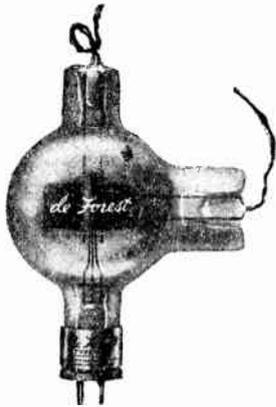


Type No.	Capacity	Working Voltage	Dimensions	List Price	YOUR COST
331	1 mfd.	300	2" x 1 3/4" x 5/8"	\$0.75	\$0.45
332	2 mfd.	300	3 3/8" x 2" x 5/8"	1.45	.87
441	1 mfd.	400	3 3/8" x 2" x 5/8"	1.10	.66
442	2 mfd.	400	3 3/8" x 2 3/8" x 15/16"	1.75	1.03
661	1 mfd.	600	4" x 2 1/2" x 13/16"	1.45	.87
662	2 mfd.	600	4" x 2 3/8" x 1 3/8"	2.85	1.68
1101	1 mfd.	1000	4" x 2 3/8" x 1 1/2"	2.00	1.18

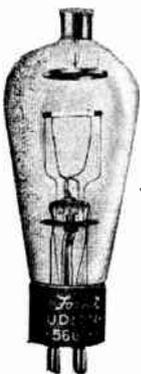
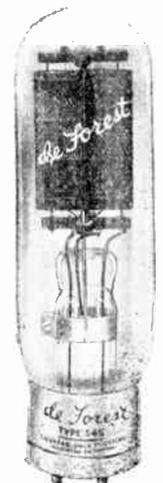
TRANSMITTING APPARATUS

DE FOREST TRANSMITTING AUDIONS

The DeForest reputation for engineering skill and painstaking precision has been zealously guarded in the manufacture of the DeForest Transmitting Audions. The DeForest script etched on each transmitting tube is assurance that your investment is fully protected by a guarantee of satisfactory performance. These same tubes are used in commercial and broadcasting stations throughout the world, and are giving 100% satisfaction.

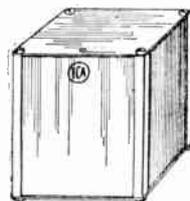


Tubes	Description	YOUR COST
565	7½ Watt Screen Grid R.F. Power Amplifier—Useful as buffer amplifier in telephone transmitters. Extremely low control grid-plate capacity and requires no neutralizing.....	\$15.00
560	75 Watt Screen Grid R.F. Amplifier—Extremely low grid-plate capacity, no neutralizing	35.00
561	500 Watt Screen Grid R.F. Amplifier—Interchangeable with UV861.....	292.50
571	750 Watt Air Cooled High Frequency Oscillator and R.F. Power Amplifier—Extremely valuable at “ultra high” frequencies. A large 552	200.00
566	A “Half Wave” Hot Cathode, Mercury Vapor Rectifier—2.5 volts, 5 amperes on filament. Maximum peak inverse voltage, 7500. Anode peak current, 0.6 amperes. Especially valuable for amateur transmitter plate supply.	6.35
572	A “Half Wave” Hot Cathode, Mercury Vapor Rectifier—5 volts, 10 amperes on filament, 7500 maximum peak inverse volts, anode peak current, 2.5 amperes. Especially useful for broadcast transmitter.....	16.50
552	75 Watt Oscillator and R.F. Power Amplifier—Low internal capacity between elements. Low frequency shift.....	23.00
504A	250 Watt Oscillator, Modulator or R.F. Power Amplifier—Standard “250 watter” in general use	97.50
504	250 Watt Oscillator, Modulator or R.F. Power Amplifier—For heavy duty. Has rugged tungsten filament, rating 11 volts, 14.85 amperes. A general purpose tube	97.50
549	350 Watt Modulator, R.F. Power Amplifier or Oscillator—Especially valuable as a modulator or speech amplifier, interchangeable with UV849	160.00
510	15 Watt Oscillator—Specially treated plate gives high plate dissipation. No creeping. High voltage breakdown. Low leakage. Ideal for crystal control oscillators	5.20
511	50 Watt Oscillator and R.F. Amplifier, Modulator or R.F. Power Amplifier—Indeed a general purpose tube	25.00
503A	50 Watt Oscillator and R.F. Power Amplifier—The standard “50 watter.” Not generally suited for modulator purposes.....	25.00
545	50 Watt A.F. Amplifier and Modulator—Not generally suited as an oscillator or R.F. power amplifier	30.00



TRANSMITTING APPARATUS

Aluminum Shield Cans and Panels—Bakelite Tubing, Rubber Panels



ALUMINUM SHIELD CANS

Our aluminum cans are supplied in knocked down form with drilled and tapped corner posts. Can be put together by anyone in a few minutes. Material of No. 16 thickness.

No.	Size	List Price	YOUR COST	No.	Size	List Price	YOUR COST	No.	Size	List Price	YOUR COST
1203	8x8x6	\$4.00	\$2.35	1206	5x5x6	\$2.75	\$1.62	1209	12x10x6	\$5.75	\$3.39
1204	6x6x6	3.50	2.06	1207	10x8x6	4.50	2.65	1210	18x 9x6	7.75	4.56
1205	9x5x6	3.00	1.77	1208	14x7x6	4.75	2.79	1211	12x 6x6	3.50	2.06

ALUMINUM PANELS

Our aluminum panels, sheets and cans have a bright silver finish and are supplied in the following sizes: Material of No. 16 thickness.

No.	Size	List Price	YOUR COST	No.	Size	List Price	YOUR COST	No.	Size	List Price	YOUR COST
1194	7x10	\$0.85	\$0.50	1197	7x16	\$1.45	\$0.85	1200	7x24	\$2.00	\$1.18
1195	7x12	1.05	.61	1198	7x18	1.65	.97	1201	7x30	2.50	1.47
1196	7x14	1.25	.73	1199	7x21	1.90	1.12	1202	24x36	9.50	5.59

ALUMINUM CORNER AND ANGLE POSTS



No.	Description	List Price	YOUR COST
1212	6" Corner Posts Drilled and Tapped	each \$0.30	\$0.18
1213	Corner Posts not Drilled and Tapped	per foot .35	.21
1214	1/2" Angle Post, 1/8" Thick	per foot .30	.18
1215	3/4" Angle Post, 1/8" Thick	per foot .35	.21

BAKELITE TUBING—Special Lengths

Cut to Order, Wall Thickness 1/16"

Outside Diam.	List Price per Lineal Inch	YOUR COST	Outside Diam.	List Price per Lineal Inch	YOUR COST
1" or 1 1/4"	\$0.10	\$0.06	2 1/2" or 2 3/4"	\$0.16	\$0.09 1/2
1 1/2" or 1 3/4"	.12	.07	3" or 3 1/4"	.18	.10 1/2
2" or 2 1/4"	.14	.08	3 1/2" or 3 3/4" or 4"	.20	.12

Prices on other thicknesses or sizes quoted on request.

SPECIAL ORDERS

We have a completely equipped machine shop and can take care of special order work on short notice. Send drawings and specifications and we will be glad to quote you.



INSULINE RADIO PANELS

A SUPERIOR HARD RUBBER MATERIAL

Black and Mahogany

INSULINE is a selected hard rubber panel material famous for its lustrous finish. Possesses high dielectric qualities, is moisture proof and immune from surface leakage, drills easily with ordinary tools without chipping or cracking. Two finishes—Black and Mahogany. Each panel is enclosed in an attractively printed envelope. Tests made on Insuline by the Electrical Testing Laboratories, New York, are as follows:

Dielectric constant 3.56. Resistivity in Megohms C. M. 2.58 x 10.8.
Phase Angle difference 1.71 Puncture voltage 66,200 volts.

STANDARD SIZES 3/16" THICK—In Individual Envelopes

Size	List Price Black	YOUR COST Black	List Price Mahogany	YOUR COST Mahogany
7" x 10"	\$0.85	\$0.50	\$1.05	\$0.62
7" x 12"	1.06	.62	1.25	.74
7" x 14"	1.26	.75	1.45	.86
7" x 18"	1.58	.92	1.90	1.12
7" x 21"	1.84	1.08	2.20	1.30
7" x 24"	2.10	1.24	2.50	1.47
7" x 26"	2.30	1.36	2.70	1.59

SPECIAL SIZES CUT TO ORDER

1/8" Thickness—Black Only	Per square inch, 1 1/2c
3/16" Thickness—Black	Per square inch, 2c
1/4" Thickness—Mahogany	Per square inch, 2 1/2c
1/2" Thickness—Black Only	Per square inch, 3c

FULL SIZE SHEETS

for Transmitter Front Panels or for Cutting to Special Size

21 1/4" x 49" x 1/8" —Black Only	List Price, \$11.00	YOUR COST, \$6.60
21 1/4" x 49" x 3/16" —Black Only	List Price, \$14.00	YOUR COST, \$8.40
21 1/4" x 49" x 1/4" —Black Only	List Price, \$19.50	YOUR COST, \$11.70

TRANSMITTING APPARATUS

QUARTZ CRYSTALS

BLILEY PIEZO-ELECTRIC QUARTZ CRYSTALS

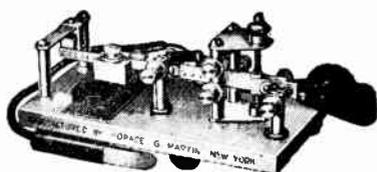
Bliley Plates are high grade quartz crystals, especially ground for use in amateur crystal controlled oscillators.

Each Bliley crystal is guaranteed to be perfect in finish, a strong oscillator and precise in calibration.

YOUR COST

Finished Plates, 1715 to 2000 K.C.	\$5.50
Finished Plates, 3500 to 4000 K.C.	5.50
Finished Plates, 7000 to 7300 K.C.	10.00

ORIGINAL MARTIN VIBROPLEX



The new improved model of this famous automatic key. Used and approved by professional and amateur operators alike.

New style single lever type with single weight easily adjustable for various speeds.

A handsome and efficient key. An adjunct to any operating table. Furnished in red, green, blue, or black.

YOUR COST, \$16.50

Plush Lined Carrying Case for Vibroplex Key

YOUR COST, \$2.94

BRANDES PHONES



The most popular head phones ever offered.

The original Brandes superior phones, famous for their matched tone and sensitivity.

A very comfortable head set that can be worn for long stretches without fatigue.

Furnished complete with 6 foot cord and adjustable head band.

YOUR COST, per pair, \$1.45

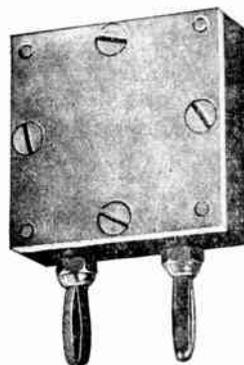
OCTO-COILS



For the amateur or short wave fan Octo-Coils are the most rugged coils built. Very efficient in operation and fit standard four prong tube sockets. Moulded of genuine bakelite in four distinctive colors: Green, brown, blue and red. Designed for use with .00014 Mfd. tuning condenser. Wave length range for coils, 15 to 200 meters.

Set of Four, List Price, \$5.00 **YOUR COST, \$3.00**

Broadcast Coil, Range 200 to 520 Meters, **YOUR COST, 75c**



CRYSTAL HOLDERS

Plug-in type dustproof holder. Made in two sizes—Type A for plates up to 1 inch square and Type B for crystals up to 1½ inch square.

All exposed metal parts are polished nickel and holder is fitted with C.R. plugs.

YOUR COST, Either Type, \$2.50

SANGAMO HIGH VOLTAGE BLOCKING CONDENSERS



Especially designed for use as plate and grid blocking condensers in amateur transmitters can also be used in laboratory setups where accurate high voltage condensers are required.

Class 2—D. C. Test 2500 Volts. Capacities .003 to .01
List Price, \$1.75 **YOUR COST, \$1.72**

Class 3—D. C. Test 5000 Volts. Capacities .00004 to .002
List Price, \$2.00 **YOUR COST, \$1.18**

MERCURY VAPOR RECTIFIER TUBES

Type 866 Half Wave Mercury Vapor Rectifier Tube rated 500 M.A. at 5000 volts peak inverse voltage. Filament voltage, 2.5 at 5 amperes. A high quality tube fully guaranteed.

Extra Special—YOUR COST, \$2.95

TYPE 888 RECTIFIER

The latest addition to the line of Mercury Vapor Rectifiers. A half wave rectifier rated at 300 M.A. at 7500 volts peak inverse voltage. Filament 2.5 volts at 2 amps.

YOUR COST, \$1.95

TYPE 280-M RECTIFIER

A full wave Mercury Vapor 280 rated at 300 M.A. Filament 5 volts at 2 amps.

YOUR COST, \$1.39

AMATEUR CALL BOOK

Contains complete and up-to-date lists of all amateur short wave broadcast and commercial short-wave stations.

Also gives press and time schedules and frequencies of the more important marker stations.

A necessity to the amateur operator and short wave listener.

Issued four times a year.

YOUR COST, \$1.00



TRANSMITTING APPARATUS

LITTLEFUSES FOR HIGH AND LOW VOLTAGE

Protect your meters and tubes with Littlefuses. Furnished in a variety of types and sizes for meters, radio receivers, amplifiers and high voltage transmitting apparatus.

"Quicker Than a Short Circuit"



Instrument Fuse



No. 1010
Single Mounting

INSTRUMENT LITTLEFUSES (Low Voltage)

Especially designed for the protection of delicate instruments such as galvanometers, microammeters, milliammeters, tube testers and set analyzers.

Cat. No.	Rating Amps.	Max. Load	Average Resistance	Application	List Price	YOUR COST
1001	1/100	5 M.A.	138 Ohms	For Galvanometers, Micro and 0-1 Milliammeters and 0-5 Thermocouples	\$0.20	\$0.12
1002	1/32	15 M.A.	65 Ohms	For 0-1 to 0-5 Milliammeters, 0-5 to 0-15 M.A. Thermocouples	.20	.12
1003	1/8	65 M.A.	21 Ohms	For 0-5 to 0-10 Milliammeters, 0-15 to 0-50 M.A. Thermocouples	.20	.12
1004	1/8	100 M.A.	16 Ohms	For 0-10 to 0-50 Milliammeters, 0-50 to 0-100 M.A. Thermocouples	.15	.09
1004L	1/8	100 M.A.	3.5 Ohms	Same as 1004, but Much Lower Resistance	.20	.12
1005	1/4	200 M.A.	6.2 Ohms	0-50 to 0-100 Milliammeters, 0-100 to 0-150 M.A. Thermocouples	.15	.09
1006	3/8	300 M.A.	3.0 Ohms	0-100 to 0-200 Milliammeters, 0-150 to 0-250 M.A. Thermocouples	.15	.09
1007	1/2	400 M.A.	2.5 Ohms	0-200 to 0-300 Milliammeters, 0-250 to 0-350 M.A. Thermocouples	.15	.09
1007A	3/4	600 M.A.	1.0 Ohm	0-300 to 0-500 Milliammeters, 0-350 to 0-600 M.A. Thermocouples	.15	.09
1008	1.	1000 M.A.	.36 Ohm	0-500 to 0-750 Milliammeters, 0-600 to 1 Amp. Thermocouples	.10	.06
1009	2.	2000 M.A.	.14 Ohm	0-750 to 0-1500 Milliammeters, 0-1 to 0-2 Amp. Thermocouples	.10	.06

HIGH VOLTAGE LITTLEFUSES

An efficient, inexpensive, renewable cartridge type of fuse for the protection of amateur and commercial transmitting tubes, high voltage rectifiers, amplifiers, etc. All sizes are black fibre inclosed with brass end caps. Since the Underwriters list fuses up to 600 volts only, High Voltage Littlefuses are neither approved or disapproved by them.

1000 VOLT LITTLEFUSES

Length, 3". Caps, 13/16" diam. Standard package, 10. Weight, 1 lb.

Cat. No.	List Price	YOUR COST	Renewals	YOUR COST	Rating Amps.	Max. load m.a.
2013	\$0.40	\$0.24	\$0.15	\$0.09	1/16	65
2014	.35	.21	.15	.09	1/8	100
2015	.35	.21	.12	.08	1/4	200
2016	.35	.21	.12	.08	3/8	300
2017	.35	.21	.10	.06	1/2	400
2017-A	.40	.24	.10	.06	3/4	600
2018	.40	.24	.10	.06	1	1000
2018-A	.40	.24	.10	.06	1 1/2	1500
2019	.40	.24	.10	.06	2	2000

10,000 VOLT LITTLEFUSES

Length, 10". Caps, 13/16" diam. Standard package, 10. Weight, 2 lbs.

Cat. No.	List Price	YOUR COST	Renewals	YOUR COST	Rating Amps.	Max. load m.a.
4027	\$1.00	\$0.59	\$0.20	\$0.12	1/16	65
4028	1.00	.59	.20	.12	1/8	100
4029	1.00	.59	.20	.12	1/4	200
4030	1.00	.59	.20	.12	3/8	300
4031	1.00	.59	.20	.12	1/2	400
4031-A	1.10	.65	.20	.12	3/4	600
4032	1.25	.74	.20	.12	1	1000
4032-A	1.25	.74	.20	.12	1 1/2	1500
4033	1.25	.74	.20	.12	2	2000

HIGH VOLTAGE MOUNTINGS

No. 2034—Single Pole Porcelain Base for 1000 volt Fuses.

List Price, \$1.30 YOUR COST, 78c

No. 3035—Single Pole Porcelain Base for 5000 volt fuses.

List Price, \$1.20 YOUR COST, 72c

No. 4036—Clips for 10,000 Volt Fuses or 1000 and 5000 volt.

List Price, 8c YOUR COST, 5c



FUSIBLE CAP
Holds two 3 A.G. fuses. Attaches to cord of set or appliance.

List Price, \$1.00
YOUR COST, 60c

5000 VOLT LITTLEFUSES

Length, 5". Caps, 13/16" diam. Standard package, 10. Weight, 1 1/2 lbs.

Cat. No.	List Price	YOUR COST	Renewals	YOUR COST	Rating Amps.	Max. load m.a.
3020	\$0.70	\$0.42	\$0.18	\$0.11	1/16	65
3021	.70	.42	.18	.11	1/8	100
3022	.65	.39	.15	.09	1/4	200
3023	.65	.39	.15	.09	3/8	300
3024	.65	.39	.15	.09	1/2	400
3024-A	.75	.45	.15	.09	3/4	600
3025	.75	.45	.15	.09	1	1000
3025-A	.75	.45	.15	.09	1 1/2	1500
3026	.75	.45	.15	.09	2	2000

LITTLEFUSE MOUNTINGS—ALL TYPES

Fuse clips and mountings of various types are available for the convenient mounting of Littlefuses.

No. 1050—Panel mounting type for instrument fuses. Have studs 1" long threaded 6/32". Supplied with nuts and washers.

List Price, 20c YOUR COST, 12c

No. 1055—Double pole type. For two instrument fuses. Black bakelite base.

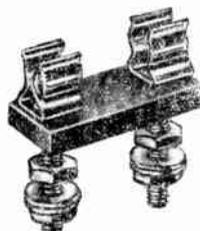
List Price, 35c YOUR COST, 21c

No. 1051—Spring clip mounting for instrument fuses. Black bakelite base.

List Price, 25c YOUR COST, 15c

No. 1011—Phosphor bronze spring clip for instrument fuses.

YOUR COST, per doz., 22c



No. 1050



No. 1055



No. 1051



No. 1011

INTERFERENCE ELIMINATORS

TOBE-DEUTSCHMANN FILTERETTES

Tobe-Deutschmann are pioneers in the development of radio noise elimination devices and manufacture a complete line of filterettes for every type and kind of radio disturbance.

TOBE FILTERETTE NO. 110-PO

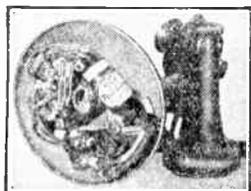
Electric refrigerators, heating pads, fruit juice extractors and adding machines are some of the appliances for which this Filterette is recommended. Mounted in a metal case $5\frac{1}{2}$ " x $3\frac{1}{2}$ " x $4\frac{1}{2}$ ". Provided with a receptacle and attachment cord for ease of connection to the power receptacle and appliance. May be used on either A. C. or D. C.



Approved by Underwriters Laboratories. Maximum potential: 110 volts A. C. or D. C. Maximum current: 5 amperes.

List Price, \$12.50 YOUR COST, \$7.35

TOBE DIAL FILTERETTE



Designed for application to the contacts causing interference when a dial telephone is used. May be mounted within the base of the instrument, and is so constructed that it will not interfere in any way with the operation of the instrument or with the transmission of voice frequencies. Contained in a

bakelite tube 1" in diameter and $1\frac{1}{2}$ " long. May be installed using only a screw driver.

List Price, \$3.50 YOUR COST, \$2.06

TOBE FILTERETTE JUNIOR



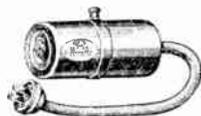
For application to electrically operated household appliances. Vacuum cleaners, small hair dryers, fans, cash registers and barber's clippers are among the many appliances easily made interference free by use of the Filterette Junior. Constructed in a bakelite case $1\frac{1}{2}$ " in diameter and $2\frac{1}{2}$ " long.

Approved by Underwriters Laboratories. Maximum potential: 110 volts A. C. or D. C.

List Price, \$3.50 YOUR COST, \$2.06

TOBE FILTERETTE SENIOR

For application to portable electrical appliances causing a more intense type of interference than that which may be suppressed by use of the Filterette Junior. Most satisfactory for use on grounded-neutral wiring systems. Contained in a cylindrical metal case 2" in diameter and 4" long.



Approved by Underwriters Laboratories. Maximum potential: 110 volts A. C. or D. C. Maximum current: 5 amperes.

List Price, \$7.50 YOUR COST, \$4.41

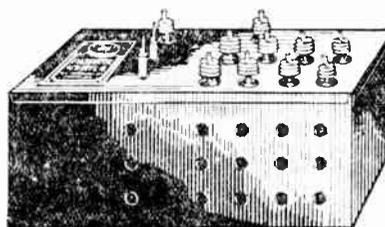
TOBE DIATHERMY FILTERETTES



Designed to prevent the feed-back of interference from a Diathermy machine to the power line. For use in 50-60 cycle circuits only. Must be used in conjunction with suitable screening.

	List Price	YOUR COST
No. 1-HFO— 6 amperes, 110 volts	\$35.00	\$20.58
No. 1-HF-2—15 amperes, 110 volts	75.00	44.10
No. 1-HF-3—25 amperes, 110 volts	125.00	73.50

TOBE FILTERETTE NO. NYL-4



For application to four-circuit sign flasher mechanisms. Filterette sections connect in main line and in each flashing circuit. Designed to handle a maximum current of 10 amperes in each four-branch circuit and 40 amperes in the main circuit.

List Price YOUR COST

For 110 volt operation	\$38.00	\$22.35
For 220 volt operation	50.00	29.40

TOBE FILTERETTE NO. OB-110

For application to oil burners. Contained in a metal cut-out box 7 " x $6\frac{3}{8}$ " x $3\frac{1}{8}$ ". Detachable clamps are provided so that the Filterette may be mounted either on a pipe standard or against a flat surface. Recommended for Williams Oil-O-Matic, Electrol, Gulf, Silent Automatic and Super Oil Heater.



Maximum potential: 110 volts A. C. or D. C. Maximum current: 4 amperes.

List Price, \$15.00 YOUR COST, \$8.82

TOBE FILTERETTE NO. FS-110



For application to all single circuit contactors operating at not more than 4 amperes, 110 volts. Specially recommended for application to the mercury switch or mechanical breaker used to control flashing traffic beacons and small flashing signs. Contained in a metal housing 4 " x $3\frac{1}{2}$ " x $2\frac{1}{2}$ ". Flexible leads.

Maximum potential: 110 volts A. C. or D. C. Maximum current: 4 amperes.

List Price, \$15.00 YOUR COST, \$8.82

TOBE FILTERETTE NO. 110

Designed for application to motors, generators, chargers and small sign flashers. Contained in a metal cut-out cabinet 10 " x $6\frac{3}{8}$ " x $3\frac{1}{8}$ " and fused for protection against overload.

Approved by Underwriters Laboratories. Maximum potential: 110 volts A. C. or D. C. Maximum current: 5 amperes.

List Price, \$15.00 YOUR COST, \$8.82



TOBE FILTERETTE NO. 221

For application to motors, generators, chargers and small sign flashers. Contained in a metal cut-out cabinet 13 " x $6\frac{3}{8}$ " x $3\frac{1}{8}$ ". Fused for protection against overload.

Maximum potential: 220 volts A. C. or D. C. Maximum current: 5 amperes.

List Price, \$20.00 YOUR COST, \$11.76

REPLACEMENT PARTS FOR ALL STANDARD SETS

Resco Replacement Units

We list below a complete line of Power Transformers, Condenser Blocks and Voltage Divider Resistors for most all standard sets. Delivery can in most instances be made from stock. All parts listed are exact duplicates of the original and carry a 90-day guarantee against electrical breakdown. Order by catalog number and where possible give model number of set.

RECEIVER	CONDENSERS				YOUR COST	TRANSFORMERS			VOLTAGE DIVIDERS		List Price	YOUR COST
	Leads	Cap.	No.	List Price		No.	List Price	YOUR COST	No.	Approx. Resistance (Ohms)		
A. C. Dayton Co. _____	6T	7.1	4000	\$14.00	\$ 7.00							
A. C. 63 _____	6T	5.2	4001	10.50	5.25	4195	\$10.00	\$ 5.00				
All-American Mohawk, A. 10 _____	9L	10.5	4402	10.00	5.00	4197	7.50	3.75				
F type _____	6T	10.	4003	10.00	5.00							
1 A-B Eliminator _____	6L	9.	4004	9.00	4.50							
Apex 36-25 cycle _____	8L	7.5	4005	9.50	4.75							
36-60 cycle _____	7T	7.	4006	9.00	4.50	4198	9.00	4.50				
37-60 cycle _____	8L	5.5	4007	9.00	4.50							
41-60 cycle _____	5L	4.5	4008	10.00	5.00	4199	13.50	6.75				
46-60 cycle _____	5L	5.6	4009	9.00	4.50	4200	13.50	6.75				
Arbophone 45 _____	5L	8.	4010	10.00	5.00	4201	9.00	4.50				
Atwater Kent, 36 _____	6L	14.	4012	12.00	6.00	4202	9.00	4.50				
37-38 include Chokes _____	6L	5.	4013	8.00	2.95	4203	6.00	3.00				
40-42-52 Pack _____	Pr		4014	20.00	9.00	4204	9.00	4.50				
46 _____	6L	7.	4015	10.00	5.00							
37 Condenser Only _____	6L	5.	4016	4.00	2.00							
40 Condenser Only _____	7L	5.	4017	4.00	2.00							
By-pass _____	3L	.3	4018	1.75	.90							
By-pass _____	2L	.2	4019	1.50	.75							
41 DC comp. pack _____			4020	12.00	6.00							
Audiola _____	4L	7.	4021	11.00	5.50							
Bosch _____	8L	8.1	4026	15.00	7.50							
Little 6 _____	5L	14.	4027	10.00	5.00	4207	9.00	4.50				
28 Condenser Choke _____	7L	6.2	4028	9.00	4.50	4208	14.00	7.00	4337	5000 Ohms	\$1.25	\$0.62
29-835 Pack _____	6L	7.2	4029	10.00	5.00	4209	20.00	10.00	4338	10,000-10,000	1.75	.87
501-502-503 _____	5L	9.	4030	8.50	4.25	4210	7.50	3.75				
48 _____	6T	9.2	4031	9.00	4.50							
Brandes, B-10 _____	11L	3.7	4033	8.00	4.00							
B-15, 16 _____	7L	5.1	4034	7.00	3.50				4339	2500-45-410	1.25	.62
Bremer-Tully _____	5L	7.	4035	10.00	5.00							
8-20A, 8-21A _____	10L	12.	4036	11.00	5.50				4340	4900-5500-3000	1.50	.75
6-40 _____	9L	14.5	4037	11.00	5.50							
7-70, 7-71 _____						4211	12.00	6.00				
Browning-Drake, MB-30 _____						4212	10.00	5.00				
69-70-71 _____						4213	13.50	6.75				
Brunswick, 5KRO _____						4214	13.50	6.75				
3 KRO, R1, 5KR6, 5-KR _____						4215	10.00	5.00				
81-82 (Panatrop), S-31 _____						4216	10.00	5.00				
5, 14, 821, B. T. S. 81-S _____									4341	4000 Ohms (for Model S-31)	1.00	.50
82, 15-22 _____						4217	13.50	6.75	4342	4000 Ohms (for Model 14)	1.00	.50
Buckingham _____	6L	8.	4038	10.00	5.00	4218	13.50	6.75				
Bush & Lane, 12 SG _____						4220	13.50	6.75				
Colonial _____	3L	16.	4040	20.00	10.00							
31 _____	3T	24.	4041	5.50	2.75	4221	10.00	5.00				
32 _____	3T	24.	4042	5.50	2.75	4222	13.50	6.75				
33-34-35 _____	2T	16.	4043	4.25	2.15	4223	13.50	6.75				
Crosley _____	2T	8.	4052	2.50	1.25							
30S-33S-34S-82S _____	3T	24.	4053	5.50	2.75	4231	13.50	6.75				
31S-40S-41S-42S _____	3T	24.	4054	5.50	2.75	4232	13.50	6.75				
Buddy and Chum _____	2T	16.	4055	4.25	2.15	4233	9.00	4.50				
610-609-704A-41-42A-706-608 _____	2T	16.	4056	4.25	2.15	4234	9.00	4.50				
704B _____	3T	24.	4057	5.50	2.75	4235	9.00	4.50				
AC7-AC7C _____	3T	24.	4058	5.50	2.75							
Day-Fan _____	4L	9.	4059	12.00	6.00				4362	5000-4000	1.00	.50
Earl, 21-22 _____	8L	10.5	4060	9.50	4.75	4236	9.00	4.50	4363	15,000-25,000	1.50	.75
31-32 _____	7L	7.1	4061	9.50	4.75	4237	13.50	6.75	4364	4000 Ohms	.85	.42
41-42 _____	8L	8.1	4062	10.00	5.00	4238	13.50	6.75	4365	5000-750	1.00	.54
78 _____	7L	9.1	4063	10.00	5.00	4239	13.50	6.75	4366	15,000-25,000 (for Model 41)	1.50	.75
21-22, 25 cycle _____	8L	11.5	4064	10.00	5.00				4367	5000-4000 (for Model 41)	1.00	.50
Edison, R4-R5-C4 _____	4T	10.	4065	12.00	6.00	4240	15.00	7.50	4368	15,000-25,000	1.50	.75
Fada, ABC A Condenser _____			4070	3.00	1.50				4369	5000-4000	1.00	.50
ABC B Condenser _____	8L	7.1	4071	10.00	5.00	4242	15.00	7.50	4370	10,000 Ohms	1.20	.60
10-11-16-17-20-31-32 _____	8T	10.25	4072	12.00	6.00	4243	10.00	5.00				
K _____	7L	7.1	4073	8.50	4.25							
25 _____	7L	6.53	4074	8.00	4.00	4244	13.50	6.75				
35 _____	8L	8.5	4075	10.00	5.00	4245	13.50	6.75				
E420-50-70-71-75-77, E180 _____	8T	10.5	4076	11.00	5.50	4246	10.00	5.00				
Federal, D-E-F-G _____	2L	4.	4078	5.00	2.50				4361	135-2000-200-350	1.50	.75
K _____	4L	4.	4079	4.00	2.00	4248	9.00	4.50	4362	1300	.85	.42
Buffer-2 _____	6L	5.5	4080	5.06	2.50	4249	9.00	4.50	4363	3500-13,000	1.50	.75
Freed-Eiseman, NR60 _____	3L	2.5	4081	3.00	1.50							
NR 57-457 _____	8L	10.5	4082	8.00	4.00	4250	9.00	4.50				
NR 67 _____	8L	9.5	4083	8.00	4.00	4251	9.00	4.50	4364	2000-350	1.00	.50
NR-70-470 _____	8L	10.5	4084	10.00	5.00	4252	9.00	4.50	4365	25,000-4000	1.50	.75
NR80, DC _____	7L	9.	4085	12.00	6.00	4253	11.00	5.50				
NR 60-FE4-DC _____	6L	5.	4086	5.00	2.50							
NR80-AC _____	5L	4.	4087	5.00	2.50							
90 SAC _____	8L	9.6	4088	8.00	4.00	4254	9.00	4.50				
NR, 95, AC _____						4255	13.50	6.75	4367	15,000-25,000	1.50	.75
Freed, 55-56 _____			4089	9.50	4.75				4368	25,000-4000	1.75	.87
78 _____			4090	10.00	5.00				4369	15,000-25,000	1.50	.75
41 _____			4091	10.00	5.00				4370	5000-4000	1.00	.50
Freshman, Polydyne QD15-16-16S _____	7T	9.5	4092	10.00	5.00	4257	10.00	5.00				
N11-2N12-Polydyne 250 _____	7T	9.5	4093	12.00	6.00	4258	14.00	7.00	4371	(For Model 2N12-N11) 1500-4500-3300-6600-2200	1.50	.75

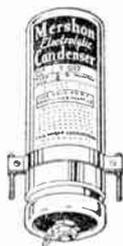
REPLACEMENT PARTS FOR ALL STANDARD SETS

(Continued)

RECEIVER	CONDENSERS					TRANSFORMERS			VOLTAGE DIVIDERS		List Price	YOUR COST
	Leads	Cap.	No.	List Price	YOUR COST	No.	List Price	YOUR COST	No.	Approx. Resistance (Ohms)		
M12 x M60-S-171	7T	10.5	4094	9.00	4.50	4259	13.50	6.50	4372	12,500 (For Model M60S) 10,000-	1.75	.87
G60S, 25 cycle	7T	15.	4095	11.00	5.50	4260	9.00	4.50	4373	300-1250-4300-3000-2100	1.50	.75
G60S, 60 cycle	7T	19.	4096	12.50	6.25	4261	9.00	4.50	4374	1250-4300-3000	1.00	.50
K & K, 60S	6T	10.	4097	10.00	5.00	4265	10.00	5.00	4375	10,000-12,500	1.75	.87
General Motors (5077-5080)						4266	13.50	6.75				
Model A						4267	10.00	5.00				
Grebe, AC6	8L	15.	4102	15.00	7.50	4269	10.00	5.00	4376	750-2800-5900	1.00	.50
8 Green Diamond						4270	13.50	6.75	4377	6300-95-695	1.00	.50
Kellogg, 523-526						4271	13.50	6.75	4378	2000-1500-750	1.50	.75
Kennedy-Colin, B20		24.	4106	5.50	2.75	4272	10.00	5.00	4379	3000-1350-900	1.25	.62
10						4273	13.50	6.75				
King, Model J	7T	13.	4107	9.40	4.70	4274	13.50	6.75				
H	7T	8.	4108	9.75	4.85	4275	14.50	7.25	4380	5000-5000-800	1.50	.75
Kolster, 6H (See Col. 901)			4113	15.00	7.50	4276	9.00	4.50	4381	3000-300-220-900 (Model 6J-6K)	1.50	.75
6J-6K-6R	9T	8.1	4114	7.00	3.50	4277	9.00	4.50	4382	840-60-220-3000-3000 (Model 20-22)	1.50	.75
K20-22-42	9L	8.	4115	6.00	3.00	4278	9.00	4.50	4383	840-140-2600 (Model 42)	1.25	.62
K21-K23	10L	8.1	4116	6.00	3.00	4279	13.50	6.75	4384	90-125-900	1.50	.75
K43	8T	5.1	4117	6.00	3.00	4280	13.50	5.75	4385	1600-1000-380	1.00	.50
K24	7L	11.1	4118	12.00	6.00	4281	15.00	7.50	4386	90-125-900	1.50	.75
K45	4T	4.1	4119	7.50	3.75	4282	13.00	6.50	4388	1450-650-200-350	1.50	.75
K44						4286	13.00	6.50				
Majestic, A						4287	14.00	7.00				
70-71-72	5L	8.	4123	8.00	4.00	4288	14.00	7.00				
80-180	6L	9.	4124	8.00	4.00	4289	10.00	5.00				
90-91-92, includes Choke	6L	7.	4125	9.00	4.50	4290	14.00	7.00				
90B	5L	7.	4126	8.00	4.00	4291	12.50	6.25				
70-71-72, 25 cycle	5L	13.	4127	12.50	6.25	4292	9.00	4.50	4389	2000	.85	.42
Mohawk, AC 27 to 28, 226 type pack	7L		4128	7.00	3.50	4293	13.50	6.75	4390	700	.85	.42
Peerless, 65	9L	7.	4129	7.50	3.75	4294	13.50	6.75	4391	1900-200-2500-4000-500	1.50	.75
Philco, 77	7T	11.1	4130	9.75	4.85	4296	9.00	3.95	4392	41 Sterling 9000-20,000	1.00	.50
511-12-13-14, etc.	8T	8.5	4131	7.60	3.80	4297	9.00	4.50	4393	41 Sterling 900-450-1000	1.00	.50
65	6T	9.15	4132	9.00	4.50	4298	10.00	5.00	4394	41 Receptrad 12,300-8000-5000	1.50	.75
95						4301	13.50	6.75				
R. C. A., 17	7T	14.	4135	9.50	4.75	4302	13.50	6.75	4395	800-1000-1200-4000	1.25	.62
18-31-51 include Chokes	5T	2.5	4136	4.00	2.00	4303	9.00	4.50				
41	8T	8.	4137	7.50	3.75	4304	14.00	7.00				
						4305	19.00	9.00				
60 contains Choke	9T	8.	4138	8.60	4.30	4306	18.00	9.00				
30A	10T	15.	4139	9.50	4.75	4307	13.50	6.75				
30A	4T	12.	4140	12.00	6.00	4308	10.50	5.25				
104 (Speaker)	2L	4.	4141	5.00	2.50	4309	9.00	4.50	4396	8000-5000-10,000-800	1.75	.87
64-4 manufactured Repair Unit	2L	4.	4142	7.75	3.85	4310	18.00	9.00	4397	1000-7000-9000-3000 (Model 40A)	1.50	.75
64	8T	20.	4143	32.00	16.00	4311	10.00	5.00	4398	2500-8500-12,000	1.50	.75
30 (3 used)	2T	2.	4144	3.60	1.80	4312	10.00	5.00	4399	1000-1000-250-250 (Model 991)	1.50	.75
30 (2 used)	2T	7.	4145	8.90	4.40	4313	14.00	7.00				
20	7T	9.	4146	13.50	6.75	4316	10.00	5.00				
Silver-Marshall	6L	9.	4148	12.50	6.25	4317	13.50	6.75				
ABC 850	8L	8.	4149	12.00	6.00	4318	13.50	6.75	4400	5500-10,000 (Model 900)	1.50	.75
33A-34A-35A	2L	16.	4150	4.25	2.15	4319	13.50	6.75	4401	7800-4500-3000-4000	1.50	.75
Sonora, B130-31	5L	8.	4151	10.00	5.00	4320	13.50	6.75	4402	900-3000-2500-800	1.50	.75
Spartan, AC5	7L	9.	4152	9.50	4.75	4321	13.50	6.75	4403	900-3000-2500-800	1.50	.75
AC7-62-63	5L	6.1	4153	8.00	4.00	4322	14.00	7.00				
930	3L	9.	4154	16.00	8.00	4323	14.00	7.00	4404	2000-1400-200-800	1.40	.70
109	5L	6.15	4155	12.00	6.00	4324	14.00	7.00	4405	2000-1400-200-800	1.40	.70
301	3L	24.	4156	5.50	2.75	4325	10.00	5.00				
931	7L	7.	4157	9.50	4.75	4326	10.00	5.00				
69-79A, 60 cycle	8L	8.	4158	11.00	5.50	4327	14.00	7.00				
69-79A, 25 cycle	7L	8.	4159	9.00	4.50	4328	10.00	5.00				
Splitdorf, 171-7 tube	8L	12.	4160	9.00	4.50	4329	13.00	6.50	4407	325-175-310	1.00	.50
Steinert, 50	5L	11.	4160	15.00	7.50	4330	24.00	12.00	4408	13,000-11,000-9500-1800	1.80	.90
40A-45-60	6T	9.	4161	10.00	5.00	4331	14.00	7.00	4409	3200-1200-1200-1600 (Model 11, 14)	1.50	.75
70A	6L	8.	4162	9.50	4.75	4332	14.00	7.00				
991-992-993	2T	12.	4163	9.00	4.50							
261	4L	4.	4164	6.00	3.00							
40C	4L	9.	4165	11.00	5.50							
12	3L	12.	4166	12.00	6.00							
88	7L	7.	4167	13.50	6.75							
Stewart-Warner, Major Pack	7L		4170	8.50	4.25							
530 Sterling	4T5L	12.2	4171	10.00	5.00							
950-900												
Stromberg-Carlson, 641-652-654	8T	9.	4172	10.00	5.00							
Temple, 860, 880	7T	9.1	4173	12.00	6.00							
890	7T	9.1	4174	12.00	6.00							
761	7T	7.5	4175	9.00	4.50							
Victor, 32-45-75	5T	9.25	4177	11.00	5.50							
32-45-75	4T	9.	4178	10.50	5.25							
60 cycle	8L	13.	4180	8.00	4.00							
Zenith, ZE9-11E-14E	7L		4181	7.00	3.50							
50-51-52-60 bypass	5L	.8	4182	3.50	1.75							
50-51-52-60	3A	36.	4183	7.25	3.65							
ZE 10-13	6T	9.	4184	8.00	4.00				4406	6000-7500-8500-2500	1.50	.75
ZE 3	4L	6.	4185	7.50	3.75							
ZE 4	6L	14.	4186	12.00	6.00							
ZE 6	8L	19.1	4187	20.00	10.00							
ZE 18	8L	10.5	4188	12.00	6.00							
ZE 11, 12, 14, 15, 16	5L	11.	4189	14.00	7.00							
ZE 17	4L	10.	4190	14.00	7.00							
ZE 8	4T	13.	4191	12.00	6.00							
ZE 8	3T	7.	4192	9.50	4.75							
Z 70 (uses 2)	1A	8.	4193	2.50	1.25							
Z 70 (uses 1)	2A	16.	4194	4.25	2.15							

REPLACEMENT PARTS

MERSHON ELECTROLYTIC CONDENSERS



Mershon Electrolytic Condensers are particularly suited for use in the filter circuits of "B" Eliminators and power converters of radio receivers, tube transmitters, power amplifiers and similar equipment where filter condensers of high capacity, long life and "surge-proof" construction are desired.

Type	Type of Mounting	Mershon Catalog No.	No. of Anodes	Total Capacity	Peak Voltage	Dimensions of Container	List Price	YOUR COST
S-4	Stud	60002	1	4 Mfd.	430	1 3/8" x 4 1/8"	\$1.90	\$1.12
S-4	Stud	60061	1	4 Mfd.	450	1 3/8" x 4 1/8"	1.90	1.12
S-4	Stud	60044	1	4 Mfd.	475	1 3/8" x 4 1/8"	1.90	1.12
S-4	Stud	60062	1	4 Mfd.	500	1 3/8" x 4 1/8"	1.90	1.12
S-6	Stud	60063	1	6 Mfd.	430	1 3/8" x 4 1/8"	2.00	1.18
S-6	Stud	60064	1	6 Mfd.	450	1 3/8" x 4 1/8"	2.00	1.18
S-6	Stud	60055	1	6 Mfd.	475	1 3/8" x 4 7/8"	2.10	1.24
S-6	Stud	60030	1	6 Mfd.	500	1 3/8" x 4 7/8"	2.10	1.24
S-8	Stud	60056	1	8 Mfd.	430	1 3/8" x 4 7/8"	2.10	1.24
S-8	Stud	60065	1	8 Mfd.	450	1 3/8" x 4 7/8"	2.10	1.24
S-8	Stud	60005	1	8 Mfd.	475	1 3/4" x 4 7/8"	2.35	1.39
S-8	Stud	60067	1	8 Mfd.	500	1 3/4" x 4 7/8"	2.35	1.39
S-12	Stud	60068	1	12 Mfd.	430	1 3/4" x 4 7/8"	2.50	1.47
S-12	Stud	60070	1	12 Mfd.	450	1 3/4" x 4 7/8"	2.50	1.47

Condensers listed below are recommended for replacement of similar units where it is inconvenient to install latest style inverted stud mounting type condensers.

Type	Type of Mounting	Mershon Catalog No.	No. of Anodes	Total Capacity	Peak Voltage	Dimensions of Container	List Price	YOUR COST
D-8	Upright	67146	2	16 Mfd.	430	2 1/2" x 4 1/8"	\$4.00	\$2.35
D-20 (1-5, 1-15)	Upright	60081	2	20 Mfd.	430	2 1/2" x 4 1/8"	4.50	2.65
D-26 (1-8, 1-18)	Upright	60045	2	26 Mfd.	430	3" x 4 1/8"	4.50	2.65
T-8	Upright	60015	3	24 Mfd.	430	3" x 4 1/8"	6.00	3.53
Q-8	Upright	60080	4	32 Mfd.	430	3 1/4" x 4 1/8"	7.50	4.41
D-18	Upright	67098	2	36 Mfd.	430	3" x 4 1/8"	6.25	3.68
T-36 (1-18, 2-9)	Upright	67385	3	36 Mfd.	430	3" x 4 1/8"	7.50	4.41
Q-52 (2-8, 2-18)	Upright	67530	4	52 Mfd.	430	3 1/4" x 4 1/8"	11.25	6.62
S-72	Upright	60043	1	72 Mfd.	430	3 1/4" x 4 7/8"	10.00	5.88

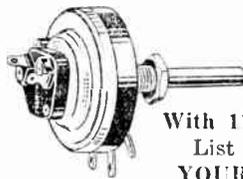
REPLACEMENT PARTS

CENTRALAB JUNIOR REPLACEMENT CONTROLS WITH LONG SHAFTS

Shaft extends 1 3/4" from case and may be cut off to the desired length when installed. Bushing 1/2" long. Case 1 3/4" in diameter. Shaft and bushing fully insulated from all terminals except where specially noted.



Plain Junior
List Price, \$2.00
YOUR COST, 90c



With 110 Volt Switch
List Price, \$2.50
YOUR COST, \$1.20

Junior Radiohms—Two Terminals

70-200	Shunt resistance for antenna or R.F. primary	Taper L.H.	Max. 5,000 ohms and infinity	C.	200 ohms
70-201	Shunt resistance for tuned grid circuits	Taper L.H.	Max. Infinite	C.	3,000 ohms
70-202	R.F. "C" bias resistance	Taper R.H.	Max. 75,000 ohms	C.	3,000 ohms
70-203	Series for R.F. plate	Taper R.H.	Max. 500,000 ohms	C.	35,000 ohms
70-204	Antenna shunt for sets of high gain	Taper L.H.	Max. 3,000 ohms	C.	50 ohms
70-205	R.F. "C" bias resistance	Taper R.H.	Max. 10,000 ohms	C.	1,000 ohms

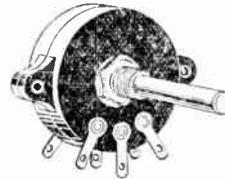
Junior Potentiometers—Three Terminals

72-100	Antenna or R.F. Shunt	Taper L.H.	Max. 10,000 ohms	C.	1,000 ohms
72-101	Untuned Antenna. Also used for "C" bias Potentiometer	Taper L.H.	Max. 2,000 ohms	C.	500 ohms
72-102	Antenna or R.F. Shunt	Taper L.H.	Max. 25,000 ohms	C.	2,500 ohms
72-103	Screen Grid	Taper Sym.	Max. 50,000 ohms	C.	25,000 ohms
72-104	Screen Grid	Taper Sym.	Max. 100,000 ohms	C.	50,000 ohms
72-105	Audio Grid	Taper L.H.	Max. 500,000 ohms	C.	50,000 ohms
72-106	Tuned R.F. Grid	Taper Sym.	Max. 500,000 ohms	C.	250,000 ohms
72-107	"C" bias Potentiometer	Taper Sym.	Max. 1,000 ohms	C.	500 ohms
72-108	"C" bias Potentiometer	Taper Sym.	Max. 3,000 ohms	C.	1,500 ohms
72-109	"C" bias Potentiometer	Taper Sym.	Max. 4,000 ohms	C.	2,000 ohms
72-110	"C" bias Potentiometer	Taper Sym.	Max. 5,000 ohms	C.	2,500 ohms
72-111	Screen grid Potentiometer	Taper Sym.	Max. 25,000 ohms	C.	12,500 ohms
72-112	Special Antenna Control for Atwater-Kent 1928-29 models	Taper L.H.	Max. 500 ohms	C.	50 ohms
79-006	Antenna and "C" bias Grounded	Taper R.H.	Max. 15,000 ohms	C.	3,000 ohms
51-010	Elf potentiometer tapered same as 70-006 for sets needing small sized control.				

Junior Controls with 110-Volt Switch Attached

Any of the above Junior Controls will be furnished with switch attached. In ordering, specify the desired part number and add "with switch."

TWIN JUNIOR REPLACEMENT CONTROLS



Case diameter 1 3/4". Depth 3/4". Two resistances completely insulated from each other and from the shaft and bushing.

ABBREVIATIONS

L.H.—Resistance increases with clockwise shaft rotation. R.H.—Resistance increases with counter clockwise shaft rotation. Sym.—Tapered symmetrical. R.F.—Radio Frequency. Max.—Maximum resistance. C.—Resistance reading at center or half turn.

List Price, \$3.00
YOUR COST, \$1.77

There are so many possible combinations in twin volume controls that most replacements are adapted to one manufacturer's set only. There are many receivers now giving troublesome operation with single controls, however, that may be immensely improved if the single control is replaced with part number 74-601 where the original control was in the "C" Bias circuit, or with part 74-602 where the original control was in the screen grid circuit. These controls have long shafts adapted to a variety of sets. The other Twins are popular replacements for particular receivers as named and duplicate the original shaft and bushing length.

74-600	Special taper and bushing for 1929-30 Victor replacements. Both bases L.H., Max. 4,000 ohms, C. 300 ohms.
74-526	Special taper and bushing for 1930-31 Victor, R.C.A., G.E., etc. 4 circuit receiver replacements. Shaft base L.H., Max. 50,000 ohms, C. 20,000 ohms, back base L.H., Max. 50,000 ohms, C. 4,000 ohms.
74-524	Special taper and bushing for 1930 Victor 5 circuit replacements. Shaft base L.H., Max. 50,000 ohms, C. 25,000 ohms. Back base L.H., Max. 1,000 ohms, C. 375 ohms.
74-601	Potentiometer controls antenna, radiohm control "C" bias. Shaft base L.H., Max. 10,000 ohms, C. 2,000 ohms. Back base R.H., Max. 25,000 ohms, C. 1,500 ohms.
74-602	Potentiometer controls antenna. Potentiometer controls screen grid. Shaft base L.H., 10,000 ohms, C. 1,500 ohms. Back base—Sym. 50,000 ohms, C. 25,000 ohms.
74-515	Special for Temple. Shaft base Sym. Max. 10,000 ohms, C. 5,000 ohms. Back base L. H., Max. 500,000 ohms, C. 125,000 ohms.
74-503	Special for National Carbon. Shaft base R.H., Max. 10,000 ohms, C. 2,500 ohms. Back base Sym., Max. 500,000 ohms.
74-603	Special Twin replacing wire wound control in 1930-1931 Philco Midget and small receivers. Shaft base L.H., Max. 5,000 ohms, C. 1,200 ohms. Back base R.H., Max. 350 ohms, C. 150 ohms.
25-416	Special for Freshman. Shaft base Sym. Max. 250,000 ohms, C. 125,000 ohms. Back base L.H., Max. 12,000 ohms, C. 3,000 ohms.
76-006	Combination wire and graphite for Kolster-Brandes K-42, 43, 45. 25,000 ohms for antenna, 6,000 ohm wire wound for screen grid.

"CENTRALAB" Volume Controls and Potentiometers GIANT POWER POTENTIOMETER



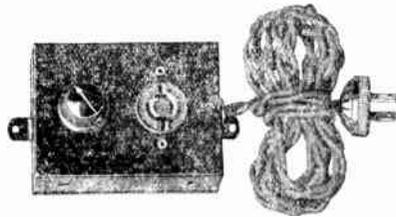
The wire-wound resistance is built of materials that insure safe operation at high temperature. The wire is wound on a steel core, 1" wide, which is insulated with asbestos. The diameter is 2" which allows mounting the unit in a comparatively small space. This construction provides a resistance unit that will safely carry any current load at a power dissipation of 50 watts through the entire resistance.

Manufactured with two or three terminals, single hole mounting, and furnished with bakelite knob.

Three Terminals		
48-025—	25 ohms	\$2.00 \$1.18
48-060—	60 ohms	2.00 1.18
48-151—	150 ohms	2.00 1.18
48-401—	400 ohms	2.00 1.18
48-501—	500 ohms	2.00 1.18
48-811—	1,000 ohms	2.50 1.47
48-821—	2,000 ohms	2.50 1.47
48-851—	5,000 ohms	2.75 1.62
48-881—	8,000 ohms	2.75 1.62

Radio service men and dealers everywhere need the new Centralab Volume Control Guide. Illustrates all volume control circuits in common use, lists all makes and models of radio receivers with the volume control circuit used and the proper replacement part.
LIST PRICE, 25c. Postpaid

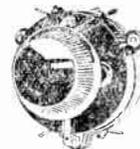
Centralab RADIO CONTROL BOX



A manual control for regulating line voltage to radio sets or other devices. Made up of a rheostat installed in a black enameled metal box complete with receptacle, wire, and plug for connecting. Will reduce high line pressures to proper voltage and avoid tube burn-outs. Has knob for adjusting desired voltage drop.

List Price, \$3.00 **YOUR COST, \$1.77**

C.R.L. T-PAD AND T-TYPE FADER



For Use in Theatres, Broadcast Stations and Other Sound Projection Fields

FADERS

83-001	TF-3000	3,000 ohms
83-002	TF-1500	1,500 ohms
83-003	TF- 500	500 ohms
83-004	TF- 200	200 ohms
83-005	TF- 050	50 ohms
List Price, \$10.00		YOUR COST, \$5.88

The Fader is sold as a unit, unmounted. If boxes are desired, write for quotation.

T-PADS

93-001	TP-1500	1,500 ohms
93-002	TP- 500	500 ohms
93-003	TP- 200	200 ohms
93-004	TP- 100	100 ohms
93-005	TP- 050	50 ohms
93-006	TP- 015	15 ohms

List Price, \$7.00 **YOUR COST, \$4.12**

REPLACEMENT PARTS

ELECTRAD REPLACEMENT VOLUME CONTROLS

Volume Control	How Used	Circuit Number
RI-201—Antenna Potentiometer, center arm to coil		1
R. F. Primary Shunt		2
Antenna and Ground Rheostat Shunt		3
Untuned Antenna Potentiometer—2000 ohm grid resistor must be connected between terminals No. 1 and No. 3		4
Antenna Potentiometer—center terminal to ground		5
R.F. Primary Potentiometer—center terminal to plate		6
Antenna Cathode Potentiometer		7
15,000 ohm Reverse Potentiometer		

List Price, \$1.50
YOUR COST, 55c net
 With Switch, 75c net

RI-202—Cathode Series Resistor	8
R.F. Plate Voltage Series Resistor	9
75,000 ohm Regular Potentiometer	
List Price, \$1.50	
YOUR COST, 55c	

RI-203—R.F. Secondary Shunt	10
R.F. Secondary Potentiometer—center arm to grid	11
A.F. Secondary Potentiometer—center arm to grid	12
A.F. Secondary Shunt	13
500,000 ohm Reverse Potentiometer	
List Price, \$1.50	
YOUR COST, 55c	

RI-204—Filament Rheostat	14
10 ohm Regular Rheostat	
List Price, \$1.50	
YOUR COST, 55c	

RI-205—Screen Grid Potentiometer	15
50,000 ohm Uniform Potentiometer	
List Price, \$1.50	
YOUR COST, 55c	

STERLING VOLUME CONTROL

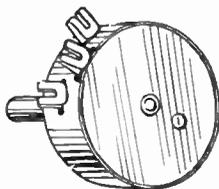
Dual control for Sterling and Jesse French Receivers.
 2000 and 10,000 ohms
 List Price, \$3.00 **YOUR COST, \$1.77**

NEW STANDARD REPLACEMENT CONTROLS

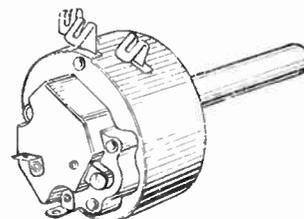
List Price, \$1.50 each
YOUR COST, 55c

Control	Description	Circuit Number
RI-232	—2000 ohm Uniform Potentiometer	
RI-233	—3000 ohm Uniform Potentiometer	
RI-234	—5000 ohm Uniform Potentiometer	
RI-240	—10000 ohm Reverse Potentiometer for variable mu antenna-cathode control	7
RI-241	—3000 ohm Reverse Potentiometer for Pentode plate tone control	21
RI-242	—100000 ohm Reverse Potentiometer	12-13-18
RI-208	—250000 ohm Reverse Potentiometer for grid tone or gain control	12-13-18

Basic Circuits for Which Electrad Replacement Volume Controls Are Designed Pictured Below



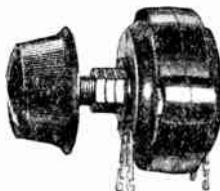
Just five types of Electrad Replacement Volume Controls required in the service kit to service 343 standard receivers.



Type No.	Number of Receivers Listed Using This Control
RI-201	133
RI-202	60
RI-203	67
RI-204	52
RI-205	31
Total	343

SPECIAL REPLACEMENT CONTROLS

VICTOR R-32 and EVEREADY 52 VOLUME CONTROL



Dual Volume Control
YOUR COST, \$1.30

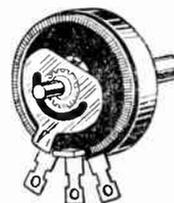
ZENITH SETS

These volume controls were designed for Zenith sets. Guaranteed to be equal to the originals—built to exact specifications.

Dual Type with Switch, Series 60
YOUR COST, \$1.20



Volume Controls for STROMBERG-CARLSON



Model 635-642

Volume Controls for MAJESTIC

Model 20 Series



YOUR COST, 85c

For all Majestic 20 series receivers—5000 ohm tapered volume control with a 158 ohm flexible resistor on one side. Complete with Cutler - Hammer switch.

Type	Model	YOUR COST
Long Shaft	—642 Rear	\$0.75
Projecting Shaft	—642 Front	.55
Projecting Shaft	—635 Front	.65
Standard	—635 Rear	.60

REPLACEMENT PARTS

YAXLEY REPLACEMENT VOLUME CONTROLS

FOR ALL SETS

Yaxley Volume Controls are standard equipment on many popular receivers and can also be obtained for replacement in all standard receivers. Any Yaxley control can be equipped with A.C. switch by using RP-219 Single Pole Switch and RP-118 Switch Bracket.

REPLACEMENT CONTROL DATA

Set	Control No.	Set	Control No.	Set	Control No.
A.C. Dayton XL-30, XL-50, XL-60 AC-63, AC-65, AC-66	RP-102 RP-101	Graybar 311-AC 600-AC 700-AC, 770-AC, 900-AC	RP-105 RP-109 RP-107	T.C.A. Clarion 51, 53, 55 Sentinel	RP-102
American Bosch 28, 29 58	RP-101 RP-104	Grebe AC-6, AC-7, SK4-AC AH-1	RP-104 RP-105	11, 12, 15, 16, 108 U. S. Radio & Television	RP-101 RP-101
Amrad 70, 7100	RP-101	Majestic 708, 180, 181 21, 22, 23	RP-101 RP-107	Apex 26, 27-P, 28, 31, 32 Case 80, Apex 36, 37 Apex 41, 43, 44, 46, 47, 48	RP-101 RP-107 RP-110
Fada 41, 42, 44, 46 25, 35	RP-101 RP-103	Kennedy 10-AC, 20, 20-B, 60	RP-103	Westinghouse WR-5, WR-6, WR-7	RP-107
Brunswick S-14, S-21, S-31	RP-104	Kolster K-20, K-21, K-22, K-23, K-24, K-25, K-27, K-28 B-10, B-15, B-16, K-42, K-43 K-44, 950, 961	RP-104 RP-101	Zenith 41, 42, 422 52, 53, 54, 60, 61, 62, 64, 67, 602, 612, 622	RP-101 RP-102
Bremer-Tully S-81, S-82	RP-104	R.C.A.-Victor 17, 18, 33, 41, 50, 51, 60, 62, 64	RP-105 RP-104 RP-102		
Buckingham 80	RP-105	44	RP-105 RP-104 RP-102 RP-101 RP-109 RP-107 RP-115 RP-116		
Echophone S-3, S-4	RP-105	46	RP-103 RP-104		
Edison C-1, C-2, R-1, R-2, S-C	RP-106	48			
Erla 224-AC	RP-101	66			
Emerson F	RP-101	80, 82			
Eveready 1, 2, 3, 50 30, 40	RP-101 RP-109	R-32, RE-45, RE-75 R-15, R-17			
Freed-Eismann NR-57, NR-60, NR-70, NR-80, NR-80 NR-95	RP-101 RP-103	Silver-Marshall 30, 30-B, 61B, 75B, 90-B 34-A, 35-A, 36-A			
Jesse French 8-AC, 5-093	RP-101	Steinite 40, 40-C, 50, 60-C 70, 80, 95, 102	RP-107		
General Electric H-31, H-51, H-71	RP-107	Sterling 3-A, B, B-4, K Temple 8-60, 8-80, 8-90	RP-103 RP-106		

PRICE DATA

For Replacement Controls

RP-101 to RP-110 Inclusive
List Price, \$1.50 YOUR COST, 88c

RP-115 Dual Control for Victor
List Price, \$2.75 YOUR COST, \$1.62

RP-116 Dual Control for Victor
List Price, \$3.50 YOUR COST, \$2.06

RP-118 Switch Bracket Only, 12c Net

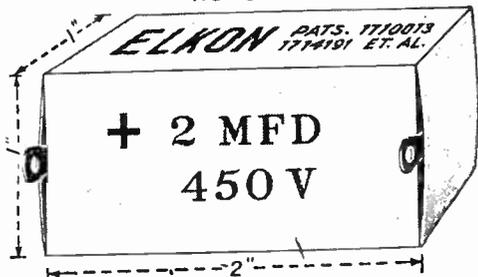
RP-219 S.P.S.T. Toggle Switch
30c Net

ELKON DRY ELECTROLYTIC CONDENSERS

These new condensers have become very popular with radio service men due to their compact construction. Being dry these units can be mounted in any position and occupy very little space.

COMPACT
ECONOMICAL

ACTUAL SIZE



2 MFD—450 Volt By Pass

450 VOLT BY-PASS OR FILTER

List Price YOUR COST

1/4 Mfd.—1/2" x 1/2" x 2 1/8"	\$0.75	\$0.45
1/2 Mfd.—3/4" x 3/4" x 2 1/8"	.75	.45
1 Mfd.—3/4" x 3/4" x 2 1/8"	.75	.45
2 Mfd.—1" x 1" x 2 1/8"	.85	.50
4 Mfd.—1 1/8" x 1 3/8" x 4 1/8"	1.00	.59
8 Mfd.—1 5/16" x 1 3/8" x 4 1/8"	1.50	.89
20 Mfd.—25 Volt Special	.85	.50

DIAL CABLES

We carry dial cables in stock made to exact specifications for all standard sets. Made of the best grade of phosphor-bronze stranded cable with hemp center.

Cables for

Bosch	Majestic	R.C.A.	Steinite
Balkite	Kellogg	Victor	Crosley
Brunswick	Temple	Kolster	Amrad and others

Packed in Individual Envelopes

YOUR COST, 25c each

DRIVE BELTS

For Atwater-Kent Sets
Model 37

YOUR COST, per pair, 25c

DRIVE BELTS

For Crosley & Colonial Sets
Crosley Belts, 25c each

Colonial Belts, 35c each

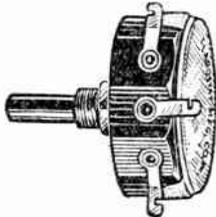
DIAL SCALES FOR ALL SETS

We carry a large assortment of dial scales. Both celluloid and metal for most standard sets. When ordering give make and model number of set.

Majestic Dial Strip	Steinite Dial Strip	Radiola Brass Dial Strip
For Model 70, 71, 72, 180, 181	For Model 261	For Models 17, 18, 33, etc.
YOUR COST, 50c	YOUR COST, 50c	YOUR COST, 25c

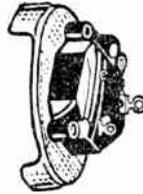
CLAROSTAT AD-A-SWITCH VOLUME CONTROL RESISTORS

Eliminates duplicate stocks of volume control resistors. A money saving idea for the radio dealer and service man.

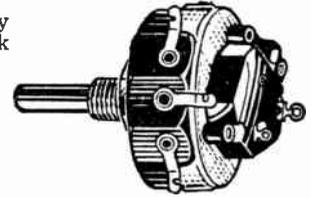


Type P-185 Control Fitted With Standard Dust-Guard Coverplate

Any plain type Clarostat volume control can be instantly changed to a switch type control by prying off blank cover and substituting type S185 Switch Cover Plate.



Type S-185 Coverplate



Type P-185 Control Fitted With Switch Dust-Guard Coverplate

Clarostat Volume Controls are full wire wound. Smooth and noiseless in operation.

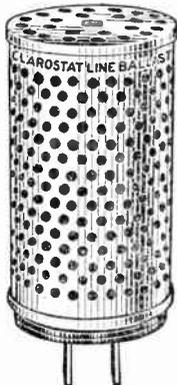
Used to convert a type P185 Control into a switch type unit. List Price, 50c YOUR COST, 24c

A size and type for any set using single type volume control with or without A. C. switch. Furnished with long insulated shaft.

CLAROSTAT STOCK AD-A-SWITCH SINGLE UNIT WIRE WOUND CONTROLS

Resistance Ohms	Current Carrying Capacity Ma.	Type No.	List Price	YOUR COST	Characteristics of Resistance Element and Suggested Uses of Units
50	250	P185-50	\$0.80	\$0.39	Standard potentiometer, no taper.
100	180	P185-100	.80	.39	Standard potentiometer, no taper.
200	125	P185-200	.80	.39	Standard potentiometer, no taper.
300	100	P185-300	.80	.39	Standard potentiometer, no taper.
400	85	P185-400	.80	.39	Standard potentiometer, no taper.
500	80	P185-500	.80	.39	Standard potentiometer, no taper.
750	65	P185-750	.90	.44	Standard potentiometer, no taper.
1,000	55	P185-1000	.90	.44	Standard potentiometer, no taper.
1,000	40	P185-1000L	1.00	.49	Tapered potentiometer for untuned antenna control.
2,000	40	P185-2000	.90	.44	Standard potentiometer, no taper.
2,000	25	P185-2000L	1.00	.49	Tapered potentiometer for untuned antenna control.
2,000	25	P185-2000V	1.00	.49	Tapered potentiometer for "C" bias control.
3,000	30	P185-3000	.90	.44	Standard potentiometer, no taper.
3,000	20	P185-3000U	1.00	.49	Tapered potentiometer for combined antenna and "C" bias control.
3,000	20	P185-3000V	1.00	.49	Tapered potentiometer for "C" bias control.
5,000	25	P185-5000	.90	.44	Standard potentiometer, no taper.
5,000	17	P185-5000U	1.00	.49	Tapered potentiometer for combined antenna and "C" bias control.
5,000	17	P185-5000V	1.00	.49	Tapered potentiometer for "C" bias control.
7,500	20	P185-7500	.90	.44	Standard potentiometer, no taper.
7,500	14	P185-7500U	1.00	.49	Tapered potentiometer for combined antenna and "C" bias control.
7,500	14	P185-7500V	1.00	.49	Tapered potentiometer for "C" bias control.
10,000	17	P185-10000	1.00	.49	Standard potentiometer, no taper.
10,000	12	P185-10000N	1.10	.54	Tapered potentiometer for antenna or R.F. coil control.
10,000	12	P185-10000U	1.10	.54	Tapered potentiometer for combined antenna and "C" bias control.
10,000	12	P185-10000V	1.10	.54	Tapered potentiometer for "C" bias control.
10,000	12	P185-10000W	1.10	.54	Tapered potentiometer for screen grid voltage control.
15,000	14	P185-15000	1.00	.49	Standard potentiometer, no taper.
15,000	11	P185-15000U	1.10	.54	Tapered potentiometer for combined antenna and "C" bias control.
15,000	11	P185-15000V	1.10	.54	Tapered potentiometer for screen grid voltage control.
20,000	12	P185-20000	1.10	.54	Standard potentiometer, no taper.
20,000	10	P810-20000V	1.30	.64	Tapered potentiometer for "C" bias control.
25,000	11	P185-25000	1.20	.59	Standard potentiometer, no taper.
30,000	11	P810-30000	1.30	.64	Standard potentiometer, no taper.
40,000	10	P810-40000	1.40	.69	Standard potentiometer, no taper.
50,000	9	P810-50000	1.40	.69	Standard potentiometer, no taper.

CLAROSTAT LINE BALLAST REPLACEMENTS



Standard replacement for many popular sets. Equipped with line voltage regulators.

Set	Ballast No.
Bremer-Tully	2169
Brunswick	2179
Clarion	2408
Majestic, Model 70	1516
Majestic, Model 72	1508
Majestic, Model 80	1012
Majestic, Model 90	1210
Stewart-Warner 900	5001
Stewart-Warner 950	5002
Stewart-Warner R-100	5003

List Price, all types, \$2.50
YOUR COST, \$1.47

EX-STAT RESISTOR KITS



Save time and money for the service man.

Type 24 Kit contains 24 Ex-Stat 1 Watt 10% accurate resistors in handy steel case.

List Price, \$7.20
YOUR COST, \$3.88

Type 48 Kit contains 48 Ex-Stat 1 Watt 10% accurate resistors in handy steel case.

List Price, \$14.40
YOUR COST, \$7.78

Ex-Stat 1 Watt Resistors for refills from 100 ohms to 10 meg.

List Price, 30c
YOUR COST, 18c each

WARD LEONARD VITROHM VOLTAGE DIVIDERS



REPLACEMENT UNITS

We can supply you with voltage divided units for all standard makes of radio receivers not listed. For positive identification it will be necessary to send us the old resistor unit.

Receiver	Model	Resistance Ohms	Cat. No.	List Price	YOUR COST	Receiver	Model	Resistance Ohms	Cat. No.	List Price	YOUR COST
Argus	B195	5133	514-1	\$4.00	\$2.00	C. R. Leutz	Seven Seas	41000	514-66	5.00	2.50
Bosch	28, 29 & 825	10000	514-2	1.50	.75	Phileo	76, 77, 77A	4900	514-67	1.65	.83
		2000	514-3	1.00	.50			1050	514-68	1.50	.75
	48 & 49	4400	514-4	1.50	.75		87	4582	514-69	1.35	.68
	54 DC	22	514-5	1.00	.50		96, 96A	8300	514-70	1.45	.73
	58	5130	514-6	1.50	.75			800	514-71	1.00	.50
	60 & 61	4799	514-7	1.75	.88		20, 20A	5102	514-72	2.00	1.00
		9000	514-8	1.75	.88		41, 42 (DC)	6	514-73	1.00	.50
		4250	514-9	1.50	.75		211, 211A	800	514-74	1.00	.50
Brandes (Kolster)	6K, K20, K22, K25, K27	7120	514-10	1.80	.90	RCA Victor (Radiola)	Electrola 10-70	5030	514-76	2.25	1.13
	K21 & K23	30000	514-11	3.50	1.75		Radiola 17	8195	514-77	2.15	1.08
	K43	2980	514-12	2.25	1.13			4920	514-78	1.75	.88
	K44	2650	514-13	2.50	1.25			4000			
	6H	5940	514-14	1.40	.70			Tapped at 620 ohms	514-79	1.75	.88
	H10	2890	514-120	1.45	.73			4000			
Bremer-Tully	8-20 & 8-21	13400	514-15	2.00	1.00		No. 104 Loud Speaker	4000			
	6-10	16720	514-16	3.00	1.50			Tapped at 2600 ohms	514-80	1.75	.88
Buckingham		9800	514-17	1.90	.95		Radiola 18 DC	11000	514-81	1.60	.80
		13000	514-18	2.00	1.00		Radiola 41	25300	514-82	3.25	1.63
		17900	514-19	2.85	1.43		Radiola 44, 46 & 47	8400	514-83	2.50	1.25
Clearstone	110	13000	514-20	1.90	.95		Radiola 48	4865	514-84	2.75	1.38
Colonial	28	15500	514-21	3.00	1.50		Radiola 64	3040	514-85	2.50	1.25
		7200	514-22	1.85	.93			7780	514-86	2.25	1.13
	31 & 32 DC	20	514-23	1.10	.55		Victor 9-54, Victor 9-18, Radiola 67, Radiola 64	4470	514-87	1.65	.83
Crosley	Band Box 602	540	514-24	1.10	.55		Electrola AP, 952-997, 8-60	400	514-88	2.00	1.00
		5000	514-25	1.50	.75		R-32, RE45, RE52, RE75, Radiola No. 105 LS	4325	514-89	2.00	1.00
	705 (DC)	140	514-26	1.30	.65			11000	514-122	2.25	1.13
Dayfan	Navigator	8350	514-27	1.75	.88	Splitdorf	153C	11000	514-122	2.25	1.13
Edison	R1, R2 & C2	12500	514-28	2.30	1.15	Steinitz	40	20200	514-90	3.00	1.50
		1500	514-29	1.25	.63		70-80 & 95	22440	514-91	3.00	1.50
Erla	R-1	17660	514-30	3.00	1.50	Stromberg-Carlson	403 AA & 403B	3770	514-92	2.00	1.00
		55	514-31	1.10	.55		404 RA	5500	514-93	2.00	1.00
Eveready (Nat. Carbon)	30-40	175	514-32	1.00	.50		635 & 636	60	514-94	1.40	.70
		1000	514-33	1.00	.50		638 DC & 635 DC	9270	514-95	2.10	1.05
		2500	514-34	1.10	.55			10	514-96	1.35	.68
		3500	514-35	1.25	.63			240	514-97	1.35	.68
Fansteel (Balkite)	ABC-135 & 180	10800	514-36	1.75	.88			12	514-98	1.35	.68
	B7 & B9	24000	514-37	3.25	1.63			9000	514-99	2.00	1.00
	C	4370	514-38	1.25	.63			9750	514-100	2.40	1.20
Federal	79-060	2685	514-39	2.40	1.20			11000	514-101	2.00	1.00
	79-070	20000	514-40	2.25	1.13			6380	514-102	2.25	1.13
	79-080	4	514-41	1.00	.50			9200	514-103	2.00	1.00
Freed-Eiseman	457	2350	514-42	1.50	.75			4880	514-104	2.25	1.13
		4000	514-43	1.50	.75			750	514-105	1.00	.50
		1750	514-44	1.25	.63			9860	514-106	2.25	1.13
	470	3500	514-45	1.75	.88			6570	514-107	2.40	1.20
	NR-80-NR-85	2350	514-46	1.50	.75			11025	514-108	2.25	1.13
	411	5750	514-121	1.75	.88			750	514-109	1.00	.50
Freshman	G	10950	514-47	2.15	1.08	Temple	8-60, 8-80, 8-90	6850	514-110	2.00	1.00
	N	18100	514-48	3.50	1.75		7-60, 7-80	21600	514-111	3.25	1.68
	H	9300	514-49	2.25	1.13	United Reproducers	Series 20 Electrostatic	400	514-112	1.00	.50
		20300	514-50	3.00	1.50			920	514-113	1.00	.50
	K	8700	514-51	1.75	.88			8600	514-114	2.00	1.00
General Motors	5057	5185	514-52	2.25	1.13	Westinghouse	WR-4	4865	514-115	2.00	1.00
Gilfillan	60	12000	514-53	1.60	.80	Zaney-Gill	Vitatone 54	18685	514-116	2.75	1.38
	100	5500	514-54	1.85	.93	Zenith	33, 33X, 34, 35, 35A & ZE 10	22700	514-117	3.75	1.88
Grebe	AC-6	7090	514-55	2.00	1.00		34P-35P, 35AP & ZE11	6750	514-118	2.25	1.13
		9450	514-56	2.00	1.00		52, 53, 54, 60, 61, 62, 602, 64, 67, 642, 672, ZE 70, ZE 702, 613, 622, 642	6000	514-119	2.00	1.00
	Synchrophase 7	5135	514-57	1.75	.88						
		12900	514-58	2.50	1.25						
Howard	135, 395, 445, 495	13600	514-59	2.25	1.13						
		14000	514-60	1.50	.75						
		17500	514-61	2.50	1.25						
Kennedy	10	5250	514-62	\$1.60	\$0.80						
	20	5750	514-63	1.80	.90						
King	82	1480	514-64	1.45	.73						
		16000	514-65	1.60	.80						

ELECTRAD RESISTOR AND VOLUME CONTROL REPLACEMENT GUIDE AND HAND BOOK Handy Size—Durable



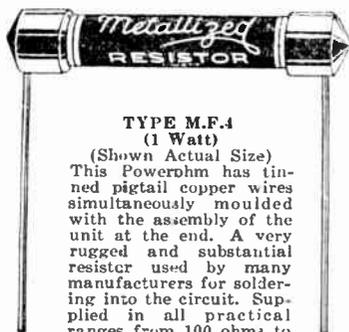
Just the right size (5" x 8") to slip into the service kit, or your pocket. Loose-leaf pages so it can be kept up-to-date by supplements issued four times a year.

Flexible, tough black DuPont Fabrikoid Cover that will stand any amount of hard usage. Durable, ledger bond leaves that won't easily fray or tear from frequent use or from contact with tools.

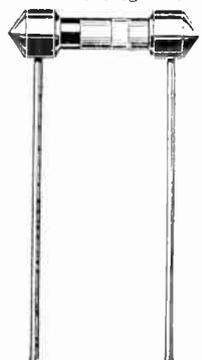
Accurate Data on Receivers

Contains resistor circuit diagrams, useful information and resistor values used in practically all models of all popular makes of radio receivers now on the market, as well as many obsolete models still in use, which you may be called on to service. At this writing, resistance specifications will be given for over one thousand receiver models.

Here is a book as necessary in the radio service man's kit as pliers, or a screw-driver. A perpetual guide to resistor and volume control values, kept constantly up-to-date, by revised lists four times a year. It shows you at a glance, exactly the value of resistor or volume control required for the job in hand, so that replacements can be made with accuracy. Never before has such a complete, convenient guide been published for the service man. You need it now. Use it every day. Your helpers need it. It's the biggest \$1.00 "tool" in the service man's kit. YOUR COST, \$1.00.



TYPE M.F.4
(1 Watt)
(Shown Actual Size)
This Powerohm has tinned pigtail copper wires simultaneously moulded with the assembly of the unit at the end. A very rugged and substantial resistor used by many manufacturers for soldering into the circuit. Supplied in all practical ranges from 100 ohms to 10 megohms.



TYPE M.F.4 1/2
(1/2 Watt)
(Shown Actual Size)
A very compact, small resistance where space saving is essential. Supplied with tinned pigtail wires simultaneously moulded with the end assembly. Rated at 1/2 watt and supplied in all resistance values from 50 ohms to 5 megohms.
Your Cost, 18c

I.R.C. METALLIZED RESISTORS

Type "K" Metallized Resistors—Rugged, Noiseless, Greater Load, Accurate, Moisture-Proof

Use These Nationally-Known Resistors



Metallized
RESISTORS

RESISTANCE VALUES

M.F. 4—M.F. 4 1/2 (1 Watt) (1/2 Watt) List Price, 30c		M.R. 4—M.R. 6 2 Watts, List Price, 40c 3 Watts, List Price, 50c	
ohms	ohms	ohms	ohms
100	50,000	50	25,000
250	75,000	100	30,000
500	100,000	250	40,000
1,000	150,000	500	50,000
1,500	200,000	1,000	75,000
2,000	250,000	1,250	100,000
2,250	300,000	1,500	125,000
2,500	400,000	1,750	150,000
3,000		2,000	175,000
3,500	.5 megohms	2,250	200,000
4,000	1.0 "	2,500	250,000
5,000	1.5 "	3,000	300,000
6,000	2.0 "	3,500	400,000
7,000	2.5 "	4,000	
8,000	3.0 "	5,000	.5 megohms
9,000	3.5 "	6,000	1.0 "
10,000	4.0 "	7,000	1.5 "
12,500	5.0 "	8,000	2.0 "
15,000	Only MF4	9,000	2.5 "
17,500	6.0 megohms	10,000	3.0 "
20,000	7.0 "	12,500	3.5 "
25,000	8.0 "	15,000	4.0 "
30,000	9.0 "	20,000	5.0 "
40,000	10.0 "		



TYPE M.R.4
(2 Watts)
(Shown Actual Size)
Designed to be soldered directly into circuit. This type of unit is conservatively rated at 2 watts, and is used by many manufacturers in the power pack and in amplifier circuits. Supplied in all ranges from 50 ohms to 5.0 megohms.

NOTE: This list indicates resistance ranges carried in stock for immediate delivery. Any other values may be obtained in all types at no increase in price.

HOW TO OBTAIN SERVICE HELPS

- No. 1—Standard I.R.C.-R.M.A. color code chart free with order for any 10 resistors.
- No. 2—Ohmmeter scales for Weston or Jewel 0-1 milliammeter free with order for 3 I.R.C. wirewound resistors.
- No. 3—Meter conversion charts free with order for 3 I.R.C. wire wound resistors.

Ask for These When Placing Order

MAKE THE MOST OF YOUR METERS BY USING

I.R.C. PRECISION WIRE WOUND RESISTORS



Accuracy Within 1%

WW1

PRICES AND RANGES

Range Ohms	List Price	YOUR COST	Range Ohms	List Price	YOUR COST
1 to 9	\$1.50	\$1.03	35,000	\$1.50	\$1.03
10	.125	.86	40,000	1.50	1.03
25	.125	.86	50,000	1.50	1.03
50	.125	.86	60,000	1.50	1.03
100	.125	.86	75,000	1.50	1.03
150	.125	.86	100,000	2.00	1.38
200	.125	.86	125,000	2.00	1.38
500	.125	.86	150,000	2.25	1.55
1,000	.125	.86	175,000	2.25	1.55
2,500	.125	.86	200,000	2.50	1.72
5,000	.125	.86	225,000	2.75	1.90
10,000	1.50	1.03	250,000	2.75	1.90
12,500	1.50	1.03	300,000	3.00	2.06
20,000	1.50	1.03	400,000	3.50	2.40
25,000	1.50	1.03	500,000	4.00	2.75
30,000	1.50	1.03			

The same engineering skill and thoroughness which have given to radio the famous Metallized Resistors, have built into I.R.C. Wire Wound Units distinctive features which make for accuracy and endurance. In the winding, in the wire and its treatment, and in the contact, weaknesses common to ordinary wire wound resistors have been positively eliminated.

Calibrated to an accuracy of 1 per cent or better. Used as laboratory standards by the foremost engineers. Supplied to make capacity bridge meters, ohmmeters, voltmeters and high-reading milliammeters.

Free charts are provided showing how to make these meters.



Accuracy Within 1%

WW2

PRICES AND RANGES

Range	List Price	YOUR COST
500,000 Ohms	\$4.00	\$2.75
750,000 Ohms	5.00	3.43
1.0 Meg.	5.00	3.43
1,250,000 Ohms	7.50	5.15
1,500,000 Ohms	7.50	5.15
1,750,000 Ohms	9.00	6.18
2.0 Meg.	10.00	6.86
2,250,000 Ohms	12.50	8.58
2,500,000 Ohms	12.50	8.58

I.R.C. SERVICE HELPS FOR THE REPAIR MAN

Through arrangement with the Service Department of the International Resistance Company, we show on this page helpful articles which are supplied without charge with the purchase of I.R.C. Resistors. These service helps are being constantly prepared in your interests by I.R.C. engineers, to save time and money in your repair work. And the savings, if you take full advantage of them, will run into hundreds of dollars yearly.

An Absolute Necessity in Every Service Kit—this NEW I.R.C. RESISTOR REPLACEMENT GUIDE



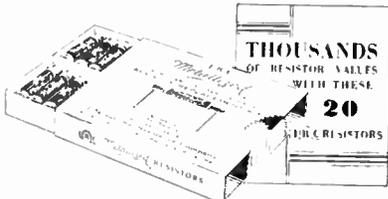
No more guesswork. No more groping in the dark. The serviceman's Replacement Guide has banished all that.

This remarkable book gives you the value and code, and position in the circuit of each defective resistor. Your whole job of set repairing is speeded up and simplified, no matter what sets you tackle. All popular makes of receivers listed—types and values of resistors shown.

Thousands of servicemen the country over are finding this famous Guide Book a daily and absolute necessity.

Loose-leaf sheets are furnished periodically without charge to every holder of the Guide—and keep it constantly up to date. The I.R.C. Guide is the dominant book of its kind in the service field.

This Guide may be obtained in two ways: Either by buying it separately at one dollar or by ordering ten I.R.C. Metallized Resistors at the regular discounts, and thereby receiving the Guide Free.



This new Handy Certified Kit contains 20 Metallized Units of the most-used sizes—500 ohms to 3 megohms. With the kit of 20 Resistors you can obtain thousands of different values by using the formulas enclosed with the kit.

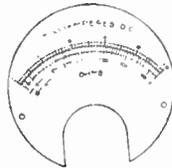
**Factory-Sealed Factory-Tested
Factory-Guaranteed**

Contains 20 M. F. 4 1-Watt Resistors
The unbroken seal certifies quality.

List Price, \$6.00

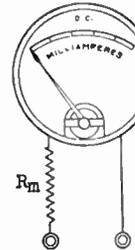
YOUR COST, \$3.50

I.R.C. OHMMETER CALIBRATION SCALES

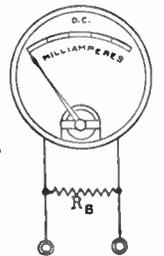


A wonderful money-saving device. It makes your milliammeter do the work of two meters. Simply place this scale in your 0 to 1 milliammeter, and it automatically becomes a direct-reading milliammeter or an ohmmeter, through the use of I.R.C. Precision Wire Wound Resistors. Use a 22,500 ohm resistor with a 22½ volt battery and you can read resistors up to 750,000 ohms. This scale will be sent to you with your order for any 3 I.R.C. Wire Wound Resistors.

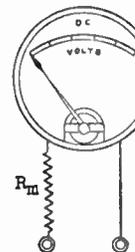
I.R.C. METER CONVERSION CHARTS



To make a D.C. Voltmeter a Multi-Range Voltmeter



To make a D.C. Milliammeter a D.C. Voltmeter



To find the shunt required to make any D.C. Milliammeter a higher range Milliammeter

I.R.C. NEW MOTOR RADIO SUPPRESSOR KIT AND ITS VALUABLE INFORMATION FOLDER

Will Aid the Service Man Engaged in the Installation of Automobile Radio Sets



Distributor Type



Cable Type



Spark Plug Type

KITS AND PRICES

These resistors are attractively boxed in kits for 4, 6 and 8 cylinder cars.

M-4 Kit (four cylinder cars) contains four Spark Plug Resistors and one Distributor Type Resistor.

List Price, \$3.00 **YOUR COST, \$1.77**

M-6 Kit (six cylinder cars) contains six Spark Plug Resistors and one Distributor Type Resistor.

List Price, \$4.20 **YOUR COST, \$2.45**

M-8 Kit (eight cylinder cars) contains eight Spark Plug Resistors and one Distributor Type Resistor.

List Price, \$5.40 **YOUR COST, \$3.18**

Individual Motor Radio Suppressors

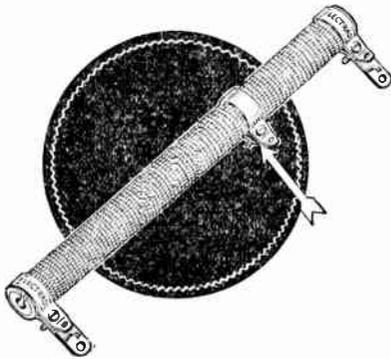
All types, List Price, 60c each

YOUR COST, 36c each

REPLACEMENT PARTS

ELECTRAD TRUVOLT RESISTORS

ADJUSTABLE SLIDING CLIP



U. S. Patent 1,676,869 and Pats. Pend.

Truvolt Resistors are unlike any other "fixed" resistors in two important respects. (1) The patented open-air construction insures liberal cooling surfaces, which make for more stable voltages and longer life. (2) The distinctive adjustable clips may be added or removed, or placed at the exact position for the voltages required. They are the most adaptable of all resistors, hence ideal for replacement purposes.

TYPE B—25 Watts—2 in. Long

Type	Resistance in Ohms	Current Milli-amperes	List Price	YOUR COST	Type	Resistance in Ohms	Current Milli-amperes	List Price	YOUR COST
B-.01	1	5000	\$0.85	\$0.50	B-22.5	2250	105	\$0.85	\$0.50
B-.02	2	3500	.85	.50	B-25	2500	100	.85	.50
B-.025	2.5	3150	.85	.50	B-30	3000	91	.85	.50
B-.03	3	2300	.85	.50	B-35	3500	84	.85	.50
B-.05	5	2225	.85	.50	B-40	4000	79	.85	.50
B-.075	7.5	1800	.85	.50	B-45	4500	75	.85	.50
B-1	10	1500	.85	.50	B-50	5000	71	.85	.50
B-15	15	1250	.85	.50	B-60	6000	64	.85	.50
B-2	20	1100	.85	.50	B-70	7000	60	.85	.50
B-25	25	1000	.85	.50	B-72	7200	59	.85	.50
B-.5	50	700	.85	.50	B-75	7500	58	.85	.50
B-.75	75	575	.85	.50	B-80	8000	56	.90	.53
B-1	100	500	.85	.50	B-90	9000	53	.95	.56
B-2	200	553	.85	.50	B-100	10000	50	1.00	.59
B-3	300	289	.85	.50	B-120	12000	45	1.00	.59
B-4	400	250	.85	.50	B-150	15000	41	1.00	.59
B-5	500	224	.85	.50	B-200	20000	35	1.15	.68
B-7.5	750	182	.85	.50	B-250	25000	32	1.15	.68
B-8	800	177	.85	.50	B-300	30000	29	1.25	.74
B-8.5	850	165	.85	.50	B-400	40000	25	1.30	.76
B-10	1000	158	.85	.50	B-500	50000	22.5	1.40	.83
B-12.5	1250	141	.85	.50					
B-15	1500	129	.85	.50					
B-20	2000	112	.85	.50					

Wt. 1 unit in carton.....1 oz.
Wt. 12 units in container.....13 oz.

TYPE C—50 Watts—4 in. Long

Type	Resistance in Ohms	Current Milli-amperes	List Price	YOUR COST	Type	Resistance in Ohms	Current Milli-amperes	List Price	YOUR COST
C-1	100	700	\$1.35	\$0.80	C-70	7000	84	\$1.50	\$0.89
C-2	200	500	1.35	.80	C-72	7200	83	1.50	.89
C-3	300	406	1.35	.80	C-75	7500	82	1.50	.89
C-4	400	353	1.35	.80	C-80	8000	79	1.50	.89
C-5	500	316	1.35	.80	C-90	9000	74	1.50	.89
C-7.5	750	259	1.35	.80	C-100	10000	71	1.65	.98
C-8	800	252	1.35	.80	C-120	12000	65	1.65	.98
C-10	1000	234	1.35	.80	C-150	15000	58	1.65	.98
C-12.5	1250	200	1.35	.80	C-200	20000	50	1.80	1.02
C-15	1500	182	1.35	.80	C-250	25000	45	1.85	1.09
C-20	2000	158	1.35	.80	C-300	30000	41	1.90	1.12
C-22.5	2250	149	1.35	.80	C-400	40000	35	1.95	1.15
C-25	2500	141	1.35	.80	C-500	50000	32	2.00	1.18
C-30	3000	129	1.35	.80	C-600	60000	29	2.10	1.24
C-35	3500	119	1.35	.80	C-800	80000	25	2.25	1.32
C-40	4000	112	1.35	.80	C-1000	100000	22.5	2.75	1.63
C-45	4500	105	1.35	.80					
C-50	5000	100	1.35	.80					
C-60	6000	91	1.35	.80					

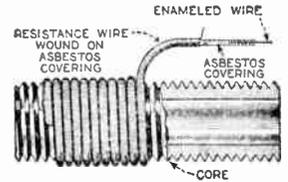
Wt. 1 unit in carton.....1 3/4 oz.
Wt. 6 units in container.....11 oz.

TYPE D—75 Watts—6 in. Long

Type	Resistance in Ohms	Current Milli-amperes	List Price	YOUR COST	Type	Resistance in Ohms	Current Milli-amperes	List Price	YOUR COST
D-1	100	865	\$1.85	\$1.09	D-60	6000	112	\$1.90	\$1.14
D-2	200	610	1.85	1.09	D-70	7000	103	1.95	1.15
D-3	300	500	1.85	1.09	D-72	7200	102	1.95	1.15
D-4	400	432	1.85	1.09	D-75	7500	100	2.00	1.18
D-5	500	387	1.85	1.09	D-80	8000	97	2.00	1.18
D-7.5	750	316	1.85	1.09	D-90	9000	91	2.10	1.24
D-8	800	306	1.85	1.09	D-100	10000	87	2.25	1.32
D-10	1000	274	1.85	1.09	D-120	12000	79	2.25	1.32
D-12.5	1250	245	1.85	1.09	D-150	15000	71	2.50	1.48
D-15	1500	224	1.85	1.09	D-200	20000	61	2.50	1.48
D-20	2000	194	1.85	1.09	D-250	25000	55	2.65	1.56
D-22.5	2250	182	1.85	1.09	D-300	30000	50	2.65	1.56
D-25	2500	173	1.85	1.09	D-400	40000	43	2.65	1.56
D-30	3000	158	1.85	1.09	D-500	50000	39	2.75	1.62
D-35	3500	146	1.85	1.09	D-600	60000	35	2.80	1.65
D-40	4000	137	1.85	1.09	D-800	80000	31	2.90	1.71
D-45	4500	129	1.85	1.09	D-1000	100000	27	3.00	1.77
D-50	5000	122	1.85	1.09					

Wt. 1 unit in carton.....2 1/2 oz.

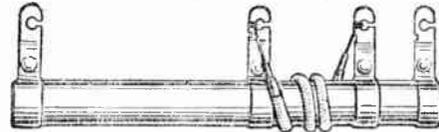
The resistance wire is wound over an asbestos-covered, enameled copper core. This, in turn, is wound around a hollow, grooved fire-clay base. The result is a more compact unit, better insulated, better ventilated—hence cooler in operation and having longer life.



TRUVOLT FLEXIBLE RESISTORS

U. S. Patent 1,697,406 and Patents Pending

Wire wound on flexible core and covered with impregnated fabric. Pigtail terminals at each end. The values of stock sizes will fill practically all replacements where a resistor of less than twelve thousand ohms may be used. They may be coiled or bent to almost any convenient shape. For repairing an open section in a divider unit the correct value of flexible resistor can be soldered to one tap of the open section. The flexible unit may then be wrapped around core of divider resistor and the other end soldered to other tap of open section (see illustration below).



3 WATT RATING—6 in. Long with Pigtails

Type No.	Ohms	Max. Current in Milliamperes	Max. Potential to be used across Resistor in Volts	Type No.	Ohms	Max. Current in Milliamperes	Max. Potential to be used across Resistor in Volts
2G25	25	346	8.5	2G1200	1200	50	60
2G50	50	245	12	2G1300	1300	48	62.5
2G75	75	200	15	2G1400	1400	46	65
2G100	100	173	17	2G1500	1500	44	67
2G150	150	141	21	2G1600	1600	43	69.4
2G200	200	122	24.5	2G1650	1650	42.5	70.4
2G225	225	115	26	2G1700	1700	42	71.4
2G250	250	109	27	2G1750	1750	41	72.5
2G300	300	100	30	2G1800	1800	40	73.5
2G350	350	92	32	2G2000	2000	38	77.5
2G375	375	89	33.5	2G2250	2250	36	82
2G400	400	86	34.5	2G2500	2500	34.5	86.5
2G450	450	81	36.5	2G2600	2600	33.5	88.3
2G500	500	77	38.5	2G2700	2700	33	90
2G550	550	73	40.5	2G2800	2800	32.5	91.8
2G600	600	70	42.5	2G3000	3000	31.5	95
2G650	650	68	44.2	2G4000	4000	29	102
2G700	700	65	45.5	2G4500	4500	27	109
2G750	750	63	47.4	2G5000	5000	25.5	116
2G800	800	61	49	2G5500	5500	24.5	122
2G900	900	57	52	2G6000	6000	23	128
2G1000	1000	54	54.7			22	134
2G1100	1100	52	57.5				

List Price, All 3-watt Sizes, 50c; YOUR COST, 29c

6 WATT RATING—12 in. Long with Pigtails

Type No.	Ohms	Max. Current in Milliamperes	Max. Potential to be used across Resistor in Volts	Type No.	Ohms	Max. Current in Milliamperes	Max. Potential to be used across Resistor in Volts
3G500	500	109	54.6	3G7000	7000	29.2	205
3G1000	1000	72.5	77.5	3G8000	8000	27	220
3G2000	2000	54.5	109	3G9000	9000	25.5	232
3G3000	3000	44.5	134	3G10000	10000	24.5	245
3G4000	4000	38.5	156	3G11000	11000	23	257
3G5000	5000	34.6	174	3G12000	12000	22	268
3G6000	6000	31.8	190				

List Price, All 6-watt Sizes, \$1.00; YOUR COST, 59c

NOTE—Above wattage and current ratings apply only when units are suspended in free air, otherwise loads exceeding 50% of their ratings should not be applied. Voltages greater than 400 D. C. should not be applied across the terminals of any one resistance unit. For high voltages it is advisable to use two or more units in series. Extra sliders, 4c each net.

REPLACEMENT PARTS

PHILCO REPLACEMENT PARTS

POWER TRANSFORMERS

We carry a full line of Philco replacement parts which are exact duplicates of the originals, both mechanically and electrically. These items are not manufacturer's salvage stocks but brand new merchandise fully guaranteed in every respect.



POWER TRANSFORMER

For Philco Model 65
Philco Part No. 3516
For sets using two 224, one 227,
two 245 and one 280 tubes.

YOUR COST, \$2.85

POWER TRANSFORMER

For Philco Model 87
Philco Part No. 3400
For sets using four 226, one 227,
two 245 and one 280 tubes.

YOUR COST, \$2.85

POWER TRANSFORMER

For Philco Models 20 and 220
Philco Part No. 4234
For sets using three 224, one
227, two 171A and one 280 tubes.

YOUR COST, \$2.85

POWER TRANSFORMER

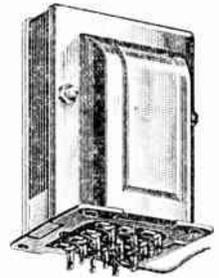
For Philco Model 70
Philco Part No. 5117
For sets using four 224, one 227,
one 247 and one 280 tubes.
YOUR COST, \$2.85

POWER TRANSFORMER

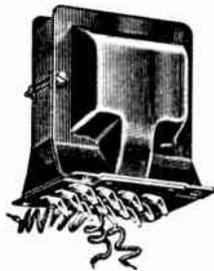
For Philco Models 76 and 77
Philco Part No. 3868
For sets using three 224, one
227, two 245 and one 280 tubes.
YOUR COST, \$2.85

POWER TRANSFORMER

For Philco Models 82 and 86
Philco Part No. 3271
For sets using four 226, one 227,
two 171A and one 280 tubes.
YOUR COST, \$2.85



POWER TRANSFORMER



For Philco Models 95, 96
and 296
Philco Part No. 3752
For sets using three 224,
three 227, two 245
and one 280 tubes.
YOUR COST, \$2.85

POWER TRANSFORMER

For Philco Models 111, 112,
211 and 212
Philco Part No. 4446
For sets using four 224, four
227, two 245 and one
280 tubes.
YOUR COST, \$3.25

POWER TRANSFORMERS

For Philco Model 90, Part No. 4938
Using four 224, two 227, two 245,
and one 280 tubes.
YOUR COST, \$2.85
For Philco Model 90, Part No. 5362
Using three 224, four 227, one
247 and one 280 tubes.
YOUR COST, \$2.85
For Philco 500 Series
Part No. 3106
Using four 226, one 227, one 171A
and one 280 tubes.
YOUR COST, \$2.85

PHILCO AUDIO TRANSFORMERS

A complete line of replacement audio units for all Philco models including straight audio transformers, push-pull transformers and filter chokes.

Push-Pull Input Transformer

For Models 20, 20A, 90,
90A, 70, 70A, 220, 220A
YOUR COST, \$1.25

Push-Pull Input Transformer

For Models 30, 77, 77A,
86, 87, 76
YOUR COST, 85c

Push-Pull Input Transformer

For Models 96, 96A, 65,
95, 296, 111, 111A
YOUR COST, \$1.65

Push-Pull Output Transformer

For Models 65, 87, 76,
77, 77A, 95, 96,
296, 40, 41
YOUR COST, \$1.35

Straight Audio Transformer

For Models 511, 512,
521, 531
YOUR COST, \$1.40

FILTER CHOKE

For Philco Models 65
and 87
YOUR COST, \$1.25

FILTER CHOKE

For Philco Models 111,
112, 111A, 112A, 76,
96, 296, 40, 41
YOUR COST, \$1.25

PHILCO CONDENSER BLOCKS

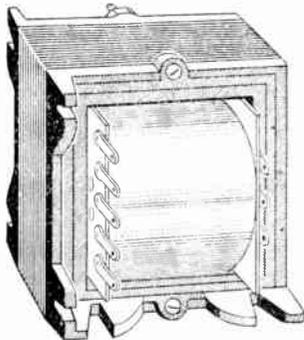
For Philco Model 65 9 Leads Total Capacity 7 Mfds. YOUR COST \$1.45	For Philco Model 86 4 Leads Total Capacity 7 Mfds. YOUR COST \$1.45	For Philco Model 87 4 Leads Total Capacity 5 Mfds. YOUR COST \$1.35	For Philco Model 77 7 Leads Total Capacity 11.1 Mfd. YOUR COST \$1.65	For Philco Model 511 512-13-14 8 Leads Total Capacity 8.5 Mfd. YOUR COST \$3.75
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See Page 53 for Philco Voltage Dividers

REPLACEMENT PARTS

FRANKLIN REPLACEMENT POWER TRANSFORMERS

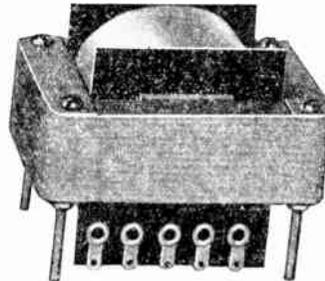
These transformers are a perfect replacement for about 90 percent of all standard sets. Very sturdy construction and are so arranged that they can be mounted at any angle. They are suitable replacements for the following sets: Stromberg-Carlson, Stewart-Warner, Zenith, Fada, Kennedy, Bosch, Atwater-Kent, Brunswick, Crosley, General Motors, Grebe, Colonial.



YOUR COST
No. 171-A, \$2.75
No. 101, \$3.95

No. 171-A
300-300 Volts at 60 M. A.
5 " " 2 A.
5 " " ½ A. C. T.
1½ " " 9 A.
2½ " " 2 A. C. T.

No. 101
350-350 Volts at 100 M. A.
5 " " 2 A.
2½ " " 3 A. C. T.
2½ " " 12 A. C. T.



YOUR COST
No. 104, \$4.25
No. 301, \$2.55

No. 104
400-400 Volts at 100 M. A.
5 " " 2 A.
2½ " " 3 A. C. T.
2½ " " 12 A. C. T.

No. 301
325-325 Volts at 60 M. A.
5 " " 2 A.
2½ " " 2 A.
2½ " " 9 A. C. T.

When ordering kindly give the model number and make of set. Complete transformer hookup diagram enclosed with each unit.

RESCO "A" CONDENSERS

We manufacture a complete line of "A" Condensers for use in "A" Eliminators such as Majestic, Tobe, Knapp, Kodol and others. Resco "A" Condensers are made of the highest quality materials obtainable and are the finest "A" Condensers made.

RESCO "A" CONDENSER FOR MAJESTIC "A" ELIMINATOR

A standard replacement condenser for the famous Majestic "A" Eliminator. Contains two 2000 mfd. condensers in metal can.

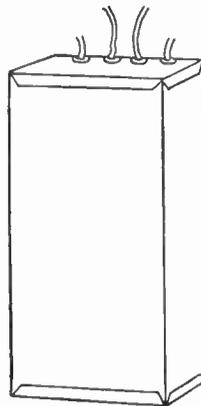
YOUR COST, \$2.75

RESCO CONDENSER FOR TOBE "A"

Standard replacement condensers for Tobe Dry "A" Eliminator. 2000 Mfd. condenser in cardboard container.

YOUR COST, \$1.00

These Resco "A" Condensers can also be used on A. C. dynamic speakers to eliminate hum from rectifier.



Majestic "A" Condenser

RESCO "A" CONDENSER FOR KNAPP ELIMINATOR

Standard replacement condenser sections for Knapp Dry "A" Eliminator. 2000 Mfd. condenser in metal container. Knapp "A" uses 3 of these units.

YOUR COST, each, \$1.00

RESCO "A" CONDENSER FOR KODEL "A" POWER UNITS

Standard 2000 Mfd. replacement sections for Kodol "A" power unit.

YOUR COST, each, \$1.00

Special "A" condensers made to order. Send us your specifications.

PHONE TIP JACKS AND PLUGS



Nickel-plated tip jacks and phone cord tips. Useful in building test equipment.

Tip Jacks, per doz., 35c
Phone Tips, per doz., 10c

FILTER UNIT FOR STERLING "A" ELIMINATOR

A four cell semi-dry filter used in Sterling "A" and "A" and "B" Eliminators. Shipped complete ready to install.

YOUR COST, \$3.50

REPLACEMENT PARTS

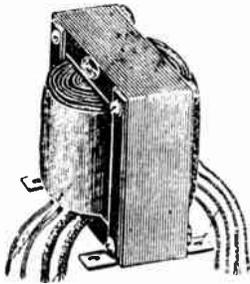
FOR ALL STANDARD SETS

POLYMET POWER TRANSFORMERS

Polymet power transformers consist of an adequately insulated coil (with baked varnish impregnation) assembled on a core of dynamo special silicon steel. They can be safely run continuously if not loaded above their ratings.

POWER TRANSFORMER

No. T.F.-766

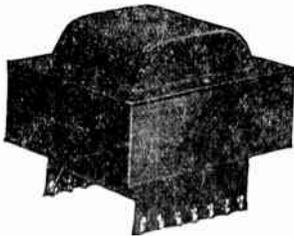


This transformer is very popular for five and six tube sets using either the 245 or 247 power tube.
 Primary—115 volts, 60 cycles.
 Shield grounded to frame.
 Secondary—350-350 volts, 60 m.a.
 Filament No. 1—2.5 volts, 9 amperes.
 Filament No. 2—5 volts, 2 amp.

YOUR COST, \$2.45

POWER TRANSFORMER

No. T.F.-786

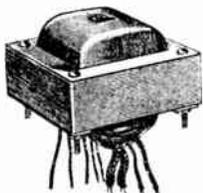


This transformer is the same electrically as T.F.-785 except that it is in the manufacturer's flat mounting type. It is ideally suited for the use of custom set and amplifier builders.

YOUR COST, \$4.25

PENTODE POWER TRANSFORMER

No. T.F.-754

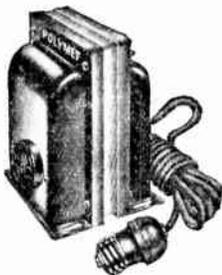


T.F.-754 is found in many of the better six-tube sets. The end-bell and laminations are finished in aluminum.
 Primary—115 volts, 60 cycles.
 Electrostatic shield grounded to core.
 Secondary—330-330 volts, 60 m.a.
 Filament No. 1—5 volts, 2 amp.
 Filament No. 2—2.5 volts, 9 amp.

YOUR COST, \$2.35

POLYMET STEP-DOWN AUTO TRANSFORMERS

220 to 110 Volt Type

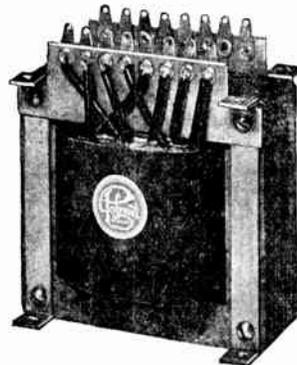


These auto transformers are used to adapt 110 volt apparatus to 220 volt lines. The primary is connected to the 220 volt outlet through the 6 foot attachment cord which is furnished; the secondary is equipped with a convenient receptacle. TS-960, of 80 watts rating, is for use with medium size and small radio receivers; TS-961 is of 160 watts rating, suitable for radio-phonograph combinations and amplifiers.

Cat. No.	Primary	Secondary	Rating	List Price	YOUR COST
TS-960	220 v. 60 cycle	110 v.	80 watts	\$5.50	\$2.75
TS-961	220 v. 60 cycle	110 v.	160 watts	8.00	4.00

POWER TRANSFORMER

No. T.F.-785



A large transformer, suitable for sets up to nine tubes using push-pull 245's or 247's. The brackets are such that it may be used upright or inverted.
 Primary—Taps for 105 and 120 volts, 60 cycles.
 Electrostatic shield grounded to core.
 Secondary—375-375 volts, 100 m. a.
 Filament No. 1—2.5 volts, 9 amperes, C.T.
 Filament No. 2—2.5 volts, 3 amperes.
 Filament No. 3—5 volts, 2 amp.

YOUR COST, \$4.00

POWER TRANSFORMER

No. T.F.-750



For those who want a high-grade conservatively rated, transformer for small sets and amplifiers this design has proven very popular.
 Primary—Taps for 105 and 120 volts, 60 cycles.
 Electrostatic shield grounded to core.
 Secondary—300-300 volts, 50 m.a.
 Filament No. 1—5 volts, 2 amp.
 Filament No. 2—2.5 volts, 4.5 amp., C.T.
 Filament No. 3—2.5 volts, 4.5 amp.

YOUR COST, \$3.00

POWER TRANSFORMER

No. T.F.-770

T.F.-770 is similar in all respects to T.F.-754 except the ratings.

Secondary—330-330 volts at 75 m.a.
 Filament No. 2—2.5 volts, 14 amperes.

YOUR COST, \$2.65

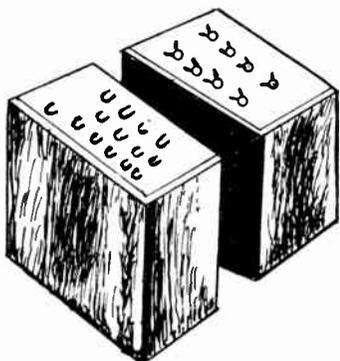
REPLACEMENT AUDIO TRANSFORMERS AND CHOKES



Designed to give a maximum of performance at low cost. Coils are wax impregnated to exclude moisture. Cores are of high grade silicon steel. A type for every need.

Cat. No.	List Price	YOUR COST
TA-730—Straight Audio 3 to 1 ratio	\$2.00	\$0.98
TA-731—Push-Pull Input 3 to 1 ratio	2.50	1.23
TA-732—Output Single 245 to 8-15 ohms	2.00	.98
TA-733—Push-Pull Output Pentodes to 8-15 ohms	2.00	.98
TA-734—Push-Pull Output 245's to 8-15 ohms	2.25	1.10
TA-735—Output Single Pentode to 8-15 ohms	2.75	1.36
TA-736—Push-Pull Interstage 3 to 1 ratio	3.00	1.47
TA-737—Single Button Microphone to Grid	3.00	1.47
TA-738—Double Button Microphone to Grid	3.00	1.47
TA-739—Pickup or Line to Grid	3.00	1.47

MAJESTIC REPLACEMENT PARTS—MAJESTIC POWER TRANSFORMERS



**For Majestic 70—70 B Series
Replacement for 7P6 Power Pack**

These are genuine plate and filament supply transformers designed to operate with a resistance ballast line voltage regulator connected in series with the primaries of the transformers across the line, which serves to provide a practically uniform primary voltage across the transformer with variations in the line voltage of from 90 to 130 volts.

The filament supply transformer has four secondaries as follows:
Secondary No. 1—1½ volts for three 226's.
Secondary No. 2—2½ volts for one 227.
Secondary No. 3—5 volts for two 171A's. (center tapped).

The plate supply transformer is designed to operate with the primary wired in parallel to the above transformer which employs a line voltage control, and the secondaries are as follows:

- No. 1—5 volts for 280 filament.
- No. 2—High voltage (center tapped).

**Filament Transformer
YOUR COST, \$1.50**

**Plate Supply Transformer
YOUR COST, \$1.50**

MAJESTIC CONDENSER BLOCKS

Genuine Majestic Condenser blocks as originally furnished in Majestic receivers.

- No. 7BP6 for Models 70, 71, 72
SPECIAL, \$2.50
- No. 9BP6 for Models 90, 91, 92
Containing Choke
SPECIAL, \$3.00
- No. 8P6 for Combination Model
Using 250 Tubes
SPECIAL, \$4.50

**MAJESTIC WOUND
RESISTORS**



These are genuine Majestic wire wound resistors for use in Majestic receiver power packs.

No.	Parts No.	Ohms
No. 3661	102	2170
No. 3662	107	1000

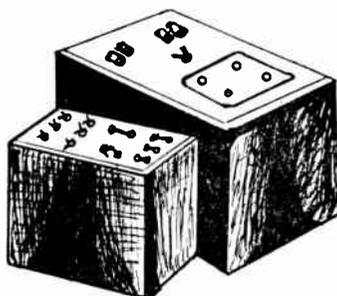
YOUR COST, 15c

MAJESTIC SPEAKER FIELD COILS

Genuine coil as used in speakers for Models 70, 71, 72, 90, 91, 92. 2500 ohms.
SPECIAL, \$2.50

MAJESTIC DIAL CABLES

For Model 70, 71, 72
SPECIAL, 25c



**Majestic Model 180 Series
Plate and Filament Transformer**

Replacement plate and filament supply transformers for Majestic 8P6 power units.

These genuine Majestic power transformers have been designed for use in the above model number Majestic receiver.

The filament supply transformer has three secondaries as follows:

- No. 1—2½ volts for five 227's.
- No. 2—7½ volts center tapped for one 250.
- No. 3—7½ volts center tapped for one 250.

The plate supply transformer has two secondaries as follows:

- No. 1—15 volt for two 281 tubes (filament wired in series).
- No. 2—High voltage (center tapped).

Both the filament and plate supply power transformers have electrostatic shields which are grounded to the core.

Each unit is completely self-contained, compounded and assembled with panel and terminals. These transformers can only be used with proper ballast resistor in the primary circuit.

**Plate Supply Transformer
YOUR COST, \$2.40**

**Filament Supply Transformer
YOUR COST, \$3.00**

FILTER CHOKES

These are genuine Majestic assemblies manufactured for use in the Majestic Receivers.

Majestic Part No. 66—Single Choke Unit for 1928.

No. 7-P-6, 60 Cycle Power Pack
YOUR COST, \$1.25

Majestic Part No. 630—Single Choke Unit No. 1929.

No. 7-BP-6, 60 Cycle Power Pack
YOUR COST, \$1.25

Majestic No. 626—Double-center tapped. Choke unit for 1929.

No. 8-P-6, 60 Cycle Power Pack
(180 chassis)
YOUR COST, \$1.25

MAJESTIC VOLUME CONTROLS

Genuine Centralab 75,000 ohm Potentiometer used in Models 90, 91, 92
SPECIAL, 49c

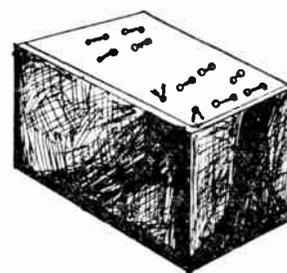
Centralab 5000 ohm Control for Models 70, 71, 72
SPECIAL, 29c

Centralab Dual Volume Control for Combination Model 180
SPECIAL, 79c

MAJESTIC SPEAKER CONES

Genuine Majestic cones for Type G-1 and G-2 speakers. Used in series 70, 71, 72 and series 90, 91, 92.

Either Model
SPECIAL, \$1.30



**For Majestic 90 Series
Replacement for 9P-6 Power Pack**

These are genuine Majestic units designed for use in the above model number power supply unit.

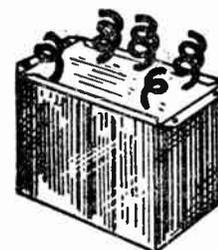
When used with the proper line voltage control (ballast resistor), this transformer will supply the necessary "A", "B", and "C" voltages for five 227's, two 245's, and one 280 full wave rectifier, or the combination of tubes employed in the Majestic Model 91 and 92 receiver.

Here's the Original!

YOUR COST, \$2.50

All Majestic Transformers—For 90-130 volts, 50-60 cycles.

**Genuine Majestic 70, 70B, 180 Series
Push-Pull Audio Output Transformers**



The Majestic push-pull audio output transformer manufactured to same high quality standards that have made the Majestic name internationally famous, is an all shielded transformer, replacement for any Majestic 70, 70B or 180 series receivers and may be used in any receiver, employing push-pull amplification, for coupling the plates of the two power output tubes (171 type), to the speaker voice coil.

YOUR COST, \$1.50

GENUINE MAJESTIC 90 SERIES



**Push-Pull Audio Output
Transformer**

This transformer used between the plates of the push-pull 45 type tubes and the voice coil of the dynamic speaker is of high quality construction, tested and measured to the same exacting specifications that have made Majestic Radio a recognized leader of performance.

YOUR COST, \$1.50

MAJESTIC R.F. ASSEMBLY

The complete R.F. coil assembly for Models 90-91 series. A very compact unit which can also be used as a foundation unit for assembling a good R.F. Tuner.

Coils designed to be used with .00035 condenser. A money saving item for repair work.

SPECIAL, \$2.95

MAJESTIC BIAS RESISTORS

YOUR COST

- Flat Wire Wound, 550 ohms.....\$0.18 each
- Flat Wire Wound, 1400 ohms..... .18 each
- 20 Ohm Center Tap Resistor..... .18 each

ADDITIONAL MAJESTIC PARTS

As official Majestic service station we are prepared to furnish parts for all the newer model sets not listed above. Send us your requirements, giving model of set for which part is desired.

REPLACEMENT PARTS

MAJESTIC MODELS 90B and 100B CHASSIS

INPUT AUDIO TRANSFORMER
Majestic Part No. 1551
YOUR COST, \$1.50

OUTPUT AUDIO TRANSFORMER
Majestic Part No. 1552
YOUR COST, \$1.50

RESISTOR, 50,000 OHM
(Double Range)
Majestic Part No. 878
YOUR COST, 49c

POWER TRANSFORMER
60 Cycle, 110 Volt
Majestic Part No. 1562
30 Cycle, 110 Volt
Majestic Part No. 1578
YOUR COST, \$4.95

DOUBLE VOLUME CONTROL
Majestic Part No. 1714
YOUR COST, \$2.60

BY-PASS CONDENSER BLOCKS



Part No. 714—.5 Mfd.
Used in Models 70, 90 and 180.
Part No. 715 Used in Same Models
Used in Models 70, 90, 180.
Part No. 717—.5-.5
YOUR COST, 65c

POLYMET BAKELITE MOULDED MICA CONDENSERS



A compact accurate fixed condenser for general by-pass use. Small in size and equipped with handy soldering tabs. Capacities, .0001, 00025, 001, .002 Mfd.
YOUR COST, 10c each; \$1.00 per doz.

CONDENSER UNIT
60 Cycle, 100 Volt
Majestic Part No. 1564
30 Cycle, 110 Volt
Majestic Part No. 1571
YOUR COST, \$3.25

CHOKE UNIT
60 Cycle, 110 Volt
Majestic Part No. 1745
30 Cycle, 110 Volt
Majestic Part No. 1746
YOUR COST, \$5.20

MAJESTIC DIAL WITH HUB
Majestic Part No. 606
YOUR COST, \$1.30

TUBE SHIELDS
Majestic Part No. 1136
YOUR COST, 16c

ON AND OFF SWITCH
With 26" Leads
Majestic Part No. 1704
YOUR COST, 65c

DETECTOR CATHODE BY-PASS CONDENSER
Majestic Part No. 1546
YOUR COST, 98c

GENUINE R.C.A. WAVE TRAP

A unit designed and built by the Radio Corporation of America for the elimination of interference from strong local stations.

Increases selectivity of any broadcast receiver and is particularly valuable in badly congested metropolitan districts. Installation is very simple. Full instructions with each unit.

List Price, \$2.50 YOUR COST, 75c

R.F. BY-PASS CONDENSER
Majestic Part No. 647
YOUR COST, 98c

SENSITIVITY EQUALIZER
With 361
Majestic Part No. 393
YOUR COST, \$1.14

VARIABLE RESISTANCE
5000 Ohms
Majestic Part No. 389
YOUR COST, 98c

CONE ASSEMBLY
G. C. and G3
Majestic Part No. 683
YOUR COST, \$1.95

FIELD COIL ASSEMBLY
Majestic Part No. 664
YOUR COST, \$6.50

AEROVOX ATWATER-KENT
3 SECTION BY-PASS CONDENSER
For Models 37, 38, 40, 42, 44 and 46
YOUR COST, 90c

SPEAKER CONDENSERS
For Same Models
YOUR COST, 72c

DYNAMIC SPEAKER OUTPUT TRANSFORMERS



Pedestal Type
Match 15 ohm voice coils in all Dynamic Speakers.
Used in R.P.A. Units, 3B, 4, 4A, and 5.
R.C.A. Part Y1165
Brunswick Part P50
YOUR COST, 95c

REPLACEMENT PARTS

R.C.A.-VICTOR—For Models No. 14, 15, 17, 34, 35, 47

This listing of R.C.A.-Victor parts is made for the convenience of the radio service men.

We carry a complete stock of genuine Victor-R.C.A. parts.

POWER TRANSFORMER

105-120 Volts, 60 Cycles
Victor Part No. 10917
For Models No. 34, 35, 39, 57
YOUR COST, \$3.25

CONDENSER BANK

Victor Part No. 10909
For Models No. 34, 35, 39, 57.
YOUR COST, \$11.95

SPEAKER CONE WITH VOICE COIL

Victor Part No. 8558
For Models No. 34, 35, 39, 57
YOUR COST, \$3.25

RESISTOR

715 Ohms, Wire Wound
Victor Part No. 7053
For Models No. 34, 35, 39, 57
YOUR COST, 55c

AUDIO TRANSFORMER

Victor Part No. 8554
For Models No. 34, 35, 39, 57
YOUR COST, \$10.50

DYNAMIC SPEAKER COMPLETE

Victor Part No. 9302
For Models No. 34, 35, 39, 57
YOUR COST, \$12.75

55 Ohms, Mid-Tapped, Wire Wound RESISTOR

Victor Part No. 2722
For Models No. 34, 35, 39, 57
YOUR COST, 75c

VOLTAGE DIVIDER RESISTOR Porcelain

Victor Part No. 10407
For Models No. 34, 35, 39, 57
YOUR COST, \$1.85

TONE CONTROL

Victor Part No. 10813
For Models No. 34, 35, 39, 57
YOUR COST, \$1.20

TRANSFORMER INPUT

Victor Part No. 10414
For Models No. 34, 35, 39, 57
YOUR COST, \$4.15

TRANSFORMER INTER-STAGE AND OUTPUT

Victor Part No. 10418
For Models No. 34, 35, 39, 57
YOUR COST, \$7.50

CHOKE—FILTER CHOKE COIL

Victor Part No. 10402
For Models No. 34, 35, 39, 57
YOUR COST, \$3.45

VOLTAGE DIVIDER RESISTOR

Comprising one 3200 ohm and one 1665 ohm sections tapped at 830 and 950 ohms.
Victor Part No. 7117
For Models R-14, R-15, 42, 48
YOUR COST, \$1.15

VOLUME CONTROL—Two Units

Victor Part No. 7129
For Models R-14, R-15, 42, 48
YOUR COST, \$1.50

POWER TRANSFORMER

Victor Part No. 8609
For 105-125 Volts, 60 Cycle
For Models R-14, R-15, 42, 48
YOUR COST, \$3.25

TRANSFORMER AND CAPACITOR ASSEMBLY

Consisting of one inter-stage transformer, one 2. mfd., one .1 mfd., one 1.5 mfd., one 1. mfd., two .025 and one .005 mfd. capacitors in metal container.

Victor Part No. 8608
For Models R-14, R-15, 42, 48
YOUR COST, \$9.00

OUTPUT TRANSFORMER

Victor Part No. 7104
For Models R-14, R-15
YOUR COST, \$3.00

SPEAKER CONE WITH VOICE COIL

Victor Part No. 8601
For Models R-14, R-15
YOUR COST, \$2.50

VOLUME CONTROL

Victor Part No. 10826
For Models No. 34, 35, 39, 57
YOUR COST, \$1.50

TONE CONTROL

Victor Part No. 10888
For Models R-14, 42
YOUR COST, \$1.20

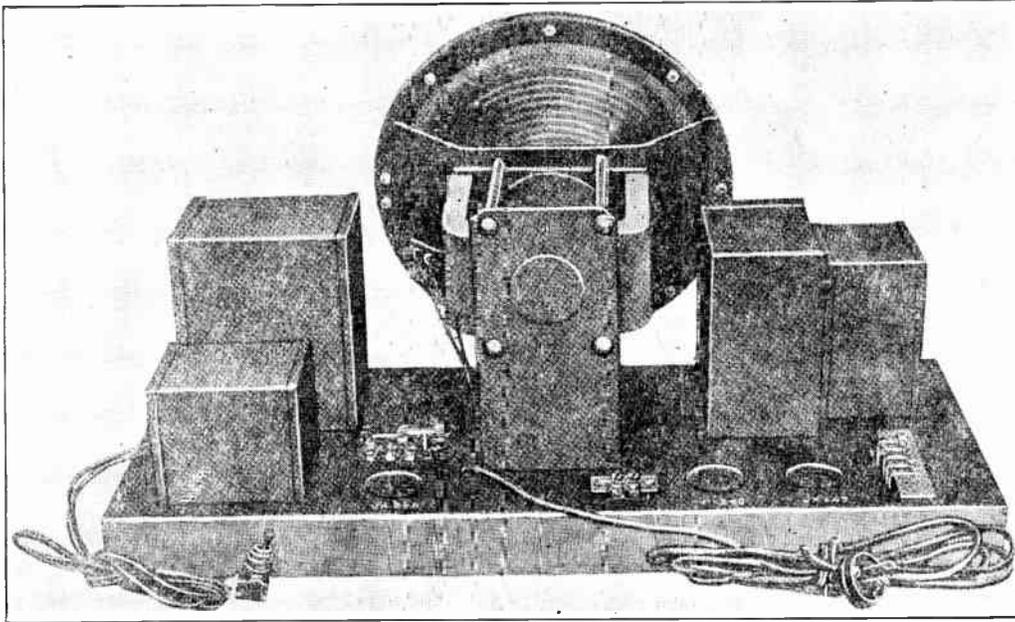
VOLUME CONTROL

Victor Part No. 7153
For Models R-14, R-15, 42, 48
YOUR COST, \$1.50

We also have other Victor-R.C.A. parts in stock. Let us know your requirements.

REPLACEMENT PARTS

WESTINGHOUSE RADIO WR7 REPLACEMENT PARTS



VOLUME CONTROL
Westinghouse Part No. 7061
YOUR COST, 90c

POTENTIOMETER TONE CONTROL
Westinghouse Part No. 7074
YOUR COST, \$1.35

CAPACITOR PACK
Consists of two 3 mfd., one 2 mfd. and one
.05 mfd. condensers.
Westinghouse Part No. 8553
YOUR COST, \$11.95

TRANSFORMER ASSEMBLY
Consists of Push-Pull Interstage and Output
in metal case.
Westinghouse Part No. 8554
YOUR COST, \$10.50

POWER TRANSFORMER
105-125 Volt—50-60 Cycle
Westinghouse Part No. 8556
YOUR COST, \$9.00

REACTOR—TAPPED FILTER REACTOR
Westinghouse Part No. 8555
YOUR COST, \$3.00

SPEAKER CONE COMPLETE WITH VOICE COIL
Westinghouse Part No. 8558
YOUR COST, \$3.00

SPEAKER FIELD COIL
Westinghouse Part No. 8560
YOUR COST, \$3.75

CAPACITOR PACK
Consists of three 0.1 mfd., one 0.5 and one 1. mfd.
condensers in metal can.
Westinghouse Part No. 7058
YOUR COST, \$3.00

R. F. COUPLING CONDENSER
Westinghouse Part No. 2744
YOUR COST, 30c

VOLTAGE DIVIDER RESISTOR
Westinghouse Part No. 2733
14,300 ohms Carbon Type
YOUR COST, 45c

Magnetic Pickup Arm and Microphone Assembly
Parts for Model WR7 in stock.
When ordering give Westinghouse number.

REPLACEMENT PARTS

RESCO REPLACEMENTS

A high quality line of replacement parts under our own label. These parts are manufactured to our own specifications of the best materials obtainable and guaranteed to give perfect satisfaction in every respect. We particularly wish to call your attention to our new dry Electrolytic Condensers which are standard size units and furnished in various capacities for all standard sets.

RESCO DRY ELECTROLYTIC CONDENSERS

Standard size in metal containers. Rated at 500 volts peak.

Capacity Mfds.	Anodes	YOUR COST
1 Mfd.	1	\$0.35
2 "	1	.49
4 "	1	.65
8 "	1	.86
16 "	2	1.45
24 "	3	2.25
36 "	3	2.65
52 "	3	4.50
20 "	2 15 and 5	2.25

24 Mfd. 3 Anode Condenser is standard for Colonial and Other Sets

36 Mfd. 3 Anode Condenser is standard for Zenith Sets

COMPLETE POWER PACKS

Genuine Atwater-Kent

Complete power pack for Model 40, 42, 44, 50, 52 Atwater-Kent sets. Exact duplicate of original, contains transformer, condenser, chokes and resistors. Ready to install.

YOUR COST, \$6.50

Complete Power Pack as Above for Atwater-Kent 46

YOUR COST, \$8.50

STEINITE PACKS

Complete Power Pack for Model 261 Steinite Sets

YOUR COST, \$8.75

Complete Power Pack for Model 40 Steinite Sets

YOUR COST, \$8.75

COMPLETE POWER PACKS FOR MAJESTIC RECEIVERS

Model 7P6

For Majestic Models 70, 71, 72

YOUR COST, \$12.00

Model 9P6

For Majestic Models 90, 91, 92

YOUR COST, \$15.00

RESCO DIAL CABLES

Dial cables for all popular sets including Majestic, Bosch, Balkite, R.C.A. and others. Made to exact specifications.

YOUR COST, 25c

RESCO REPLACEMENT POWER TRANSFORMERS AND CONDENSER BLOCKS

These units are exact mechanical and electrical duplicates of the original parts and are built to manufacturers specifications. All Resco replacement parts are guaranteed.

Model No.	Make	Power Trans. YOUR COST	Condenser Block YOUR COST
37—	Atwater-Kent	\$3.00	\$2.75
46—	Atwater-Kent	3.25	3.25
55—	Atwater-Kent	4.50	3.25
28—	Bosch	3.75	3.50
48—	Bosch		3.50
50—	Bosch		3.25
15—	Brunswick		3.20
B-10—	Brandes		3.75
B15 & 16—	Brandes		3.75
33AC—	Colonial	5.00	
41—	Earl		3.75
31 & 32—	Earl		3.50
21 & 22—	Earl		3.75
50—	Eveready	4.50	3.25
25—	Fada		4.25
43—	Fada		3.50
NR-57—	Freed-Eismann		3.25
NR-60—	Freed-Eismann		3.00
N-11 (250)—	Freshman	4.50	4.50
M-12 (171)—	Freshman		4.50
6-H—	Kolster		6.00
6-K—	Kolster		3.25
K-20 & 22—	Kolster		3.25
K-21—	Kolster		3.00
K-43—	Kolster		2.25
69-79A—	Sparton		3.95
AC-7—	Sparton		3.95
930—	Sparton		3.50
635-6-8—	Stromberg-Carlson	4.50	3.50
641-642—	Stromberg-Carlson	4.50	3.95
652-664—	Stromberg-Carlson	4.50	4.25
846—	Stromberg-Carlson	5.25	3.25
10-11—	Stromberg-Carlson	4.25	4.25
12-14—	Stromberg-Carlson	6.00	4.50
ZE-9—	Zenith	3.50	3.25
50-60-70—	Zenith	5.00	2.65

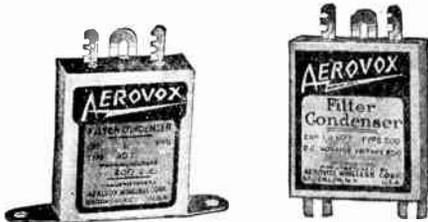
Any power transformer not listed above can be made up within three days. In ordering give name of set, model number, types of tubes and number of each type used. If specifications not available send old part in for duplication.

CONDENSER BLOCK REPLACEMENT

We can duplicate any condenser block on short notice. Send old condenser for estimate.

AEROVOX CONDENSERS AND RESISTORS

**GENERAL PURPOSE
NON-INDUCTIVE CONDENSERS**



Types 207, 307 and 407 Types 200-S, 300-S and 400-S

These condensers are non-inductively wound. Designed for use in all radio and audio by-pass circuits. Furnished for 200, 300 and 400 volts working. The first figure of Cat. No. denotes voltage.

Cap.	*LIST PRICES					
Mfds.	207	307	407	200-S	300-S	400-S
.05	\$0.65	\$0.70	\$0.75	\$0.60	\$0.65	\$0.70
.1	.70	.75	.80	.65	.70	.75
.25	.75	.85	.90	.70	.80	.85
.5	.85	1.10	1.25	.80	1.00	1.15
1.	1.00	1.60	1.85	.90	1.50	1.75
2.	1.90	2.80	.....	1.75	2.25	2.65
4.	3.25	.....	.....	3.00	.....	.....

AEROVOX CARBON RESISTORS



Type 1094

Aerovox Carbon Resistors employ a special solid moulded carbon resistance element. Rated at 1 watt. Furnished in standard values from 100 ohms to 10 megohms.

*List Price, any value, 30c
1 3/4" long by 1/4" dia.

WIRE WOUND RESISTORS



Type 981

Flat wound on fibre strips. Used for filament resistors or grid resistors.

	*List Price
8 ohms to 1000 ohms	\$0.20
1250 ohms to 2000 ohms	.35

CENTER TAPPED RESISTORS



Type 986

Especially designed for use in A. C. filament circuits. All terminals are securely anchored. Furnished in the following values: 10, 20, 30, 40, 50, 60 100 and 200 ohms.

*List Price, any value, 25c

STAMPED METAL CASE CONDENSERS



Types 261, 361 and 461



Types 260, 360 and 460



Types 461-21, 461-31, 461-225

These units were especially designed for manufacturers' use, but have also proven very popular with service men and experimenters due to their compactness and convenience of mounting.

Cap.	*LIST PRICES				
Mfds.	260	261	360	361	460
.05	\$0.65	.....	\$0.70	.....	\$0.75
.1	.70	.....	.75	.....	.80
.25	.75	.....	.85	.....	.....
.5	.85	.....	.....	1.10	.....
1.	.....	1.00	.....	1.60	.....

MULTIPLE CONDENSERS

461-21—Two .1 mfd. sections in one case. Working voltage, 400 D. C.
*List Price, \$1.25
461-31—Three .1 mfd. sections in one can. Working voltage, 400 D. C.
*List Price, \$1.75

**COMPACT
TUBULAR CONDENSERS**



Types 270, 470, 670 & 1070



Types 280, 480, 680 & 1080

These compact condensers are ideal for use in all radio and audio circuits where space saving is a factor. Supplied in capacities from .01 to .5 mfds.

Cap. Mfd.	*LIST PRICES				Working Voltage		Cap. Mfd.	*LIST PRICES			
	270	470	670	1070	Type	D.C. Volts		280	480	680	1080
.01	\$0.45	\$0.50	\$0.55	\$0.60	270 & 280	200	.01	\$0.25	\$0.25	\$0.30	\$0.35
.015	.45	.50	.60	.65	470 & 480	400	.015	.25	.30	.....	.....
.02	.50	.55	.65	.70	670 & 680	600	.02	.25	.30	.30	.40
.03	.50	.....	.....	.....	1070 & 1080	1000	.03	.25	.30	.35	.40
.05	.55	.60	.70	.....	.....	.....	.05	.30	.35	.40	.50
.1	.60	.65	.75	.....	.....	.....	.1	.30	.40	.45	.....
.....	.....	.....	.....	.....	.....	.....	.25	.45	.55	.....	.....
.....	.....	.....	.....	.....	.....	.....	.5	.60	.....	.....	.....

MICA CONDENSERS IN MOULDED BAKELITE CASES



Type 1450



Type 1460



Type 1475

These condensers are moulded in genuine bakelite and sealed against extreme temperature and moisture. The dielectric is of the finest grade India Ruby Mica. Capacities, .00004 to .02 mfd.

Type	Capacities	*List Price
Type 1450	From .00004 to .0005 inclusive	\$0.30
Type 1460	From .00004 to .00025 inclusive	.20
Type 1475	.0001, .00015, .00025, .0005	.40

Other Capacities in Stock to .04 Mfd.

GRID LEAK AND RESISTOR MOUNTINGS



Type 1050

Type 1049 single mounting and type 1050 double mounting will take any standard grid leak or resistor. Base is genuine moulded bakelite and clips are of phosphor bronze nickel-plated. Clips are riveted to base. No screws to loosen.

Type	*List Price
Type 1049	\$0.25
Type 1050	.40



Type 1049

*DISCOUNT FROM ABOVE LIST PRICES, 40 and 2%

AEROVOX CONDENSERS AND RESISTORS

AEROVOX HI-FARAD DRY ELECTROLYTIC CONDENSERS



Type "TD" Can



Type "TA" Can

Aerovox Hi-Farad Dry Electrolytic Condensers are the latest development in high capacity condensers in radio. The dry characteristic of these units make it possible to mount them in any position, upright, inverted, horizontal or any other desired angle without any danger of spilling or leakage. Units are made either of the universal mounting or screw mounting types. All types are standard in size enabling changes to be made in standard radio sets to Hi-Farad condensers. For all practical purposes they can be handled and mounted in the same manner as wax paper condensers. The high voltage characteristics (500 volts D. C. peak without series connections) permits their practical use in most of the standard comparatively high voltage power supply units. They are also particularly adapted for use across very high voltages by connecting a number of units in series for amateur radio transmitters. Hi-Farad condensers are low in initial leakage, stable in operation, unaffected by moisture, operate at low temperatures and high in filtering efficiency. Their self-healing and surgeproof characteristics prevent damage to the condenser from high voltage surges and increase the life of the condenser indefinitely. Above all, they are much more compact than wax paper condensers of equivalent capacity and their all-around efficiency is in keeping with modern radio design.



Type "GD" Can



Type "GA" Can

STANDARD CAPACITIES

Type No.	Cap. of Sections Mfds.	Total Cap. Mfds.	List Price	YOUR COST	Type No.	Cap. of Sections Mfds.	Total Cap. Mfds.	List Price	YOUR COST
E5-1	1	1	\$1.00	\$0.59	E5-44	4-4	8	\$2.65	\$1.56
E5-2	2	2	1.20	.71	E5-444	4-4-4	12	3.75	2.21
E5-22	2-2	4	2.40	1.41	E5-4444	4-4-4-4	16	4.75	2.80
E5-222	2-2-2	6	3.25	1.92	E5-8	8	8	1.70	1.00
E5-248	2-4-8	14	4.00	2.36	E5-88	8-8	16	3.25	1.92
E5-288	2-8-8	18	4.75	2.80	E5-888	8-8-8	24	4.50	2.65
E5-2816	2-8-16	26	5.00	2.94	E5-8888	8-8-8-8	32	6.00	3.53
E5-2222	2-2-2-2	8	4.65	2.74	E5-8816	8-8-16	32	6.00	3.53
E54	4	4	1.40	.83	E5-30	3-0	30	5.00	2.94



Type "TC-3" Can



Type "TB" Can

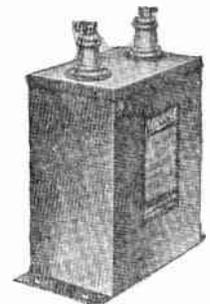
All above condensers rated at 500 volts D. C. peak and 450 working voltage. Peak voltage rating should never be exceeded (surges excepted). List prices include units complete with mounting rings. List price—mounting rings, any style, 15 cents. The above are representative standard types which are carried in stock. For additional or special types send for special bulletin.

AEROVOX HIGH VOLTAGE DRY ELECTROLYTIC CONDENSERS

TRANSMITTING FILTER CONDENSERS

The latest development of the Aerovox Laboratories—Dry Electrolytic Filter Condensers, designed for use in power supplies of high voltage transmitters. Used in high voltage filter circuits in the same manner as ordinary paper condensers, although correct polarity must be observed. Sealed in metal cans provided with standoff insulator terminals.

Type No.	Cap. Mfds.	D.C. ing	Work- ing Volts	List Price	YOUR COST	Type No.	Cap. Mfds.	D.C. ing	Work- ing Volts	List Price	YOUR COST
1004	1	1000		\$3.50	\$2.06	2004	1	2000		\$7.25	\$4.27
1004	2	1000		4.25	2.50	2004	2	2000		8.75	5.15
1004	4	1000		5.00	2.94	2004	4	2000		16.00	9.41
1504	1	1500		5.50	3.24	3004	1	3000		11.50	6.77
1504	2	1500		6.50	3.83	3004	2	3000		21.50	12.65
1504	4	1500		12.00	7.06	3004	4	3000		41.50	24.41

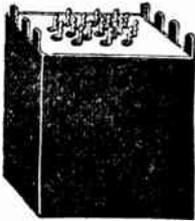


Types 1004, 1504, 2004, 3004

REPLACEMENT PARTS

RCA-VICTOR TRANSFORMERS AND CONDENSERS

VICTOR ABC TRANSFORMER



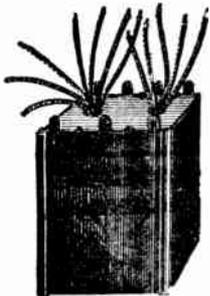
Used in Victor sets R-32, RE-45 and RE-75. Can also be used for other receivers. Designed to supply six 226, two 245, one 227 and one 280 tubes. Secondary will deliver 400 volts at 100 mills. These are genuine RCA-Victor Transformers and are fully guaranteed.

SPECIAL, YOUR COST, \$1.75

POWER TRANSFORMER

For Radiolas 17, 18, 33, 51

R. C. A. Part No. 8335



For supplying all filament and plate supply voltages. Primary voltage 110-120 volts, 50-60 cycles, power rating 50 watts. Rated to supply filament voltage for four 226's, one 227 and one or two 171-A's and one UX-280 tube, also high plate voltage (600 volts) center tapped for UX-280 tube.

Suitable for making up an A. C. set, or converting battery sets to A. C. sets. Conservatively rated and will actually supply enough current and voltage to

take care of one additional $2\frac{1}{2}$ volt tube, such as the UY-224 or UX-245. Furnished with diagram.

YOUR COST, \$2.95

POWER TRANSFORMER

for Radiola 80, 82, 86

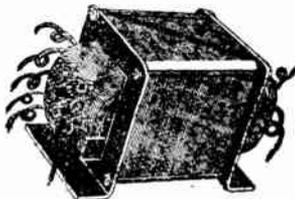
Standard replacement transformer for the above receivers. Exact duplicate same as original.

YOUR COST, \$3.25



POWER TRANSFORMER

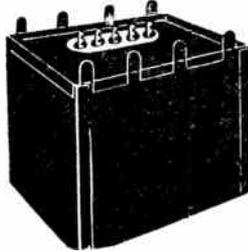
for Radiola 104 Speaker



Primary operated in series with 876 ballast tube. Furnishes filament and plate for two 281, one 210, and seven 199 tubes in series.

YOUR COST, \$4.50

GENUINE VICTOR CONDENSER BLOCKS



NEW SHIPMENT!
600 Volts, 10.625 mfd.

Replacement Condenser Block.

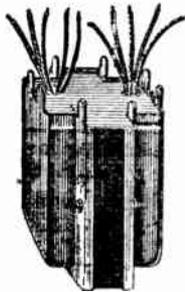
These condensers are genuine Victor parts having a total capacity of 10.625 mfd. rated at 600 D. C. working voltage. The size is $5\frac{1}{2}$ " x 4" x 4". Housed in a metal can, provided

with crimping lugs for chassis assembly and soldering terminals for wiring.

YOUR COST, \$1.25

POWER TRANSFORMER

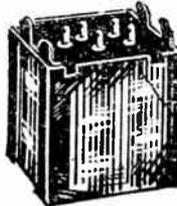
for Radiolas 42, 48 and Victor 14, 15, 17



These are the genuine RCA Transformers for the above models. Can also be used for other sets or in the construction of power supply units. Full guaranteed.

YOUR COST, \$3.25

VICTOR FIRST STAGE AUDIO TRANSFORMER



This transformer is designed for use for any tube of high impedance and has a special winding for phonograph pickup.

Magnetically shielded, preventing inter stage feedback.

Ratio $3\frac{1}{2}$ to 1. Ideal transformer for use in receivers which have provision for phonograph pickup.

Replacement for Victor models RE-32, R-42, RE-45 and RE-75.

YOUR COST, 95c

POWER TRANSFORMER

for RCA Victor 35, 39 and 57



Used in G. E., Westinghouse and Victor receivers. Also suitable for replacement in sets using screen grid and Pentode, or 245 tubes.

Brand new merchandise, fully guaranteed.

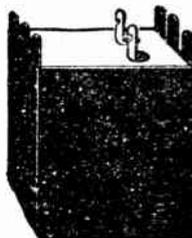
YOUR COST, \$3.25

VICTOR Choke Coil

30 Henrys
125 Mills

For Replacement in Edison, Victor RE-32, 42, 45, 75

YOUR COST, 95c



POWER TRANSFORMER

Replacement for Radiola Models 60 and 62

R. C. A. Part No. 8334

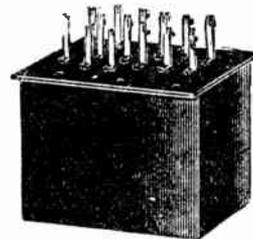
A beautiful finished compact transformer designed by the Engineers of the Radio Corporation of America for use with the above Radiola models or other receivers employing seven 227's, one 171A and one 280 tubes.

Provides the necessary filament voltages, the high volt center tapped secondary supplying the necessary "B" and "C" voltages. The primary is wound for 110-120 volts, 50-60 cycles, A. C..

YOUR COST, \$3.75

POWER TRANSFORMER

for Radiola 64, 67 and 47



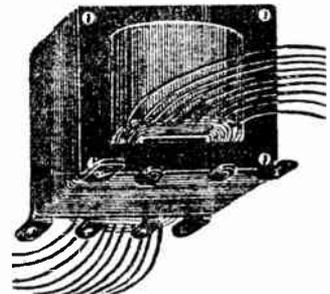
Used in the above models of the famous RCA Super-Heterodyne sets. Has six secondaries for the following tubes:

- No. 1 for 4-227.
- No. 2 for 3-227.
- No. 3 for 1-227.
- No. 4 for 2-281.
- No. 5 for 1-250.
- No. 6 for high voltage.

YOUR COST, \$9.95

HEAVY DUTY POWER TRANSFORMER

For Kolster Sets



Replacement transformer for Kolster models K-24 and K-36. Can also be used in other receivers using five 226, one 227, one 210 and two 281 tubes.

An ideal transformer for building amplifiers and for public address. Secondary winding, 1200 volts C. T.

YOUR COST, \$6.95

VICTOR PUSH-PULL OUTPUT AND AUDIO TRANSFORMERS

(Replacement for RE-32, R-42, RE-45, & RE-75)



Housed in a single metal case. This assembly is completely impregnated, insuring against lamination, vibration, assuring amplification of all frequencies, electrostatically shielded and provided with marked solder lug terminals.

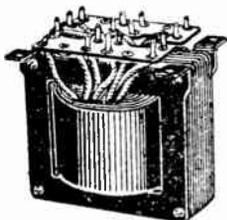
The output transformer is designed to

match the impedance of the dynamic speaker voice coil.

YOUR COST, \$1.25

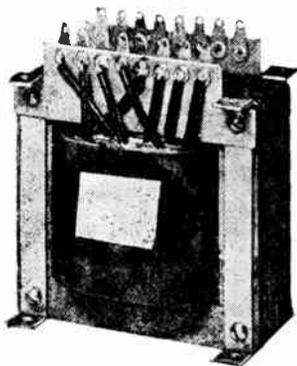
REPLACEMENT PARTS

A. C. POWER TRANSFORMER



For Replacement in Kolster K-20, K-22
Will handle up to five 226, one or two 227, one or two 171A and one 280 tubes. Very compactly built.
YOUR COST, \$1.95

STEINITE REPLACEMENT TRANSFORMER



Replacement power transformer for Steinite Models 261-26 or other makes containing four 226, one 227, one 171A and one 280 tubes.

YOUR COST, \$1.95

STEINITE REPLACEMENT TRANSFORMER

For Model 40

Made especially for this model. Will handle five 227, two 171A and one 280 tubes.

YOUR COST, \$3.95

CROSLY AUDIO TRANSFORMERS



Genuine Crosley audio transformers. A very good unit for general replacement work.

YOUR COST, 95c

CROSLY FILTER CHOKES



Genuine Crosley double filter choke. Contains two 30 henry, 85 mill coils.

YOUR COST, 95c

CROSLY R.F. AND AERIAL COILS

YOUR COST, 29c

MAJESTIC INPUT REPLACEMENT TRANSFORMER

For Models No. 70, 71, 72, 90, 92
Made to Majestic specifications.

YOUR COST, \$1.50

MAJESTIC AUDIO REPLACEMENT TRANSFORMER

For Models No. 70, 71, 72, 90, 92
Made to Majestic specifications.

YOUR COST, \$1.50

MAJESTIC OUTPUT REPLACEMENT CHOKO

For Models 70, 71, 72

The exact duplicate of the original.
Made from Majestic specifications.

YOUR COST, \$1.50

KENYON INPUT TRANSFORMER

A universal input audio unit replacement. Can be used in any set. Built to give maximum service.

YOUR COST, 95c

KENYON OUT-PUT REPLACEMENT TRANSFORMER

Push-Pull 245

A standard replacement for push-pull 245 audio circuit.

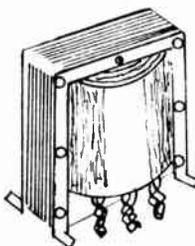
YOUR COST, 95c

OUTPUT TRANSFORMER

Small size. A wonderful replacement for midget and other sets where cramped for space.

YOUR COST, 95c

CROSLY POWER TRANSFORMER



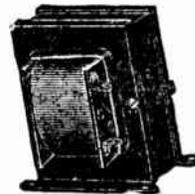
Replacement Part No. 5145

For sets using three 226, one 227, one 171-A and one 280 tubes.

For 110, 60 cycle A. C. Size, 4" x 3 1/2" x 2 3/4".

YOUR COST, \$1.95

2 1/2 VOLT FILAMENT TRANSFORMER



The T-290 Transformer finds its principal use in short wave sets where it is desirable to light the filaments of two or three tubes. Excellent for pre-heaters.

No. 1 Secondary, 2.5 volts at 11. amps.
No. 2 Secondary, 2.5 volts at 3.00 amps.

Length, 2 3/8"; Height, 2 3/8"; Width, 1 3/4"; Weight, 1 lb.

YOUR COST, \$1.65

A. C. POWER TRANSFORMERS

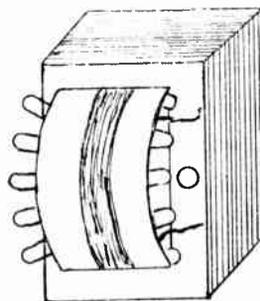
For Apex A. C. Receivers

For Models 48, 41, 42, 46, 47. For five 224 (or 227), two 245, one 280 tubes. Mention particular model for our guidance in shipping you the exact type transformer required.

YOUR COST, \$3.50

PEERLESS REPLACEMENT POWER TRANSFORMER

For Models 651, 652, 653, 21, 22, 23, 22-A using three 224, one 227, two 245 and one 280 tubes.



- 1 and 2—2 1/2 volts.
- 3 and 4—5 volts.
- 5 and 6—3 volts for 199 tube supplying current for Kylec-tron.
- 7 and 9—High voltage.
- 8—Center tap of high.

10 and 12—Primary (120 volts).

10 and 11—Primary (105 volts).

YOUR COST, \$2.65

UNIVERSAL POWER TRANSFORMER REPLACEMENT

For four 226, one 227, two 245 and one 280 tubes. With mounting bracket.

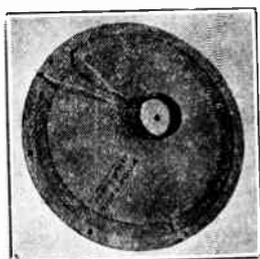
YOUR COST, \$1.95

REPLACEMENT PARTS

SPEAKER CONES AND CONE HEAD REPLACEMENTS

GENUINE VICTOR CONE and VOICE COIL

For Victor Models R-32, R-52, RE-45 and RE-75



These are the famous Stevens Burtex cones edged with soft velour. Voice coil and leads for quick installation and precisely fitted. Remember, they are the genuine.

YOUR COST, \$2.50

VICTOR FIELD COILS

For Models R-32, R-52, RE-45, RE-75
YOUR COST, \$1.75

ROLA CONE HEAD FOR 7" MIDGET

Complete with voice coil.
YOUR COST, \$2.25

ROLA CONE HEAD REPLACEMENT

With voice coil for Model 90.
YOUR COST, \$3.50
Other Rola replacements in stock.

MAJESTIC DYNAMIC SPEAKER CONES

As Used in Majestic Models 70 and 71



G-1 Speaker Cone
Your Cost, \$1.30
G-2 Speaker Cone
Your Cost, \$1.30
For Models 90, 91, and 92.
G-3 Speaker Cone
Your Cost, \$1.95
also other models in stock.
These units are all complete with voice coil.

TEMPLE SPEAKER CONES

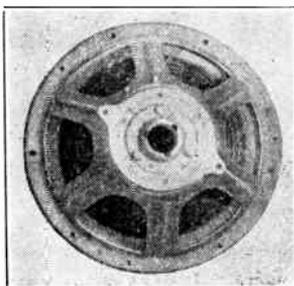
YOUR COST

7" Cone with Voice Coil..... \$1.75
9" Cone with Voice Coil..... 2.50
14" Cone with Voice Coil..... 3.00

STEINITE DYNAMIC SPEAKER CONE HEADS

Complete with Voice Coil
Model 40, **YOUR COST, \$3.50**
Replacements in stock for all Steinite models.

UTAH CONE HEADS



Complete with Voice Coil
8", **YOUR COST, \$3.50**
All other models in stock.

RCA CONES

For Models No. 104 and 106
No. 104, **YOUR COST, \$3.00**
No. 106, **YOUR COST, \$3.50**
Cones for RCA magnetic speakers in stock.
Send your old cone with your order and we will match it perfectly.

JENSEN "CONCERT"

Electro-Dynamic Speaker Cone Heads



For Models D-7, D-4, D-5, D-10

	List Price	YOUR COST
D-7.....	\$9.00	\$5.40
D-4.....	9.00	5.40
D-5.....	7.50	4.50
D-10.....	7.50	4.50

These units are complete with voice coil.

PHILCO SPEAKER CONES

YOUR COST

Model 65.....	\$1.00
Model 77.....	1.00
Model 87.....	1.00
Model 95.....	1.00
Model 20.....	1.25

SPEAKER CORDS—5 Ft.

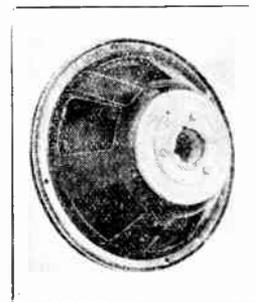
Two tips each end. Heavy tinsel and best grade of insulation. Can be used for various purposes.

YOUR COST, 9c

RCA CONE HEADS AND CONES For Dynamic and Magnetic Speakers

	YOUR COST
Model 32.....	\$2.50
Model 45.....	2.50
Model 75.....	2.50
Model 80.....	3.00
Model 15.....	2.50
Model 17.....	2.50
Model 48.....	2.50
Model 39.....	3.25
Model 35.....	3.25
Model 57.....	3.25

MAGNAVOX DYNAMIC SPEAKER CONE HEADS



With Voice Coil, 1 1/4" Diameter
YOUR COST, \$5.00

We carry a complete stock of Magnavox speaker cones and cone head replacements. Let us know your requirements.

BALDWIN DYNAMIC SPEAKER CONE HEADS

These units come complete with voice coil.

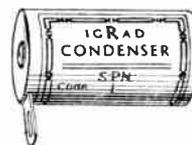
YOUR COST, \$3.00

When ordering kindly specify size and ohmage of voice coil.

MIDGET DYNAMIC SPEAKER CONES AND CONE HEADS

Send in your old cone and we will match it perfectly.

SPARTON BY-PASS CONDENSER



.25 and 1. mfd.
Used in all Sparton sets.

	YOUR COST
.25 mfd.	\$0.75
1. mfd.	1.00

EVEREADY AND BOSCH

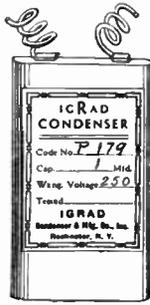
Replacement By-Pass Condenser

For Model 52 and all 1928-29 sets. This condenser is also applicable to many other standard sets.

Three 1/2 mfd. Condensers in Can
YOUR COST, \$1.25

WE REPAIR ALL MAKES OF SPEAKERS, BOTH DYNAMIC AND MAGNETIC
24-HOUR SERVICE AND GUARANTEED WORKMANSHIP

REPLACEMENT PARTS



IGRAD CONDENSERS

YOUR COST

1 mfd., 1000 volt.....	\$0.95
1 mfd., 800 volt.....	.75
1 mfd., 300 volt.....	.33
1/2 mfd., 300 volt.....	.25
1/4 mfd., 300 volt.....	.20
1/10 mfd., 300 volt.....	.15

RESCO CONDENSERS

These condensers are made to laboratory specifications and are made to withstand hard usage. They are perfect replacements wherever condensers are used.

YOUR COST

1/10 mfd., 300 volt.....	\$0.15
1/4 mfd., 300 volt.....	.20
1/2 mfd., 300 volt.....	.25
1 mfd., 450 volt.....	.30
2 mfd., 600 volt.....	.35

AEROVOX CONDENSERS

Two 1/10 mfd. Condensers

YOUR COST, 30c

Two 1/10 and .5 mfd. Condensers

YOUR COST, 50c

GENUINE WESTERN ELECTRIC PRECISION CONDENSERS

These condensers are accurately measured and may be used as standards for measuring capacities. Manufactured by Western Electric.

1 mfd., 1000 Volts D. C.

YOUR COST, 59c



Victor Condensers

1/2 mfd., 300 Volts
YOUR COST, 15c

ZENITH FILTER BLOCK

22-59 Zenith Part Nos. 333X, 353AX for ZE17 Pack

Yellow—4 mfd., 800 volt.
White—.25 mfd., 400 volt.
Black—Common.
Green—2 mfd., 600 volt.
Blue—4 mfd., 800 volt.

YOUR COST, \$1.50

EVEREADY FILTER CONDENSER BLOCK

For 1928-29 Models—50 Series

A perfect replacement for this line of sets. Complete unit in metal container.

YOUR COST, \$3.25



PEERLESS (Sprague) FILTER CONDENSER BLOCK

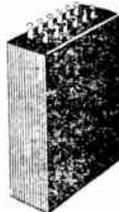
Used in Peerless Courier Sets

5 1/2" high, 2 3/4" wide, 2 1/4" deep.

YOUR COST, 95c

BRUNSWICK, BREMER-TULLY CONDENSER BANK

For Models 14, 22, 81, 82



These condensers are designed for use in the above model number receivers, but are ideal units for set builders and experimenters who require a compact, easily wired filter by-pass assembly. Exceptionally suitable for electrifying sets where plenty of by-pass condensers are essential. Size 4" x 5 1/8" x 1 5/8".

YOUR COST, \$3.25

ZENITH REPLACEMENT BLOCK

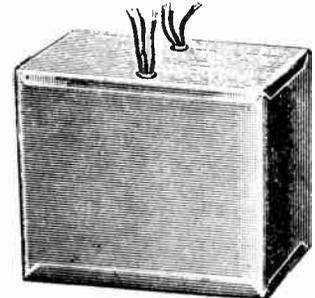


Designed for replacement in Zenith ZE9 pack.

These units are composed of high voltage condensers throughout. Will stand more voltage than any Zenith set can give it. Flexible wire leads off each tap. Complete hookup instructions with every block. This unit will serve for a good many other purposes.

YOUR COST, \$3.25

ATWATER KENT REPLACEMENT CONDENSER BLOCK



For Model 37 Sets

This unit contains the proper chokes and high voltage condensers. All flexible wire colored leads identical to the original. Fully guaranteed.

YOUR COST, \$2.75

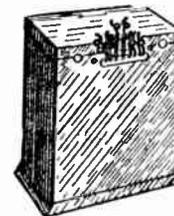
HUM CONTROLS

Remove the noisy A. C. hum from set. Easy to install.

YOUR COST, 29c

FADA CONDENSER BLOCKS

For Fada Set Model 25 Part No. 1780X

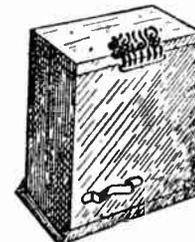


Black—Common.
Blue—1/2 mfd., 400 volts.
Red—2 mfd., 600 volts.
Yellow—3/4 mfd., 400 volts.
Green—1 mfd., 400 volts.
Slate—2 mfd., 200 volts.

Brown to Brown—.28 mfd., 400 volts.

YOUR COST, \$4.25

For Fada Models 35, 352 and 40 Part No. 1790X



Blue—1/2 mfd., 400 volts.
Red—2 mfd., 600 volts.
Yellow—2 mfd., 600 volts.
Brown—2 mfd., 400 volts.
Green—1 mfd., 400 volts.
Slate—1 mfd., 200 volts.

YOUR COST, \$4.50

CROSLY CONDENSERS

Two 1/10 mfd. Condensers. Can be used for many purposes.

YOUR COST, 25c

REPLACEMENT PARTS

RESCO REPLACEMENT CONDENSER KIT



Resco Condenser Kit is composed of five uncased filter condensers, which are small, impregnated in pitch, with long flexible leads of push back wire to facilitate quick connections. Each condenser is fully guaranteed. Rated 450 volts.

Service men should carry this kit at all times for general repair work, since the condenser can be placed outside of the power pack.

One of each of the following assortment:

Capacity: .1 mfd., .25 mfd., .5 mfd., 1. mfd., 2. mfd.

YOUR COST, \$1.40

RESCO KIT
2 of Each Size
YOUR COST, \$2.50

RESCO REPLACEMENT CARBON RESISTOR KIT

(29 Carbon Resistors)



The Resco Carbon Resistor Kit is composed of 29 carbon pigtail resistors, one each of the popular sizes. A handy kit that should be had by all radio servicemen and dealers.

YOUR COST, \$1.50

RESCO RESISTOR KIT
Containing 50 Resistors
YOUR COST, \$2.75



AMPLION HAND MIKE

The best single button microphone ever made. Has stretched diaphragm insuring excellent frequency response. A wonderful unit for home recording, public address or amateur phone transmitters. Complete with 6 ft. cord.

YOUR COST, \$4.75

CARBON PIGTAIL RESISTORS
All Values, 1 Watt
YOUR PRICE, 6c Each

SANGAMO BAKELITE CONDENSERS



mfd.	mfd.	mfd.	mfd.
0.0001	0.000175	0.0003	0.0005
0.00012	0.0002	0.00035	0.0006
0.00015	0.00025	0.0004	0.0007
			0.0008

List Price, 40c **YOUR COST, 24c**

mfd.	mfd.	mfd.
0.001	0.0015	0.002
0.0012	0.00175	0.0025

List Price, 50c **YOUR COST, 29c**

mfd.	mfd.	mfd.
0.003	0.0035	0.004

List Price, 60c **YOUR COST, 35c**

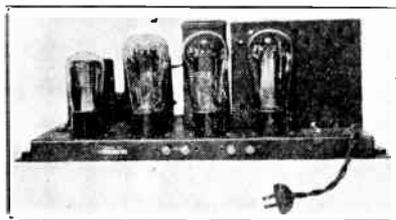
mfd.	List Price	YOUR COST
0.005	\$0.70	\$0.41
0.006	.85	.50
0.007	.90	.53
0.0075	.90	.53
0.008	1.00	.59
0.01	1.15	.67
0.012	1.20	.70

RESCO LINE NOISE ELIMINATOR

Resco Noise Eliminator is suitable for eliminating all line noises caused by vacuum cleaners, switching on and off of lights, electric heating pads, toasters, and all electrical apparatus with make and break contacts or small motors. Is quickly and easily attached without the use of tools and is a small and compact unit.

YOUR COST, 75c

KOLSTER 245 POWER AMPLIFIER and MATCHED DYNAMIC SPEAKER



For radio, phonograph, public address systems for lecture and concert halls and small auditoriums. Reproduces speech and music with marvelous fidelity of tone.

The amplifier has two stages using the 227 in the first and two 245 tubes in the push-pull stage with a 280 rectifier. Kolster Dynamic Speaker to match. For 115 volts, 60 cycle alternating current.

YOUR COST, \$13.50 with Speaker



METAL CASED BY-PASS CONDENSERS

Standard by-pass condensers in all capacities.

Cap. Mfd.	List Price	YOUR COST
.1	\$0.40	\$0.20
.25	.50	.25
.5	.60	.30
1.	.70	.35
Triple .1	.70	.35
Dual .5	1.00	.50
Triple .5	2.25	1.10
Two .1 and 1-.5	1.50	.50

Above condensers rated at 200 volts working. Special prices in quantity.

RCA-VICTOR HOME RECORDING MICROPHONE

Priced Extremely Low!

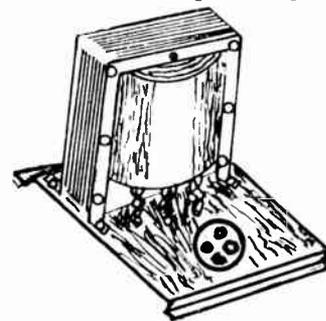


This fine microphone is being used by RCA-Victor in their \$750 radio and phonograph combinations. Its extremely fine response curve makes it suitable for home recording, public address and amateur broadcasting. The entire casing and handle is of steel in gun metal finish, making it sturdy and rugged. It requires but 10 mils of current which

may easily be obtained from a 1½ volt dry cell or power pack. For home broadcasting it is not necessary to use a coupling transformer with this mike as it will perform perfectly when inserted in series with the cathode of the detector tube. This mike is manufactured for RCA by Kellogg Switchboard and Supply Co., whose equipment is standard in 90 percent of the world's broadcasting stations.

YOUR COST, \$2.75

A. C. FIELD EXCITER For R.C.A. Photophone Speakers



Here is a unit that has been looked for far and wide and is finally presented to you as an efficient field exciter. Uses one 280 tube as rectifier, giving an output of 110 mils at 100 volts. It is suitable to use this to run either dynamic speakers or dynamic units.

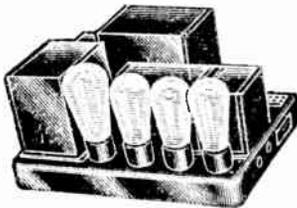
YOUR COST, \$5.50 Less Tube

REPLACEMENT PARTS

RCA-VICTOR AMPLIFIERS AND SPEAKERS

Genuine RCA-VICTOR Amplifiers originally used in Victor receivers and radio-phonograph combinations and RCA Electrolas. Adaptable for phonograph amplifier, public address amplifier, home recording unit, audio amplifier and power supply unit for radio tuner. Also speech amplifier in amateur phone transmitter or power supply for low power C. W. transmitter.

RE-32 VICTOR AMPLIFIER AND DYNAMIC SPEAKER



Complete power supply and amplifier as used in RE-32 and RE-45 Victor sets. A two stage amplifier, using one 226 in 1st stage and two 245 tubes, push-pull in final stage and 280 rectifier. Has combination audio input transformer tapped for low impedance, which can also be used for microphone input.

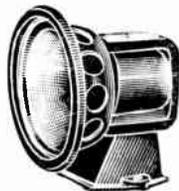
This unit will also supply filament, plate and "C" voltage for four additional 226 tubes and one 227 tube in radio tuner.

Shipped completely assembled and wired ready to operate. Fully guaranteed to be mechanically and electrically perfect.

RE-32 VICTOR AMPLIFIER
110 Volt, 60 Cycle
SPECIAL, \$8.50

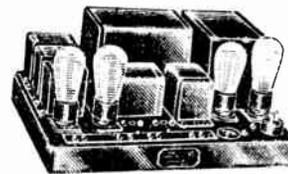
VICTOR DYNAMIC SPEAKER

Designed for use with and plugs into above amplifier. One of the best dynamic speakers built. Famous for its remarkable tone quality.



RE-32 VICTOR SPEAKER
SPECIAL, \$5.95

RCA-AP-736 AMPLIFIER



A high power, high quality amplifier using the UX-250 tube.

Ideal for use as a public address amplifier or a high power phonograph amplifier. A 2 stage unit. Uses one 226 in 1st stage and one 250 in the final stage and two 281 tubes as rectifiers.

The same unit as used in the RCA Electric Phonograph. Electrola model supplies field current for dynamic speaker. Shipped assembled and wired.

AP-736 AMPLIFIER
SPECIAL, \$16.50

RCA PHOTOPHONE SPEAKER

Designed for theatre use with RCA Photophone System, but can be used with any power amplifier. Recommended for use with above amplifier, which will supply field current. A real speaker for public address installations. Field coil 1000 ohms, requiring 100 mills at 100 volts. Voice coil impedance, 8 ohms.



RCA PHOTOPHONE SPEAKER
SPECIAL, \$8.95

COMPLETE PARTS LIST FOR THE VICTOR R-32, RE-45, RE-75 POWER PACK AND DYNAMIC SPEAKER

An unusual opportunity for the dealer or service man to cash in on Victor Service.

Part No.	YOUR COST	Part No.	YOUR COST
1—Power Cable	\$0.50	12—By-Pass Condenser	\$0.50
2—Terminal Block .....	.50	13—Power Transformer	1.75
3—Filter Condenser Block	1.25	14—Hum Adjusting Resistor .....	.25
4—Filter Choke .....	.95	15—Audio Input Transformer .....	.95
5—Voltage Divider Resistor	1.10	16—Audio Resistor .....	.30
6—A. C. Receptacle .....	.25	17—Audio Resistor .....	.30
7—A. C. Receptacle .....	.25	18—Audio Resistor .....	.30
8—Tone Control Resistor .....	.50	19—Socket Assembly	1.00
9—Tone Control Condenser .....	.25	20—Audio Cable .....	.50
10—Push Pull Transformer Pack	1.25	21—Speaker Field Coil	1.75
11—D. C. Cable .....	.35	22—Cone and Voice Coil Assembly	2.50

RADIO ACCESSORIES

ARCTURUS

BLUE ^{A-C} LONG-LIFE TUBES

The Finest Tube Ever Developed—“Retube with Arcturus”

Arcturus Tubes are the result of extensive research work to develop the finest tube possible to build. The exclusive advanced design of Arcturus Blue Tubes eliminates mechanical background noises which so often mar reception with ordinary tubes. Made in all popular types for all sets.

ARCTURUS TUBES ARE: QUICK HEATING, HUMLESS, LIFE-LIKE IN TONE, LONG LIVED



No. 127
Detector Amplifier

Fil. Volts, A.C. 2.5
 Fil. Current 1.75
 Plate Volts, Max. 180
 The original quick heating detector.

List Price, \$1.00
YOUR COST, 59c

No. 124
Screen-Grid
Detector-Amplifier

Fil. Volts, A.C. 2.5
 Fil. Current 1.75
 Plate Volts 180
 Grid Volts, Neg. 1.5
 Screen Volts 75

List Price, \$1.60
YOUR COST, 95c

No. 551
Variable Mu
Screen-Grid

Fil. Volts 2.5
 Fil. Current 1.75
 Plate Volts 250
 Grid Bias 3.0
 Screen Volts 90
 Plate Current 6.5 M.A.

List Price, \$1.60
YOUR COST, 95c

No. PZ
Output Pentode

Fil. Volts 2.5
 Fil. Current 1.50
 Plate Volts 250
 Grid Bias 16.5
 Screen Bias 250
 Plate Current 32.5

List Price, \$1.55
YOUR COST, 92c

No. 126
R.F. Amplifier

Fil. Volts, A.C. 1.5
 Fil. Current 1.05
 Plate Volts 67.5 to 135
 Grid Volts, Neg. 4.5

List Price, 80c
YOUR COST, 48c

No. 145
Power Amplifier

Fil. Volts, A.C. 2.5
 Fil. Current 1.5
 Plate Volts 250
 Grid Bias, Neg. 50

List Price, \$1.10
YOUR COST, 65c

No. 071-A
Power Amplifier

Fil. Volts, A.C. 5.0
 Fil. Current25
 Plate Volts 180
 Grid Bias, Neg. 40.5

List Price, 90c
YOUR COST, 54c

No. 180
Full Wave Rectifier

Fil. Volts, A.C. 5.0
 Fil. Current 2.0
 Plate Volts 300
 D.C. Output,
 260 Volts 125 M.A.

List Price, \$1.00
YOUR COST, 59c



No. 181
Half Wave Rectifier

Fil. Volts 7.5
 Fil. Current 1.25
 Plate Volts 750
 D.C. Output,
 620 Volts 110 M.A.

List Price, \$5.00
YOUR COST, \$2.94

No. 150
Power Amplifier

Fil. Volts 7.5
 Fil. Current 1.25
 Plate Volts 450
 Grid Bias 84
 Plate Current 55

List Price, \$6.00
YOUR COST, \$3.53

No. 101-A
Detector-Amplifier
for Battery Sets

Fil. Volts 5.0
 Fil. Current25
 Plate Volts 45-135
 Grid Bias 4.5-9
 Plate M.A. 2.5-3

List Price, 75c
YOUR COST, 44c

No. 012-A
Power Amplifier
for Battery Sets

Fil. Volts 5.0
 Fil. Current25
 Plate Volts 90-157
 Grid Bias 7-10.5
 Plate M.A. 3-9.5

List Price, \$1.50
YOUR COST, 88c



6 Volt
AUTO-RADIO TUBES

6.2 Volt D. C. heater tubes, especially designed for automobile receivers.

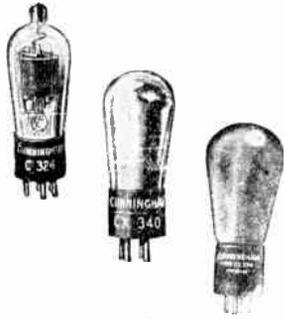
	List Price	YOUR COST
No. 136-A, Screen Grid	\$2.75	\$1.62
No. 137-A, Det. Amp.	1.75	1.03
No. 138-A, Pentode	2.75	1.62
No. 139-A, Variable Mu.	2.75	1.62

SPECIAL 15 VOLT ARCTURUS TUBES

We carry a full line of these 15 volt tubes in stock at all times.

No.	List Price	YOUR COST
26—Detector	\$4.00	\$2.40
28—Amplifier	3.00	1.80
48—Amplifier	3.00	1.80
30—Power Amplifier	3.00	1.80
40—Power Amplifier	3.00	1.80
32—High Mu	3.00	1.80
22—Screen Grid	7.50	4.50





Cunningham

RADIO TUBES



AT NEW LOW PRICES

C-327—AC Detector
 Filament Volts2.5
 Filament Amperes1.75
 Plate Volts90—180
 Grid Volts6—13.5
 List Price, \$1.00
YOUR COST, 59c

C-324
AC Screen-Grid Amplifier
 Filament Volts2.5
 Filament Amperes1.75
 Plate Volts180—250
 List Price, \$1.00
YOUR COST, 59c

C-324A
 Same as 324, but fast heater.
 List Price, \$1.60
YOUR COST, 95c

CX-345—Amplifier
 Filament Volts2.5
 Filament Amperes1.5
 Plate Volts180—250
 Grid Volts33—50
 List Price, \$1.10
YOUR COST, 65c

C-347—Power Pentode
 A 5-prong power tube requiring 2.5 volts for filament lighting. Plate voltage, 250 volts. Grid Bias, 16.5 volts. Amplification factor, 100.
 List Price, \$1.55
YOUR COST, 92c

C-335—Variable MU
 A new development—designed for Super-Control Screen Grid Amplification. Five prongs. Filament, 2.5 volts. Plate 250 volts. Grid, 3 volts.
 List Price, \$1.60
YOUR COST, 95c

CX-371A
Power Amplifier
 Filament Volts5.
 Filament Amperes25
 Plate Volts135—180
 Grid Volts27—40
 List Price, 90c
YOUR COST, 54c

CX-326—Amplifier
 Filament Volts1.5
 Filament Amperes1.05
 Plate Volts90—180
 Grid Volts6—13.5
 List Price, 80c
YOUR COST, 48c

CX-350—Power Amplifier
 Filament Volts7.5
 Filament Amperes1.25
 Plate Volts250—450
 Grid Volts45—84
 List Price, \$6.00
YOUR COST, \$3.53

CX-310—Power Amplifier
 Filament Volts7.5
 Filament Amperes1.25
 Plate Volts250—425
 Grid Volts18—35
 List Price, \$7.00
YOUR COST, \$4.12

CX-381
Half Wave Rectifier
 Filament Volts7.5
 Filament Amperes1.25
 Plate Volts750 Max.
 DC Output Current110
 DC Output Voltage620
 List Price, \$5.00
YOUR COST, \$2.94

CX-380
Full Wave Rectifier
 Filament Volts5.
 Filament Amperes2.00
 Plate Volts300 per plate
 DC Output Current125
 DC Voltage260
 List Price, \$1.00
YOUR COST, 59c

CX-301A
Detector-Amplifier
 Filament Volts5.
 Plate Volts45—135
 Filament Amperes25
 List Price, 75c
YOUR COST, 45c

CX-300A
Special Detector
 Filament Volts5.
 Filament Amperes25
 Plate Volts45
 List Price, \$4.00
YOUR COST, \$2.36

CX-112A
Detector-Amplifier
 Filament Volts5.
 Filament Amperes25
 Plate Volts90—180
 Grid Volts9
 List Price, \$1.50
YOUR COST, 89c

CX-322—DC Screen-Grid
 Filament Volts3.3
 Filament Amperes132
 Plate Volts135
 Screen Volts45
 List Price, \$4.50
YOUR COST, \$2.65

CX-340
High Mu Detector
 Filament Volts5.
 Filament Amperes26
 Plate Volts135—180
 Grid Volts1.5
 List Price, \$3.00
YOUR COST, \$1.77

New 2-Volt Tubes
CX-330—General Purpose
 List Price, \$1.60
YOUR COST, 95c
CX-331—Output Tube
 List Price, \$1.60
YOUR COST, 95c
CX-332—Screen Grid
 List Price, \$2.30
YOUR COST, \$1.36
CX-333—Power Pentode
 List Price, \$2.75
YOUR COST, \$1.62

New 6-Volt Tubes
For Auto Radio
CX-336—Screen Grid
 List Price, \$2.75
YOUR COST, \$1.62
CX-337—Detector-Amplifier
 List Price, \$1.75
YOUR COST, \$1.03
CX-338—Pentode Amplifier
 List Price, \$2.75
YOUR COST, \$1.62

C-299—CX-299
Detector-Amplifier
 Filament Volts3.3
 Filament Amperes06
 Plate Volts20—90
 Grid Volts4.5
C-299, List Price, \$2.75
YOUR COST, \$1.62
CX-299, List Price, \$2.50
YOUR COST, \$1.47



MARVIN MASTER BUILT RADIO TUBES

A high quality radio tube built by master craftsmen with years of experience in vacuum tube design and construction.

No.	Type	List Price	YOUR COST
M-226, R. F. Amplifier.....		\$0.80	\$0.40
M-227, Det.-Amp.		1.00	.50
M-224A, Screen Grid		1.60	.80
M-280, Full Wave Rect.....		1.00	.50
M-281, Half Wave Rect.....		5.00	2.50
M-171A, Power Amp. ....		.90	.45
M-245, Power Amp.		1.10	.55
M-210, Power Amp.		7.00	3.50
M-201A, Det.-Amp. ....		.75	.38
M-112A, Power Amp.		1.50	.75
M-199X, Det.-Amp.		2.50	1.25
M-199V, Det.-Amp.		2.75	1.38
M-120, Power Amp.		3.00	1.50
M-235, Var. Mu		1.60	.80
M-247, Pentode		1.55	.78
M-250, Power Amp.		6.00	3.00

SPECIAL MARVIN TUBES FOR SPARTON & KELLOGG SETS

We carry a full line of these special type tubes in stock at all times. These are exact replacement tubes for Sparton, Kellogg, Marti, MacMillan, Amplex and many other receivers.

No.	List Price	YOUR COST
M-182—For Sparton Sets	\$2.25	\$1.13
M-183—For Sparton Sets	2.00	1.00
M-484—For Sparton Sets	1.75	.88
M-485—For Sparton Sets	1.75	.88
M-401—For Kellogg, Marti, Amplex, etc.	3.00	1.50

Marvin Master-Built Tubes Are Fully Guaranteed

RADIO ACCESSORIES

BURGESS "A" "B" AND "C" BATTERIES

Burgess Batteries need no introduction to the radio fraternity. They are used the world over by scientific expeditions and are the first choice of leading amateurs and experimenters. You can always rely on Burgess Batteries. A size and type for every requirement.

BURGESS SUPER "B's"

Greater capacity means longer life—super power—when you purchase Burgess Super "B" Batteries you get many more ampere hours of highly satisfactory battery service.



No. 21308—45 Volts

No. 21308

An oversized Super "B" battery, designed to give maximum electrical capacity for sets of high current drain.

Terminals to give 22½+ and 45+. 30 individual high test cells. Size—Height 7¾", Width 8¼", Depth 4½". Weight 14½ pounds.

List Price, \$3.25

YOUR COST, \$2.51

Unit Pkg. of 6, \$2.28 each

No. 22308

A medium size Super "B" designed to give 30 to 40 per cent greater capacity than the 2308 type. Terminals at 22½+ and 45+. True to its name, a Super "B" battery.

30 individual high test cells. Size—Height 7⅞", Width 7⅞", Depth 3¼". Weight, 9 lb. 1 oz.

List Price, \$2.35

YOUR COST, \$1.82

Unit Pkg. of 6, \$1.65 each



No. 22308—45 Volts

BURGESS STANDARD "B" BATTERIES

The construction of Burgess Standard "B" Batteries is the very best obtainable. They are built to give long service life to the average radio set up to seven tubes.



No. 10308—45 Volts

Intended for use on sets drawing 20 milliamperes or more. Size—Height 7", Width 8", Depth 4¼".

Weight, 11 lbs., 14 ozs.

List Price, \$2.60

YOUR COST, \$2.00

Unit Pkg. of 6, \$1.82 Each



No. 2308—45 Volts

Recommended for sets drawing 10 milliamperes or more. Size—Height 7", Width 8⅛", Depth 3⅞".

Weight, 8 lbs., 8 ozs.

List Price, \$1.75

YOUR COST, \$1.35

Unit Pkg. of 6, \$1.23 Each

BURGESS AUTOMOBILE RADIO "B" BATTERIES

Automobile Radio "B" Batteries must be built right! They must withstand constant vibration, extremes in heat and cold and still be capable of many hours of long, dependable, uniform power. Burgess Radio "B" Batteries deliver the maximum service most economically under just such conditions—and that is just why they are being used all over the United States by police departments having radio equipped police cars. Remember, quality purchases are economical purchases. Insist upon Burgess Black and White Striped Radio "B" Batteries.



No. 2305—45 Volts

No. 2305—Private Car Type—Size: Height 6 15/16", Width 8 15/16", Depth 3 1/8". Weight, 9 lbs.

List Price, \$2.25 Your Cost, \$1.74 Unit Pkg. of 6, \$1.58 ea.

No. 21305—Police Car Type—Size: Height 7 1/8", Width 8 5/32", Depth 4 1/8". Weight, 15 lbs. 4 oz.

List Price, \$3.75 Your Cost, \$2.81 Unit Pkg. of 6, \$2.63 ea.

BURGESS PORTABLE "B" BATTERIES



No. 5308—45 Volts

A smaller 45-volt battery of light weight and convenient dimensions for use in portable sets. Terminals for 22½+ and 45+.

Size—Height 5⅞", Width 4¼", Depth 2½". Weight, 3 lbs., 4 ozs.

List Price, \$2.00

YOUR COST, \$1.54

Unit Pkg. of 5, \$1.40 ea.

BURGESS "C" BATTERIES



No. 2370

No. 2370—4½ Volts Standard 4½ volt "C" battery. Tapped at 1½, 3 and 4½ volts. Weight, 1 lb.

List Price, 40c

YOUR COST, 31c

Unit Pkg. of 10, 28c each

No. 5156—22½ Volts

Standard 22½ volt "C" battery with taps at 3, 4½, 16½, and 22½ volts. Can also be used as 22½ volt "B" battery. Weight, 1 lb., 8½ ozs.



No. 5156

List Price, \$1.25

YOUR COST, 97c

Unit Pkg. of 10, 88c each

No. 5360—4½ Volts

Specially designed for set analyzers.

List Price, 40c

YOUR COST, 31c

BURGESS "B" BATTERIES

No. 6-A Radio "A" Cell 1½ Volts

The design of this battery makes it ideal for use on the filament circuit of receivers using dry cell tubes such as the 99 and 30 types.

Careful construction assures long life.

Size—6" High, 2½" diameter. Weight, 2 lbs., 5 oz.

List Price, 50c

YOUR COST, 40c

Unit Pkg. 25 Cells, 35½c ea.

Unit Pkg. Weight, 62 lbs.



For additional Burgess Battery types send for Special Burgess Bulletin which includes aircraft and high potential "B" Batteries.

RADIO ACCESSORIES

DUO TAPS*

**Flush Type Polarized Radio Aerial and Ground Connector
in Combination with Single 110 Volt Receptacle**



New Duo Tap

Aerial and Ground connections and power for your radio set all from a single gang outlet. Made possible because of new construction and separator plate meeting latest Underwriters' requirements. Furnished complete with polarized aerial and ground cap and separator plate. Insures correct and positive connections for your radio. Approved by Underwriters Laboratories.

Cat. No.	List Price	YOUR COST
34—Brass Plate	\$1.70	\$1.00
36—Brown Bakelite Plate	1.75	1.03
38—Ivory Plate	1.95	1.15
35—Receptacle without Plate	1.60	.94
37—Polarized Aerial and Ground Cap Only .....	.20	.12

FLUSH HANDY TAP*

Flush Type Polarized Radio Aerial and Ground Connector



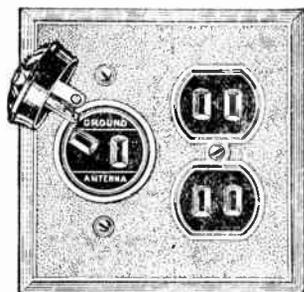
Flush Handy Tap

For use where concealed aerial and ground connections only are required and power for your radio is furnished from another outlet. Made of bakelite. Polarized Aerial and Ground Cap is included. Approved by Underwriters Laboratories.

Cat. No.	List Price	YOUR COST
25—Brass Plate	\$1.00	\$0.58
26—Bakelite Plate	1.10	.64
27—Ivory Plate	1.35	.79
37—Polarized Aerial and Ground Cap Only .....	.20	.12

DUPLEX DUO TAP*

**Flush Type Polarized Radio Aerial and Ground Connector
in Combination with Duplex 110 Volt Receptacle**



Duplex Duo Tap

For use where concealed aerial and ground connections are desired in combination with duplex electric receptacle. This gives an extra outlet for lamps, appliances, etc. Made of bakelite. Polarized aerial and ground cap and separator plate are included. Approved by Underwriters Laboratories.

Cat. No.	List Price	YOUR COST
42—Brass Plate	\$2.00	\$1.17
43—Bakelite Plate	2.20	1.29
45—Ivory Plate	2.60	1.53
37—Polarized Aerial and Ground Cap Only .....	.20	.12

NO. 188 AERIAL SPRING TIGHTENER



For holding aerial wire tight and straight. Prevents breakage when swaying in wind or if covered with heavy snow and ice or if anchored to trees, etc.

List Price, \$0.50

YOUR COST, \$0.29

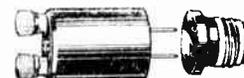
FLERON TONE CONTROL



A.C. sets not equipped with Tone Control offer a profitable outlet for this device. Bakelite construction throughout. Full range of tone from treble to deep rich bass. Panel type easily installed by drilling one hole. Packed in individual cartons with full directions.

List Price, \$3.50

YOUR COST, \$2.06



No. 28

LAMP SOCKET AERIAL

A substitute for the outside aerial. Can be used for demonstrations or permanent installations wherever it is impossible to erect outside aerial. Made of black bakelite. Complete with plug and directions.

List Price, \$1.50

YOUR COST, \$0.88



No. 32

DUO TAP

Surface Type Polarized Radio Aerial and Ground Connector in Combination with 110-Volt Receptacle

A handy device for extending the 110-volt wires to the radio set and providing a connector for set aerial and ground wires to outside aerial and ground. Makes a neat workmanlike installation. Complete with special polarized cap and mounting screws. Separate polarized caps available.

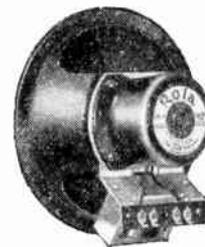
Cat. No.	List Price	YOUR COST
32—Duo Tap	\$0.75	\$0.44
30—Cap Only .....	.20	.12

RADIO ACCESSORIES

DYNAMIC AND MAGNETIC SPEAKERS

ROLA DYNAMICS

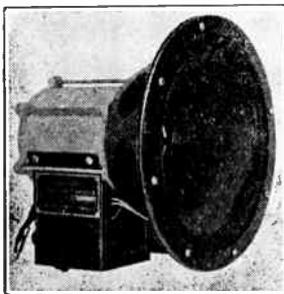
A new series of the famous Rola Dynamic Speakers, especially designed for use in midget receivers. The most popular midget dynamic speaker on the market. Used by the majority of manufacturers. Furnished with various type transformers for different output tube combinations.



Rola 7" D.C. Midget Dynamic, 4700 ohm field	YOUR COST \$3.95
Field Coil Only for Above Speaker	1.50
Input Transformer for Above Speaker	1.25

MAJESTIC DYNAMIC SPEAKER

As Used in Majestic 70, 80 and 90 Receivers

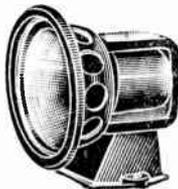


2730 ohms D.C. field. Without output transformer. Diameter of cone, 9". Complete with connecting cable and terminal strip. Very rugged construction and suitable for replacement in other sets and for public address installations.

List Price, \$30.00 **YOUR COST, \$5.95**

R-32 VICTOR DYNAMIC SPEAKER

Genuine RCA-Victor D. C. Dynamic Speaker. Same as used in the Victor R-32, RE-45 & RE-75 receivers. Furnished complete with cord and plug.



YOUR COST, \$5.95

B.B.L. MAGNETIC SPEAKER CHASSIS



Uses the famous B.B.L. Magnetic Unit, famous the world over. The best magnetic chassis ever built. Ideal for use in hotel centralized radio systems. 9" Burtex cone.

Supplied complete with cord.

YOUR COST, \$3.25

MAGNAVOX D. C. DYNAMIC SPEAKER

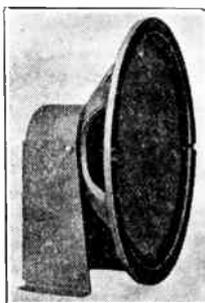
A 12 inch D. C. dynamic speaker with 2500 ohm field.

Made by the pioneer speaker manufacturer.

A wonderful speaker value.

List Price, \$25.00

YOUR COST, \$4.95



RCA LOUD SPEAKER 103



RCA Loud Speaker 103 is beautiful in appearance and superb in its ability to reproduce music and speech faithfully. Its frame and pedestal are molded to resemble handcarved oak, while a beautiful tapestry medallion conceals the mechanism and completes the decorative design of the instrument.

List Price, \$18.00 **YOUR COST, \$3.50**

MAGNETIC UNITS

The original Baldwin Rival Units complete with cover.

YOUR COST, 75c

RCA MAGNETIC UNITS

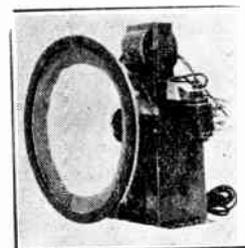
Standard replacement unit for Radiola Super VIII and Radiola UZ-1320 Horn Speaker.

YOUR COST, 89c

ALL TYPES SPEAKERS REPAIRED

Let Us Estimate

TEMPLE A. C. DYNAMIC SPEAKER



The famous Templetone dynamic speaker chassis has built-in dry rectifier for use on 110 volt, 60 cycle, A. C. current. Remarkable for fidelity of tone.

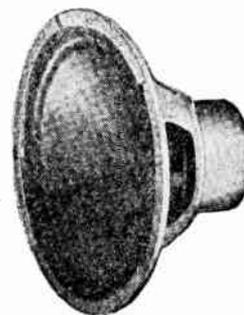
List Price, \$20.00 **YOUR COST, \$4.95**

BALDWIN D. C. DYNAMIC SPEAKER

Genuine Baldwin D.C. dynamic chassis.

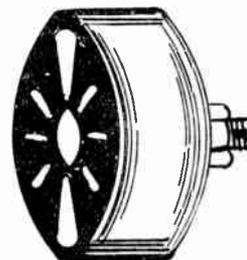
7½" cone, 5000 ohm field. Light in weight, making it suitable for midget sets.

YOUR COST, \$4.95



MAGNAVOX AUTO DYNAMIC SPEAKER

Especially designed for use with automobile sets. Has 6 volt field winding, taking current from car battery. Full, rich tone without rasp or rattle. Completely enclosed in sturdy steel case.



Designed for single hole dashboard mounting. Easy to install.
List Price, \$10.00 **YOUR COST, \$4.95**

RADIO ACCESSORIES

I. C. A. PRODUCTS

I. C. A. MULTI-SPEAKER RELAY

The I. C. A. Multi-Speaker Relay is a new compact device with which the set owner, service man or radio dealer can easily test, compare and operate a number of loud speakers 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 Multi-Speaker Relay is very efficient for homes, apartment houses, hotels, hospitals, radio dealers, laboratories, etc., where it is desired to compare or operate several speakers in different rooms or locations. Its capacity is four speakers for comparison or to play two speakers at any one time. Sturdily built on bakelite with a brown crystalline finish.

I. C. A. PROGRAM SELECTOR

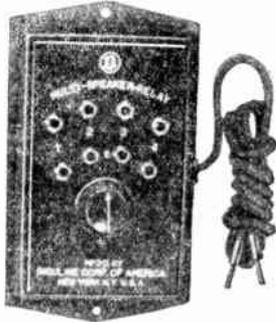
For Switching to Desired Program and Regulating Volume Reception
The Program Selector is a special outlet designed for apartments and hotels which have been wired to furnish radio programs to individual rooms or sections from a number of master radio receivers.

Each room is provided with a Loud Speaker, and a Program Selector, thereby permitting the selection of any one of two to five programs, and permitting the adjustment of the volume to a suitable level.



No. 74
List Price, \$3.50

YOUR COST, \$2.06



No. 79

List Price, \$2.50

YOUR COST, \$1.47

I. C. A. TEST LEADS USING I. C. A. SOLDERLESS PLUGS

The I. C. A. Test Leads are a convenience to the set owner and a necessity for the radio service man and radio dealer. They are unsurpassed for testing sets and tracing trouble in sets where shorts, opens and other defects common to radio sets are encountered. Can be quickly attached to any meter for testing batteries or any electrical apparatus.

Made of sturdy Insuline tubing, I. C. A. Solderless Plugs and the best grade of I. C. A. Wire. Supplied with red and black tubing for positive and negative identification.

The I. C. A. Test Leads are made in two types. One type using tips and the other type using spades.

I. C. A. TEST LEADS (Spade Type)

No. 355

I. C. A. TEST LEADS (Tip Type)

No. 995

No. 1145
List Price,
\$1.00 Complete

YOUR COST, 59c

List Price, 75c a pair

YOUR COST, 45c

List Price, 75c a pair

YOUR COST, 45c

No. 1145 I. C. A. Test Leads are identical in construction to I. C. A.'s No. 355 and 995, excepting that they are made of heavy and sturdy Insuline Tubing and have long prods enabling the user to reach into very tight and narrow spots.

BAKELITE THROW SWITCHES



	List Price	YOUR COST
235—Single Pole, Single Throw.....	\$0.25	\$0.15
236—Single Pole, Double Throw.....	.30	.18
237—Double Pole, Single Throw.....	.35	.21
238—Double Pole, Double Throw.....	.50	.30
1216—Single Pole, Single Throw.....	.50	.30
1217—Single Pole, Double Throw.....	.60	.36
1218—Double Pole, Single Throw.....	.70	.42
1219—Double Pole, Double Throw.....	.80	.48
1220—Three Pole, Double Throw.....	1.20	.71
1221—Four Pole, Single Throw.....	1.40	.83
Four Pole, Double Throw.....	1.50	.88

Mounted on highly polished bases of black bakelite.

I. C. A. PLUG-IN COIL FORMS



	List Price	YOUR COST
1108—4 Prong, Black	\$0.30	\$0.18
1109—4 Prong, Green .....	.30	.18
1110—4 Prong, Red .....	.30	.18
1111—4 Prong, Blue .....	.30	.18
1112—4 Prong, Brown .....	.30	.18
1113—5 Prong, Black .....	.35	.21
1114—5 Prong, Brown .....	.35	.21
1115—5 Prong, Red .....	.35	.21
1116—5 Prong, Blue .....	.35	.21
1117—5 Prong, Green .....	.35	.21

The I. C. A. Plug-In Coil Forms for short wave or broadcast band coils are made of molded bakelite and fit any standard 4 or 5 prong socket.

ELECTRO-STATIC LIGHTNING ARRESTER



No. 340-A

Has a choke coil and condenser mounted in the arrester connected between aerial and set terminals. This aids in filtering static noises that are inducted into set from the aerial.

List Price, \$1.00
YOUR COST, 59c

I. C. A. SUB-PANEL SOCKETS

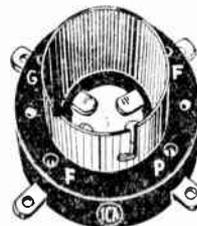
The I. C. A. Sub-Panel Sockets are made of sturdy phosphor bronze contacts and bakelite. Sockets are so designed that they are accurate and will fit all makes of tubes. They are supplied for 5 prong tubes, also for 4 prongs, covering all makes of tubes.



	List Price	YOUR COST
1096—Plain, 5 Prong Socket	\$0.15	\$0.09
1118—Plain, 4 Prong Socket .....	.15	.09

Also furnished with any type marking at no extra cost.

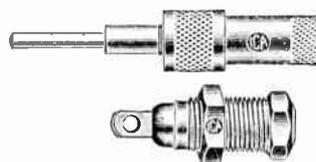
I. C. A. 50 WATT TRANSMITTING SOCKET



No. 1131

The base of this socket is made of molded bakelite having a high dielectric strength, extremely high acid heat resistance qualities and low moisture absorption, all of which reduce any possible leakage to the minimum. The socket shell is made of $\frac{1}{16}$ " nickel-plated brass securely molded into the base. The contacts are of sturdy phosphor bronze, each contact lettered on top of the base to assure proper connection. Diameter is $3\frac{3}{8}$ ", height 2".

List Price, \$3.00 **YOUR COST, \$1.77**



SOLDERLESS PLUGS

List Price, 10c each
YOUR COST, 6c

TIP-JACKS

List Price, 6c each
YOUR COST, 3½c

RADIO ACCESSORIES

BUD RADIO PRODUCTS

BUD POLICE THRILLER

What a thrill to get police calls and perhaps witness a daring robbery or pick up some other event which never appears in print!

Bud Police Thriller fills a long wanted need for a simple device that can easily be attached to the radio set without the necessity of changing any wiring in the set or incurring any expense other than the price paid for Bud Police Thriller.

Bud Police Thrillers are made in two types. One type is to be used where there is ample space for the adapter and tube to fit into the socket. This type is known as our Catalog No. 2400, which is for Screen Grid Detector, and No. 2700, which is for sets using No. 227 or 327 tubes for detectors. The other type is to be used where the cabinet of the radio set is so constructed that the No. 2400 or 2700 Police Thriller would not fit in because of insufficient space in cabinet. Because of this we have designed our No. 2401 and 2701, which has a plug attached to the Police Thriller. This plug is to be placed into Detector Tube Socket.

Bud Police Thriller when connected to broadcast receiver changes the tuning from 80 to 200 meters on the broadcast receiver. This will enable you to bring in amateur broadcasts in addition to Police Calls.

Instruction for operation of Bud Police Thriller in broadcast receiver is printed on each box in which Bud Police Thriller is packed.

No. 2400 for sets using screen grid detector tubes.

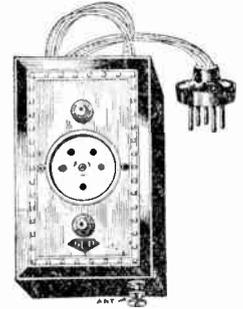
No. 2700 for sets using 227 or 327 detector tubes.

List Price, \$2.50 YOUR COST, \$1.47

No. 2401 for sets using screen grid detector tubes.

No. 2701 for sets using 227 or 327 detector tubes.

List Price, \$3.50 YOUR COST, \$2.06



BUD NEUTRALIZING AND ALIGNMENT TOOLS

Bud Neutralizing and Alignment Tools are so constructed that neutralizing any make of Radio Set or aligning condensers becomes a pleasure instead of a lot of unpleasant cuss words.



No. 287—Bud Neutralizing and Compensating Screw Driver

List Price, 50c YOUR COST, 30c

BUD 4-IN-1 NEUTRALIZING AND ALIGNMENT TOOL



No. 118

List Price, \$1.25 YOUR COST, 74c

No. 119-M Majestic Attachment for BUD 4-IN-1 TOOL

List Price, 25c YOUR COST, 15c

No. 119-C Crosley Attachment for BUD 4-IN-1 TOOL

List Price, 25c YOUR COST, 15c

STANDARD TEST LEADS

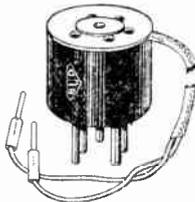


Bud Test Leads are a convenience to the set owner, and a necessity for Radio Service Men. They are unsurpassed for testing sets and tracing trouble in radio sets where shorts, opens and other defects common to radio sets are encountered. Bud Test Leads consist of one Black for negative, and one Red for positive identification.

List Price, 75c per pair

YOUR COST, 44c

BUD PHONO OR MICROPHONE ADAPTER



No. 299

Enables the use of a phonograph pick-up for any receiver not equipped with phone jacks.

List Price, \$1.00

YOUR COST, 59c

BUD AUTO RADIO SILENCER KITS



No. 137 for Four (4)

Cylinder Cars \$4.50 \$2.65

No. 138 for Six (6)

Cylinder Cars 5.80 3.42

No. 139 for Eight (8)

Cylinder Cars 7.10 4.18

List Price YOUR COST

INDIVIDUAL PARTS

	List Price	YOUR COST
No. 128 Bud Spark Plug Suppressor	\$0.65	\$0.39
No. 129 Bud Spark Distributor Suppressor	.65	.39
No. 134	.65	.39
Designed especially for Buick Cars, and other cars where spark plugs are not easily accessible.		
No. 133 Bud Spark Plug Suppressor	.65	.39
For Model A Fords and other type cars which require 8/32" Female Thread for convenience in mounting.		
No. 127 Bud Generator Suppressor	1.25	.74
Finest type of Generator Silencer on the market. A bracket is attached for mounting on Generator.		

BUD EVER-READY TEST LEADS

Bud Ever-Ready Test Leads are a convenience and a necessity to set owners and radio service men. They are unsurpassed for testing sets and tracing trouble in radio sets, where shorts and other defects are encountered.

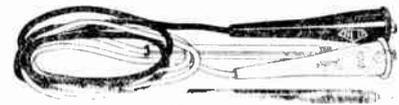
Bud Ever-Ready Test Leads are made of the finest quality of insulated, flexible wire with silk covering over the rubber insulating. Black is used to denote negative (-) and Red is used to denote positive (+) identification.



No. 282

Supplied with powerful spring clips, which make connections in a jiffy. Rubber insulated coverings over spring clips are used to prevent shorts and shocks. Length of wires 24".

List Price, pair, \$1.00 Your Cost, 59c



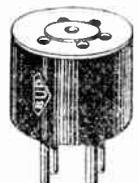
No. 284

Test Leads enable the testing of a circuit without having to remove the insulation from the wire. The sharp needle point which is inserted into the chuck enables the service man to penetrate the insulation on wires without injuring the insulation with spring clips and rubber insulated covering on other ends. Length of wires, 42".

List Price, pair, \$1.75 Your Cost, \$1.03

BUD 45 TO PENTODE ADAPTER

Enables the radio set owner to modernize his radio set. All that is necessary is to remove the 245 power tubes from radio set, and insert in their place Bud 45 to Pentode Adapter. Then place Pentode tube in adapter. No wiring changes are necessary.

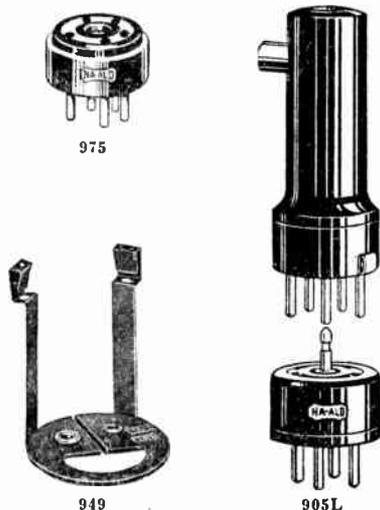


No. 123

No. 123 Bud 45 to Pentode Adapter
List Price, \$1.00 YOUR COST, 59c

RADIO ACCESSORIES

NA-ALD ADAPTERS—An Adapter for Every Purpose



ATTENTION SERVICEMEN

Save your sockets in tube checkers and analyzers. No matter how good the contact is in any tube checker, continual use will sooner or later break down the contacts. Use adapter 944R and 955R. They'll take the grief and when they wear out you can replace them without rewiring checker. Contacts have rubber ring reinforcement to give long life to contacts.

List Price, \$1.25 **YOUR COST, 75c**

NEW ANALYZER PLUGS

These are the newest developments in analyzer plugs. They can be used to replace plugs on test equipment or for connecting bench testing equipment for service departments or factory.

905L—This plug has a five-prong UY base and the handle has a screen grid cap.

It is supplied with a five-foot, six-wire cable. The five wires going directly to the prongs and the sixth to the screen grid cap. The latch is not alive and the center post in the adapter No. 954DS is simply a locking stud over which the latch slips, engaging a ring in the stud. Thus, the adapter will not come off unless the latch is pressed.

	List Price	YOUR COST
Without cable	\$3.00	\$1.80
With five-foot cable	5.00	3.00
954DS Adapter	1.25	.75

904L—This plug has a four-prong UX base and the handle has a screen grid cap.

It is supplied with a five-foot, six-wire cable. Four wires go to the prongs, the fifth to the latch. This latch engages a stud or center post in a No. 945S adapter, making contact to the cathode prong of the UY base. The sixth wire goes to the screen grid cap.

The plug latches on the No. 945S center stud in the adapter so that it is always removed with the analyzer plug.

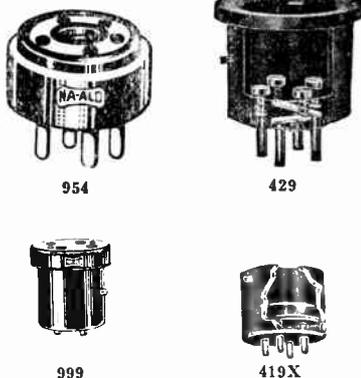
	List Price	YOUR COST
Without cable	\$3.00	\$1.80
With five-foot cable	5.00	3.00
954DS Adapter	1.25	.75

An extra wire can be had in cable on any plug leading to connecting hole in side for testing Pentode tubes. Extra cost, \$1.00.

Extra length of cable special six-wire, 25c per foot; seven-wire 35c per foot. Filament wire extra heavy .21

NEW ADAPTERS

	List Price	YOUR COST
944WE—For putting UX tubes in Western Electric 205D	\$2.00	\$1.20
979WE—For putting a Western Electric 205D tube in a UX socket	2.00	1.20



NEW ADAPTERS FOR TESTING PENTODE TUBES

	List Price	YOUR COST
954KPC—UY to UX. Current for cathode circuit brought from plate	\$1.00	\$0.60
975—UY to UY. Cathode prong of adapter is dead. Current for cathode brought from plate circuit.	1.00	.60
974—Twin adapter for testing pentode tubes in Jewell Analyzers.	2.50	1.50
975H—Twin adapter for use with Hickok instruments. Cathode prong of adapter is dead. Current from plate prong brought to cathode hole in top. Lead out from plate hole in top. No connection through on plate circuit.	2.50	1.50
945GL—UX to UY. Both filament and plate connections through. Grid hole to cathode prong. Grid prong has 6" lead with screen grid clip. For use with Weston instruments	1.50	.90
954GL—UY to UX. Plate and both filaments connections through. Cathode hole connected to grid prong. Six-inch lead with fork terminal from grid hole. For use with Weston instruments.	1.50	.90
954K—UY to UX. Grid, plate and heater connections through. Cathode circuit brought out. For use with Sterling instruments	1.25	.75
976—UY to UY. Cathode prong is dead. Eight-inch wire lead from cathode hole. For use with Supreme instruments	1.50	.90
977—UX to UY. Grid, plate and filament plus connections through. Heater minus prong connected to center stud of adapter. Cathode prong has lead for connecting to bolt of Analyzer Plug. For use with Supreme instruments.	1.75	1.05

ADAPTERS

For Connecting Pickups, Microphones, Voice Recording Equipment and Tone Controls

	List Price	YOUR COST
94R—Connects into plate circuit of UY tubes	\$1.50	\$0.90
948A—Connects into plate circuit of UY tubes with by-pass condenser and switch for pickup operation	4.00	2.40
949—Connects to grid and filament of UX tubes or grid and cathode of UY tubes	.60	.36
949P—Connects to plate of either UX or UY tubes	.60	.36
949SP—Used in pairs for connecting plate prongs of power tubes in sets having push pull amplifiers to tone control, magnetic speaker or phones for the deaf.	.75	.45
955KT—Connects to cathode of circuit of UY tubes in screen grid sets	1.25	.75



REPLACEMENT AND REPAIR PARTS ADAPTERS

	List Price	YOUR COST
954—For putting UY Tubes in a UX or UV Socket	\$1.00	\$0.60
945—For putting UX Tubes in a UY Socket	1.00	.60
999—For putting UX Tubes in a UV199 Socket	1.00	.60
429—For putting UV199 Tubes in a UX or UV201A Socket	.75	.45
419X—For putting UX199 Tubes in a UV201A Socket	.35	.21
421X—For putting UX Tubes in a WD11 Socket	.75	.45
968—For putting WD11 Tubes in a UX or UV201A Socket	1.25	.75
944N—UX Neutralizing Adapter one F dead	1.00	.60
955N—UY Neutralizing Adapter one F dead	1.00	.60
944GP—Makes Detector of any stage UX Tube, breaking grid circuit for grid leak and condensers. Also breaks plate with phone tip terminals for headphones	1.25	.75
955GP—Makes Detector of any stage UY Tube, breaking grid circuit for grid leak and condenser. Also breaks plate with phone tip terminals for headphones.	1.25	.75
944GPL—For Measuring Voltage Impressed on both plates of No. 280 Tubes	1.50	.90
944JY—UX Adapter with plate and grid crossed	1.50	.90
955GS—For testing AC Screen Grid Tubes	1.50	.90
972—For adapting a Western Electric Type 215A tube to a UX or UV Socket	1.25	.75
973—For adapting a UV or UX tube to a Western Electric Type 215A Socket	1.25	.75
944PTT—UX Universal Testing Adapter with split plate. All other connections brought out to phone tip terminals	1.25	.75
955PTT—UY Universal Testing Adapter with split plate. All other connections brought out to phone tip terminals	1.25	.75
953U—UY Neutralizing Adapter.	1.00	.60
965—UX Tube in a UX Socket 8" leads from both filaments	1.00	.60

INTERESTING SPECIAL PURPOSE ADAPTERS

	List Price	YOUR COST
921S—Cushion mount adapter for UX or UV 201A	\$1.25	\$0.75
944N—UX Neutralizing Adapter	1.00	.60
955N—UY Neutralizing Adapter	1.00	.60
934—Oscillating Control Adapter	1.25	.75
944GP—UX makes detector of any stage	1.25	.75
955GP—UY makes detector of any stage	1.25	.75
926—UX Adapter with filament leads brought out for using different voltage in filament than supplied by set	1.00	.60

RADIO ACCESSORIES

AERIAL EQUIPMENT



COMPLETE AERIAL KITS

We carry a full line of complete aerial kits made up of various components to suit different individual requirements. These kits offer the dealer a convenient method of stocking aerial equipment. Each kit packed in a sturdy card board box with instruction sheet.

Kit No. 1

- 100 ft. 7 x 24 stranded copper aerial wire.
- 35 ft. No. 14 lead-in wire.
- 1 adjustable ground clamp.
- 1 window lead-in strip.
- 2 porcelain nail knobs.
- 1 approved lightning arrester.
- 2 screw eyes.
- 2 glass insulators.
- 1 instruction sheet.

List Price, \$1.50
YOUR COST, 90c

Kit No. 2

- 100 ft. 7 x 22 stranded copper aerial wire.
- 50 ft. No. 14 lead-in wire.
- 25 ft. hook-up wire.
- 1 approved lightning arrester.
- 1 adjustable ground clamp.
- 1 window lead-in strip.
- 2 porcelain nail knobs.
- 2 porcelain screw eyes.
- 2 large glass insulators.
- 1 instruction sheet.

List Price, \$2.50
YOUR COST, \$1.50

Kit No. 3

- 100 ft. 7 x 25 stranded copper aerial wire.
- 35 ft. No. 14 lead-in wire.
- 1 ground clamp.
- 1 window lead-in strap.
- 2 porcelain knobs.
- 2 screw eyes.
- 2 glass insulators.

List Price, \$1.10
YOUR COST, 66c

KIT No. 4

Same as No. 3 but includes approved lightning arrester.

List Price, \$1.25
YOUR COST, 75c

STA-PUT Indoor Antenna Kit



A complete equipment for indoor aerial. Uses Sta-Put aerial wire, which can be installed anywhere indoors. Kit contains:

- 50 ft. Sta-Put wire.
- 1 Sta-Put clamp.
- 10 insulated staples.

List Price, 55c
YOUR COST, 33c



CERTIFIED COPPER AERIAL WIRE

SEALED FOR YOUR PROTECTION

Length Guaranteed—Size Guaranteed—Weight Guaranteed
Buy Wire the Modern Safe Way

Certified Wire is manufactured of the finest of materials, built to an extra high standard of specifications, with particular attention paid to producing the lowest dielectric properties and the highest conductivity.

Certified Aerial Wire Insures Superior Reception

	YOUR COST		YOUR COST
No. 1000— 100 Ft. Coil 7 x 22 Bare Stranded	\$0.25	No. 1018— 100 Ft. Coil 7 x 22 Tinned Stranded	\$0.35
No. 1001— 90 Ft. Coil 7 x 22 Bare Stranded	.23	No. 1024— 100 Ft. Coil 7 x 23 Tinned Stranded	.30
No. 1002—1000 Ft. Spool 7 x 22 Bare Stranded	2.45	No. 1036— 100 Ft. Coil 7 x 22 Enameled Stranded	.39
No. 1006— 100 Ft. Coil 7 x 23 Bare Stranded	.23	No. 1042— 100 Ft. Coil 7 x 23 Tinned Stranded	.35
No. 1007— 90 Ft. Coil 7 x 23 Bare Stranded	.20	No. 1054— 100 Ft. Coil No. 14 Solid Bare	.29
No. 1008—1000 Ft. Spool 7 x 23 Bare Stranded	2.10	No. 1057— 100 Ft. Coil No. 15 Solid Bare	.25
No. 1012— 100 Ft. Coil 7 x 25 Bare Stranded	.20	No. 1060— 100 Ft. Coil No. 14 Solid Enameled	.45
No. 1013— 90 Ft. Coil 7 x 25 Bare Stranded	.18	No. 1063— 100 Ft. Coil No. 12 Solid Enameled	.65
No. 1014—1000 Ft. Spool 7 x 25 Bare Stranded	1.75	No. 1065—1000 Ft. Spool No. 12 Solid Enameled	5.95

SOLID COPPER LEAD-IN WIRE

	YOUR COST
No. 1400— 50 Ft. Coils No. 16 Plain Rubber	\$0.27
No. 1401—1000 Ft. Spools No. 16 Plain Rubber	3.25
No. 1402— 50 Ft. Coils No. 14 Plain Rubber	.36
No. 1403—1000 Ft. Spools No. 14 Plain Rubber	5.75
No. 1404— 50 Ft. Coils No. 15 R. C. Weatherproof Braid	.50
No. 1405—1000 Ft. Spools No. 15 R. C. Weatherproof Braid	7.50
No. 1406— 50 Ft. Coils No. 14 R. C. Weatherproof Braid	.65
No. 1407—1000 Ft. Spools No. 14 R. C. Weatherproof Braid	8.25

GALVANIZED GUY WIRE

A rust resisting cable made up of No. 20 galvanized wire. For guying antenna masts.

65 Ft. Coil Galvanized Guy Wire
YOUR COST, each 25c Per Doz. Coils, \$1.50

1000 Ft. Reels Heavy Galvanized Guy Wire
YOUR COST, Per Reel, \$3.75

RADIO ACCESSORIES

AERIAL EQUIPMENT AND FITTINGS



STA-PUT AERIAL TAPE

A convenient indoor antenna tape. A silver ribbon with adhesive back. Sticks to any surface. Will not leave mark when removed.

List Price, \$1.00
YOUR COST, 60c
 Display Carton of 12, \$6.36

"Super Ball" Antenna

The original Yahr-Lange Super Ball Antenna. A very efficient aerial. Increases selectivity and improves reception.

Especially recommended where space is limited. Made of non-corrosive aluminum alloy. Easy to install.



Ball Antenna Only
 List Price, \$4.75 **YOUR COST, \$2.80**
 Ball Aerial Kit Containing Pipe Mast, Wire, and All Fittings
 List Price, \$8.25 **YOUR COST, \$4.86**

PORCELAIN LEAD-IN BUSHING



This device makes a workmanlike finish at a point in aerial installation that has been a source of power loss. Maximum length, 14 inches. Porcelain sections slide off brass rod to any wall thickness up to 9/16". Threaded rod can then be cut at any desired point. Black porcelain. Black glaze. Passed by Underwriters Laboratories. Each bushing in an attractive carton.

List Price, each \$1.10 **YOUR COST, 66c**

PORCELAIN BASE KNIFE SWITCHES

Very handy for aerial lead-in switches, lightning switches and other uses.

	List Price	YOUR COST
Single Pole, Single Throw	\$0.20	\$0.12
Single Pole, Double Throw	.30	.18
Double Pole, Single Throw	.35	.21
Double Pole, Double Throw	.50	.30

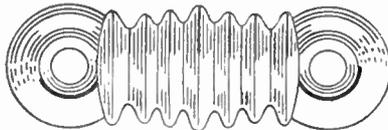
AERIAL SPRING TIGHTENER



For holding aerial wire tight and straight. Prevents breakage when swaying in wind or if covered with heavy snow and ice or if anchored to trees, etc.

List Price, each 50c **YOUR COST, 30c**

GLASS INSULATORS



* A high grade glass insulator for general antenna use. Packed 100 to a carton.

YOUR COST, \$3.00 per C

INSULATED SCREW EYES

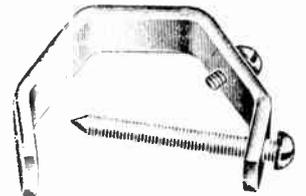


Made of galvanized rod with porcelain insulation.

3" Screw Eye, per C **YOUR COST, \$5.00**
 6" Screw Eye, per C **YOUR COST, \$6.50**

GRIP-TITE GROUND CLAMP

The most convenient ground clamp made. Clamps on water pipe with pointed screw, making perfect contact into pipe. Ground wire is fastened under machine screw.



List Price, 15c **YOUR COST, 6c** Per C, \$4.50 Net

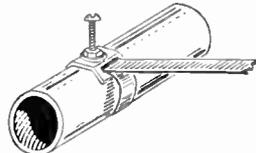
WINDOW LEAD-IN STRAP



Fits under window. A convenient way of entering the aerial lead-in wire. Eliminates boring of holes in frame.

List Price, 10c **YOUR COST, 5c**

SADDLE TYPE GROUND CLAMP



YOUR COST, 5c

BATTERY CLIPS



Medium Size, 5c each
 Large Size, 9c each

SOLDERING IRONS

These irons are well made and fully guaranteed.



No. 121—50 Watts, 110-120 Volt
 Nickel plated tube. Black enameled handle. Individually boxed.

YOUR COST, 95c

No. 140

Same as 121, but 75 watts for heavy duty soldering.

YOUR COST, \$1.25



No. 142—High Heat Iron, 75 Watts, 110-120 Volts
 Highly polished tube. Removable handle. Natural color. Individually boxed.

YOUR COST, \$2.25

BIRNBACH PRODUCTS

BIRNBACH ELECTRIC EXTENSION CORD SETS

Has a bakelite three outlet tap on one end of the cord set and equipped with a bakelite plug for inserting into nearest wall outlet. Is easily installed and brings three convenient outlets where they are needed.



	List Price Each	YOUR COST Each		List Price Each	YOUR COST Each
506—6 Ft. Pearl Gray	\$0.60	\$0.36	512—12 Ft. Pearl Gray	\$0.80	\$0.47
507—6 Ft. Old Gold	.60	.36	513—12 Ft. Old Gold	.80	.47
508—6 Ft. Brown	.60	.36	514—12 Ft. Brown	.80	.47

BIRNBACH SPEAKER EXTENSION CORDS

These cords are made of stranded copper wires and insulated with rubber to protect the copper strands from moisture which often causes leakage from one conductor to another. Complete with connector.



	List Price Each	YOUR COST Each		List Price Each	YOUR COST Each
166—10 Ft. Cord	\$0.60	\$0.36	122— 40 Ft. Cord	\$1.25	\$0.73
120—20 Ft. Cord	.75	.45	123— 50 Ft. Cord	1.50	.87
121—30 Ft. Cord	1.00	.59	124—100 Ft. Cord	3.00	1.76

BIRNBACH SPEAKER REPLACEMENT CORDS

These cords are used in replacing worn-out cords from head sets or loud speakers. BIRNBACH CORDS are closely woven and are strong and durable.



	List Price Each	YOUR COST Each
102— 5 Ft. Speaker Cord with Pin Tips on Both Ends	\$0.30	\$0.18
103— 5 Ft. Speaker Cord with Pin and Spade Tips	.30	.18
106— 5 Ft. Speaker Cord with Pin and Eye Tips	.30	.18
104— 5 Ft. Head Set Cord with Pin Tips on Both Ends	.50	.30
105— 5 Ft. Head Set Cord with Pin and Spade Tips	.50	.30
107— 5 Ft. Head Set Cord with Pin and Eye Tips	.50	.30
413—10 Ft. Speaker Cord with Pin and Eye Tips	.45	.27
414—20 Ft. Speaker Cord with Pin and Eye Tips	.65	.39

BIRNBACH BATTERY CABLES

For use in connecting A, B and C batteries or eliminator to set. Furnished with brass soldered lug terminals on all ends for neat and quick attaching of cable to batteries or eliminator. Each wire of separate solid color.



	List Price Each	YOUR COST Each		List Price Each	YOUR COST Each
110— 5 Wires, 54 in.	\$0.45	\$0.27	113— 8 Wires, 54 in.	\$0.75	\$0.45
111— 6 Wires, 54 in.	.55	.33	126— 9 Wires, 54 in.	.85	.50
112— 7 Wires, 54 in.	.65	.39	119—10 Wires, 54 in.	1.00	.59

BIRNBACH RUBBER LEAD-IN AND GROUND WIRE

This wire made of special live rubber and strips easily. A stranded wire of good quality.



	List Price Each	YOUR COST Each		List Price Each	YOUR COST Each
2330—500 Ft. No. 18	\$4.00	\$2.37	544 500 Ft. No. 16	\$4.75	\$2.81
2331—100 Ft. No. 18	1.00	.59	1544—500 Ft. No. 16 Black	4.85	2.87
541— 50 Ft. No. 16	.50	.30	546— 50 Ft. No. 16 3/64"	.60	.36
1541— 50 Ft. No. 16 Black	.55	.33	548—500 Ft. No. 16 3/64"	5.25	3.09
543—250 Ft. No. 16	2.50	1.47	1548—500 Ft. No. 16 Blk. 3/64"	5.50	3.24
1543—250 Ft. No. 16 Black	2.60	1.53	1549—500 Ft. No. 18 Blk. 3/64"	4.40	2.59

BIRNBACH FOUR-WIRE SPEAKER CORDS

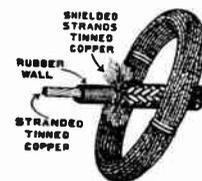
Now you can demonstrate the four wire speaker in any room of a home with the NEW BIRNBACH FOUR WIRE EXTENSION CORDS.

	List Price Each	YOUR COST Each		List Price Each	YOUR COST Each
701— 5 Ft. 4 Wire	\$0.60	\$0.36	703—30 Ft. 4 Wire	\$1.50	\$0.88
702—20 Ft. 4 Wire	1.00	.59	704—50 Ft. 4 Wire	2.50	1.47

BIRNBACH MISCELLANEOUS

	List Price Each	YOUR COST Each
780—100 Ft. Spool 3 Wire Shielded Microphone Cord	per ft. \$0.15	per ft. \$0.09
781—100 Ft. Spool Shielded Lead-In Wire for Automobile Radio	.08	.05

SHIELDED LEAD-IN WIRE



Stranded wire with rubber insulation and an outer shielding of braided tinned copper.

	YOUR COST
50 Ft. Coil No. 16	\$0.65
100 Ft. Coil No. 16	1.25
50 Ft. Coil No. 14	1.00
250 Ft. Coil No. 14	5.00

CHARGER POINTS



We carry charger points in stock for all popular chargers.

	YOUR COST
Home Charger Points	\$1.25
Valley Charger Points	1.25
Apco Charger Points	1.00

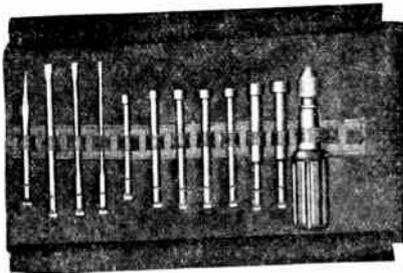
SPAGHETTI FLEXIBLE VARNISHED TUBING

An insulated covering for bus bar wire as protection against contact with other wires. Impervious to acid, oils and water. Flexible and guaranteed not to crack. Breakdown test is approximately 5,000 volts. Furnished in 30" lengths. No. 10 to No. 18 wires.

List Price, 10c each length YOUR COST, 3c per length

RADIO ACCESSORIES

SPINTITE SET NO. 51



Many mechanics prefer the compactness and portability of the tool roll. Contains 3 screw driver bits, 1 ream awl, 7 Spintite hex. bits, $\frac{3}{16}$, $\frac{1}{4}$, $\frac{5}{16}$, $11/32$, $\frac{3}{8}$, $\frac{7}{8}$, and $\frac{1}{2}$, with Universal Handle.

No. T-51 Set Complete in Roll
YOUR COST, \$3.50

SPINTITE BENCH SET No. T-73



Set of seven popular size hex Spintites in a convenient holder for bench or tool rack. Just the unit for electrical assembly, repair, or testing.

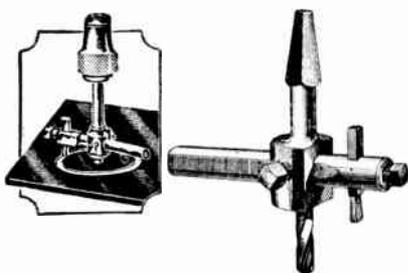
Contents: Nos. 3406, 3408, 3410, 3411, 3412, 3414, 3416.
Stand Only \$0.75
No. T-73, Complete with Stand 2.50

SEPARATE SPINTITE WRENCHES

Spintites can also be purchased separately as follows:

No.	Hex Size	Length	YOUR COST
3406	$\frac{1}{16}$	5 $\frac{3}{8}$	\$0.25
3408	$\frac{1}{8}$	5 $\frac{3}{8}$	.25
3410	$\frac{5}{16}$	5 $\frac{3}{8}$	.25
3411	11/32	5 $\frac{3}{8}$	.25
3412	$\frac{3}{8}$	5 $\frac{3}{8}$	.25
3414	$\frac{7}{8}$	6 $\frac{3}{8}$	.40
3416	$\frac{1}{2}$	6 $\frac{3}{8}$	.40
3418	$\frac{1}{8}$	6 $\frac{3}{8}$	.75
3420	$\frac{3}{8}$	6 $\frac{3}{8}$	.75

STEVENS ADJUSTABLE PANEL CUTTER



A well-made, substantial tool for cutting large holes in panels. Quickly adjusted from 1 1/2" to 6". Tapered shank fits carpenter's brace or machine. Center drill penetrates panel while cutter is operating.

YOUR COST, \$1.85

VULCAN SOLDERING IRONS



The best soldering iron obtainable at any price. The new improved models have ventilated adjustable length handle. Cat. No. 10, Weight 10 oz., with $\frac{1}{8}$ " Tip.

44 Watts. YOUR COST, \$3.75 Net

Extra Tips for No. 10, 30c Net

Cat. No. 40, Weight 1 1/2 lbs. with 1/2" Tip.

90 Watts. YOUR COST, \$7.00 Net

Extra Tips for No. 40, 50c Net

NEON GLOW LAMPS



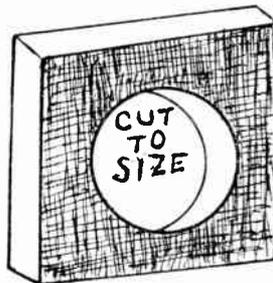
For use on either D. C. or A. C. 110 to 120 volts. Sheds a soft and diffused light which is desirable for boudoirs, halls, etc. Excellent for silent "indicators." Also used widely in amateur transmitters to show oscillation. Costs practically nothing to burn. Standard base.

YOUR COST

S14—2 watt	\$0.65
G10—1 watt	.50

Above use standard A. C. socket.

"CELOTEX" DYNAMIC BAFFLE BOARD



Will Not Vibrate to Any Musical Frequency

"Celotex" baffle boards are $\frac{7}{8}$ " in thickness and are furnished with size hole desired.

YOUR COST

12 x 12	\$0.25
18 x 18	.35
24 x 24	.60
36 x 36	1.50
48 x 48	3.00

Odd Sizes on Order

SPEAKER CEMENT

A clear, quick drying speaker dope. Has many uses around the service shop. Invaluable for patching speaker cones, cementing voice coils, etc. Also useful in coil winding as wire binder.

2 oz. Glass Jar
YOUR COST, 25c

KESTER SOLDER



The well-known non-corrosive rosin-core radio solder—use it once and you will use it always.

YOUR COST, per tin, 19c

Your Cost, 1-lb. spools, 46c

AMPERITE LINE VOLTAGE CONTROLS



Amperites, Any Type, List Price, \$3.00
YOUR COST, \$1.62

Kit of 12 Amperites of most popular types complete with 12 sockets.
List Price, \$39.20 YOUR COST, \$20.95

Kit of 3 Amperites: 1 each 5-A-5, 7-A-5, 9-A-5 complete with 3 sockets.

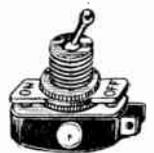
List Price, \$10.05 YOUR COST, \$5.35
Special Amperite Socket, List Price, 35c

YOUR COST, 19c each

TOGGLE SWITCHES

For battery and electric sets—stock up now.

The famous H. & H. switches.



Types

Single pole, single throw, with $\frac{3}{8}$ " shank.

Your Cost, 23c each or \$2.40 per doz.

Single pole, single throw, with $\frac{1}{4}$ " shank.
Your Cost, 27c each or \$2.90 per doz.

Single pole, double throw, with $\frac{3}{8}$ " shank.
Your Cost, 28c each or \$2.95 per doz.

Single pole, double throw, with $\frac{1}{4}$ " shank.
Your Cost, 30c each or \$3.25 per doz.

Double pole, single throw, with $\frac{3}{8}$ " shaft.
Your Cost, 40c each or \$4.00 per doz.

Double pole, single throw, with $\frac{1}{4}$ " shaft.
Your Cost, 44c each or \$4.25 per doz.

RADIO ACCESSORIES

MAGNET WIRE

Made from the finest grade copper and insulated with the best materials obtainable



Each spool contains a single continuous length of wire neatly wound and suitably labeled as to size and finish.

ONE-HALF POUND SPOOLS

Size	List Price SCC	YOUR COST	List Price DCC	YOUR COST	List Price PE	YOUR COST	List Price SSC	YOUR COST	List Price DSC	YOUR COST
16	\$0.37	\$0.22	\$0.40	\$0.24	\$0.33	\$0.20	\$0.57	\$0.34	\$0.71	\$0.42
17	.37	.22	.42	.25	.35	.21	.60	.36	.73	.44
18	.40	.24	.44	.26	.35	.21	.60	.36	.73	.44
19	.44	.26	.46	.27	.37	.22	.69	.41	.89	.53
20	.44	.26	.49	.29	.37	.22	.73	.44	.93	.55
21	.46	.27	.53	.32	.40	.24	.78	.47	1.07	.67
22	.46	.27	.55	.33	.40	.24	.82	.49	1.20	.71
23	.49	.29	.60	.36	.42	.25	.86	.51	1.27	.75
24	.51	.30	.64	.38	.42	.25	.89	.53	1.33	.79
25	.57	.34	.75	.45	.46	.27	.98	.58	1.51	.90
26	.60	.36	.82	.49	.46	.27	1.07	.63	1.67	.98
27	.71	.43	.95	.56	.53	.32	1.22	.72	1.78	1.05
28	.73	.44	1.02	.60	.55	.33	1.33	.79	1.94	1.14
29	.84	.50	1.09	.65	.57	.34	1.42	.84	2.14	1.26
30	.87	.52	1.31	.78	.62	.37	1.51	.90	2.45	1.46
31	1.02	.60	1.33	.79	.64	.38	1.78	1.05	2.78	1.64
32	1.09	.65	1.51	.89	.66	.39	2.11	1.25	3.23	1.90
33	1.15	.68	1.60	.94	.69	.41	2.23	1.33	3.45	2.03
34	1.24	.75	1.71	1.01	.73	.44	2.49	1.49	3.90	2.30
35	1.38	.81	1.82	1.07	.84	.50	2.87	1.69	4.46	2.62
36	1.58	.93	2.00	1.18	.89	.53	3.16	1.86	5.01	2.94

ONE-QUARTER POUND SPOOLS

Size	List Price SCC	YOUR COST	List Price DCC	YOUR COST	List Price PE	YOUR COST	List Price SSC	YOUR COST	List Price DSC	YOUR COST
16	\$0.22	\$0.13	\$0.24	\$0.14	\$0.20	\$0.12	\$0.31	\$0.18	\$0.37	\$0.22
17	.22	.13	.24	.14	.20	.12	.31	.18	.40	.24
18	.22	.13	.24	.14	.20	.12	.33	.20	.40	.24
19	.24	.14	.26	.15	.22	.13	.40	.24	.49	.29
20	.24	.14	.26	.15	.22	.13	.40	.24	.49	.29
21	.26	.15	.31	.18	.22	.13	.44	.26	.55	.33
22	.26	.15	.33	.20	.22	.13	.44	.26	.60	.36
23	.28	.17	.35	.21	.24	.14	.46	.27	.66	.39
24	.28	.17	.37	.22	.24	.14	.49	.29	.73	.44
25	.33	.20	.42	.25	.26	.15	.53	.32	.80	.47
26	.33	.20	.44	.26	.26	.15	.57	.34	.86	.51
27	.37	.22	.51	.30	.28	.17	.64	.38	.93	.55
28	.40	.24	.55	.33	.31	.18	.69	.41	1.00	.59
29	.46	.27	.66	.39	.33	.20	.78	.47	1.11	.66
30	.49	.29	.71	.43	.35	.21	.82	.49	1.27	.75
31	.64	.38	.80	.47	.37	.22	1.00	.59	1.49	.88
32	.66	.39	.86	.51	.37	.22	1.11	.66	1.67	.98
33	.71	.43	.93	.55	.40	.24	1.22	.72	1.82	1.07
34	.78	.47	.98	.58	.42	.25	1.38	.81	2.00	1.19
35	.89	.53	1.04	.61	.46	.27	1.56	.93	2.44	1.46
36	1.00	.59	1.11	.66	.51	.30	1.71	1.01	2.60	1.53



SOLID FLEXIBUS

Made of solid tinned, copper covered, with varnished cambric flame proof insulation.

Is supplied in the following five colors: Red, Green, Yellow, Brown, Black.

Each length is 24 inches.

List Price
Per Length, 10c
YOUR COST, 5c

BUS BAR WIRE

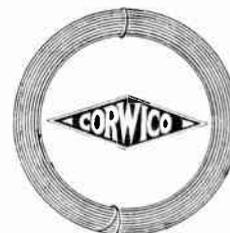
Round, solid hook-up wire, made of the finest tinned copper.

No. 14 Gauge in 2 Foot Lengths
Per 100 Lengths, \$1.40

No. 12 Gauge in 2 Foot Lengths
Per 100 Lengths, \$1.75

CORWICO LEAD IN WIRE

Rubber Covered



No. 14, 100 Ft. Coil
YOUR COST, 65c



Braidite is exceptionally good for A. C. hookup work. To make a connection it is simply necessary to push back the insulation and solder in place. The braid is then pushed back, thus forming a neatly insulated joint. Comes in five colors—Red, Green, Yellow, Blue or Black.

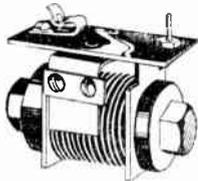
YOUR COST

No. 600—25 Ft., One Color, Solid Copper Tinned	\$0.18
No. 601—25 Ft., One Color, Stranded Copper Tinned .....	.21

RADIO ACCESSORIES

THE NEW ELKON XP-8

The Replacement Rectifier for PHILCOTRON "A" and "AA"



Type XP-8 Formerly Type UP-8

Replaces the wet jar rectifiers (designated as the Philcotron A and Philcotron AA) used in Philco Trickle Chargers, Philco "A" Eliminators and Philco A and B combinations. Very simple to attach, only 2 wires to connect—no liquids—no attention—just satisfaction. Replace all low voltage Philco liquid rectifiers with the new Elkon XP-8 solid dry rectifier.

List Price, \$4.00
YOUR COST, \$2.36

"B-L" RECTIFIER UNIT



For replacement in many types of chargers and "A" Powers which have been specially designed for the B-L (Benwood-Linze) unit. Don't discard the complete "A" Power when a new unit will make it as good as ever.

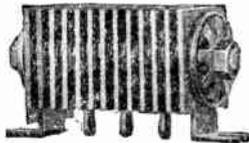
Type B-12 Used in Acme, Airline, Arco, Cooper, France, Green Brown Type P, King, Knight, Sterling, Stewart, Transf. Corp., No. 646; Triple A, U. S. L., Valley Type MB, and others.

List Price, \$4.00
YOUR COST, \$1.95

Type B-16 Used in Green Brown Type D, Norden Hauck, Tohe Deutschmann, Valley Type DMA, and others.

List Price, \$5.00
YOUR COST, \$2.94

FOR TRICKLE AND TAPERING CHARGERS



Type X-12 (Formerly Type U-12)

Thousands of trickle and tapering chargers using Elkon Dry Rectifiers have been sold, which will need replacement this year. There is nothing to wear out in any of these chargers, but the rectifiers should be replaced every 5000 hours. Be sure to order the proper rectifier for the charger.

Type XB-4 (3 units to a set) should be used in the following:
Elkon—Type E Acme Bernard
National Battery Co. Precision Precision

Type X-12 (U) should be used in the following:
Elkon—Type E Song Bird WLS

Type XB-4—List Price, \$4.00
(Set of Three)

YOUR COST, \$2.36

Type X-12—List Price, each \$4.00
YOUR COST, \$2.36

FOR DYNAMIC AND OTHER MOVING COIL SPEAKERS



Type X-20 (Formerly Type U-20)

The Elkon dry rectifiers have been used as standard equipment on the leading dynamic speakers (AC types). Be sure that you order the right rectifier for replacement—look at the name plate for the type number. Anyone can make the replacement.

Type X-20 Type XB-16
Fada Farrand Farrand Stevens
Amervox Amervox Vitalitone

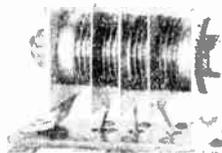
Type X-20, List Price, \$7.00

YOUR COST, \$4.12

Type XB-16, List Price, \$7.00

YOUR COST, \$4.12

Elkon Replacement Rectifiers FOR "A" POWERS AND 3 AMPERE CHARGERS



Type XB-16 (Formerly Type M-16)

Elkon Dry Rectifiers have been standard equipment on practically all "A" Eliminators. Hundreds of thousands of these units have been sold. This season, practically all of the "A" Eliminators and 3 Ampere Chargers still in use will need new rectifiers. Anyone can make the change, nothing complicated. The Elkon XB-16 rectifiers may be used in the following "A" Eliminators:

Majestic Tube Metro
Green-Brown Mayolian Fada
Bernard Knapp Webster
Elkon Brach Sentinel
Philco—(Elkon equipped)
General Instrument

and also in the following chargers:

Elkon—3 Ampere Briggs & Stratton

List Price, \$7.00

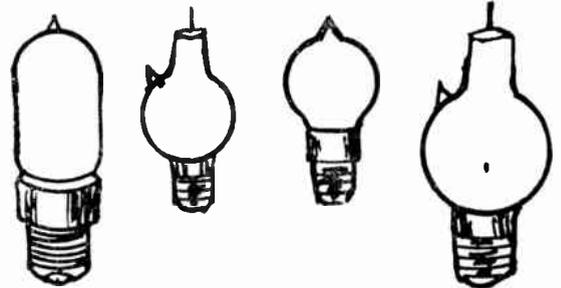
YOUR COST, \$4.12

BALKITE REPLACEMENT PARTS

	YOUR COST
"A" Solution	\$0.75
"B" Solution	.40
"K" Trickle Solution	.10
"J" and "H" Charger Solution	.50
"J" 1 and "J" 2 Fuses	.08
"A" Electrode	1.26
"K" Trickle Electrode	.40
"J" and "H" Trickle Electrode	.50
"K" Trickle Charger Top (Old Top Must Be Returned)	1.50
"J" 2 1/2 Amp. Charger Top (Replacement)	3.00
"B" Rectifier Top—6 cell	4.00
"B" Rectifier Top—8 cell (Old Tops Must Be Returned)	5.00
Balkite Resistors	.30

RECTIFIER CHARGER BULBS

For Replacement in Tungar and Rectigon 2 and 5 Ampere Chargers



	List Price	YOUR COST
6/10 Ampere Trickle	\$4.00	\$1.95
2 Ampere Old Type	4.00	2.15
2 Ampere New Type	4.00	2.15
6 Ampere Regular	8.00	3.85

REPLACEMENT JARS

For Philco "A" and "B" Eliminators



TYPE "A"
Small round for 4 volt "A" eliminators.
\$1.50 Each



TYPE "B"
for B eliminators.
\$2 Set of 4



TYPE "AA"
Large square for 6 Volt "A" eliminators.
\$2.00 Each

REPLENO Rectifier cells are guaranteed to give satisfactory service and full charging rates in Power Units properly designed for their use.

WILLARD and EXIDE REPLACEMENT PARTS



Aluminum Electrodes	\$0.20
Iron Electrodes	.20
"B" Rectifier Jars, Complete (Old Tops Must Be Returned)	4.00
6 Volt Glass Battery	8.25
"B" Rectifier Solution	.90

PILOT LIGHT BULBS

Standard Miniature Base Lamps for dial illumination and pilot lights. Furnished in ether 2.5, 3.2 or 6 volts. Packed in cartons of 10.

YOUR COST, 50c per Box; \$4.00 per Hundred

VICTOR PILOT LAMPS

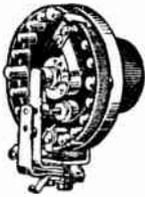
110 volt bulbs for use in Victor Models R-32, RE-45, RE-75, etc., intermediate base, frosted glass.

YOUR COST, 15c each; per Hundred, \$13.50

YAXLEY APPROVED RADIO PRODUCTS

Yaxley Products need no introduction to the radio fraternity as they have been the standard in radio parts since the days of the crystal and one tube sets. A complete line of rheostats, jacks, switches and other essentials for the radio constructor.

ORIGINAL AIR-COOLED RHEOSTATS AND POTENTIOMETERS



The Yaxley Air-Cooled Rheostat has a velvet-smooth action and the fine adjustment of a master instrument which permits filament voltages to be built up slowly and held at exactly the right point. The base is of bakelite.

Rating in Ohms	Carrying Capacity in Amperes	Catalog No.
2	2.1	102K
3	1.5	103K
6	1.1	106K
10	.610	110K
15	.425	115K
20	.375	120K
25	.325	125K
30	.275	130K
40	.240	140K
50	.210	150K
60	.190	160K
100	.150	199K

List Price, each, \$1.35
YOUR COST, 80c

Rating in Ohms	Carrying Capacity in Amperes	Catalog No.
200	.125	200P
400	.090	400P

List Price, each, \$1.75
YOUR COST, \$1.03

The Air-Cooled Rheostat is regularly supplied with a knob. The Air-Cooled Potentiometer is supplied with a knob and also an etched dial plate graduated from 0-100.

YAXLEY JACKS

All bakelite insulation. Mount in $\frac{7}{16}$ " panel hole. Bakelite washers obtainable for mounting on metal panels.



No.	Description	List YOUR Price	COST
No. 1	Open Circuit	\$0.50	\$0.30
No. 2	Closed Circuit	.60	.36
No. 2A	Two Circuit	.60	.36
No. 3	Single Fil. Control	.70	.42
No. 3A	Circuit Reversing	.70	.42
No. 3C	Double Circuit	.70	.42
No. 4	Interstage	.80	.48
No. 4A	2 Cir. Fil. Control	.80	.48
No. 5	2 Cir. Fil. Lighting	.90	.53

JACK SWITCHES

Jack Switches up to six springs, No. 60, are regularly of the off-on, two position type. The Nos. 63 and 64 are three position, with neutral in the center.

No.	Description	List YOUR Price	COST
No. 20	S. P.	\$0.75	\$0.45
No. 30	S. P.	.90	.53
No. 40	D. P.	1.00	.59
No. 45	Five Spring	1.15	.68
No. 60	D. P.	1.25	.74
No. 63	3 P.	1.60	.95
No. 64	4 P.	2.00	1.18
No. 62	D. P. with Neutral Position	2.00	1.18

YAXLEY JR. RHEOSTATS AND POTENTIOMETERS

Yaxley Junior Rheostats and Potentiometers have been used by scores of radio manufacturers. Their use as replacement controls or in set-building is wide-spread. These units are $1\frac{3}{16}$ " in diameter and mount in a single $\frac{7}{16}$ " panel hole. Prices include knobs.



Cat. No.	Rating in Ohms	Carrying Capacity in Amperes	List YOUR Price	COST
501	1—Rheostat	2.2	\$0.75	\$0.44
502	2—Rheostat	1.6	.75	.44
503	3—Rheostat	1.3	.75	.44
506	6—Rheostat	.9	.75	.44
510	10—Rheostat	.7	.75	.44
515	15—Rheostat	.6	.75	.44
515P	15—Potentiometer	.6	1.00	.59
520	20—Rheostat	.5	.75	.44
525	25—Rheostat	.45	.75	.44
525P	25—Potentiometer	.45	1.00	.59
530P	30—Potentiometer	.4	1.00	.59
540P	40—Potentiometer	.35	1.00	.59
550P	50—Potentiometer	.3	1.00	.59
560P	60—Potentiometer	.28	1.00	.59
575P	75—Potentiometer	.26	1.00	.59
5100P	100—Potentiometer	.22	1.00	.59
5200P	200—Potentiometer	.15	1.00	.59
5400P	400—Potentiometer	.11	1.00	.59
1MJP	1000—Potentiometer	.07	1.25	.74
2MJP	2000—Potentiometer	.05	1.25	.74
3MJP	3000—Potentiometer	.04	1.25	.74
5MJP	5000—Potentiometer	.03	1.50	.88
10MJP	10000—Potentiometer	.02	1.50	.88
500	Switch for Junior Rheostat or Potentiometer		.40	.24

TAP SWITCHES



Widely used in power speakers and also for tapping transformers, resistances and the like. Furnished either with a complete break between contact points or without a break as contact arm moves from contact point to contact point, as desired.

No.	Description	List YOUR Price	COST
No. 33B	3 Point Tap Switch	\$0.65	\$0.39
No. 44B	4 Point Tap Switch	.75	.45
No. 55B	5 Point Tap Switch	.65	.39
No. 66B	6 Point Tap Switch	.65	.39
No. 70B	7 Point Tap Switch	.80	.48
No. 88B	8 Point Tap Switch	.80	.48
No. 90B	9 Point Tap Switch	.90	.54
No. 150	15 Point Tap Switch—large size	1.00	.60

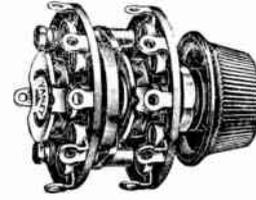
PILOT LIGHT BRACKET



Have you ever left your set turned on all night? The pilot light signal is to tell you if your set is on or off. No matter if a station has signed off, or if the set is accidentally turned on, the pilot shines out as signal to turn off the set to save the needless use of tubes. And the signal light is as attractive and cheerful as it is useful.

No.	Description	List YOUR Price	COST
No. 310	Pilot Light Bracket Lamps Extra	\$0.50	\$0.30
	Can be had with Red, Green or Amber Bullseye	.20	.12

SELECTOR SWITCHES



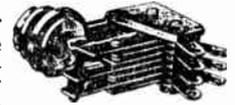
2 Tap Switches furnished in tandem. Each switch is completely insulated from the other, but they are controlled by a single knob.

No.	Description	List YOUR Price	COST
33-TB	3 Point Selector Switch	\$1.60	\$0.95
44-TB	4 Point Selector Switch	1.70	1.00
55-TB	5 Point Selector Switch	1.60	.95
66-TB	6 Point Selector Switch	1.80	1.06
70-TB	7 Point Selector Switch	1.80	1.06
88-TB	8 Point Selector Switch	1.80	1.06
90-TB	9 Point Selector Switch	1.90	1.12

Supplied with Etched Dial Plate and Knob

JUNIOR JACKS

Here is a Jack for use in sets where space is at a premium. Extends $1\frac{1}{4}$ " behind panel. Takes any standard radio plug. Comes in all spring combinations as follows:



No.	Description	List YOUR Price	COST
No. 701	Open Circuit	\$0.40	\$0.24
No. 702	Circuit Closing	.55	.33
No. 702A	Two Circuit	.55	.33
No. 703	Single Circuit Filament Control	.65	.39
No. 703A	Circuit Reversing	.65	.39
No. 703C	Double Circuit	.65	.39
No. 704	Interstage	.75	.45

JUNIOR JACK SWITCHES



The Junior Jack Switches are exactly the same in every respect excepting size as standard Yaxley Jack Switch. For use in sets where space is at a premium. Illustration is half size.

No.	Description	List YOUR Price	COST
No. 720	Battery Switch, Single Pole, Single Throw	\$0.70	\$0.41
No. 730	Two Circuit, Single Pole, Double Throw	.85	.50
No. 740	Double Circuit, Double Pole, Single Throw	.95	.56
No. 745	Five Spring, Combined 720 and 740	1.10	.65
No. 760	Two Way Two Circuit, Double Pole, Double Throw	1.20	.71

PUSH BUTTON SWITCHES



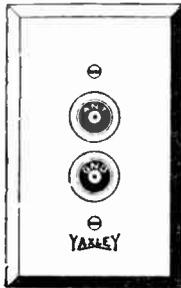
Push Button Switches are available in a wide range of spring combinations. The Push Button Switches are made on the Junior frame illustrated above and are standard Yaxley construction throughout.

No.	Description	List YOUR Price	COST
No. 2001	Make Contact	\$1.00	\$0.59
No. 2002	Break Contact	1.00	.59
No. 2003	Single Pole, Double Throw	1.15	.68
No. 2004	Two Make Contacts	1.30	.77
No. 2005	Two Break Contacts	1.30	.77
No. 2006	Double Pole, Double Throw	1.60	.95

RADIO ACCESSORIES

YAXLEY APPROVED RADIO PRODUCTS -- Convenience Radio Outlets

A complete line of receptacle plates for radio outlets. Eliminates unsightly wires in any radio installation. For the home, hotel or public building. Approved by the fire underwriters.



No. 156
For aerial and ground connections. Fits standard flush switch box. Furnished in either brush brass or bakelite. Complete with pin tips for extending leads from receptacle to set.

List Price, 75c
YOUR COST, 44c



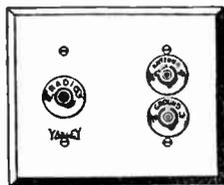
No. 353
For the completely wired home or apartment the No. 353, 3 gang plate is a worth while accessory.
Designed to fit a standard three gang switch box. It provides convenience outlets for aerial and ground, loud speaker and duplex A. C. receptacle. Furnished in brush brass only. Complete with pin tips for aerial and ground leads.

No. 353, Brush Brass
List Price, \$3.00 **YOUR COST, \$1.77**

No. 133
A single gang plate for aerial and ground and A. C. outlet. Fits standard switch box.

Furnished in either brush brass or bakelite. Complete with pin tips for extending leads from receptacle to set.

List Price, \$1.70
YOUR COST, \$1.00



No. 238
In installations where one or more speakers are to be used the 238 convenience outlet finds a place near the set. Provides for aerial and ground connections and two loud speakers. Fits standard two gang switch box.

List Price YOUR
Price COST

No. 238, Brush Brass \$2.00 \$1.18
No. 238-B, Bakelite 2.20 1.29



No. 135-136
A single gang plate with jack for loud speaker. Furnished in brass or bakelite. Fits standard switch box.

List Price YOUR
Price COST

No. 135, Brush Brass \$1.00 \$0.59
No. 135-B, Bakelite 1.10 .65

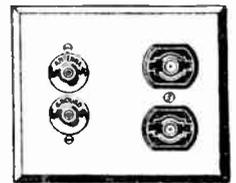
No. 136 is same as No. 135, excepting that it has two speaker jacks.

List Price YOUR
Price COST

No. 136, Brush Brass \$1.75 \$1.02
No. 136-B, Bakelite 1.85 1.08

No. 256—2 Gang

A two gang convenience outlet for aerial and ground and duplex A. C. outlet. Fits standard 2 gang switch box, or can be furnished complete with 2 gang switch box attached.



List Price YOUR
Price COST

No. 256, Brass or Bakelite \$1.50 \$0.89
No. A256, Brass or Bakelite, Complete with Box 2.00 1.18

YAXLEY FILAMENT RESISTORS



Wire wound units with riveted lugs, insuring perfect contact at all times. Individually made to insure accuracy.

Catalog Number	Resistance in Ohms	Carrying Capacity in Amperes	List Price	YOUR COST
801	1	1	\$0.15	\$0.09
802	2	1	.15	.09
803	3	.75	.15	.09
804	4	.6	.15	.09
805	5	.6	.15	.09
806	6	.5	.15	.09
807	7	.4	.15	.09
808	8	.4	.15	.09
809	9	.4	.15	.09
810	10	.4	.15	.09
815	15	.35	.15	.09
820	20	.3	.15	.09
825	25	.275	.15	.09
830	30	.275	.15	.09
840	40	.275	.15	.09
850	50	.150	.15	.09
860	60	.150	.15	.09
8100	100	.125	.25	.15
8200	200	.080	.25	.15
8300	300	.075	.25	.15
8400	400	.075	.25	.15

Also furnished with center tap. Same construction as above units. To designate center tap add letter C to above catalog number of same resistance.

List Price YOUR
Price COST

From 6 ohm to 64 ohm, inc. \$0.30 \$0.18
From 100 ohm to 400 ohm, inc. .40 .24

Midget Plug and Jack



Serve the same purposes as the Pup Jacks and Plugs, only larger in size. Mount in 3/8" panel hole.

No. 16 Midget Jack

List Price, 30c

YOUR COST, 18c

No. 15 Midget Plug

List Price, 15c

YOUR COST, 9c

Phone Plug



No. 75—Fits any standard jack. Rugged and efficient.

List Price, 50c

YOUR COST, 29c

Pup Jacks and Plug



Very small, easy to mount, phone tip jack. Mounts in 1/8" hole. Nickel finish. Plug designed to use as phone tip without soldering.

No. 416—Pup Jacks

List Price, per pair, 25c

YOUR COST, 15c

TIP JACKS

Keeping pace with the developments in receiver design, the Yaxley line of tip jacks has always stood out for its completeness. Today, with the new Twin Jacks, there is a Yaxley Tip Jack for every radio purpose.

TWIN JACKS

Double Hole Mount—Neatness in appearance and ease in use recommend the Twin Jack to the set buyer.

Economy in assembly and dependability in service, recommend it to the set builder whether he be the large or small manufacturer.

The illustration shows the handsome bakelite cap with the efficient double contact springs. Mounting holes 1 1/8" centers.

List Price YOUR
Price COST

No. 410-S—Marked "Speaker"..... \$0.25 \$0.15
No. 410-P—Marked "Phono"..... .25 .15
No. 410-F—Marked "Field"..... .25 .15
No. 410-PM—Marked "+ -"..... .25 .15

INSULATED TIP JACKS

The distinctive colored caps, red for positive and black for negative, are but one advantage of the Insulated Tip Jacks. The bakelite caps lessen danger of shorts. The phone tip nests all the way in the jack, making excellent contact. 1/4" mounting hole.



No. 422—Red and Black Caps, per pair, 25c
YOUR COST, 15c

RADIO BOOKS AND MANUALS

Books of Interest to the Radio Amateur, Engineer, Service Man and Experimenter

RIDER'S TROUBLE SHOOTER'S MANUAL

By John F. Rider, with

the FREE Question and Answer Service. More than 974 pages! More than 1800 Diagrams.

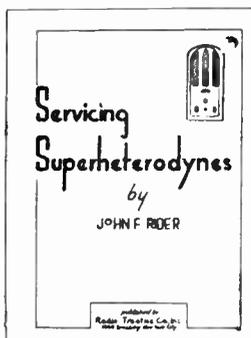
This is the most complete book ever offered to the radio service men. Nothing has been left undone to furnish every bit of radio service information which may be of value to the radio service man.

YOUR COST \$4.50



SERVICING SUPERHETERODYNES

By John F. Rider



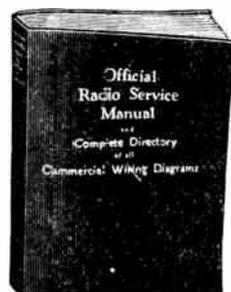
The First Book of Its Kind
A Complete Textbook on Modern Supers

One of the important radio books of the year. A complete treatise on the service and maintenance of the complex modern super.

YOUR COST, 95c

NEW GERNSBACH 1932 OFFICIAL SERVICE MANUAL

Over 1,000 Pages



Over 2,000 diagrams, hook-ups, charts and illustrations. Flexible loose-leaf binder. Size 9 x 12 inches. Complete directory of all 1931-1932 radio receivers. Full radio service guide. For radio service men, manufacturers, jobbers, dealers, amateurs, etc. New material throughout.

No Reprints—All Original Material
YOUR COST, \$4.00

EXPERIMENTAL RADIO ENGINEERING

By J. H. Morecraft



Learn by doing is an accepted educational maxim. This excellent book contains fifty-one experiments covering the entire range of radio. Contains a vast amount of useful information for anyone interested in radio.

345 pages 6 x 9.
YOUR COST, \$3.50

MATHEMATICS OF RADIO

By John F. Rider

Here is the first comprehensive volume devoted to the solution of simple mathematical problems, which confront the practical radio man.

YOUR COST, \$1.90

PRACTICAL RADIO REPAIRING HINTS

By John F. Rider

A valuable book for every radio service man. Full of practical information on radio repairing. A time and money saver.

YOUR COST, \$1.90

How to Pass U. S. Government Radio License Examinations

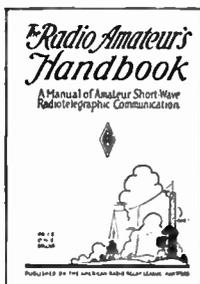
By R. L. Duncan and C. E. Drew



The authors are thoroughly conversant with their subject and all of the most important information including hook-ups; type of antennae and receivers with wiring diagrams of both small and large receivers and transmitters of commercial type, including ship sets are given.

Flexible Covers, size 9 1/2" x 7", 170 pages, 92 illustrations, appendix.
YOUR COST, \$2.00

RADIO AMATEUR HAND BOOK



A book every amateur should have. This is the ninth and latest edition of a book that has become so popular that it is generally referred to as the amateur's "bible." More than 100,000 copies have been sold to radio fans all over the world.

YOUR COST, \$1.00

PRACTICAL TESTING SYSTEMS

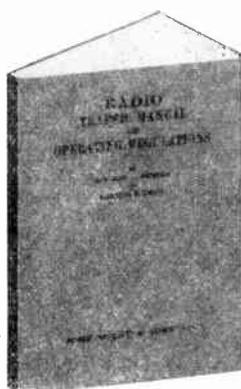
By John F. Rider

Complete construction data on set testers, oscillators, vacuum tube voltmeters and other test equipment for the modern service shop with full explanations on their uses.

YOUR COST, 95c

Radio Traffic Manual and Operating Regulations

By R. L. Duncan and C. E. Drew



This valuable handbook starts off with instructions on how to learn the code in considerable detail, with a list of abbreviations. Then comes operating rules regulations of the Radiomarine Corporation of America with operators' report forms; followed by the rules of the International Radiograph Convention; the United States Radio Act of 1927; the Ship Act of 1912, etc.

Flexible Covers, size 9" x 6", 186 pages.

YOUR COST, \$2.00

SHORT WAVE MANUAL

A complete manual on the latest developments in short wave reception. Also includes data on low power, short wave amateur transmitters. A valuable book for the amateur or short wave experimenter.

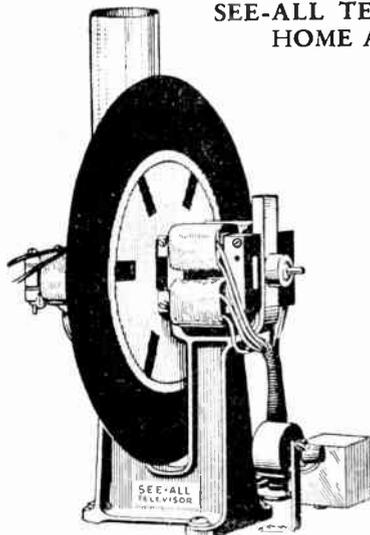
YOUR COST, 50c



SEE-ALL TELEVISION RECEIVERS

Television Mfg. Co. of America is a pioneer in experimental and development work in every branch of the television field. They offer a complete line of television receivers, scanners and associated apparatus at prices within the reach of all.

SEE-ALL TELEVISION SCANNER HOME ASSEMBLY KIT



Size 12 1/4" wide, 9" deep, 15" high

A complete kit of parts for assembling a picture scanner. Can be set up in 20 minutes.

Contains complete Eddy current motor, 60 line square hole double spiral disc made of special alloy aluminum, condenser, adjustable lamp mount and housing with framing aperture, synchronizing wheel and self starting mechanism. Includes all necessary wire, detailed instructions and drawing.

List Price, \$19.75
YOUR COST, \$11.62
 Television Tube for Scanner
 List Price, \$3.00
YOUR COST, \$2.10

SCANNER PARTS LIST

Parts can be purchased separately for the above Scanner outfit as listed below:

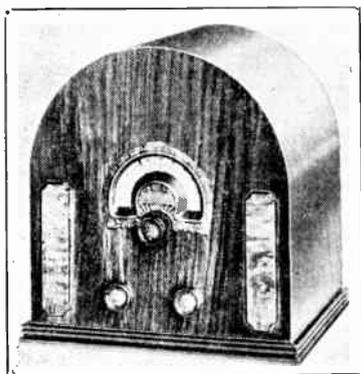
	List Price	YOUR COST
Motor Frame	\$4.00	\$2.80
Self Aligning Bearings	.75	.53
Shaft	.35	.25
Shaft Set Screws	.25	.18
Coils	5.00	3.50
Laminations	4.00	2.80
Scanning Disc	2.50	1.75
Scanning Disc Hub (for 1/4" or 5/16" shaft)	1.00	.70
Lamp Support and Socket	1.15	.81
Lamp Housing	.25	.18
Prints and Instructions	.75	.53
1200 R. P. M. Synchronizing Wheel and Hub for Scanning Disc, with Self-Starting Mechanism	1.50	1.05
Copper Support Plate for Scanning Disc	1.25	.88
Lens Assembly	5.00	3.50
Television Tube, 1" Plate	3.00	2.10

BAIRD SHORTWAVE CONVERTER

The Baird 3 Tube Shortwave Converter changes any A. C. operated broadcast receiver into a shortwave receiver without in any way affecting it for regular broadcast reception.

A turn of a knob is all that is necessary to change from broadcast to short wave ranges and back again.

Can be left permanently connected to your regular receiver. Has wave band switch, eliminating the necessity of bothersome plug-in coils. Furnished in handsome two-tone walnut cabinet to harmonize with any receiver. Uses one 224, and two 227 tubes.



List Price, Less Tubes, \$27.50
YOUR COST, \$16.18
 Set of Tubes for Converter
 List Price, \$3.00
YOUR COST, \$1.77

THE SEE-ALL TELEVISION RECEIVER



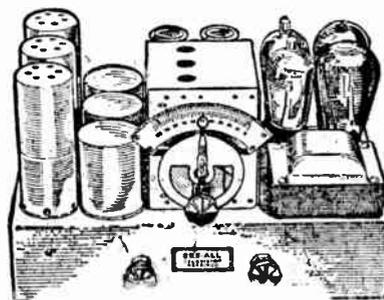
Model 101—Size 27" x 18"

A complete television picture reproducing unit consisting of a See-All Radio Picture Scanner, a See-All Short Wave Receiver, and a 6-inch magnifying lens mounted in a handsome walnut-finish cabinet, ready to operate. Simply plug into any 110-volt 60-cycle outlet, connect any ordinary aerial, and you can instantly tune in any of the local television broadcasting stations, with perfect automatic synchronization, including National Broadcasting Company, Columbia Broadcasting System, and many out-of-town stations. Used in conjunction with your own radio for receiving the synchronized sound program with the pictures, it supplies the thrill of SEEING as well as HEARING your radio programs.

Uses two 235, one 245, and one 280 tube.

List Price, \$69.50, Less Tubes
YOUR COST, \$40.88, Less Tubes
 Set of Tubes for Above List, \$5.30
YOUR COST, \$3.12

SEE-ALL SHORT-WAVE TELEVISION RECEIVER



Size 15" wide, 8" deep, 8" high

A 6 tube receiver especially designed for the reception of short-wave television broadcasts.

Specially designed audio channel, giving wide frequency response.

Uses two 235 vari-mu tubes, one 245 output tube and one 280 rectifier tube.

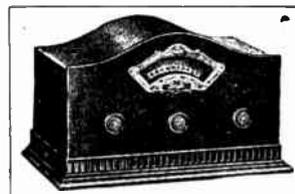
Very stable in operation and tunes as easily as a modern broadcast receiver. When used in conjunction with the See-All Scanner makes an efficient television outfit. Tuning range 80 to 200 meters.

List Price, \$39.50, Less Tubes
YOUR COST, \$23.23

DETROLA SHORTWAVE CONVERTER KIT Build Your Own Converter Unit

A complete kit of parts for constructing a three tube short-wave converter unit.

Contains drilled aluminum chassis with sockets riveted in place, coils, condensers, by-pass condensers and all necessary wire and hardware.



Complete instruction book and full size blueprint included, making assembly and wiring foolproof and easy. You can't go wrong.

Packed in attractive carton complete with tubes. Uses one 224 and two 227 tubes. Has built-in power supply.

Your Cost, Complete with Tubes, \$11.95
Cabinet As Pictured Extra, Your Cost, \$3.50

TELEVISION APPARATUS



No. 1262

I. C. A. NEON CRATER LAMP

This lamp has been specially designed for the projection of television images through a lens disc or for other experimental purposes. It develops a very bright spot of light of sufficient intensity to project pictures up to two or more square feet. The lamp requires approximately 250 volts at 35 M.A. for proper ionization. The I. C. A. Neon Crater Lamp is furnished with a standard four prong socket base. A special amplifier to operate Crater type Neon Lamps for projection purposes, is available. Price on request.

No. 1262—List Price, \$25.00 YOUR COST, \$14.70

I. C. A. MULTIPLE ANTENNA COUPLER



No. 1174

This unit permits the use of many sets from the same aerial. It permits sharp tuning and acts as a band pass filter, filtering out all aerial noises. It increases volume and also acts as a lightning arrester. The I. C. A. Multiple Antenna couples the antenna to the radio by means of condensers and chokes, tuning the antenna circuit to a frequency above or below the broadcasting range.

No. 1174—List Price, \$2.50 YOUR COST, \$1.47

The I. C. A. Multiple Antenna Coupler can operate up to 50 sets from one aerial when used in conjunction with an I. C. A. Master Antenna Coupler as described below.

I. C. A. MASTER ANTENNA COUPLER

The Multiple Antenna Coupler is placed at the radio set while the Master Antenna Coupler is attached to the outside aerial on the roof thereby coupling the outside antenna to as many radio sets in the building.

No. 935—List Price, \$5.00 YOUR COST, \$2.91

I. C. A. RESISTOVOLT



The new I. C. A. Resistovolt stops tubes from blowing out and prevents them from being strained by excessive house current voltage. In addition to saving tubes, the Resistovolt by controlling the surges of A. C. and D. C. current, clears up reception very noticeably by eliminating the fading

so common with electric sets. Resistovolt plugs into house current outlet and set plugs into Resistovolt.

Made in two models—Light Duty for sets using up to 6 tubes. Heavy Duty for sets with over 6 tubes.

No. 99—For 110 Volts, all Cycles
List Price, \$1.75 YOUR COST, \$1.03

No. 220V—For 220 Volts, all Cycles
List Price, \$2.00 YOUR PRICE, \$1.18

DYNAMIC SPEAKER CABLE PLUGS *Grip-Right Model*

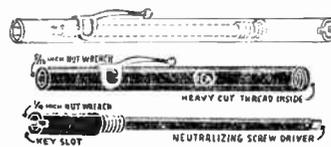


This Cable Plug is molded of genuine brown bakelite. The quick detachable handle cap is a time-saver and a convenience. Supplied in 4 and 5 prongs.

No. 1104—4 Prongs
List Price, 35c YOUR COST, 21c

No. 1105—5 Prongs
List Price, 40c YOUR COST, 24c

I. C. A. NEUTRALIZING TOOLS TOTALLY INSULATED



These tools are non-magnetic. Combination small and large socket wrench and screw driver. Fits all sets. Ideal for neutralizing sets and for the alignment of condensers.

List Price, \$1.25 per set YOUR COST, 74c

I. C. A. NEUTRALIZING TOOLS WITH METAL NIBS



Compactly constructed, the screw driver fits into the duplex wrench, making it a two-in-one set. The other end of the screw driver is a special magnetic steel for picking up and placing of screws, bolts, nuts, washers, etc.

List Price, \$1.50 per set YOUR COST, 88c

I. C. A. TUBE SHIELDS



Tube Shields are constructed of the finest aluminum and will fit on all standard screen grid tubes as well as the new small D. C. tubes. Supplied shield with base.

No. 1226—For A. C. Screen Grid Tubes
List Price, 25c per set YOUR COST, 15c

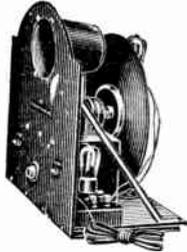
No. 1227—For D. C. Small Screen Grid Tubes
List Price, 25c per set YOUR COST, 15c

TELEVISION APPARATUS

I. C. A. SHORT WAVE RADIO TELEVISION RECEIVER

For SHORT WAVE RADIO or TELEVISION RECEPTION

I. C. A. NEW TELEVISION RECEIVER



No. 1255

The I. C. A. New Television Receiver No. 1255 is a simplified complete equipment and can be operated outside a cabinet or inserted into most any console.

It provides satisfactory results to both novice and experimenter. It is supplied with a special synchronous motor providing excellent synchronization and framing of the television picture and signals.

All the controls of the receiver are mounted on a front panel which makes it readily accessible for operation of the television receiver.

This Television Receiver is supplied with a special 5" lens and visor through which the pictures are greatly magnified and will also permit a number of people to view the pictures at one time. It is complete with 60 hole scanning disc (45 or 48 hole disc supplied if preferred). Shipping weight, 30 lbs.

List Price, \$75.00

YOUR COST, \$44.10

I. C. A. TELEVISION LAMP



The I. C. A. lamps are designed to operate with an output tube in series. Will give excellent illumination with a current of 20 milliamperes or less. Where extremely bright illumination is required for maximum results, the tube may be loaded up to 80 milliamperes, by means of suitable output tubes singly or in parallel.

FEATURES

Striking Voltage, 100. Minimum Current to cover plate, 5 mils. Maximum Current, 80 mils. Internal Resistance, 1000 ohms. UX Four Prong Bakelite Base. Plate Area, 1½" square.

No. 114—List Price, \$7.50
YOUR COST, \$4.41

I. C. A. OUTPUT COUPLING TRANSFORMER FOR NEON TELEVISION LAMP

This transformer has been specially designed to couple a standard I. C. A. Neon Lamp to the output of a type 247 Pentode tube. The impedance ratio is from 7,000 to 700 ohms. A flat frequency characteristic from 30 to 40,000 cycles has been obtained through the use of a special method of winding the coils and in the core design. Is absolutely essential for real, high quality television pictures. Shipping weight, 3 lbs.

No. 1377—List Price, \$5.50 **YOUR COST, \$3.24**

I. C. A. TELEVISION AMPLIFIER



No. 115—List Price, \$17.50 (without tubes)
YOUR COST, \$10.29

The I. C. A. Television three-stage amplifier is most advanced in features and construction. It is complete with all resistors and coupling condensers thereby taking the place of all apparatus after the detector. Inasmuch as the brilliancy of the Neon lamp is contingent upon the current output of the last amplifier tube or tubes, the amplifier is so wired that it is impossible to use two power tubes in parallel.

Shipping weight, 4½ lbs. each.

I. C. A. SCANNING DISC



I. C. A. Aluminum Scanning Discs are made with the utmost precision, special machinery and tools being required to construct them. The holes are laid out mathematically correct to insure perfect reception of television signals and pictures. The discs are supplied as follows:

No.	Scanning Lens	Size of Discs	Shipping Weight	List Price	YOUR COST
106N	45	16"	3 lbs.	\$7.50	\$4.41
107N	48	16"	3 lbs.	7.50	4.41
108N	60	16"	3 lbs.	10.00	5.88

I. C. A. PHOTO-ELECTRIC CELL

For the advanced experimenters who desire to experiment with television transmission, the I. C. A. Photo-Electric Cell opens up a new field. This sensitive cell, ruggedly designed, can be used in experimenting not only with the art of television transmission but with talking movies, circuit control devices, relays, etc.



It is of the gas-filled, potassium magnesium type, employing a special set-back anode to increase its output. Individually tested during and after construction for sensitivity and uniform frequency response. Its fairly low ionization point reduces battery noises to a minimum. The bases are of bakelite UX 4 prong type. Information as to characteristics furnished on request.

No. 114A—1¾" Diameter Bulb
List Price, \$20.00 **YOUR COST, \$11.76**

No. 114B—3" Diameter Bulb
List Price, \$37.50 **YOUR COST, \$22.06**

Shipping weight, 2 lbs.

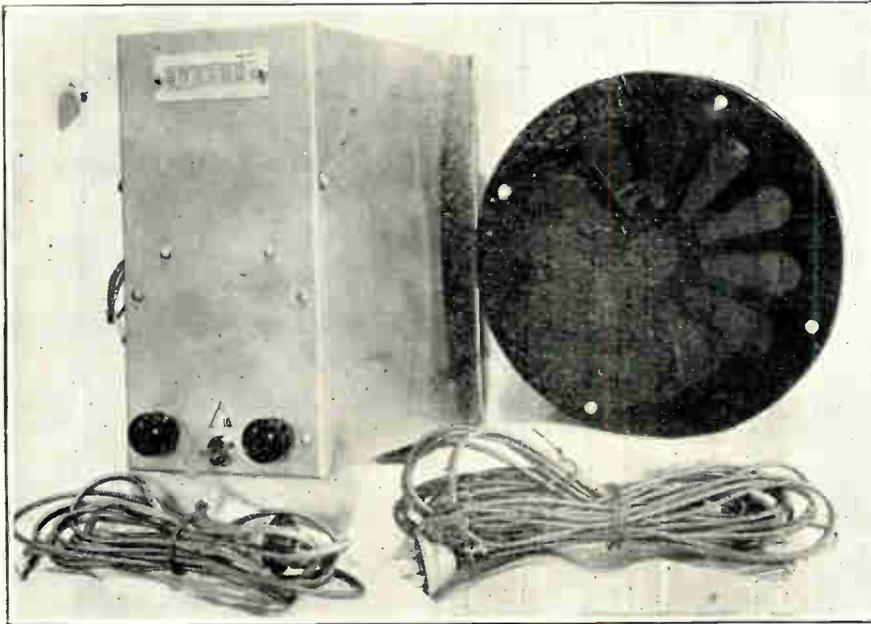
I. C. A. TELEVISION PROJECTING SCREEN

This screen has a special patented stand and it is also possible to hang it on a wall. It has a silver surface and reproduces the television pictures very well. The size of the screen is 18" x 24" and rolls up easily for portability. This screen has a patented spring easel.

No. 1264—List Price, \$6.00 **YOUR COST, \$3.53**

RESCO AUTOMOBILE RADIO

Enjoy Your Favorite Programs While Motoring



Resco Auto Set and Speaker

**Resco Automobile Radio Set
With Dynamic Speaker**

Less Tubes, Batteries, But
With Suppressors

Your Cost, \$22.50

**Resco Automobile Radio Set
With Dynamic Speaker**

Complete with Arcturus Tubes,
Suppressors, Antenna and Three
45-Volt "B" Batteries

Your Cost, \$35.95

**Resco Auto Set Complete with
Tubes, Suppressors, Antenna,
and Elkon "B" Eliminator**

Your Cost, \$41.75

The Latest Development in Motor Car Radio . . . Easily Installed in Any Car, Mounts on Steering Post . . . Direct Drive Tuning . . . No Troublesome Remote Control Cables . . . Completely Shielded . . . Uses the New 6-Volt Heater Type Tubes . . . A 6 Tube Set Using Push-Pull Pentodes in Power Stage . . . Extremely Sensitive . . . Excellent Selectivity . . . Equipped with Magnavox Dynamic Speaker, Insuring Full Rich Tone.

A real buy in an auto radio. A six tube set using two 236, two 237, and two 238 (Pentode) tubes. These are the new 6-volt heater type developed by R.C.A. especially for automobile receivers. The Resco Auto Radio is furnished with all necessary brackets and fittings for attachment to steering post. Can also be mounted on lower dashboard. Easy to install and requires no difficult drilling. No mutilation or marring of dash panel or car interior. Uses Magnavox Dynamic Speaker, which can be mounted on dashboard. A revelation in automobile radio reception. Full rich dynamic tone quality with tremendous volume. Set is supplied with all necessary cables which are fully shielded and equipped with convenient connector plugs. Set is equipped with locking switch preventing unauthorized use.

A Real Summer Sales Item for the Alert Radio Dealer

Mallory "Elkon" Automobile "B" Eliminator



MAKE YOUR AUTO RADIO ALL ELECTRIC

Enjoy the same high quality and dependable radio reception from the set in your car as you now do at home.

Replace unsatisfactory "B" Batteries with this unit and you will get a smooth, steady flow of dependable power. Operates from the car storage battery. Sold complete, nothing else to buy. No rotary parts, no oiling, no attention. Fully dry.

Type	Watts Output	Amperes Input	Mills at 180 v.
6	6.3	2.45	35
5	5.4	2.1	30
4	4.5	1.8	25
3	3.6	1.5	20
2	2.7	1.2	15
1	2.2	1.1	12

**Easily Installed—Can Be Placed
in Any Position
Made in 6 Types—A size for
Every Auto Receiver**

List Price, Any Type, \$19.95

Your Cost, \$11.74

Resco Automobile Aerial

**A Complete Antenna for
Installation Under Car**

The most satisfactory auto aerial obtainable. Easy to install. Mounts between front and rear axles. A time and money saver for the dealer specializing in auto radio installations.

Furnished complete with heavy cabled aerial wire, leadin wire, insulators, heavy tension spring and all necessary fittings.

All metal parts heavily sheri-dized to prevent rust and corrosion.

Attractively Boxed

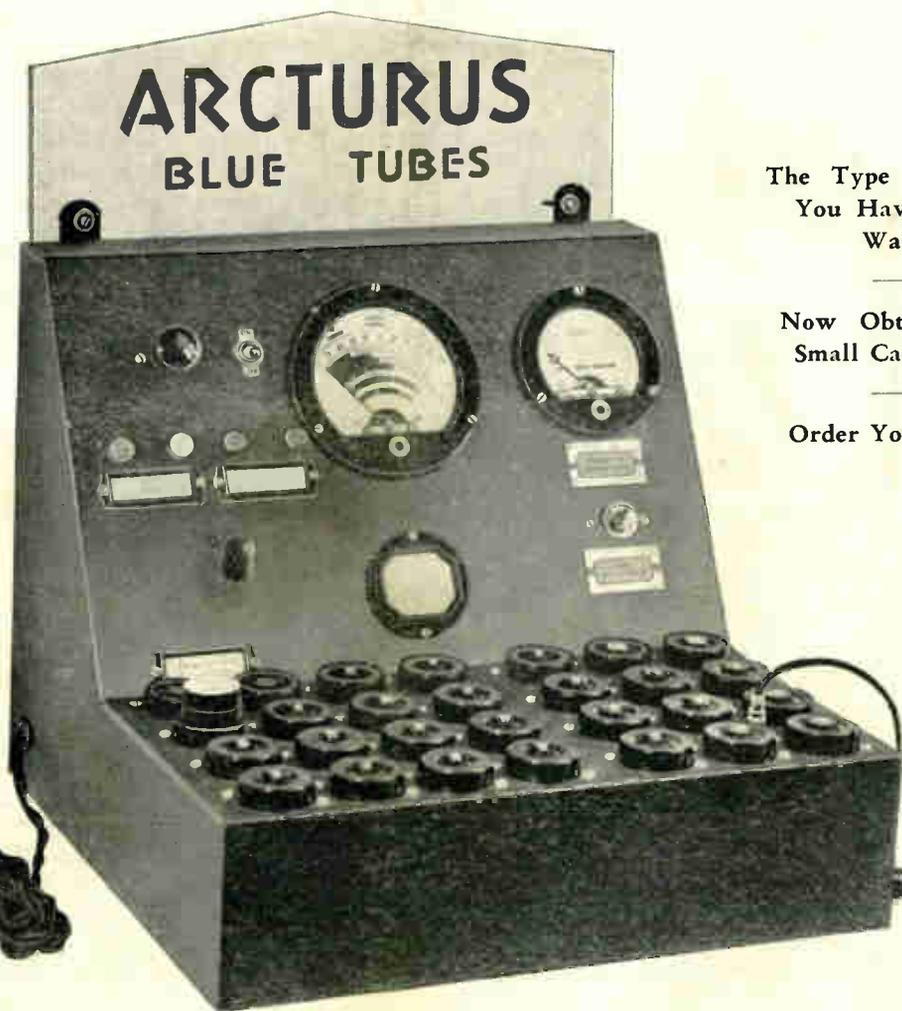
List Price, \$5.00

YOUR COST, \$2.45

SPECIAL OFFER

ARCTURUS DEALER'S TUBE SELLER

Regular List Price, \$95.00—YOUR ACTUAL CASH OUTLAY, \$37.50



Simple to Operate

Tests All Types

A Money Maker for
the Radio Dealer

Very Attractive

The Type of Checker
You Have Always
Wanted

Now Obtainable at
Small Cash Outlay

Order Yours Today

SPECIFICATIONS FOR ARCTURUS-HICKOK TUBE SELLER

13½" long; 11½" high; 13" wide.
A socket for every popular type tube.
Spare sockets for future tubes.
4" meter with colored face.

Two pre-heater sockets, with short
test combined.
Easily and convincingly read.
Line voltage meter and adjuster.

Visible lamp fuse for protection.
Rugged construction—black crystalline
steel panel and base.

Plug a tube into the pre-heater, short-checker socket. A light will indicate shorts, if any, between the elements. When the tube is heated remove it to the test socket for the particular type of tube. Press a button and take the plate current reading, then press a second button and take the emission reading. So simple and easy that your customers can check tubes themselves.

SIMPLE TO OPERATE—FOOL-PROOF—ACCURATE—SELLS TUBES

SPECIAL DEALER OFFER—For a limited time this Arcturus-Hickok Tube Seller is offered to radio dealers on the special Arcturus Sales Plan. Write for full details of this unusual offer.

RADIO ELECTRIC SERVICE CO., Inc.

N. E. COR. SEVENTH & ARCH STS.

PHILADELPHIA, PA., U. S. A.