

# SHORT-WAVE RADIO

PARTS *and* RECEIVER CATALOG

4 HOUR SERVICE FROM COMPLETE STOCKS



MIDWEST  
**MIDWEST**  
CHICAGO

**RADIO MART**

520 S. State St. Chicago . . U. S. A.

# Here is an organization built to meet your needs!

MID-WEST RADIO MART is the largest organization specializing in the sale of short-wave transmitting and receiving equipment. In this new catalog, we have assembled the most complete line of dependable yet up-to-the minute equipment ever offered. We have tested and compared every line of equipment available in the American market—and have even gone to some of the foremost manufacturers and placed orders for new designs to specifications set-up by our engineers—in carrying out our aim to offer complete equipment for the construction of every short-wave transmitter and receiver, no matter how large or how small.

## Let our staff of experienced amateurs solve your problems

To assure you the highest degree of satisfaction and the utmost in intelligent service, MID-WEST offers the assistance of this staff of actual operating amateurs, all of long experience and fully familiar with every late development in equipment. They daily solve troublesome problems for amateurs all over the world—let them give you this help too, it is your without cost or obligation.

The MID-WEST Amateur Service Department is in charge of Leo B. Wilcox, W9BHM, who has been continuously active in amateur work since 1913. His recent connections have given him much experience in designing short-wave receivers, the benefit of which is now available to all amateurs through MID-WEST.

Under Mr. Wilcox's direction are Alvin J. Butow, W9NLK, and Maurice Fieldman, W9ETP, both of whom have had much experience in operating their own stations and in helping to solve the problems of amateurs.

These men are always at your service

and will provide you with the latest information and data concerning every circuit and equipment detail. You may depend upon their judgment in every matter.

In this new catalog, the best and most useful equipment of every leading manufacturer is shown. While it is more than twice as large as any previous MID-WEST catalog, these manufacturers also offer many additional pieces of equipment, all of which are carried in stock by MID-WEST. Likewise, new units are added to these lines frequently.

Therefore, MID-WEST asks you to feel free to request any item not shown in this catalog, with absolute freedom. Read their advertisements in current radio magazines, for as soon as these appear, we will be ready with complete stocks for immediate shipment to you. We also make the same offer in regard to the equipment of any other manufacturer not shown in the catalog. MID-WEST is recognized as the leading jobber by all builders of short-wave equipment, and we will gladly make arrangements to supply you with any equipment at prices that can not be beaten anywhere.

## "Satisfaction Guaranteed"

Let this guarantee of unconditional satisfaction be your protection. In all the years of MID-WEST'S service to amateurs, not one customer has found this liberal offer wanting in any manner: "Order any piece of equipment on the understanding that your money will be refunded without question if the article is misrepresented in any way or fails to provide complete satisfaction." This is the broadest pledge that we can offer. It is unequalled in the field of radio merchandising. We have so carefully studied and tested every article offered that we know our customers will never be disappointed.

## 4-Hour Service from our huge stocks

Every item shown in this catalog is held ready for immediate shipment in our huge warehouse stocks. Thus we are the only organization that can promise the added advantage of this high-speed service.

Delayed deliveries, substitutions and other disappointments will never be yours when ordering from this catalog.

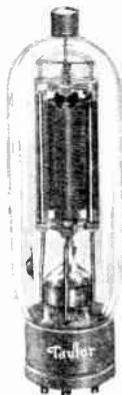
Start taking the advantage of this service today! A single order will show you the many reasons why thousands of amateurs in every state and many foreign countries are making MID-WEST RADIO MART

"Short-Wave Headquarters."

# TAYLOR Transmitting Tubes

## The Greatest Tube Values Ever Offered

### Heavy Duty 203A Carbon Plate—1750 Volts



Has the same characteristics as a standard tube of this type, except that the filament current is 4 amps. The plate lead is brought out through the top for the use of higher voltages. Maximum safe plate dissipation is 150 watts. With a Class "C" stage efficiency of 66%, a pair of these tubes will handle a maximum input of 900 watts.

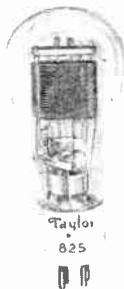
Filament: 10 volts at 4 amps. Maximum plate potential, 1750 volts. Taylor Heavy Duty Type 203A. **\$17.50**

### Taylor 203A—211, Carbon Plate

A tube that is known by thousands of amateurs for its unusually large output and ability to stand up under severe service. Has standard characteristics and is interchangeable with other tubes of the same type number. Liberal use of mica and glass tubing in the stems has given extra protection to the plate and grid leads. A carbon plate allows greatly increased heat dissipation.

Filament: 10 volts at 3 amps. Plate: 1000 volts at 175 m.a. C bias—25 volts. Mu 25. Taylor Type 203A Tube, net. **\$12.50**

### Type 825—Carbon Plate 55 Watt Class C

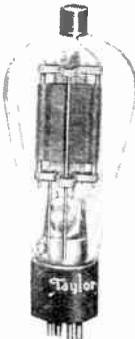


A tube specially designed to make possible high power at low cost. Will do the work of four type 210 tubes. An excellent intermediate amplifier for high power transmitters. A pair will deliver 80 watts as Class B audio modulators. A very large glass envelope is used together with the carbon plate to secure tremendous heat dissipation. The base is of isolantite for best high frequency operation. Filament: 7½ volts 2 amps. Maximum plate potential, 750 volts at 100 m.a. Class C grid

bias—180 volts. Mu. 9. Taylor Type 825 Tube, net. **\$4.95**

### Type 841A—R. F. and Class B Tube

Specially designed by Taylor engineers to fill the need for a tube exactly meeting the needs of intermediate radio frequency stages and Class B audio work. A pair used in push-pull are capable of delivering up to 200 watts of audio power. Has standard U.X. base with the plate lead coming out the top to afford added insulation against flash-overs. Filament: 10 volts at 2 amps. Plate: 1090 volts max. at 50 watts dissipation. Amplification factor 30. Taylor Type 841 A **\$7.00**



### Type 866 Rectifier

A half-wave mercury vapor rectifier tube of heavier than standard construction. New filament uses the Multi-Strand metal that emits at extremely low voltages. Exactly replaces standard types with a satisfying increase in power supply performance. Specially designed and extremely conservatively rated. Filament: 2½ volts at 5 amps. Maximum inverse peak 7500 volts.

Taylor Type 866 Tube, net. **\$1.65**



### Super Duty 866B Rectifier

A new mercury vapor rectifier designed for application in high powered transmitters. May frequently be used to replace type 872 rectifiers at a great saving in cost. Maximum voltage and current ratings greatly exceed those of the standard 866 rectifier tube. Filament: 5 volts at 5 amps. Maximum inverse peak 8500 volts at 1000 ma.

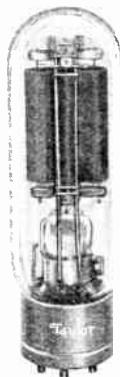
Taylor Type 866B Tube, net. **\$3.00**

### Type 203B—Class B

An exceptional new development typical of the Taylor leadership. Combines much higher undistorted power, greater amplification factor, low grid bias and high plate heat dissipation. Costly tungsten filaments are used. With two of these new tubes, 200 watts audio power may be secured in Class B operation.

Filament: 10 volts at 3 amps. Maximum plate potential, 1000 volts at 500 ma.

Taylor Type 203B Tube, net. **\$7.50**

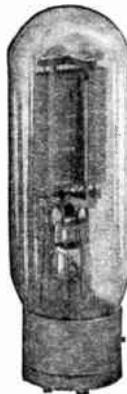


### Taylor 845—B

Has standard 845 B characteristics plus Taylor long life and unexcelled dependability. An ideal Class A modulator tube. Undistorted output under normal operating conditions is 22.5 watts audio power. Provides excellent tone quality for use with high power amplifiers.

Filament: 10 volts at 3 amps. Maximum plate potential 1000 volts at 75 ma.

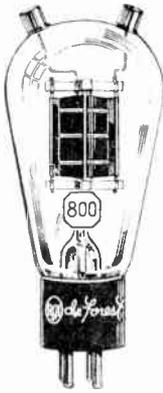
Taylor Type 845 B Tube, net. **\$7.50**



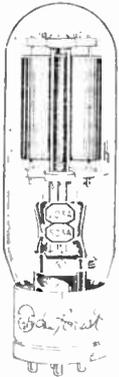
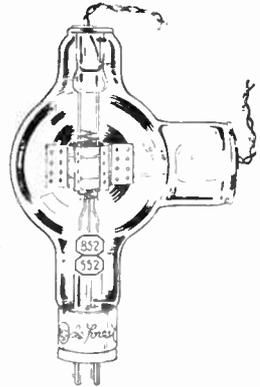


# de Forest

## Transmitting Tubes



RCA-deForest tubes are designed by the foremost tube engineers, tested in the best equipped tube laboratory in the world, and manufactured by the largest maker of radio tubes in the world. They are the best assurance obtainable for trouble-free, satisfactory station operation. We recommend them to you, since we know you will be better satisfied with RCA-deForest. All types immediately available from our stock.



Type	Net Price	RECTIFIERS	Max. Peak Inverse Volts	Cathode Volts
806	\$ 4.50	Half-Wave Mercury Vapor	7,500	2.5
566				
866-A	5.00	Half-Wave Mercury Vapor	10,000	2.5
872	16.50	Half-Wave Mercury Vapor, Heavy Duty	7,500	5.0
572				
872-A	18.50	Half-Wave Mercury Vapor, Heavy Duty	10,000	5.0
572-A				
878	11.00	Vacuum Type for Cathode-Ray Tubes	20,000	2.5
885	2.00	Gaseous-type triode for cathode-raysweep-circuit control	300	2.5

Type	Net Price	CATHODE RAY TUBES	Max. Anode No. 2 Volts	Cathode Volts
904	\$50.00	5 in., Electro-static-magnetic deflection, high-vacuum, hot-cathode	4,600	2.5
905	40.00	5 in., Electro-static-deflection, high-vacuum, hot-cathode	2,000	2.5
906	18.00	3 in., Electro-static deflection, high-vacuum, hot-cathode	1,000	2.5



Type	Net Price	HIGH-POWER TYPES	Plate Dissipation Watts	Cathode Volts
204-A	\$ 97.50	Oscillator, R-F Power Amplifier	256	11.0
504-A				
831	265.00	Oscillator, R-F Power Amplifier	400	11.0
840	160.00	A-F and R-F Power Amplifier, Oscillator	400	11.0
851				
851	350.00	A-F and R-F Power Amplifier, Oscillator	750	11.0
351				
861	395.00	R-F Power Amplifier, Oscillator	400	11.0
561				

Type	Net Price	DESCRIPTION	Plate Watts	Cathode Volts
203-A	\$17.50	Oscillator, R-F Power Amplifier, Class B Modulator	100	10.0
503-A				
211	17.50	Oscillator, R-F Power Amplifier, Modulator	100	10.0
511	10.00	Oscillator, R-F Power Amplifier, Class B Modulator	35	7.5
800				



(Continued on next page)

# R.C.A. - DeForest Transmitting and Receiving

## Transmitting Tubes—(Continued)

Type	Net Price	Description	Plate Watts	Cathode Volts
801	5.75	Oscillator, R-F and A-F Power Amplifier, Modulator	20	7.5
841	3.25	Voltage Amplifier, R-F Power Amplifier, Oscillator	15	7.5
842	3.25	A-F Power Amplifier, Modulator	15	7.5
843	12.50	Oscillator, A-F and R-F Power Amplifier	15	2.5
844	18.00	A-F and R-F Power Amplifier, Oscillator	15	2.5
845 } 545 }	20.00	Modulator, A-F Power Amplifier	100	10.0
850	37.50	R-F Power Amplifier, Oscillator	100	10.0
852 f	23.80	Oscillator, R-F Power Amplifier	100	10.0
860 f	35.00	R-F Power Amplifier, Oscillator	100	10.0
864	1.60	Amplifier (Low micro- phonic design)	...	1.1
865 f	12.75	R-F Power Amplifier, Oscillator	15	7.5
868	6.00	Phototube		
955	3.75	Oscillator, R-F Amplifier, (acorn type)		

## R. C. A. Cunningham Receiving Tubes

Type	Net	Type	Net
00A	\$2.00	57	\$1.10
01A	.60	58	1.10
1	1.30	59	1.60
1-v	1.00	71A	.70
10	2.50	75	1.10
11	3.00	76	.90
12	3.00	77	1.20
112A	.90	78	1.20
19	1.20	79	1.30
20	1.50	80	.70
22	1.50	81	2.50
24A	1.10	82	.90
26	.65	83	1.10
27	.70	84	1.30
30	.80	85	1.10
31	.80	89	1.20
32	1.40	V99	1.25
33	1.40	X99	1.00
34	1.50	1A6	1.50
35	1.10	1C6	1.60
36	1.10	2A3	1.75
37	.85	2A5	1.10
38	1.10	2A6	1.10
39-44	1.20	2A7	1.30
40	.80	6A4	1.40
41	1.10	6A7	1.30
42	1.20	2B7	1.50
43	1.25	6B7	1.40
45	.75	6C6	1.10
46	1.20	6D6	1.10
47	1.30	6F7	1.60
48	3.00	7Z3	1.20
49	1.10	12Z3	1.10
50	2.50	25Z5	1.60
53	1.35	874	4.90
55	1.10	876	6.70
56	.75	886	6.75

## Contell Photo-Tubes

These high grade photo-cells are made for MID-WEST by one of the oldest and most experienced manufacturers of photo-cells for theatre and electronic applications.

CE-1—For RCA Photophone, and other leading theatre sound heads. Has standard four prong base. Operating potential 90 volts. Sensitivity 100 microamperes per lumen.

CE-2—For Universal, Holmes, Kolograph, Synchrophone, Motiograph, etc. A cell of modern universal design that is suitable for all general purpose applications for photo relays. Operating potential 90 volts. Sensitivity 100 microamperes per lumen.

CE-4—Cartridge type (no base) for use in Duophone, Kinetaphone, Ruby, etc. Also adapted for general experimental application. Operating potential 90 volts. Sensitivity 100 microamperes per lumen.

Net all types..... **\$3.95**



## Neon Glow Lamps

Watts	Base	Operating Current	Net
¼	Candelabra	110v. A.C. or D.C.	35c
½	Standard	110v. A.C. only	35c
1	Standard	110v. A.C. or D.C.	35c
2	Standard	110v. A.C. or D.C.	45c

See Page 23 for Photo-Relays

# NEW Transmitting Types

# Sylvania

REG. U.S. PAT. OFF.

## RADIO TUBES

Here is a new, complete line of high quality transmitting tubes manufactured by one of the oldest tube organizations. All types marked \* have the exclusive Sylvania "Graphite Anode Construction."



Type	AIR COOLED VACUUM TUBES	Net Price
203A*	Oscillator and radio frequency amplifier	\$17.50
204A*	Triode oscillator and R. F. amplifier	97.50
205D*	Oscillator, Modulator, R. F. & A. F. amplifier	7.00
210*	Triode oscillator and amplifier	5.75
211*	Oscillator, Modulator, R. F. & A. F. amplifier	17.50
211B*	Special 211 for high frequency applications	19.00
211C*	Low interelectrode-capacity type 211	17.50
212D*	R. F. and A. F. amplifier	75.00
242A*	Modulator and A. F. amplifier	17.50
261A*	Oscillator, Modulator, R. F. & A. F. amplifier	17.50
264B	Non-Microphonic A. F. amplifier	2.50
276A*	Oscillator, Modulator, R. F. & A. F. amplifier	17.50
282A*	Screen grid oscillator and R. F. amplifier	31.00
825*	High frequency oscillator and amplifier	10.00
830*	Oscillator, Modulator, R. F. & A. F. amplifier	8.75
830A*	Class A audio frequency amplifier	10.00
830B*	Class B audio frequency amplifier	10.00
831*	High frequency oscillator & R. F. amplifier	265.00
841*	Oscillator and voltage amplifier	5.75
842*	Audio frequency power amplifier	7.50
845*	Audio frequency amplifier and modulator	20.00
849*	Oscillator, mod. R. F. and A. F. amplifier	160.00
850*	Screen grid oscillator and R. F. amplifier	37.50
851*	High power general purpose triode	350.00
852*	High frequency oscillator and R. F. amplifier	23.80
860*	Screen grid oscillator and R. F. amplifier	35.00
861*	Screen grid oscillator and R. F. amplifier	295.00
865*	Screen grid oscillator and amplifier	12.75

Water-cooled types available on special order.

### RECTIFIERS

217A*	Half-wave, high vacuum thermionic rectifier	20.00
217C*	Half-wave, high vacuum thermionic rectifier	20.00
866*	Half-wave mercury vapor rectifier	5.00
866A*	Shielded filament, high voltage type 866	8.50
872*	Half-wave mercury vapor rectifier	16.50
872A*	Shielded filament, high voltage type 872	18.50

### GRID CONTROLLED RECTIFIERS

867*	Grid controlled mercury vapor rectifier	14.00
873*	Grid controlled mercury vapor rectifier	25.00

### PHOTOTUBES

803A	Theater and industrial type Phototube	10.00
814A	General purpose and theater type Phototube	7.50
808	General purpose and theater type Phototube	5.85



# and ARCTURUS Tubes

## Highest Quality Receiver Types



Type No.	Net Price		Type No.	Net Price	
	Raytheon	Arcturus		Raytheon	Arcturus
1A6	\$0.79	\$0.79	37	\$0.44	\$0.44
1C6	.85	.85	38	.57	.57
2A3	.93	.93	39	.63	.63
2A5	.57	.57	40	.41	
2A6	.57	.57	41	.57	.57
2A7	.69	.69	42	.63	.63
2B7	.79	.79	43	.66	.66
5Z3	.63	.63	44	.63	.63
6A4 (L.A.)	.74		45	.39	.39
6A7	.69	.69	46	.63	.63
6B7	.74	.74	47	.69	.69
6C6	.57	.57	48	1.59	
6D6	.57	.57	49	.57	
6Z4 (844)	.85	.85	50	1.32	1.32
12A5	.69	.69	52	.85	
12Z3	.79		53	.71	.71
25Z5	.57		55	.57	.57
6F7	.79	.79	56	.39	.39
00-A	1.06		57	.57	.57
01-A	.31	.31	58	.57	.57
1-V	.52		59	.85	.85
10	1.32	1.32	71-A	.37	.37
WD-11	1.59		75	.57	.57
WX-12	1.59		76	.47	.47
12-A	.47	.47	77	.63	.63
19	.63		78	.63	.63
20	.79		79	.69	.69
22	.79	.79	80	.37	.37
24-A	.57	.57	81	1.32	1.32
26	.34	.34	82	.47	.47
27	.37	.37	93-V	.57	.57
30	.41	.41	95	.57	.57
31	.41	.41	89	.63	.63
32	.74	.74	V-99	.66	.66
33	.74	.74	X-99	.52	.52
34	.79	.79	BA	4.18	
35 (51)	.57	.57	BH	2.60	
36	.57	.57	BR	1.54	

## RAYTHEON Transmitting Tubes

A complete line of highly efficient, long-life transmitting tubes built to Raytheon's high standards. Not just another line of tubes, but a radically new and successful departure from ordinary tube manufacture.



RK-15 R.F. Amplifier or Class B Modulator.....	\$ 4.90
RK-16 Oscillator or R.F. Amplifier or Class B Modulator Driver.....	4.90
RK-17 Class A Amplifier Crystal Oscillator.....	4.90
RK-18 Amplifier or Oscillator.....	10.75
RK-19 Full Wave Vacuum Rectifier.....	7.35
RK-20 Amplifier .....	14.70
VG-27 Grid Controlled Mercury Vapor Rectifier.....	4.90
866-A Half-Wave Mercury Vapor Rectifier.....	4.80
872-A Heavy Duty Half-Wave Mercury Vapor Rectifier.....	16.28

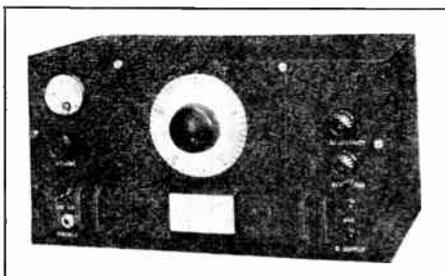


# NATIONAL

## Another Great New Amateur Receiver! NATIONAL Type "HRO"

This foremost builder of transmitting equipment now offers this superlative receiver as a complete solution of every requirement presented by the most advanced amateur, and the broadcast listener who desires unparalleled performance at moderate cost!

The new "HRO" Receiver presents a great number of notable improvements that contribute to the outstanding performance it brings to short-waves:



- Nine Tubes, not including rectifier
- Two Preselector Stages
- Single Signal (Crystal Filter) standard equipment
- Ganged Plug-in Coils with each coil individually shielded
- Single Dial Tuning Controls both regular and band spread
- Four gang Precision Condenser, with specially developed preloaded worm-drive tuning, 20 to 1 ratio.
- Automatic or Manual Volume Control Operation
- Vacuum Tube Voltmeter calibrated in R scale of carrier intensity
- Electron Coupled Oscillators, air padded
- Complete for 1.7 to 30 M.C. provided
- Two i.f. Stages have litz wound coils, air padded
- Beat Frequency Oscillator
- Phone Jack on front panel
- A.C. or Battery operated

"HRO-2" Receiver, using 2½-volt A.C. tubes, complete with coils, less tubes, speaker and power supply, net..... **\$139.80**

(Tubes—4-58, 3-57, 1-2B7, 1-2A5)

"HRO-6" Receiver, using 6-volt A.C. or battery filament supply, complete with coils, less tubes, speaker and power supply, net..... **\$139.80**

(Tubes 4-6D6, 3-6C6, 1-6B7, 1-42)

"HRO-8" Receiver with built-in power pack for 115v., 60 cycle operation complete with coils, less tubes, and speaker, net..... **\$154.50**

(Tubes 4-58, 3-57, 1-2B7, 1-2A5, 1-2B0)

"HRO-P" Panel for Relay Rack Mounting of above receivers, leatherette finish, engraved and machined to fit over the regular front panel. **\$12.00**

net..... **\$12.00**  
Above receiver is supplied complete with ganged plug-in coils for operation from 1.7 mc. to 30 mc. Two sets of additional ganged plug-in coils are available for coverage of 550-900 kc. and 900-1700 kc. Net each set..... **\$12.00**

No. 5897—Power Supply for 2.5 volt HRO Receiver, net..... **\$15.90**

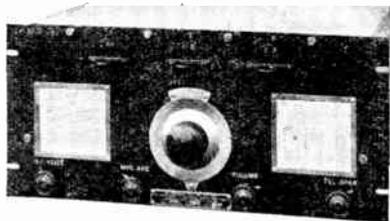
No. 5886—Power Supply for 6 volt HRO Receiver, net..... **\$20.70**

(115 v.—60 cycle A.C.)

## "AGS" and "AGSX" Communication Type Receivers

A professional receiver in which considerations of price are entirely subordinate to those of performance. The AGS has been designed in cooperation with the Airways Division of the U. S. Department of Commerce, to provide high usable sensitivity and selectivity, easy operation and permanent frequency calibration.

Both receivers employ nine tubes in a superheterodyne circuit, comprising a preselector stage of tuned r.f. amplification, a first detector, a high frequency oscillator, two stages of high-gain i.f. amplification, i.f. power detector and pentode output with provision for either phones or loud-speaker. Details typical of its electrical refinements are the use of electron-coupled air-padded oscillators, air-dielectric tuning condensers in i.f. amplifier, single dial tuning, automatic and manual volume control, beat-note oscillator and calibrated band spreading. The "AGSX" offers a still further refinement in the use of a Single Signal Crystal Filter circuit with front-of-panel controls.



"AGSX" Receiver as above but with single signal crystal filter built in, complete with coils, less tubes, speaker and power pack. **\$177.00**

(Tubes 3-256, 1-237, 1-89, 1-77, 3-78)

GRSPU-6 Power Supply for AGS, net..... **\$29.70**

Relay Rack Mounting

Regular Power Pack..... **\$20.70**

"AGS" Receiver complete with coils for 1.5 to 20 m.c. less tubes, speaker, or power supply, net..... **\$159.00**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

## National FB-7A and FBX-A Receivers



### Here is the World's best known Short-wave Receiver!

The FB-7A is one of the year's most outstanding receivers, designed primarily for the experienced amateur operator. It is a seven tube receiver marked by exceptional sensitivity, selectivity and stability. These characteristics make it an ideal set for contending with the crowded condition of the amateur CW and phone bands.

Ample sensitivity and selectivity are assured by the use of a circuit employing two stages of high gain, air tuned I.F. amplification (six tuned circuits). Individual filtering of all circuits, including the electron coupled oscillators results in exceptional stability. There is no pulling-in or blocking by strong local signals and frequency drift, in both

high frequency and beat oscillators has been eliminated. Variation of the volume control has no appreciable effect on the pitch of C.W. signals, even at 14 mc.

A single-signal (crystal filter) unit is available, and may be added to the receiver if desired. With this device, selectivity is measured in cycles rather than in k.c., almost completely eliminating interference from unwanted signals and greatly reducing static.

The FB-7 is surprisingly easy to operate. Tuning is strictly single control and calibration is permanent. Coil plug is from the front of the panel without disturbing shielding. Tuning curves are mounted on the front panel. Switches for the C.W. oscillator, and for cutting B voltages during transmission are conveniently located. A phone jack is located in the second detector output circuit. The coils employed on the FB-7 plug in through the front panel. Windings are on accurately threaded R-39 forms and are protected by bakelite sleeves. The grounded metal handle completes the shielding when the coil is in use.

Coils are available in ranges covering the 20, 40, 80 and 160 meter band spread and from 34,000 to 900 k.c.

Tubes required include the following: 2-volt type: one 56, one 57, two 58's, one 59, two 24's. Six volt type: One 37, one 77, two 78's, one 89 and two 36's. The power supply requires one type 80 rectifier.

FB-7A, with air tuned I.F. transformers, less coils, speaker and power supply. Net..... **\$37.50**

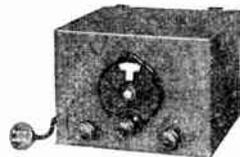
EBX-A, as above but with single-signal (crystal filter) unit, less coils, speaker and power supply. Net..... **\$51.90**

5887 AB Power Supply for FB-7.....\$14.70  
5897 AB Power Supply for FB-7 (greater output)..... **15.90**

### National SW-3 Receiver

The SW-3 receivers employ a circuit consisting of one R.F. stage transformer coupled to a regenerative detector and one stage of impedance coupled audio. This circuit provides maximum sensitivity and flexibility with the smallest number of tubes and least auxiliary equipment.

The single tuning dial operated a precisely adjusted two gang condenser, the regeneration control is smooth and noiseless, the volume control calibrated from one to nine in steps corresponding to the R scale and

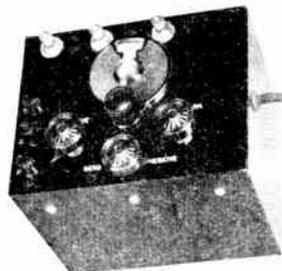


connected in the antenna input circuit,—these features contribute to the efficiency and easy operation of this unit.

Tubes: The two volt A.C. model requires two 58, one 27; the 6 volt D.C. model, two 36, one 37; the 2 volt D.C., two 32, one 30. Available in 3 Models: ACSW-3 for A.C. operation—6DCSW-3 for 6 volt D.C. operation—2DCSW-2 for 2 volt D.C. operation—A.C. models use "60" series coils; D.C., "110" series coils. SW-3, any model, less coils, speaker, power supply. Net..... **\$19.50**  
5880 AB Power Supply for A.C. SW-3.....\$15.90

### TR 56 MC Transceiver

A combination receiver and transmitter designed for portable use on the 56 mc. band. Two tubes, a type 30 and type 33 are used. Used as a receiver, the type 30 functions as a self blocking super-regenerative detector, transformer coupled to the 33 used as an audio amplifier. In transmitting the



type 30 functions as an oscillator and the type 33 as a modulator.

Made in two models: TRW — self contained in wood carrying case with compartments for accessories.

Type TRM a compact model with the unit proper

mounted in metal case with 3 ft. cable for connection to external batteries.

Can be used with either single wire or doublet antenna.

Type TRW in quartered oak case, less tubes batteries and hand-set. Net..... **\$40.50**

Type TRM in metal case less tubes batteries and hand-set. Net..... **\$27.00**

# NATIONAL

## Preselector



For use with either superheterodyne or TRF Receivers. Designed for use with FB-7, it is equally effective with SW-3 and other receivers. It provides additional selectivity and additional gain and weak signal response. Reduces image frequencies in superheterodynes. Power supply is not critical and may be obtained from the receiver used. The tube may be either a

58 or a 78 depending upon whether a 2½ or 6 vclt filament is most convenient. Plug in coils are available in the same ranges as required for the FB-7. Type PSK Preselector, less tubes, but with 1 coil for any band.

**\$15.00**

## Cathode Ray Oscilloscope



Provides an instantaneous graphic picture of the actual operating conditions in transmitter circuits. Percentage Modulation, Signal Distortion and Peak Voltages are indicated directly, and results are easily interpreted.

The Cathode Ray Tube is the 3-inch diameter RCA-906. No linear sweep device is provided, as it has been found more desirable to use an audio signal from the transmitter for this purpose. The resulting "trapezoid pattern" may be interpreted more readily, and percentage modulation more easily circulated, than with a linear sweep. However, the linear sweep may be added at any time if it is found necessary for special work. The unit is entirely self-contained, the power supply and control devices being built-in. Tubes required: One RCA-906 and one 80.

Type CRO Cathode Ray Oscilloscope without tubes, Net.....

**\$17.70**

## SRR Ultra High Frequency

A compact and efficient 3-tube receiver primarily for use on 56 mc. Plug-in coils permits its use on 10, 20, 40, 80 and 160 meter bands. High sensitivity, band spread, constant regeneration. 6 volt A.C. or D.C. filament supply; 135 volt B supply. Requires one each 36, 37 and 89 tubes. Type SRR- with 56-60 mc. coil, less tubes speaker and power supply.

**\$19.50**

5886—Power supply for SRR.....\$20.70  
10 meter coil.....\$0.75    80 meter coil.....\$1.05  
20 meter coil......75    160 meter coil..... 1.05  
40 meter coil......75

## National Receiver Coils "10" Series for AC-SW-5, AC-SW-45, DC-SW-45 Thrill Box and DC-SW-3

### General Coverage Coils

Cat. No.	Color	Range	Net Per Pair
10	Brown	9. to 15. meters.....	\$3.00
11	Black	13.5 to 25. meters.....	3.00
12	Red	23. to 41. meters.....	3.00
13	White	40. to 70. meters.....	3.00
14	Green	65. to 115. meters.....	3.00
15	Blue	115. to 200. meters.....	3.00
16	Orange	200. to 360. meters.....	3.30
17	Yellow	350. to 550. meters.....	3.30
18	Purple	500. to 850. meters.....	3.90
19		850. to 1200. meters.....	4.80
20		1200. to 1500. meters.....	4.80
21		1500. to 2000. meters.....	4.80

### Band Spread Coils

Cat. No.	Range	Net Per Pair
10A—10 meter band.....		\$3.00
11A—20 meter band.....		3.00
13A—40 meter band.....		3.00
14A—80 meter band.....		3.00
15A—160 meter band.....		3.00

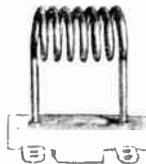
## "60" Series for AC-SW-58 DC-SW-34 and AC-SW-3

### General Coverage Coils

Cat. No.	Range	Net Per Pair
60	9. to 15. meters.....	\$3.00
61	13.5 to 25. meters.....	3.00
62	23. to 41. meters.....	3.00
63	40. to 70. meters.....	3.00
64	65. to 115. meters.....	3.00
65	115. to 200. meters.....	3.00
66	200. to 360. meters.....	3.30
67	350. to 550. meters.....	3.30
68	500. to 850. meters.....	3.90

### Band Spread Coils

60A—10 meter band.....	\$3.00
61A—20 meter band.....	3.00
63A—40 meter band.....	3.00
64A—80 meter band.....	3.00
65A—160 meter band.....	3.00



5 METER COIL. Consisting of a heavy copper air-spaced winding and mounted on a Steatite base, this coil is specifically designed for 5-meter transmitters, receivers or transceivers. They are usually used in pairs.

Type XR-9, complete per coil. Net..... **27c**

LOW FREQUENCY OSCILLATOR COIL. Two separate inductances, closely coupled, in an aluminum shield. It is used in the SRR and other super-regenerative receivers for the interruption-frequency oscillator.

Type OSR. Net..... **90c**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

## Special Purpose CONDENSERS

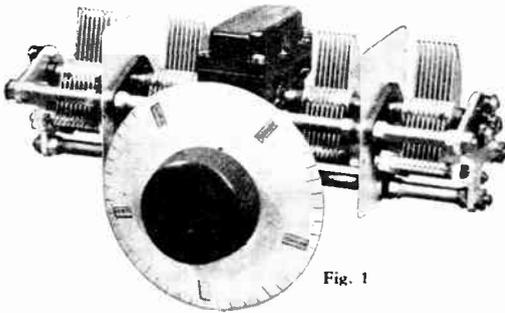


Fig. 1

### Precision Condenser

This new National ganged condenser is designed to overcome the defects of the usual ganged condenser when used for high frequency work. The drive is in the mid-point, and is of the worm-gear type with a ratio of 20 to 1. The condenser sections do not touch the panel, but the entire unit is self-supporting about the gear housing. The Micrometer dial mounts directly on a support projecting from the housing. It may be read directly to one part in 500.

- PW-1 Single section, net.....\$ 8.10
- PW-2 Two section, net..... 10.20
- PW-3 Three section, net..... 12.30
- PW-4 Four section, net..... 14.40

### Padding Condensers

National Air-Dielectric Padding Condensers (Fig. 5) are extremely compact, and have very low temperature coefficient.

A very small mica Padding Condenser (Fig. 8) is also available, mounted on Steatite and designed to be supported by circuit wiring. Maximum Capacity is 30 mmf.

- W75 (75Mmf. Air).....\$1.35
- Net Price.....
- W100 (100 Mmf. Air)..... 1.50
- Net Price.....
- M50 (30 Mmf. Mica)..... .21
- Net Price.....

### I. F. Transformers

National units (Fig. 7) employ Steatite Insulation, Aluminum Plates, Litz-wound Coils and air padding condensers. Adjustments are on top of shield, knob tuning on Oscillators. Two models, 450-550 K.C. or 175 K.C.

- Net Price, Transformers or Oscillators.....\$3.00



Fig. 8

### Neutralizing Condensers

STN (Fig. 2) For neutralizing 245, 247, 210 and similar tubes in amplifier, buffer or doubler stages. Very low minimum capacity. Isolantite insulation and polished plates. Maximum capacity 18 mmf. Peak voltage breakdown—1000 V.

Net Price.....\$1.20

TMN (Fig. 3) Peak voltage rating of 6000 volts. For use with 203A, 852, 204A and similar tubes. Maximum capacity 50 mmf.

Net Price.....\$3.60

Type 800 (Fig. 4) For use with the RCA-800. Both plates are insulated from ground on Isolantite pillars. Net Price.....\$1.80

### General Purpose

EM (Fig. 6) National EM Condensers have proven eminently suited for use in low-power transmitters, receivers, monitors, wave-meters, etc. Peak Voltage Rating is 1000 volts.

Capacity	No. of Cat. Plates	Symbol	Net Price
150	9	EM 150	\$1.80
250	14	EM 250	2.10
350	18	EM 350	2.25
500	26	EM 500	2.40
1000	46	EM 1000	3.30

### Frequency Meter Condenser

A special purpose condenser designed for amateur frequency meters and monitors On the 80 or 160 meter bands the special rotor provides a spread of 80 divisions (on a 100 division dial). Minimum Capacity is 40 mmf., Maximum 75 mmf. Not illustrated, but same frame as EM Type 40-75. Net Price.....\$3.30

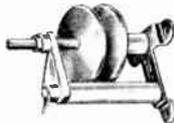


Fig. 4

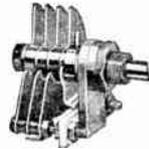


Fig. 2

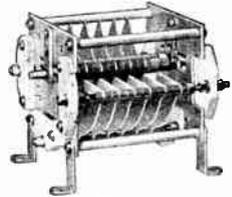


Fig. 3



Fig. 5

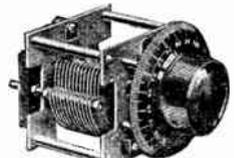


Fig. 6

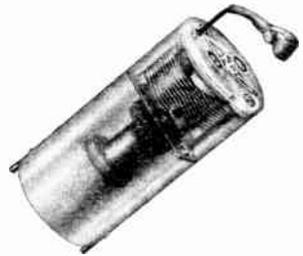


Fig. 7

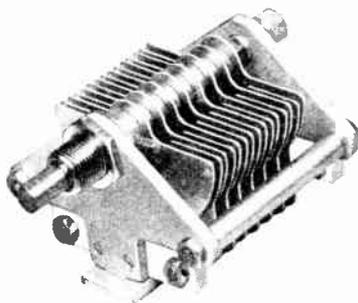
# NATIONAL

## TRANSMITTING CONDENSERS

### TMS (Low Power, Compact, Inexpensive)

Type TMS is a new condenser designed for transmitter use in low power stages. It is compact, rigid, and dependable. Provision has been made for mounting either on the panel, on the chassis, or on two stand-off insulators.

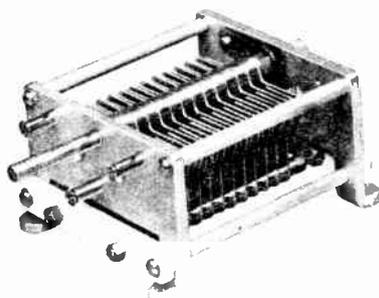
Front bearing is conical, rear bearing radial with single-ball thrust. Insulation is Steatite-Isolantite. Voltage ratings listed are conservative.



Capacity	Peak V	Length	Plates	Cat. Symbol	Net Price
FOR OSCILLATORS, BUFFERS, DOUBLERS, ETC.					
100 Mmf	1000 v	2 3/4"	10	TMS-100	\$1.35
150 Mmf	1000 v	2 3/4"	14	TMS-150	1.50
250 Mmf	1000 v	2 3/4"	23	TMS-250	1.65
50-50	1000 v	2 3/4"	6-6	TMS-50D	2.10
100-100	1000 v	2 3/4"	9-9	TMS-100D	2.55
FOR LOW C, TYPE 210 AMPLIFIERS					
35 Mmf	2000 v	2 3/4"	8	TMSA-35	1.65
50 Mmf	2000 v	2 3/4"	11	TMSA-50	1.80

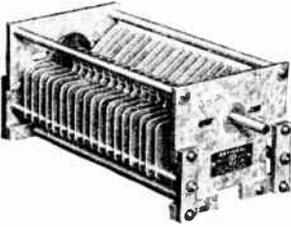
### TMC (Moderate Power, Compact)

Also of new design, the TMC is designed for use in the power stages of transmitters, where peak voltages do not exceed 3000. The frame is extremely rigid and arranged for mounting on panel, chassis or stand-off insulators. The plates are aluminum, with buffed edges. The front bearing is conical, rear bearing radial with single-ball thrust. Insulation is Steatite-Isolantite, located outside of the concentrated electrostatic field. The sator in the split sator model is supported at both ends.



Capacity	Peak V	Length	Plates	Cat. Symbol	Net Price
FOR RK-18, RK-20, RCA-800, 830, 203A, 210, ETC.					
50 Mmf	3000 v	3"	7	TMC-50	\$2.40
100 Mmf	3000 v	3 1/2"	13	TMC-100	2.55
150 Mmf	3000 v	4 5/8"	21	TMC-150	2.85
100-100 Mmf	3000 v	6 3/4"	13-13	TMC-100D	4.50
Air Gap = .077"					

## Transmitting Condensers



TM (Standard, General Purpose). The rotor and stator plates have rounded edges (milled and polished). Insulation is Isolantite. Front bearing is conical, rear bearing radial with single-ball thrust. The front plate is drilled and tapped for mounting a standard "A" dial, as illustrated. The dial is not regularly furnished.

TMU (Heavy Duty) is designed for higher powers than the standard TM Condenser. Rotor and Stator plates are of thick aluminum plate, with milled and polished edges. Insulation is Micalex. The rotor contact is through a heavy laminated brush having a contact area  $\frac{1}{8}'' \times \frac{1}{2}''$ . The frame is particularly rigid, being composed of sand-cast aluminum end plates and heavy tie-bars.

Front bearing conical, rear bearing radial, with single-ball thrust.

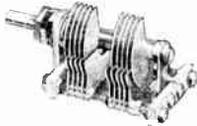
Capacity	Peak V	Length	Plates	Cat. Symbol	Net	Capacity	Peak V	Length	Plates	Cat. Symbol	Net
100	3000 v	3 $\frac{1}{4}''$	11	TM 100	\$2.70	For 849, 860, 852, 861, 204A, etc.					
150	3000 v	4 $\frac{9}{16}''$	17	TM 150	3.00	50	7500 v	6 $\frac{3}{8}''$	8	TMU 50A	\$17.70
230	3000 v	4 $\frac{9}{16}''$	23	TM 230	5.40	150	7500 v	11''	23	TMU 150A	18.90
50	6000 v	4 $\frac{9}{16}''$	12	TM 50A	3.60	250	7500 v	14 $\frac{7}{8}''$	37	TMU 250A	20.10
100	6000 v	6 $\frac{7}{8}''$	23	TM 100A	6.00	Special Sizes, and Higher Voltage Ratings, can be supplied on special order. Correspondence necessary.					
150	6000 v	9 $\frac{5}{16}''$	33	TM 150A	8.40						
100-100	6000 v	12 $\frac{5}{16}''$	46	TMP 100A	9.60						

## Receiving Condensers



SE 270 Straight-Line-Frequency. The plates and frame are of aluminum. Insulation is Steatite. The rotor has two bearings in all models, the front bearing being insulated to prevent noise from ground currents in the frame.

The SEU-15, SEU-20 and SEU-25 condensers have thick plates with rounded and polished edges, and are suitable for high voltages.



ST 180 Straight-Line-Wavelength, similar to the SE Condensers described above, but has 180° Straight-Line-Wavelength plates. Also, the use of 180° plates permits a more compact frame with less overall height. In all other details, the two condensers are identical.

Cap.	Air Gap	No. Plates	Length	Cat. No.	Net Price	Cap.	Air Gap	No. Plates	Length	Cat. No.	Net Price
15	.055"	6	2 $\frac{1}{4}''$	SEU 15	\$1.50	Double Bearing Models					
20	.055"	8	2 $\frac{1}{4}''$	SEU 20	1.65						
25	.055"	9	2 $\frac{1}{4}''$	SEU 25	1.65	35	.026"	9	2 $\frac{1}{4}''$	ST 35	\$0.90
50	.026"	11	2 $\frac{1}{4}''$	SE 50	1.80	50	.026"	11	2 $\frac{1}{4}''$	ST 50	1.08
75	.026"	15	2 $\frac{1}{4}''$	SE 75	1.95	75	.026"	15	2 $\frac{1}{4}''$	ST 75	1.20
100	.026"	20	2 $\frac{1}{4}''$	SE 100	2.10	100	.026"	20	2 $\frac{1}{4}''$	ST 100	1.35
150	.026"	29	2 $\frac{1}{4}''$	SE 150	2.25	140	.026"	28	2 $\frac{3}{4}''$	ST 140	1.50
200	.018"	27	2 $\frac{1}{4}''$	SEH 200	2.25	150	.026"	29	2 $\frac{3}{4}''$	ST 150	1.50
250	.018"	32	2 $\frac{3}{4}''$	SEH 250	2.40	200	.018"	27	2 $\frac{1}{4}''$	STH 200	1.65
300	.018"	39	2 $\frac{3}{4}''$	SEH 300	2.40	250	.018"	32	2 $\frac{3}{4}''$	STH 250	1.80
335	.018"	43	2 $\frac{3}{4}''$	SEH 335	2.55	300	.018"	39	2 $\frac{3}{4}''$	STH 300	1.95
						335	.018"	43	2 $\frac{3}{4}''$	STH 335	2.10
Single Bearing Models						Split-Stator Double Bearing Models					
15	.018"	3	1 $\frac{1}{8}''$	STHS 15	\$0.84	50-50	.026"	11-11	2 $\frac{3}{4}''$	STD 50	\$2.10
25	.018"	4	1 $\frac{1}{8}''$	STHS 25	.90	100-100	.018"	14-14	2 $\frac{3}{4}''$	STD 100	2.70
50	.018"	7	1 $\frac{1}{8}''$	STHS 50	.96						

# NATIONAL

## National Velvet-Vernier Dials

### "VK" Dial

Full Vision Dial, Type VK, (Fig. 1), type used on SW-58 and FB-7 Receivers. The long seven-inch scale permits accurate logging, and the travelling pointer remains vertical at all times. Ratio is 10 to 1. It is available with either 2, 3 or 4 scale. Type VK—

Net..... **\$2.70**

### "N" and "NW" Dials

Precision Dials, Type N, have engine divided scales and verniers of solid German Silver. The Verniers are flush, eliminating errors from paralox. The four-inch Type N dial (Fig. 3) employs a smooth and powerful planetary mechanism with a 5 to 1 ratio. It is available with either 2, 3, 4 or 5 scale. Type N—

Net..... **\$4.05**

The six-inch Type NW dial (Fig. 2) has a variable ratio drive that is unusually powerful at all settings. It is recommended for use on large transmitters and precision instruments. Available with either 2, 3, 4 or 5 scale. Type NW—

Net..... **\$9.00**

### "A" Dial

"Velvet Vernier" Dial, Type A, (Fig. 5), an unchallenged favorite for general use. It is exceptionally smooth and entirely free from backlash. The mechanism is contained within the bakelite knob and shell. Ratio 5 to 1. Available with either 2, 4 or 5 scale in 4" diameter. Available with 2 scale in 3 1/2" diameter. Type A—Net.....

**\$1.80**

### "B", "BM" and "BX" Dials

"Velvet Vernier" Dial, Type B (Fig. 6) provides a compact variable-ratio drive that is smooth and trouble free. The mechanism is inclosed in a black bakelite case, the dial being read through a window. Available with 1 or 5 scales. Type B—Net.....

**\$1.65**

The Type BX Dial (Fig. 4) is mechanically identical to the Type B Dial, but is equipped with an etched dial scale and vernier reading to 1/10 division. Available with 5 scale only. Type BX—Net.....

**\$2.10**

The Type BM Dial is a smaller version of the Type B Dial for use where space is limited. It is similar to the Type B Dial in appearance and mechanism, but does not have the variable-ratio device. Available with 1 or 5 scales. Type BM—Net.....

**\$1.50**

### "H" Dial

Projection Drum Dial, Type H, (Fig. 7), employs the proved and popular non-conducting cord drive with spring take-up. The dial scale is optically projected on a ground-glass screen, considerably enlarged. Parallax is entirely absent. Condenser shaft must be parallel to panel. Available with either 2, 3 or 4 scale. Type H—Net.....

**\$3.30**

### Dial Scales

The above dials are available with one or more of the following scales.

Scale Type	Divisions	Degrees Rotation	Direction of Condenser rot. for cap. increase
1	0-100-0	180°	Either
2	0-100	180°	Counter Clockwise
3	100-0	180°	Clockwise
4	150-0	270°	Counter Clockwise
5	200-0	360°	Counter Clockwise

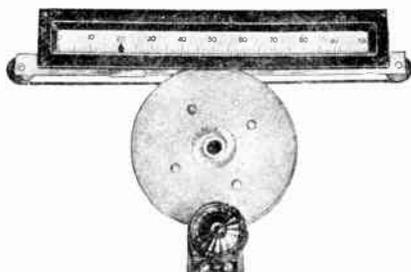
### Dial Lever Indicators

Designed for transmitter control panel use. The well defined bronze pointers and insulated handles greatly add to appearances. Available to fit 1/4" and 3/8" shafts. Types J and M supplied with etched scales 0-100.

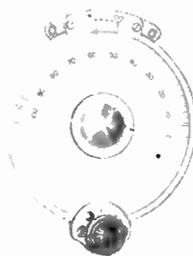
Type S, net..... **\$1.65**

Type J, net..... **1.80**

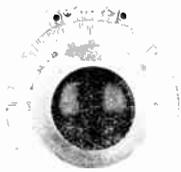
Type M, net..... **2.25**



(Fig. 1)



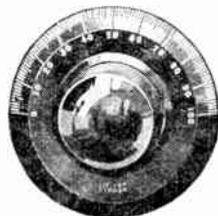
(Fig. 2)



(Fig. 3)



(Fig. 4)



(Fig. 5)



(Fig. 6)



(Fig. 7)



## Shaft Couplings

The small coupling illustrated at the left has Steatite insulation, providing high electrical efficiency when used to isolate circuits.  
Type TX-9. Net..... **60c**

The small coupling illustrated at the right is well known and liked for its small size and freedom from backlash. Insulation is canvas bakelite.  
Type TX-10. Net..... **33c**

## Low-Loss Sockets



**RECEIVING SOCKETS.** National Receiving Sockets are available in either Insulatite or Steatite, to fit all standard receiving tubes. The special coil sockets for National 6-pin coils are square with four mounting holes. Tube sockets are as

illustrated.

Tube Sockets, all models. Net..... **36c**

Square Coil Sockets. Net..... **45c**

**50 WATT SOCKET.** An unusual socket—it cannot break down by arcing from contacts to metal shell, for there is no shell, nor will it arc downward from tube prongs to chassis, for the socket has a solid base. One piece of Steatite, with positive electrical contacts.

**\$2.10**

Type XC-50. Net.....

**GRID GRIPS.** This convenient little Grid-Grip is the most simple method of attaching a wire to the metal top-cap terminal of multi-element tubes. Easy to operate, never works loose, makes continuous electrical contact. Eliminates possibility of loosening cap on tube when removing lead. Made in two sizes.



Type 24—to fit broadcast set tubes. Net..... **3c**

Type 12—to fit large type tubes, such as 872. Net..... **6c**

## R. F. Chokes

**R-90** Has proper value for all by-passing work on screen-grid or plate circuits of screen-grid tubes and between detector and first audio. D.C. resistance, 350 ohms. Inductance, 90 millihenries. Net..... **75c**

**R-201** (Fig. 3). A two-section honeycomb-wound choke in R-39 case. Inductance, approximately 12 m.h., D.C. resistance approximately 120 ohms. Net..... **75c**

**R-152 and R-154** (Fig. 1.) Universal transmitter chokes are rated to carry 0.6 amperes continuously. Inductance 4 m.h., D.C. resistance 10 ohms. The R-152 is designed to give maximum impedance in the 160 meter band, and the R-154 in the 40 meter band. Net..... **\$1.35**

**R-100** (Fig. 2). Insulatite mounting, continuous universal winding in four sections. Inductance 2½ m.h., distributed capacity, 1 mmf., D.C. resistance 50 ohms. Current rating, 125 M.A. Net..... **\$1.45**

## Victron

The case with which Victron sheet can be machined makes it an ideal material for the experimenter. Standard sheets are 6" x 12".

Victron, 3/16" thick, per sheet. Net..... **\$3.06**

## Tube and Coil Shields

Aluminum shields for experimental and custom set work.

Catalog Symbol Net  
J30 Coil Shield, 2½" dia., 3¼" high—square flange at bottom 2¾"..... **\$0.21**

B30 Coil Shield, 3" dia., 3¼" high..... **.21**

B30 Coil Shield, as above with mounting base **.30**

TS Tube Shield with Top Cap and Bottom Mounting Plate..... **.24**

T58 Tube Shield with Top Cap and Bottom Mounting Plate (For dome-top tubes such as the 57, 58, 77, 78, etc.)..... **.24**

## Crystal Holder

The new National Crystal Holder possesses a number of desirable features. The crystal is held in a vertical position, which permits it to vibrate more freely. Crystals may be changed very readily, making it feasible to use the holder with different crystals as required. The cover is of metal and is used for protection and shielding only. It is not used for clamping the crystal or plates. The body of the holder is molded R-39, and has two prongs on the base for connections. When ordering specify whether for transmitting or resonator (single-signal) crystals.

Type CH, without crystal. Net..... **\$1.50**

## Code Practice Oscillator

This small audio oscillator is suitable for either code practice, or as an audio signal source for ICW on the Ultra High Frequency Bands. Being a real oscillator, the tone is excellent, and is much more satisfactory than "squealers."

A type 30 tube is used, and four flashlights cells in the case provide the necessary filament and plate current.

Type CPO, without battery or tubes. Net..... **\$3.60**

## Standard Cabinets

National Receiver cabinets for use in constructing special equipment are illustrated above. Left to right, are the cabinets regularly used for the SRR and FB-7 receivers, the PSK Preselector, and the SW-3 receiver. Available plain or with panels and sub-bases punched for standard assemblies. List prices include sub-base and bottom cover.

Type C-SRR..... **\$2.10**

Type C-FB7..... **4.20**

Type C-PSK..... **3.60**

Type C-SW3..... **3.30**

## Screen Grid Detector Coupling Unit

This impedance coupling unit, when employed to couple the output of a screen grid detector to an audio amplifier tube, will give from two to three times as much amplification as resistance coupling. Plate choke, 700 henries. Coupling condenser, .01 mfd. Grid leak, 250,000 ohms. Net..... **\$3.30**

# NATIONAL

## Low-Loss Coil Forms

TRANSMITTER COIL FORMS. In addition to the three low-loss Steatite coil forms listed below, National offers two low-price forms for use where high efficiency is not essential. Though not comparable to Steatite, these less expensive forms are not to be confused with ordinary porcelain forms.

- XR-10, Steatite, 20 or 40 meter, list price.....\$3.75
- XR-11, Steatite, 80 meter, list price..... 6.50
- XR-12, Steatite, 160 meter, list price..... 8.00
- XR-11A, Low-Loss Ceramic, same dimensions as XR-11, list price.....\$1.50
- XR-12A, Low-Loss Ceramic, same dimensions as XR-12, list price.....\$2.25

RECEIVER COIL FORM. These well-known R-39 forms are machinable, permitting the experimenter to groove and drill them to suit individual requirements. They are available in 4-, 5- and 6-prong types, and plug into the sockets shown on this page. Length, 2 1/4". Dia. 1 1/2".

- XR-4, XR-5, or XR-6. **75c**
- List price.....



condenser mounts inside the coil, and a special bakelite sleeve protects the winding. The coil shield listed is bolted to the back of the panel, and supports the Isolantite socket.

- XR-39A Coil Form, Air Tuned, list price.....\$4.75
- XR-39M Coil Form, Mica Tuned, list price.... 3.65
- XCS Coil Shield and Socket, list price..... 1.75

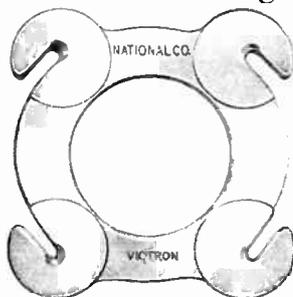
### PLUG-IN COIL FORMS

These R-39 coil forms, originally used in the FB-7, are designed for plugging-in through the front panel of a receiver, monitor, etc. A padding

MIDGET COIL FORM. Made of low-loss R-39, these small coil forms are designed with excellent form factor, contributing to high efficiency in H. F. circuits. Diameter, 1"; Length, 1 1/2"; Wall thickness, 1/16". They are available with 4-prongs, or plain.

- Type XR-1, four prongs. **30c**
- Net.....
- Type XR-2, without prongs. **21c**
- Net.....

## High Frequency Dielectrics



TRANSPOSITION BLOCK. In addition to the popular AA-1 Victron Block, National now offers a smaller Steatite Block. Both are light in weight, both are highly efficient. The Victron Block AA-1 separates feeders 1 1/2", the Steatite Block, AA-2, provides 1" separation.

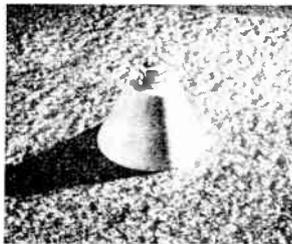
- Type AA-1. Net.....\$0.21
- Type AA-2. Net..... .12

H. F. BUSHING. A heavy bowl-type lead-in, suitable for large transmitters, this Steatite insulator provides a weather-proof joint for antenna lead-in purposes. Leakage Path 3/4".

- Type XS-5 each. Net.....\$4.50
- Type XS-5, with fittings. 9.30
- per pair. Net.....

H. F. BUSHING. This small Steatite bushing has a variety of uses in transmitter construction, not only as a neat and efficient means of bringing H.F. leads through partitions, but as a support for coils, etc. Each pair of cones includes suitable metal fittings.

- Type XS-1 (A=1", B=1 1/16") per pair. Net .....\$0.36
- Type XS-2 (A=1 1/2", B=1 3/16") per pair. Net ..... .48



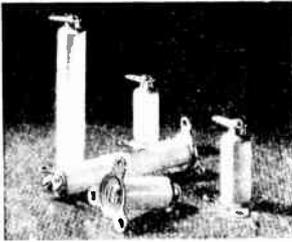
H. F. BUSHING. Larger in size than the bushings described above, and shaped to conform to the lines of electrical stress, these Steatite insulators are suitable for higher H. F. voltages. Prices are per pair, with metal fittings.

- Type XS-3 (A=2 3/4", B=2 5/16") Net.....\$1.98
- Type XS-4 (A=3 3/4", B=2 25/32") Net..... 3.60

H. F. BUSHING. A small, inexpensive Steatite bushing that has a variety of uses in H. F. Transmitters. Convenient as well as efficient, they give a professional appearance to amateur equipment.

- Type XS-6. Net.....\$0.06

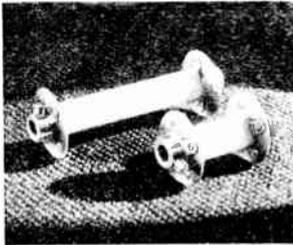
## High Frequency Dielectrics



### STAND-OFF INSULATOR.

This popular style of insulator is offered in three sizes, all of low loss. Steatite. The smallest model is tapped 8-32 each end, the larger 10-24.

- Type GS-5 (A=1/2", B=1 1/4", C=1") Net. \$0.15  
 Type GS-6 (A=3/8", B=2", C=1 1/8") Net. .21  
 Type GS-7 (A=3/4", B=3", C=1 1/2") Net. .39



### STAND-OFF INSULATOR.

This well-known little insulator is now offered in two lengths. Long and slender, the larger model is shaped for extreme electrical efficiency. It is an excellent core for H.F. solenoid chokes. (Isolantite).

- Type GS-1 (L=1 3/8") Net. \$0.15  
 Type GS-2 (L=2 7/8") Net. .21

### STAND-OFF INSULATOR.

Another small insulator suitable for a variety of applications. Being made of Steatite, it is eminently suited for Low Loss H.F. circuits. It is available in a special model with a jack for mounting plug-in inductances.

- GS-8. Net. \$0.15  
 GS-9 (with jack). Net. .21

### STAND-OFF INSULATOR.

Metal mounted like the smaller units, these heavy Isolantite stand-offs combine electrical efficiency with strength and convenience. The insulator is 3/4" diameter and is available in two lengths.

- Type GS-3 (L=2 7/8") Net. \$0.48  
 Type GS-4 (L=4 7/8") Net. .60



### HIGH VOLTAGE SHAFT COUPLING.

Also Isolantite insulated, but smaller than the models described opposite this coupling possesses their excellent design features. For 1/4" shafts only. Leakage path 3/4" less than over-all length.

- Type TX-1 (L=1 1/4") Net. \$0.60  
 Type TX-2 (L=3 1/4") Net. .66

### HIGH VOLTAGE SHAFT COUPLING.

Isolantite insulated, rugged, and free from backlash, this coupling is made in three lengths, bored for 3/8" or 1/2" shafts. Leakage path is 2 3/4" less than over-all length.

- Type TX-3 (L=5 3/8") Net. \$4.20  
 Type TX-5 (L=5") Net. 4.65  
 Type TX-7 (L=7 1/2") Net. 5.10

### ANTENNA INSULATOR.

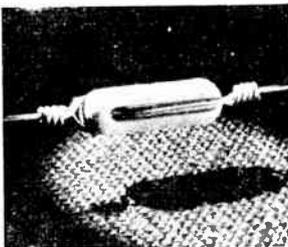
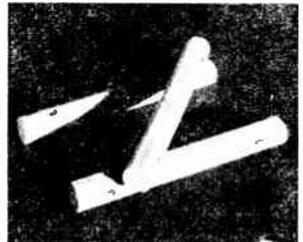
Designed for sustaining heavy loads, this insulator combines great strength with low losses. The Steatite bar is 3/4" diameter and has a leakage path of 8 1/4". The fittings are of bronze. The weight of the complete insulator is approximately one pound.

- Type AA-7. Net. \$3.00

### ANTENNA INSULATOR.

This insulator is particularly suited for general use by the amateur. Its length provides ample leakage path, while its cross-section provides ample strength for all but the heaviest loads. The use of Steatite assures excellent electrical performance.

- Type AA-6. Net. \$0.15



### STRAIN INSULATOR.

Aircraft-type insulator, in spite of its short leakage path, has a variety of uses in small portable, mobile and police installations. Being loaded in compression, the insulator provides great mechanical strength.

- Type AA-5. Net. \$0.12

**SPREADER.** Conventional in design, unusual in efficiency, these Steatite spreaders will more than justify their slight extra cost. They are at present available only in the six inch length.

- Type AA-3. Net. \$0.18

# HAMMARLUND

## Comet "Pro" Short-Wave Superheterodyne

Used by U. S. Army, Navy,  
Airways and Byrd Expedition

While the Comet "PRO" is justly named because of its universal use in commercial fields, it is equally famed among amateurs wanting the very utmost in dependable performance.

Although it offers the ultimate in selectivity and sensitivity as reached by present day engineering standards, it may be easily operated by anyone. Every worthwhile engineering feature is provided in these up-to-the-minute receivers:

Covers broadcast and short waves, 15 to 550 meters.

Band-Spread over entire tuning range with single control vernier dial.

Air tuned i.f. and oscillator coils for peak performance.

Beat-note oscillator for C.W. reception and easy location of weak phone and code stations.

Loud speaker volume, free from hum.

Complete in one compact unit with built-in power supply.

Sensitivity better than 1/4 microvolt per meter.

Crystal filter for single signal operation is optional. High signal to noise ratio secured by unusual r.f. design. Tone control affords noise suppression.

HAMMARLUND Comet "PRO" Short-Wave Superheterodyne complete with coils for 15 to 250 meters, crackle metal finished shielding cabinet, less tubes, net.....**\$88.20**

Comet "PRO" complete as described above, plus automatic volume control with cut-off switch on front panel, including coils for 15 to 250 meters,



and metal cabinet, less tubes, net.....**\$105.84**

Comet "PRO" complete with crystal filter, coils, and cabinet, less tubes, without automatic volume control, net.....**\$105.84**

Comet "PRO" complete with automatic volume control, crystal filter, coils for 15 to 250 meters, metal cabinet less tubes, net.....**\$123.48**

Coils for 8 to 16 or 250 to 550 meters, net per pair.....**\$2.95**

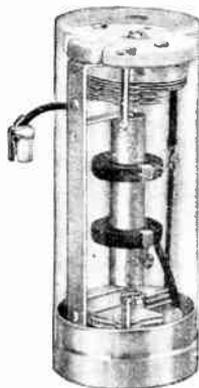
Tubes for all except AVC Models 2-57, 4-58, 1-2A5, 1-80. Tubes for AVC Models 2-57, 4-58, 1-2B7, 1-2A5, 1-80.

### Type "T" I. F. Transformers

Specially designed for experimental or replacement purposes. Their sensitivity and selectivity and other characteristics make them satisfactory for use in all superheterodynes.

Tuning condensers are of the highest grade mica compression type mounted on isolantite bases and adjusted from the top of the unit.

Tuned grid, tuned plate construction with Litz windings, impregnated against the effects of humidity.  
T-465 I.F. Transformer (465 k.c.), net.....\$0.97  
T-175 I.F. Transformer (175 k.c.), net.....\$0.97  
T-465-CT Center tapped (465 k.c.), net.....\$0.97  
T-175-CT Center Tapped (175 k.c.), net.....\$0.97



### New Air-Tuned I. F. Transformers

These new precision I.F. transformers are of the tuned primary, tuned secondary type, each with a high grade isolantite air dielectric trimming condenser, whose capacity is not effected by changes in humidity.

The Hammarlund Air Tuned I.F. Transformer has already established itself as one of the foremost developments in superheterodyne design. Windings are of the highest grade Litz wire. The accuracy they provide is an absolute necessity in single signal crystal filter receivers.

A beat frequency oscillator coupling coil is also included in this group. Tuning of the air dielectric condenser is done with a vernier handle.

ATT-175 175 k.c. i.f. transformer, net.....\$2.65  
ATT-465 465 k.c. i.f. transformer, net.....\$2.65  
ATT-525 525 k.c. i.f. transformer, net.....\$2.65  
ATO 465 k.c. beat note oscillator, net.....\$2.65

### Midget I. F. Transformers

A new type designed for use in midget sets, autoradios or any other application where space saving is important. Except for size, these are identical with the Hammarlund transformers described above. Aluminum shield cans measure only 3 1/2" high, 1 1/8" square.

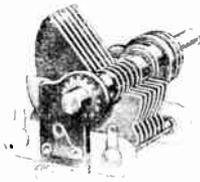
ST-465 Midget I.F. Transformer (465 k.c.) net.....\$0.97  
ST-465-CT Center Tapped I.F. Transformer (465 k.c.) net.....\$0.97  
ST-175 Midget I.F. Transformer (175 k.c.) net.....\$0.97  
ST-175-CT Center Tapped I.F. Transformer (465 k.c.) net.....\$0.97

MID-WEST RADIO MART

520 S. State St., Chicago, Ill.

# HAMMARLUND

## Midget Variable Condensers



Extreme high efficiency has been built into these condensers as a result of long research and the use of only the highest grade materials. Their superiority, apparent in any service, is even more marked when used at ultra-high

requencies.

End plates are of heavy aluminum. Brass .0225" thick is used for both rotor and stator plates. Individually tested for 500 volt breakdown. Isolantite insulation.

### Midline Plates—Single Units

Type No.	Max. Cap. Mmfd.	Net
MC-325-M	320	\$2.06
MC-250-M	260	1.75
MC-200-M	200	1.62
MC-140-M	140	1.47
MC-100-M	100	1.32
MC-75-M	80	1.18

### Semi-Circular—Single Units

Type No.	Max. Cap. Mmfd.	Net
MC-140-S	140	\$1.47
MC-100-S	100	1.32
MC-75-S	80	1.18
MC-50-S	50	.94
MC-35-S	35	.88
MC-20-S	20	.82

### Dual Section Units

MCD-140-M	140 mmfd. max. cap. per sec. (Midline), net	\$2.35
MCD-100-M	100 mmfd. max. cap. per sec. (Midline), net	2.06
MCD-140-S	140 mmfd. max. cap. per sec. (Straightline), net	2.35

### Double Spaced Single Units

Air gap between plates is .0715". Suitable for use with 210s and fifty-watters. Also used for ultra-short wave work.

MC-50-MX	(50 mmfd. max.—7 mmfd. min. cap.), net	1.62
MC-35-MX	(35 mmfd. max.—6 mmfd. min. cap.), net	\$1.32
MC-20-SX	(20 mmfd. max.) Straightline, net	1.18

### Double Spaced Dual Units

MCD-35-X	(Max. cap. per sec. 35 mmfd.) net	\$2.06
MCD-35-SX	(Max. cap. per sec. 35 mmfd.) Straightline, net	2.06

### Band Spread Midget Condensers

Have a tank circuit that can be set and locked. Shaft tunes the band-spread section. Also used for frequency meters.

MC-120-B	Tank 100 mmfd. Tuning section 20 mmfd., net	\$1.75
MC-150-B	Tank 100 mmfd., Tuning section 50 mmfd., net	1.92
MC-175-B	Tank 100 mmfd., Tuning section 75 mmfd., net	2.06

## Midget Equalizer Condensers

An extremely small adjustable low loss condenser designed for trimming r.f. coils, and the many other purposes where a low cost adjustable capacity is needed. So light in weight as to permit self-support by wiring. Isolantite base, mica dielectric and bronze plates. MEX (3 to 30 mmfd.) net.....\$0.18

## Transmitting Condensers

These high quality condensers incorporate features usually found only in the most expensive high power equipment, such as wide spacing, rounded edges and isolantite insulation.

### Single Units

Type No.	Cap. Mmfd.	Voltage	Net
TC-100-A	100	6500	\$5.59
TC-350-C	350	1000	2.94

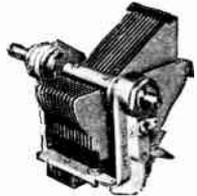
### Dual Units

Type No.	Cap. Mmfd. per sec.	Plate Spacing	NET
TCD-500-C	500	.038"	\$5.29
TCD-100-X	100	.080"	5.29
TCD-225-X	225	.080"	6.47
TCD-50-A	50	.192"	7.06
TCD-100-A	100	.192"	10.59

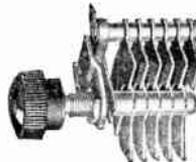
## Midline Condensers

Years of leadership are embodied in the design of these condensers. Special shaped brass plates, perfect bearings and removable shaft.

ML-23	.0005 mmfd., net	\$2.65
ML-17	.00035 mmfd., net	2.50
ML-11	.00025 mmfd., net	2.35



## STAR Midget Condensers



Most of the features of higher priced condensers are embodied in this line of low priced condensers. Aluminum plates and low-loss bakelite insulation.

SM-15	.000015 mmfd.	\$0.50	SM-100	.0001	\$0.60
SM-25	.000025 mmfd.	.50	SM-140	.00014	.75
SM-50	.00005 mmfd.	.55	SM-35-X	.000035	.60

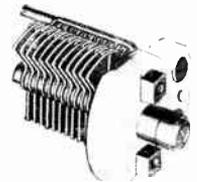
\*Double spaced transmitting condenser

## Air Padding Condenser

High quality air dielectric condensers that maintain constant capacity under any temperature condition. Particularly designed for use as tuning condenser on I.F. Transformers, Trimmers for R.F. coils and gang condensers, etc.

Large capacity dimensions  $1\frac{1}{2} \times 1\frac{1}{8} \times 1\frac{1}{2}$ " high. Isolantite base. Air gap .015. Brass rotor and stators plates.

APC-25	— 25 mmfd.	\$0.77
APC-50	— 50 mmfd.	.88
APC-75	— 75 mmfd.	1.00
APC-100	— 100 mmfd.	1.12



## Equalizer Condensers

A very small condenser for neutralizing, balancing and trimming tuned circuits. Center screw adjustment provides gradual capacity change over wide range. Mica dielectric, phosphor bronze plate and bakelite base.

EC-35	(3 to 35 mmfd.) net	\$0.15
EC-80	(25 to 80 mmfd.) net	.15

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# HAMMARLUND

## FREE — Short Wave Manual

A profusely illustrated 16-page magazine size manual. Contains complete description of twelve most popular short-wave receiver and power units. All the sets described have been built and carefully worked out in the Hammarlund Laboratories.

Here is your opportunity to avoid needless experimentation. Get a copy of this invaluable book today from MID-WEST and start building one of these well designed receivers.

FREE upon request with your next order. Be sure to take advantage of this offer quickly as the supply will be limited.

### NEW — Low Price Hammarlund Plug-in Coils



Wound on low loss XP-53 dielectric Hammarlund plug-in forms. Four coils cover the entire range of 17 to 270 meters. One more covers entire broadcast band. Windings of 17 to 41 meter and 33 to 75 meter coils are heavily

silver plated to reduce skin resistance losses.

SWK-4 Kit of four, 4-prong two winding coils range 17 to 270 meters,

**\$1.75**

net.....  
SWK-6 Kit of four, 6-prong three winding coils range 17 to 270 meters,

**\$2.20**

net.....  
BCC-4 Single 4-prong two winding coil range 250 to 560 meters,

**73c**

net.....  
BCC-6 Single 6-prong three winding coil range 250 to 560 meters,

**88c**

net.....

### Low Price Coil Forms

Ribbed for air spaced windings, with flange grips and meter-index inserts for coil calibration marking. Made of the new amber colored low-loss dielectric XP-53. Have inside shelf for mounting padding condenser.

SWF-4 4-prong, net \$0.21 SWF-5 5-prong, net \$0.21

SWF-6 6-prong, net .24

### Ultra-Short Wave Coil Form

Designed for maximum efficiency at ultra high frequencies. Made of isolantite with correct form factor, and minimum high frequency resistance. Holes are drilled in form for easy winding. Five prong to fit standard tube base.

CF-5-M, net..... **44c**

### Isolantite Coil Forms

The world famous Hammarlund Isolantite coil form that has no equal for highest quality. Has nearly ideal electrical qualities, assuring the very highest possible coil efficiency. Dimensions: 1½" diameter and 2½" long plus prongs and wooden knob at top. CF-4 4-prong, net \$0.59 CF-5 5-prong, net \$0.59 CF-6 6-prong, net .59

### Isolantite Sockets



Use of low sockets is just as important as low loss coils or condensers. Constant resistivity and perfect contacts eliminate high

losses. Glazed top, rust-proof gripping contacts. Sub-panel or base mounting. For coil or tube application.

S-4 4-prong, net \$0.35

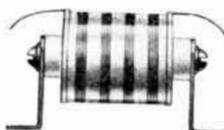
S-6 6-prong, net \$0.35

S-5 5-prong, net .35

S-7 7-prong, net .35

## CHOKES

### Isolantite R. F. Chokes



A low loss radio frequency choke designed for short wave and ultra short wave receivers. Also used as a grid choke for multi-stage transmitters. The sectionalized isolantite spool carries the four windings that are moisture proofed by a cellophane covering. Inductance 8 mmh. D.C. resistance 70 ohms, distributed capacity 3 mmfd. Rated at 125 ma. current carrying capacity.

CH-8 R.F. choke, net..... **65c**

### Transmitting Chokes

Inductance 2.5 mh. Distributed capacity less than 1.5 mmfd. D.C. resistance 8 ohms. Continuous D.C. carrying 500 ma. Composed of six thin universal wound pies mounted on an isolantite core with a tapped hole in each end to which insulated mounting brackets are secured.

CH-500 Transmitting Choke, net..... **\$1.03**

### New Shielded R. F. Choke

A new improved shielded choke for general use in high gain circuits. Completely housed in an aluminum shell to reduce the external field and allow compact mounting. Inductance 10 m.h., D.C. resistance 65 ohms. Current carrying capacity, 100 ma.

CH-10 Shielded Choke, net..... **59c**

### High Impedance Chokes

A special helical winding and impregnating prices enables the forming of a very large inductance with a very low distributed capacity.

RFC-85 Inductance 85 mh., Cap. 3

mmfd., Res. 215 ohms, net..... **\$1.18**

RFC-250 Inductance 250 mh. Cap. 2

mmfd., D.C. Res. 420 ohms, net..... **\$1.32**

### Midget R. F. Chokes

Five universal wound pies mounted on a ¼" isolantite core. Impregnated to insure ruggedness as well as freedom from atmospheric changes. Inductance 2.1 mh. D.C. resistance 35 ohms. Dist. Capacity 1mmfd. Current rating 125 ma.,

net..... **44c**

### Padding Condensers

For trimming, aligning, compensating and padding wherever a high quality adjustable capacity is needed.

MICS- 70 (10-70 mmfd.) ..... **\$0.29**

MICS- 140 (70-140 mmfd.) ..... **.35**

MICS- 220 (140-220 mmf.) ..... **.41**

MICS-1000 (600-1000 mmf.)..... **.59**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

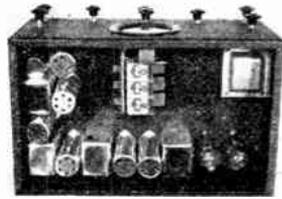
# McMurdo-Silver, Inc.

## The 5-C Single Signal Receiver

The 5-C is a 1935 improved model of the famous 5-B, embodying all latest improvements in receiver design. Outstanding features include: accurately calibrated airplane "watch" dial having one pointer for three-gang main tuning condenser and second pointer on an 0-100 division scale for three-gang band spread condenser; new high-gain tuned r. f. stage on all bands for image selectivity and excellent no signal volume for its extreme selectivity; manual or automatic volume control at the turn of a switch; and all famous 5-B features.

### These Features Challenge Comparison!

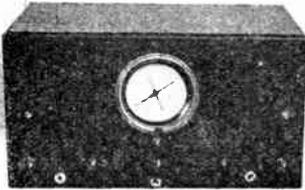
**SENSITIVITY**—Guaranteed to have sensitivity of 1 microvolt absolute, or better. **SELECTIVITY**—Selectivity curve 26 k. c. wide 10,000 times down without crystal or 50 cycles wide with crystal. **FIDELITY**—Overall antenna to speaker fidelity without crystal is uniform to 6 decibels from 30 to 4000 cycles—or absolutely uniform over entire fundamental musical range at loud speaker output. **POWER OUTPUT**—Undistorted power output of three watts. **VOLUME CONTROL**—Equipped with audio volume control for use when AVC is switched in, and with manual i. f. sensitivity control for use when AVC is switched out for high speed telegraph reception. **CIRCUIT**—All-wave super-heterodyne employing a '58 r. f. amplifier, 2A7 high efficiency first detector and electron-coupled oscillator, two '58 r. f. amplifier stages, '55 diode second detector, diode AVC and triode first audio stage, '58 audio beat oscillator and C.W. code reception, 2A5 in Class A power output stage and one '80 rectifier. **WAVE LENGTH RANGE**—13 to 200 meters or 1500 to 2300 k.c. in 3 bands. **BAND SPREAD TUNING**—All stations can be tuned on main dial or on the band spread dial located on large airplane dial, and is available by simply pulling out tuning knob, which then operates



band spread pointer and 3-gang band spread condenser. Band spread 200 degrees for 80 and 160 meter, 100 degrees for 20 and 40 meter amateur bands. **I. P. AMPLIFICATION**—2 stages of dual air tuned 465 k.c. amplification using 5 "Litz" wound tuned circuits and 2 '58 super control tubes. **LOUD SPEAKER**—Specially designed and matched Jensen dynamic unit in matching cabinet. **HEADPHONE JACK**—On front panel. **SEND-RECEIVE SWITCH**—On front panel. **FINISH**—Crystalline black—except tube and i. f. shields which are polished aluminum. **DIMENSIONS**—Length, 17"; Height, 8 3/4"; Depth, 10 3/4". Speaker, 7" square; 3 1/2" deep. **ANTENNA**—Separate r. f. primaries for each band allow use of doublets or Marconi Antennae at will. **CRYSTAL**—When ordered, can be supplied with special Bileyley quartz crystal filter in Bileyley holder, and with i. f. amplifier properly aligned to exact crystal frequency.

McMurdo Silver 5-C Receiver as above, complete with 5 Raytheon tubes, speaker, and cabinet, ready to operate, net..... **\$74.70**  
 Biley 465 k.c. crystal in Biley holder and specific receiver alignment for individual crystal supplied, net..... **\$9.00**

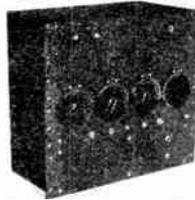
## World-Wide NINE



A superfine custom built all-wave receiver priced down to quantity production competition. Ample power, extreme selectivity, availability of all stations on both broadcast and short wave bands without noise or distortion, make this the ideal all purpose receiver.

### Incorporated All These Vital Features

13 to 560 meters range—Nine latest type tubes—Sensitivity better than 2/5 microvolt per meter—Selectivity absolute 10 k.c. at all-wave lengths—Fidelity flat to six decibels from 30 to 4000 cycles—Ten watts undistorted power output—Exceptionally low noise-to-signal ratio—Dual ratio single tuning dial—Accurately calibrated dial—Automatic volume control—Audio beat oscillator—Preselector stage on all bands—Two air tuned high gain i. f. stages—Tone control—Two audio stages—12" Jensen concert dynamic speaker—Polished chromium plated chassis—Fully A.C. operated with no hum. World-Wide Nine Receiver, complete with 12" speaker and nine matched Raytheon tubes, net..... **\$79.95**



**100-Watt  
Phone  
CW  
Transmitter**

The type 10D Transmitter provides 100 to 120 watts of crystal controlled r. f. power on the 10, 20, 40, 80, and 160 meter amateur bands, modulated 100% with high fidelity broadcast station modulation.

It employs one RK 20 screen grid r. f. pentode as a crystal controlled tritot oscillator. Modulation is secured by suppressor grid voltage variation from a simple three-stage audio modulator.

Place your order today and join the ever-growing club "Phone Worked All Countries". One set of coils included for any amateur band.

10D 100-Watt Phone and CW Transmitter, complete as described with 1 pair coils any band, less tubes, microphone, and crystal, net..... **\$119.70**  
 Additional coils 20, 40, 80, 160 meter bands, per pair..... **\$3.60**

### COMPLETE LITERATURE

Write for complete literature on any McMurdo Silver receiver, transmitter or part. MID-WEST is Chicago wholesale distributor. We will save you money and assure quickest service.

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# ALL-STAR "Build-It-Yourself" Super

## 8 Leading Manufacturers Combine To Offer This Great Receiver

Only \$2.50 Starts  
You Building

Buy other parts as needed

Designed by America's leading short-wave engineers, this professional type receiver has swept the country in the short space of a few weeks! This superlative set embodies every improvement that eight leading radio manufacturers could contribute. It has features found in only a few of the best commercial communication receivers costing many times as much.

The ALL-STAR FOUNDATION KIT including completely drilled Eraydo front and sub-panels, enlarged wiring diagram, pictorial diagram, detailed instructions for assembling wiring, adjustment and tuning, and enlarged schematic diagram costs only \$2.50. You buy the additional parts as needed.

### Sponsored By

Meissner Mfg., Co.	Belden Mfg. Co.
Thordarson Electric Mfg. Co.	Ohmite Mfg. Co.,
Cornell-Dubilier Corp.,	Crowe Nameplate & Mfg. Co.
Hammarlund Mfg. Co.,	Electrad, Inc.,

**CONTINUOUS BAND-SPREAD**—Over entire tuning range; affords easy separation of all stations, making possible the reception of hundreds of weaker distant stations.

**ALL A. C. OPERATION**—Built-in power unit supplies all voltages. Special design for hum-free short-wave reception. Filters remove all tunable hum.

**BEAT-NOTE OSCILLATOR**—Electron-coupled, an absolute necessity for code reception and greatly facilitates tuning of distant broadcast stations. Controlled by convenient panel switch.

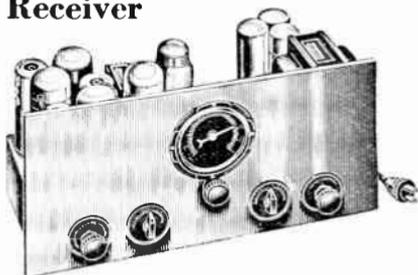
**10 TO 500 METER TUNING RANGE**—Continuous without any skips. Covers new 2-way 10 meter police band.

**7-TUBE SUPERHETERODYNE CIRCUIT**—2A7 oscillator and first detector, 58 first i. f., 58 second i. f., 56 second detector, 2A5 power output pentode, 80 rectifier, and 58 electron-coupled beat-note oscillator.

### ALL-STAR ALL-Wave Parts List

Prices quoted herein are NET to amateur Set-Builders. All materials are of the finest grade and of Standard brand. MID-WEST RADIO MART will be pleased to offer any assistance you may require in the construction of the ALL-STAR KIT.

1—T-5602 Power Transformer.....	\$2.50
1—T-5753 Choke.....	1.18
1—T-5738 Audio Transformer.....	1.90
10—.1 mfd. 200V. Condensers, ea.....	.15
2—1 mfd. 400V. Condensers, ea.....	.59
1—.0001 mfd. Mica Condenser.....	.09
1—.0005 mfd. Mica Condenser.....	.12
1—.005 mfd. Paper Condenser.....	.12
3—8 mfd. Electrolytic Cond., ea.....	.62
1—.01 mfd. Condenser.....	.15
4—16 MH R.F. Chokes, No. D-1995, ea.....	.27
2—I.F. Transformers, No. 18 21D-3402 (3)	
1—I.F. Transformers, No. 3 D-3341 (3 transformers & adjusting wrench per kit)	3.53
1—20 meter Ant. Coil D-3340.....	.30
1—20 meter Osc. Coil D-3336.....	.30
1—40 meter Ant. Coil D-3336.....	.30
1—40 meter Osc. Coil D-3333.....	.30
1—80 meter Ant. Coil D-3333.....	.30



1—80 meter Osc. Coil D-3338.....	.30
Range on above coils from 15 to 95 meters.	
80 to 160 meters per pair.....	.90
150 to 300 meters per pair.....	.90
290 to 600 meters per pair.....	.90
2—Type SM-140 Star Condensers, ea.....	.73
1—Type MC1D-35X Dual Condenser.....	2.06
1—Wirewatt 500 ohm Resistor.....	.12
2—Wirewatt 1000 ohm Res. ea.....	.12
3—Wirewatt 5000 ohm Res. ea.....	.12
1—Wirewatt 10,000 ohm Res.....	.12
1—Wirewatt 25,000 ohm Res.....	.12
1—Carbohm 50,000 ohm Res.....	.12
1—Red Devil 500 ohm Res.....	.21
1—0585 25,000 ohm Dividhom.....	1.05
2—0358 Adjustable Lugs, ea.....	.05
1—Electrad 10,000 ohm Pot. No. 1041.....	.60
1—Electrad 100,000 ohm Pot. No. 242P complete with power switch.....	.85
1—Airplane Dial No. 123 complete with light socket and escutcheon.....	1.80
1—Volume Control Name Plate, No. 25.....	.07
1—Tone Control Name Plate, No. 26.....	.07
1—Osc. Condenser Name Plate, No. 27.....	.07
1—Detector Cond. Name Plate, No. 28.....	.07
1—Foundation Kit consisting of drilled and punch base and panel with book of instructions and diagrams.....	2.50
1—4 prong speaker socket.....	\$0.05
1—4 prong coil socket.....	.05
1—3 prong coil socket.....	.05
1—80 socket.....	.05
1—2A5 socket.....	.07
2—58 sockets, ea.....	.07
1—56 socket.....	.05
1—2A7 socket.....	.07
2—Raytheon 58 tubes, ea.....	.60
1—Raytheon 56 tube.....	.40
1—Raytheon 2A7 tube.....	.71
1—Raytheon 2A5 tube.....	.60
1—Raytheon 80 tube.....	.38
1—Dynamic Speaker with output transformer.....	2.95
3—Binding posts.....	
3—Grid clips.....	
2—Small Knobs with pointers or arrows. 4—Tube shields, 1½" mounting. 4—Dozen—6/32 nuts. 4—Dozen—½" 6/32 screws, 3 small "L" brackets, Hook Up Wire, Shielded Wire, Power Supply Cord and Plug.....	\$1.50

### BEAT-NOTE OSCILLATOR

1—.1 mfd. condenser.....	\$0.15
1—.005 mfd. condenser.....	.33
1—Meissner 3466 Beat Frequency Coil Assembly.....	.59
1—16 M.H. R.F. Choke D1995.....	.27
1—6" Shielded Lead.....	
1—Type 58 tube shield.....	
1—Toggle Switch—1 Grid Clip.....	
1—6 prong socket for 58 tubes.....	.45

Any of this equipment can be supplied on instant notice.  
Take Advantage of the MID-WEST 4 hour service.

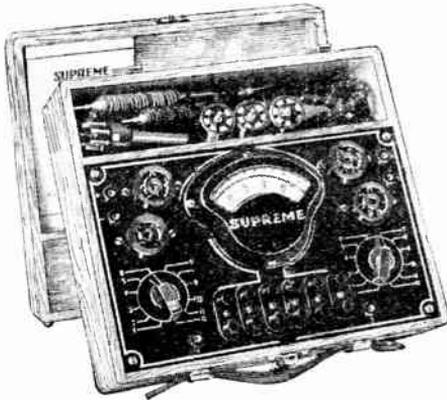
MID-WEST RADIO MART

520 S. State St., Chicago, Ill.

# SUPREME

## MID-WEST is Chicago Headquarters for SUPREME

### Standard 333 Analyzer



New Model 333 Analyzer, featuring Supreme's latest 5" fan-type meter with full vision scale and Free Reference Point System of Analysis. A combination point-to-point tester and analyzer, providing complete resistance voltage and current analysis, and tube testing from the radio socket with self-contained battery. Meter ranges selected by single 12-position rotary switch. 4-range output meter requires no adapters. Ranges are 2000—200,000 ohms; D.C. mls. 5—125 mls; A.C. and D.C. volts of 5—125—500 and 1250 volts. 0-2000 ohm range useful for continuity testing; 0-200,000 range meets practically all other service needs. Complete with tube base selector, analysis chart and instructions.

Net..... **\$29.35**

### De Luxe 333 Analyzer

Similar to Standard 333 but with a greater range. Ranges are 0—1000—10,000—100,000 and 1,000,000 ohms; D.C. Milliamps—0.5—25—125—250—500 and 1250 ma.; A.C. and D.C. volts—0—5—25—125—250—500 and 1250 volts. Direct reading capacity meter with ranges of 0—0.05—0.25—1.25—2.5—5.0—12.5 microfarads. Complete with same accessories as above.

Net..... **\$39.15**

### Standard Diagonometer

The New Supreme Standard Diagonometer combining a simple and efficient tube tester and a combination point-to-point tester and analyzer providing resistance ranges of 40—1000—10,000—100,000 and 1,000,000 ohms. Also 6 D.C. mil. ranges 0—5—25—125—250—500 and 1250 mls and 1.25 amps.; 6 A.C. and 6 D.C. ranges of 0—5—25—125—250—500—1250 volts; 6 direct reading capacity ranges of 0—0.05—0.25—1.25—2.5—5.0—12.5 mfd. and 6 output ranges of 0—5—25—125—250—500—1250 volts. Complete with type 31 tube; 60 cycle.

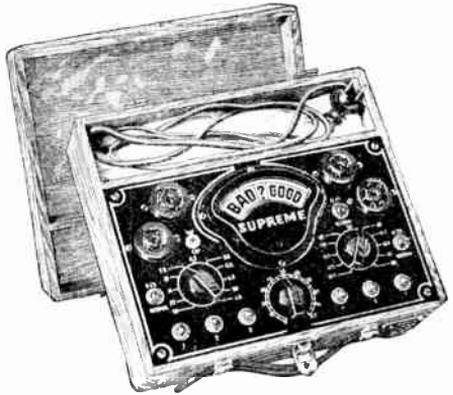
Net..... **\$97.95**

### No. 61 All-Wave Oscillator

Designed to cover all frequencies from 100 k.c. to 21 megacycles. Utilizes a low fundamental tuning range of 100 to 250 k.c. with harmonic signals to 2.5 megacycles, and a high fundamental tuning range from 2.5 to 5.25 megacycles. Harmonic signals to 21 megacycles. Harmonic tuning principle assures unusually sharp tuning for all adjustments. Each oscillator is Laboratory calibrated and supplied with a tuning chart hand-drawn to accuracy of 1/2 of 1%.

Net..... **\$24.45**

### No. 35 Tube Tester



For speed of operation and accuracy of results choose the New Model 35 tube tester. Indicates condition of all tubes in terms of "good" or "bad." Line voltage adjustment from 98 to 125 volts. This tester indicates short circuits between any two elements of any tube.

Complete. Net..... **\$29.35**

### No. 85 Tube Tester

New 1935 model features Supreme's exclusive neon leakage test (between all elements of tubes.) 5" full-vision meter. Indicates accurately the true condition of all tubes. Portable model furnished in beautifully finished quartered oak carrying case with complete tube chart mounted in cover. Counter display model is available in tri-toned walnut cabinet with tube chart in sliding drawer type panel in base.

Net..... **\$39.15**

### Supreme Fan-Type Meters



Model 310. A 5" d'Arsonval meter especially designed and built for universal application in radio testing equipment. Provides easy reading over a range 26% longer than the usual meter scale. Fan-shaped bakelite housing moulded for semi-flush mounting. Mounts in circular hole. Dimensional drawing supplied with each meter.

Meter only **\$6.13**. Parts kit includes: 1 meter adjustment resistor, 1 mils shunt strip, 9 metalized resistors, 1 ohms shunt strip, 1 0—3600 ohm potentiometer and 1 capacitor for output measurements. Complete with circuit diagram.

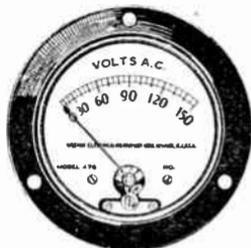
Net..... **\$3.92**

Meter Rectifier..... **\$2.75**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# WESTON



## Panel Type Instruments

Weston Panel Instruments are made in 3 1/4" groups offering a wide variety of D.C., A.C., A.C. rectifier and R. F. thermocouple ranges. They are carefully engineered to meet the demand for accurate and dependable instruments.

The 3 1/4" instruments are available with flush and surface metal cases in Models 301, 476 and 425; flush and surface bakelite cases in Models 301 and 425; flush bakelite in Model 476.

### D.C. Milliammeters

Permanent magnet moving coil type.

Range	Accuracy to 2%	
	301, Net	301, Net
1	\$7.50	\$6.75
5	6.75	6.75
10	6.75	6.75
15	6.75	6.75
30	6.75	6.75
50	6.75	6.75

### A.C. Voltmeters

Movable Iron Type. Accuracy to 2%

Range	476, Net	Range	476, Net
10	\$6.75	150	\$8.43
15	6.75		

### Thermocouple Ammeters

For A.C. including radio frequencies. Accuracy to 2%

Range	425, Net	Range	425, Net
1	\$12.00	3	\$12.00
1.5	12.00	5	12.00
2	12.00	10	12.00

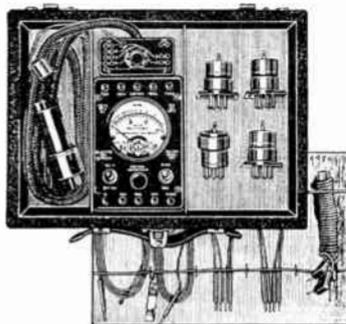
### Universal A.C.—D.C. Meter Kit

A practical A.C.—D.C. kit for general measurement work. Model 301 Universal meter with self-contained D.C. ranges of 50 M.V., 1 M.A., and an A.C. range of 5 volts. Kit includes 3 push button locking switches, 1-12 position rotary switch 1-650 rheostat, resistors and shunts. Ranges are: A.C. and D.C. 5/10/50/100/250/500/1000 volts; D.C. 1 volt; 10,000/100,000 ohms; 10/50/100/500 milliamperes D.C. Accuracy, A.C. 5%; D.C., 2%..... **\$33.75**

### Thermocouple Galvanometers

Range	Net
115 m. a., 5.2 ohms	\$13.50

### The WESTON Selective Set Servicer



Model 698. Replace obsolete or inefficient equipment now with this quality instrument. Weston Universal Volt-Ohm Milliammeter equipped with a Model 301 instrument and a complete Model 666 Type 1A Socket Selector set. Selector block mounts on top of the instrument by means of 2 pin terminals on its under side. Future tubes can be handled by an inexpensive adapter, Servicer need not be altered. Ranges are 750/150/15/7.5 volts A.C. and D.C.; 500,000/5,000 ohms full scale; 3,500/35 ohms, center scale; 75/7.5 Milliamperes D.C. only. Complete with all necessary leads, instructions and substantial leatherette carrying case. Net..... **\$34.50**

### Portable Output Meter

Model 687. Recommended for use with portable test oscillators, A.C. voltage ranges of 2, 10 and 50 available at pin jacks. Complete with long test leads and adapted for connection at output tube sockets. Net..... **\$15.00**

### WESTON Tube Checker



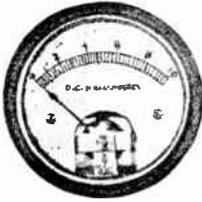
Model 682. Combination Portable Tube Checker and Counter Merchandiser. Single arc scale shows tubes as "good" or "bad". Tests all tubes commercially used today and has spare sockets for future tubes. Checks shorts between all elements of all tubes, tests cathode leakage. Makes individual tests

on all double plate tubes. Line voltage control with meter reading. Easily converted for counter or portable use. Attractively finished in two tones of fawn with silver edging. Complete with substantial leatherette carrying case. Net..... **\$29.25**

# BEEDE METERS

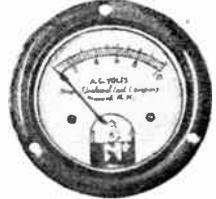
## Highest Quality Precision Instruments

### At New Low Prices!



Here is a new line that MID-WEST is introducing to their customers, offering a great value in this extremely necessary equipment for the amateur and experimenter.

Two sizes are available, the large flush type 3 1/4" instrument, and the even lower priced 2 1/4" type that mounts with a clamp around the case.



#### D.C. MILLIAMMETERS

Range	3 1/4" Price	2 1/4" Price	Range	3 1/4" Price	2 1/4" Price
0-1	\$3.53	\$2.94	0-100	\$2.79	\$2.20
0-2	3.53	2.94	0-150	2.79	2.20
0-5	3.53	2.94	0-200	2.79	2.20
0-5	2.79	2.20	0-250	2.79	2.20
0-10	2.79	2.20	0-300	2.79	2.20
0-15	2.79	2.20	0-500	2.79	2.20
0-25	2.79	2.20	0-800	2.79	2.20
0-50	2.79	2.20	0-1000	2.79	2.20

#### D. C. AMMETERS

Range	3 1/4" Price	2 1/4" Price	Range	3 1/4" Price	2 1/4" Price
0-1	\$2.79	\$2.20	0-15	\$2.79	\$2.20
0-2	2.79	2.20	0-20	2.79	2.20
0-5	2.79	2.20	0-25	2.79	2.20
0-8	2.79	2.20	0-50	2.79	2.20
0-10	2.79	2.20	0-100	2.79	2.20

#### D. C. VOLTMETERS (125 ohms per volt)

Range	3 1/4" Price	2 1/4" Price	Range	3 1/4" Price	2 1/4" Price
0-25	\$2.79	\$2.20	0-250	\$3.53	\$2.94
0-50	2.79	2.20	0-300	4.12	3.53
0-100	2.79	2.20	0-500	4.70	4.12
0-150	2.79	2.20	0-1000	7.35	6.75
0-200	5.33	2.94			

#### D. C. VOLTMETERS (1000 ohms per volt)

Range	3 1/4" Price	2 1/4" Price	Range	3 1/4" Price	2 1/4" Price
0-5	\$4.12	\$3.53	0-200	\$4.70	\$4.12
0-10	4.12	3.53	0-300	5.30	4.70
0-25	4.12	3.53	0-500	5.88	5.30
0-50	4.12	3.53	0-750	7.06	6.45
0-100	4.40	3.82	0-1000	7.94	7.35
0-150	4.40	3.82			

#### DOUBLE RANGE VOLTMETERS (1000 ohms per volt)

Range	3 1/4" Price	2 1/4" Price	Range	3 1/4" Price	2 1/4" Price
0-10-100	\$5.59	\$5.00	0-100-500	\$7.06	\$6.45
0-15-150	5.59	5.00	0-150-750	8.25	7.65
0-50-250	5.88	5.30	0-250-750	8.25	7.65

#### VOLT-OHM-MILLIAMMETERS

0-50,000 ohms upper scale, 0-15-30-300 volts lower scale, 0-1 Ma. meter with above scale, net 3 1/4" \$3.53, 2 1/4" \$2.94.  
OHMMETER, 0-2000 ohms with 1.5 volt, net 3 1/4" \$3.20, 2 1/4" \$2.65. 0-50,000 ohms with 4.5 volts, net 3 1/4" \$3.82, 2 1/4" \$3.20.

#### A. C. VOLTMETERS

Range	3 1/4" Price	2 1/4" Price	Range	3 1/4" Price	2 1/4" Price
0-3	\$2.79	\$2.20	0-150	\$3.38	\$2.79
0-8	2.79	2.20	0-300	4.12	3.53
0-10	2.79	2.20	0-500	5.30	4.70
0-15	2.79	2.20	0-750	6.45	5.88
			0-1000	7.04	7.35

### Here is a real BUY!

#### R. F. Ammeters at only \$4.95

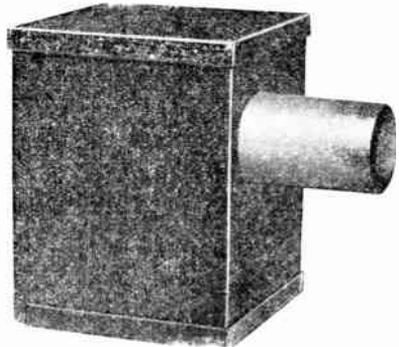
MID-WEST engineers have developed this new low cost thermo-couple ammeter at a price that has never been equalled.

Flush type bakelite case 3 1/2" indicating meter complete with calibrated thermocouple.

0-1 amp. R.F., 0-2 amps. R.F., 0-3 amps. R.F., 0-5 amps. R.F.

Additional ranges are available on request. Write for prices.

#### Photo-Electric Relay



This compact, dependable operating unit has hundreds of applications, wherever it is wished to control electrical circuits and thereby mechanical operations by means of a light beam.

Furnished complete for 110 volt 60 cycle A.C. operation. The light beam strikes the photo-electric cell within the housing, which in turn sets up a tiny electric current that is amplified by a vacuum tube also in the housing, to sufficient size to close the circuit relay. This relay will make and break currents up to 5 amps. For larger currents a heavy duty relay may be used in series.

Complete with housing as shown, with photo-cell and amplifier tube. **\$13.50**

#### A. C. AMMETERS

Range	3 1/4" Price	2 1/4" Price	Range	3 1/4" Price	2 1/4" Price
0-1	\$2.79	\$2.20	0-10	\$2.79	\$2.20
0-2	2.79	2.20	0-15	2.79	2.20
0-5	2.79	2.20	0-25	2.79	2.20
0-10	2.79	2.20	0-50	2.79	2.20
0-15	2.79	2.20	0-100	2.79	2.20
0-25	2.79	2.20	0-250	2.79	2.20
			0-500	2.79	2.20

**MID-WEST RADIO MART**

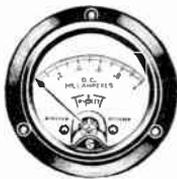
**520 S. State St., Chicago, Ill.**

# TRIPLETT

## Panel Instruments

The D.C. meters are of the D'Arsonval type with extra light moving coil; special quality chrome steel magnet; bakelite case; sapphire jewel bearings; white enamel dial.

The A.C. meters are of the movable iron repulsion type; sapphire bearings; air damped; accuracy, 2%. Flush mounting; 3 1/2" diameter, over all.



3" D. C. Voltmeters—1000 Ohms per Volt			
Range	Net	Range	Net
0-10	\$ 5.39	0-750	\$ 8.95
0-25	5.39	0-1000	10.45
0-50	5.39	0-2000	16.17
0-100	5.71	0-15-150	7.18
0-300	6.53	0-250-750	10.88
0-500	7.18	0-15-60-300-600	10.30

3" D. C. Voltmeters—125 Ohms per Volt			
Range	Net	Range	Net
0-10	\$ 3.75	0-200	\$ 4.55
0-15	3.75	0-300	5.39
0-25	3.75	0-500	6.05
0-50	3.75	0-750	7.18
0-100	3.75	0-1000	9.30
0-150	3.75	0-2000	10.88

Resistance Instruments			
Range	Net	Range	Net
0-1.5	0-1000 \$ 4.55	0-1.5	0-50,000 \$4.55
0-1.5	0-100,000 5.39	Resistor for 0-1 M. A. to make voltmeter	
0-4.5	0-150,000 5.39	M. A. to make voltmeter	
0-1.5	0-100 4.40	0-15-60-300-600	5.71

D. C. Milliammeters			
Range	Net	Range	Net
0-1	\$ 4.55	0-1	35 \$3.75
0-5	3.75	0-3	11 3.75
0-10	3.75	0-8	6.6 2.94
0-15	3.75	0-10	3.1 2.94
0-25	3.75	0-15	2 2.94
0-50	3.75	0-25	1.2 2.94
0-100	3.75	0-50	.6 2.94
0-200	3.75	Range	App. Res.
0-250	3.75	0-100	.3 \$2.94
0-300	3.75	0-200	.15 2.94
0-500	3.75	0-250	.12 2.94
0-750	3.75	0-500	.1 2.94
0-1000	3.75	0-500	.06 2.94
50-0-50 Galvano-		0-750	.04 2.94
meter		0-1000	.03 2.94

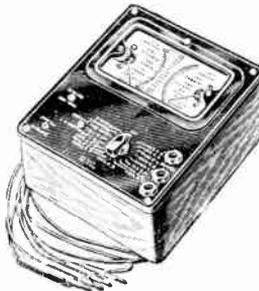
D. C. Microammeters			
Range	Net	Range	Net
0-200	\$7.84	0-200	\$6.86
0-500	6.05	0-500	5.06

D. C. Ammeters—3" and 2"			
Range	Net 3"	Net 2"	Net 2"
0-1	\$3.75	\$2.94	0-10 \$3.75 \$2.94
0-3	3.75	2.94	0-25 3.75 2.94
0-5	3.75	2.94	

A. C. Voltmeters			
Range	Net	Range	Net
0-3	\$3.75	0-3	\$2.94
0-5	3.75	0-5	2.94
0-10	3.75	0-10	2.94
0-15	3.75	0-25	2.94
0-150	4.55	0-15	2.94
0-500	7.18	0-150	3.75
0-750	8.30	0-500	6.55
0-1000	10.45	0-750	7.51

A. C. Milliammeters—3" and 2"					
Range	Net, 3"	Net, 2"	Range	Net, 3"	Net, 2"
0-10	\$3.75	\$2.94	0-100	\$3.75	\$2.94
0-15	3.75	2.94	0-250	3.75	2.94
0-25	3.75	2.94	0-500	3.75	2.94

## No. 1200 Volt-Ohm-Milliammeter



The Triplett Model 1200 is an extremely simple compact instrument, with both A.C. and D.C. movements, accurate within 2%. Ranges are: DC volts, 0-10, 0-100, 0-250, 0-500 and 0-1000; 0-1, 0-10 and 0-100 milliamperes; 0-1500, 0-1, 500,000 and 0-15 million ohms. AC scale is calibrated 0-10, 0-100, 0-250, 0-500 and 0-1000 volts. Voltage and resistance scales

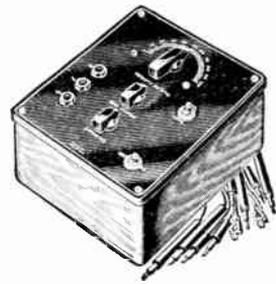
read directly. Capacity charts furnished for AC scale. Unit furnished complete with instructions, testing cords, guarantee and registration cards. Net..... **\$21.25**

## 1220 Free-Point Tester

Model 1220 may be used wherever voltage, current or resistance tests are desired. Used with No. 1200 or other suitable unit, enables making of voltage tests between any tube elements including chassis, current tests in series with any element, resistance tests between any tube elements for socket contacts including chassis, 4, 5, 6 and large and small 7 prong sockets. Complete with instructions, guarantee and registration cards. Net..... **\$8.18**

## No. 1230 All-Wave Oscillator

Model 1230 Master frequency, Stabilized, All-Wave, Continuously Variable Signal Generator furnishes frequencies from 100 K. C. to 18 mega cycles, modulated or unmodulated, 1 22 1/2 volt and 3 1 1/2 volt flash light batteries supply power for type 30 tubes. Coils, batteries, jacks, etc. individually shielded. Used to determine frequency alignment, furnish the signal for aligning all types of broadcast receivers, and anywhere signal generator of constant amplitude is required. Complete with tubes and batteries. Net..... **\$15.00**



for type 30 tubes. Coils, batteries, jacks, etc. individually shielded. Used to determine frequency alignment, furnish the signal for aligning all types of broadcast receivers, and anywhere signal generator of constant amplitude is required. Complete with tubes and batteries. Net..... **\$15.00**

## No. 1210 Tube Tester

An Emission type tester containing 4 sockets for all tubes. Furnished with rectifier type tube and a 3 1/2" Triplett D'Arsonval type meter with 3-colored scale. Three simple operations test all tubes; one operation for shorts. Four selector switches handle all operations. No. 1210 Master Unit supplies in separate metal case with bakelite panel. Quarter sawed oak portable case extra. Complete with tube and chart. Net..... **\$19.60**

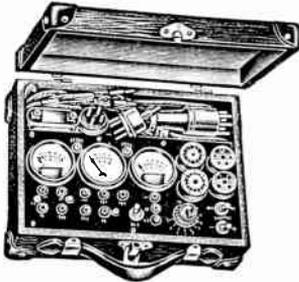
## Bar Pointer Knobs

2 1/4" Net	\$0.12
1 3/4" Net	.09

A. C. Ammeters—3" and 2"					
Range	Net, 3"	Net, 2"	Range	Net, 3"	Net, 2"
0-1	\$3.75	\$2.94	0-5	\$3.75	\$2.94
0-2	3.75	2.94	0-10	3.75	2.94
0-3	3.75	2.94	0-25	4.55	3.75

# READRITE

## Set Tester, Model 710



New, improved meter testers for quick and accurate testing of all tube circuits, transformers, chokes, etc. Capacity and resistance charts furnished for testing condensers and measuring resistances up to 100,000 ohms. Contains small size plug and latch for 4 adapters; also comb. socket for large and small 7-prong tubes. Net.....

**\$16.17**

## Counter Tube Tester



No. 410 -- Handy, compact tester for checking old tubes, new or old, used in receiving sets. Suitable for store or field use. Provides two plate current readings, tests both plates of double plate tubes, has combination socket for large and small 7-prong tubes. Illuminated dial; detachable meter. Test card gives simple instructions. Anyone can operate. Net.....

**\$16.17**

## Direct Reading Ohmmeters

No. 502. Has 2 scale readings, 0—10,000 and 0—1000 ohms. Supplied with 3-cell flashlight battery. Tipped wire leads. Seamless black enamel case 4" diameter. Weighs but 1 lb. Net.....

**\$4.55**

## Resistance Meter

No. 301. Uses 3 small flashlight cells, which with resistance to be measured are connected in series with meter. A thoroughly reliable instrument for testing resistances in receiving sets and circuits generally. Wide flange. Net.....

**\$1.62**

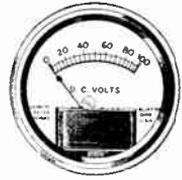
## Set Tester Model 720

Readrite No. 720 point-to-point tester is arranged for fast and efficient service work. Require minimum of manipulation. Measures voltage and current in any tube circuit, resistances, capacities, and continuities. Has 1 A.C. and 1 D.C. meter, D.C. scales are 15 — 150 — 300 and 600 volts; 15 and 150 milliamperes. A.C. scales are 10 — 25 — 150 and 750 volts. Overloading of meter avoided by the single selector switch and single pair of jacks for all meter ranges. Furnished complete with all instructions, resistance and capacity charts, cords, registration and guarantee card. Dimensions 10 3/4 x 3 1/2 x 8 7/8". Shipping weight approx. 11 lbs. Net.....

**\$14.70**

## Readrite Panel Meters

Nickel frame with bolts on back for flush connection. Flush types have flanged or narrow rim and take 2 1/4" hole. Dials are white enameled.



### D. C. Voltmeters

Range	List	Range	List
0-3 volts	\$0.59	0-100volts	\$0.88
0-6 volts	.59	0-150 volts	1.03
0-8 volts	.59	0-300 volts	1.92
0-10 volts	.59	0-500 volts	2.65
0-15 volts	.59	0-60-300 volts	2.65
0-25 volts	.59	0-750 volts	3.20
0-50 volts	.59	0-8-160 volts	1.32
		0-20-60-300-600	3.30

### Flange Ring

No. 65-A Net.....\$0.09

### D. C. Ammeters

Range	List	Range	List
0-1 amp.	\$0.59	0-10 amp.	\$0.59
0-5 amp.	.59	6-0-6 amp.	.59
0-3 amp.	.59	10-0-10 amp.	.59

### D. C. Milliammeters

Range	List	Range	List
0-5 ma.	\$1.32	0-150 ma.	\$0.59
0-10 ma.	1.18	0-200 ma.	.59
0-15 ma.	.59	0-300 ma.	.59
0-25 ma.	.59	0-400 ma.	.59
0-50 ma.	.59	0-20-0-100 ma.	1.18
0-100 ma.	.59	0-15-150 ma.	1.18

### A. C. Voltmeters

Range	List	Range	List
0-4 volts	\$1.62	0-300 volts	\$3.20
0-6 volts	1.62	0-600 volts	3.82
0-10 volts	1.62	0-750 volts	4.35
0-15 volts	1.62	0-10-140 volts	2.65
0-150 volts	2.65		

### A. C. Ammeters

Range	List	Range	List
0-1 amp.	\$1.62	0-10 amp.	\$1.62
0-3 amp.	1.62	0-50 amp.	1.92
0-5 amp.	1.62		

### A. C. Milliammeters

Range	List	Range	List
0-25 ma.	\$1.62	0-250 ma.	\$1.62
0-50 ma.	1.62	0-500 ma.	1.62
0-100 ma.	1.62		

### Tuning Meters

TM-108 Needle shadow type. Small edge-wise case. Attaches to bracket with spring clamp. Needle shadow clearly visible through translucent dial. Extremely compact. Net.....

**\$8c**

TM-120 Shadow graf type. When shadow reaches narrowest point on dial, resonance is indicated. Complete with lamp. Net.....

**\$8c**

Escutcheon—2 kinds—one for TM-108 straight scale; one for circular dials. Net, each.....

**18c**

MID-WEST RADIO MART

520 S. State St., Chicago, Ill.

# LITTLEFUSE

## Protect Tubes—Meter—Transformers

### Fuses



These rapid acting fuses are designed to protect meters, tubes and delicate electrical equipment. They are accurate and dependable and provide positive protection at a fraction of the

cost of the equipment itself.

Max. Load M.A.	Used to Protect Voltmeters Ohms per volt	Magnetic Movements	Thermo-couple Types	Net
10	1000 up	1'p to 0-1	1'p to 0-10	\$0.12
25	500 to 1000	0-1 to 0-10	0-10 to 0-25	.12
60	100-500	0-10 to 0-25	0-25 to 0-60	.12
100	20-100	0-25 to 0-75	0-60 to 0-115	.09
200	10-20	0-75 to 0-150	0-115 to 0-200	.09
300	5-10	0-150 to 0-250	0-200 to 0-300	.09
400	3-5	0-250 to 0-350	0-300 to 0-400	.09
600		0-350 to 0-500	0-400 to 0-600	.09
1000		0-500 to 0-750	0-600 to 0-1000	.06

1000 volt Littlefuses for power tubes, rectifiers, etc.

Max. Load	Net	Max. Load	Net
200 m.a.	\$0.21	400 m.a.	\$0.21
300 m.a.	.21	600 m.a.	.24

5000 Volt Littlefuses for use in plate circuits of large power tubes, large amplifiers, oscillators and power supplies.

Max. Load	Net	Max. Load	Net
300 m.a.	\$0.39	600 m.a.	\$0.44
400 m.a.	.39	1000 m.a.	.44

High Current Fuses.

Rating	Net	Rating	Net
1 A—250V	\$0.05	2A—250V	\$0.05
1½A—250V	.05	3A—250V	.05

### Fuse Mountings

No. 1010. single pole mounting for instrument Littlefuses. Bakelite base, shakeproof terminals, nickled phosphor-bronze clips. Net.....9c

No. 1011. Clips for instrument Littlefuses and 3 AG fuses. Nickled phosphor-bronze. Net.....5c pair

No. 1012. Universal gryp Connector for temporary hook-ups, experimental work, etc. Nickled spring brass connectors. 9/32" hole fits most binding posts. Net.....9c pair

No. 1061. Fuse Retainer. Takes instrument Littlefuse or 3 AG type. Fibre body, Nickled brass screw end caps. Net.....12c

No. 1062. Fusible Binding Post for panel use on high class equipment. Knob of polished essence of pearl. Replacements made by unscrewing knob. Takes ½" hole. Net.....44c

No. 4036. Clips for all high voltage Littlefuses. Nickled phosphor-bronze finish. Takes ¼" hole. Net .....5c each

### Neon Tattellites

Placed in Parallel with Transformers, Tubes, etc., will By-pass excessive voltages.

Tattellites are gaseous discharge potential fuses designed to protect voltmeters, ammeters, transformers, etc., against excessive voltages. The lower voltage ratings make excellent indicators for locating blown fuses, defective resistors, condensers, radio frequency, resonance peaks, high voltage lines, etc. The intensity of the glow indicates the approximate voltage. They have many practical uses in making oscillators, trigger circuits, bleeders across power supply outputs; in stroboscope work and school room discharge tube demonstrations.

Tattellites are carefully made and glow brilliantly when operated. The life range is from 1000 to 5000 hours of continuous operation, depending upon the type and size of the tube.



No. 5076 is for general test purposes. It has a blind lead for shorting out built-in resistor. Size 1¼" by ¼" diameter. 6" insulated leads; no secondary electrodes.

No. 5077 is for test and protection purposes. Has a blind lead for shorting out built-in resistor. Size 2¼" by ½" diameter. 4" insulated leads; no secondary electrodes.



No. 5078 is for protection and circuit applications. Secondary electrode is connected by a 6" pigtail on end. Size 5" by ½" diameter.

No. 5079 As above but larger. Size 8" by ½" diameter.

No. 5080 As above but larger. Size 9" by ½" diameter.

Number	Rating Volts	Max. Current D.C. ma.	Net Price
5076	100	3	\$0.44
5077	250	8	.59
5078	500	10	1.18
5079	1000	15	1.76
5080	2000	15	2.35

### Rectifiers for A. C.—D. C. Universal Meters

Conant now introduces a complete line of rectifier units for all types of service, such as rectifier meters, etc. Type M is the full wave bridge type. Type T is of the three terminal, full wave type. Type H is half-wave type. DH is similar with double current output. Type B is unusually small and has remarkable high frequency efficiency.

Type	A.C. Input	D.C. Output	Net
M	10 volts	20 Ma.	\$2.06
T-2	10 volts	20 Ma.	1.59
H-1	5 volts	20 Ma.	.89
DH-1	5 volts	40 Ma.	1.55
B	10 volts	5 Ma.	2.06

# THORDARSON

## The MOST COMPLETE Transmitting Line Ever Assembled

Never in the history of radio has such a complete selection of modern transmitting equipment been offered to the public. Thordarson now introduces countless new designs in a line that offers a choice of over 130 Transmitting types—plate and filament transformers, input and swinging chokes, Class A and B audio transformers that will meet all transmitting requirements.

New power—that smashes through Q.R.M. and Q.R.N. for consistent year 'round performance is now available at remarkably low cost. The low prices of these transformers will bring you far higher power per dollar invested than you have ever before known. These prices mean NO COMPROMISE WITH QUALITY! Every unit is built to adhere to Thordarson's usual high standards. Now is your opportunity to get the equipment you have always wanted at the lowest prices ever offered!

Midwest now carries in stock all the types listed below as well as many models not listed. Regardless of your requirements, Midwest will supply you promptly with the exact size and type to meet your individual needs.

## FREE Transmitting Guide



Thordarson's valuable Amateur Transmitting Guide, an authoritative booklet crammed with worth while information is now available to you Free! Thirty-two pages of data, including new circuit diagrams for modern, complete transmitters employing newest tubed in improved circuits. All recent developments in transmitting and power amplifier circuits introduces the greatly expanded Thordarson Transformer Line that now includes dependable, high efficiency equipment for every power and coupling need. Write for your copy as soon as possible as the supply is limited.

## NEW—Air Cooled Plate Transformers

For 210, 841, 865, 825, 46, 47 and 59 Tubes  
525 V. D.C. at 150 MA.

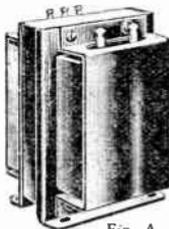


Fig. A

T-6280 is the basis of a low price power supply for medium power transmitters or oscillator and buffer stages requiring up to 225 volts D.C. at 150 ma. Secondary A.C. potential 725 volts each side of center tap. "AIR-COOLED" construction. Wt. 9 lbs. Size 6 x 4 1/4 x 4". Illustrated Fig. A.

List..... **\$5.30**

For 852, 860, 204A, etc., Tubes  
2000 V. D.C. at 250 MA.

T-6285, when used with the T-6315 and T-6408 Chokes, provides an extremely popular power supply. Secondary A.C. potential 2350 volts each side of center tap. "AIR-COOLED" construction. Wt. 38 lbs. Size 8 x 6 3/4 x 8". Illustrated Fig. B.

List..... **\$21.18**

For 800, RK18, 830B, 203A, 211, 845 Tubes—  
1250 or 1000 V. D.C. at 280 MA.

T-6411, has been especially designed to operate the new 800 and similar tubes at maximum output. Either 1250 or 1000 volts at 280 ma. is available through suitable filter. A primary tap allows these voltages to be selected without changing high voltage connections. Secondary A.C. potential 1600 and 1290 volts each side of center tap. "AIR-COOLED" construction. Wt. 30 lbs. Size 8 1/4 x 6 3/4 x 7". Illustrated Fig. B.

List..... **\$13.54**

For 203A, 211, 845, 261A, 242A, 800, etc. Tubes  
1000 V. D.C. at 500 MA.

T-6282 is a heavy duty transformer that will supply both Class B 800 modulators and a Class C push-pull 800 amplifier, or other equipment requiring 1000 volts D.C. at 500 ma. when used with recommended filter. Secondary A.C. potential 1355 volts each side of center tap. "AIR-COOLED" construction. Wt. 38 lbs. Size 8 x 6 3/4 x 8". Illustrated Fig. B.

List..... **\$20.58**

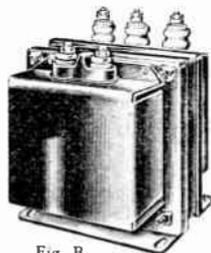


Fig. B

For New 750 V Tubes—210, 800, 825, RK18 etc.  
750 V. D.C. at 350 MA.

T-6412 will provide complete plate power for amplifier and modulator stages requiring up to 750 volts D.C. at 350 ma. when used with suitable filter. Secondary A.C. potential 980 volts each side of center tap. "AIR-COOLED" construction. Wt. 25 1/2 lbs. Size 8 x 6 3/4 x 6 1/4". Illustrated Fig. B. List..... **\$10.60**

For 800, 203A, 845, 211, 261A, 830B, RK18  
Tubes—1000 V. D.C. at 400 MA.

T-5489 is a popularly priced transformer with high current output for Class B 203A, 800 tubes, and other applications where up to 1000 volts D.C. at 400 ma. are required. Secondary A.C. potential 1270 volts each side of center tap. "AIR-COOLED" construction. Wt. 29 lbs. Size 7 x 8 x 7". Illustrated Fig. B. List..... **\$12.94**

# THORDARSON

For 852, 860, 204A, 849, etc., Tubes  
2006 V. D.C. at 500 MA.

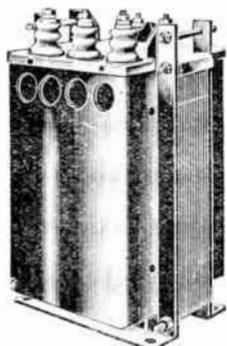


Fig. C

For 852, 849, 851, etc., Tubes  
3009 V. D.C. at 380 MA.

T-6285 is designed with ample rating to supply a full kilowatt input to the larger types of tubes. Husky in every detail. THORDARSON exclusive "AIR-COOLED" construction makes possible new standards of performance. Secondary A.C. potential 3630 volts each side of center tap. Wt. 70 lbs. Size  $13\frac{1}{2} \times 8 \times 7\frac{3}{4}$ ". Illustrated Fig. C.....

**\$38.22**

## Transformers for Receivers and Low Power Transmitters

For 46 or 59 Tubes in Class B

T-5303 provides through filter 400 volts D.C. at 100 ma. on continuous rating, or 0 to 200 ma. when used with 46 or 59 tubes in Class B. Shielded with solder lug terminals. Wt. 8 lbs. Size  $3\frac{1}{2} \times 4\frac{1}{2} \times 4\frac{1}{2}$ ". Illustrated Fig. D.....

**\$4.70**

For Push-Pull Parallel 46 or 59 Tubes

T-6995 provides through filter 400 volts D.C. at 200 ma. continuous rating, or 0 to 400 ma. when used with push-pull parallel 46 or 59 tubes in Class B. Will operate a pair of 46 or 59 tubes in Class B and a second pair in the Class C stage. Shielded with screw terminals. Wt. 12 lbs. Size  $6 \times 6 \times 4\frac{1}{8}$ ". Illustrated Fig. L.....

**\$4.70**

High Regulation Power Unit

T-5140 is a special voltage regulating power unit composed of plate transformer and reactor in a single housing. Provides better than 3% regulation from 30 to 175 ma. current out-put at 515 volts D.C. through filter. Circuit diagram of application available on request. Shielded with porcelain bushing terminals. Wt. 28 lbs. Size  $6\frac{1}{2} \times 6\frac{1}{2} \times 10\frac{1}{2}$ ". Illustrated Fig. N.....

**\$11.76**

625 V. D.C. at 200 MA.

T-5257 offers exceptional value. Secondary A.C. potential of 750 volts each side of center tap. Open mounting with leads. Wt. 11 lbs. Size  $4\frac{1}{2} \times 3\frac{1}{2} \times 6$ ". Illustrated Fig. M.....

**\$5.88**

680 V. D.C. at 150 MA.

T-5448 provides a secondary A.C. potential of 800 volts each side of center tap. Open mounting with Leads. Wt. 11 lbs. Size  $4\frac{1}{2} \times 3\frac{1}{2} \times 6$ ". Illustrated Fig. M.....

**\$4.40**

## Combination Plate and Filament Transformers for Receivers and Transmitters



Fig. D

These transformers have one high voltage winding, one rectifier filament winding for an '80, '85 or '23, and one or more 2.5 volt center tap filament windings.

T-3822 provides 365 volts D.C. at 115 ma. through filter. Has 5 volt 3 amp. and 2.5 volt 14 amp. filament windings. Shielded with leads. Illustrated Fig. D.....

List..... **\$3.53**

T-5602 provides 300 volts D.C. at 70 ma. through filter. Has 5 volt 2 amp., 2.5 volt 9 amp., and 2.5 volt 1.5 amp. filament windings. Shielded. Illustrated Fig. D.....

List..... **\$2.50**

T-5604 provides 300 volts D.C. at 105 ma. through filter. Has 5 volt 2 amp., and 2.5 volt 12 amp. filament windings. Shielded.

Illustrated Fig. D. List..... **\$3.08**

T-5605 provides 300 volts D.C. at 110 ma. through filter. Has 5 volt 2 amp., two 2.5 volt 3 amp., and 2.5 volt 9 amp. filament windings. Shielded. Illustrated Fig. D.....

List..... **\$3.37**

T-5002 provides 275 volts D.C. at 40 ma. through filter. Has 5 volt 2 amp. and 2.5 volt 3 amp. filament windings. Flat mounting.

Illustrated Fig. E. List..... **\$1.63**

T-4900 provides 300 volts D.C. at 70 ma. through filter. Has 5 volt 2 amp. and 2.5 volt 8.5 amp. filament windings. Flat mounting. Illustrated Fig. E.....

List..... **\$1.92**

T-5003 provides 300 volts D.C. at 80 ma. through filter. Has 5 volt 2 amp. and 2.5 volt 12 amp. filament windings. Flat mounting. Illustrated Fig. E.....

List..... **\$2.20**

T-6363 provides 300 volts D.C. at 80 ma. through filter. Has 5 volt 2 amp., 2.5 volt 3 amp., and 2.5 volt 9 amp. filament windings. Flat mounting. Illustrated Fig. E.....

List..... **\$2.35**

T-6049 provides 250 volts D.C. at 30 ma. through filter. Has 5 volt 2 amp. and 2.5 volt 3.5 amp. filament windings. Flat mounting. Illustrated Fig. E. List.....

**\$1.18**

T-6362 provides 300 volts D.C. at 70 ma. through filter. Has 5 volt 2 amp., 2.5 volt 1.5 amp., and 2.5 volt 7 amp. filament windings. Flat mounting. Illustrated Fig. E.....

List..... **\$2.06**

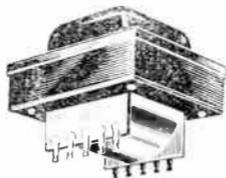


Fig. E

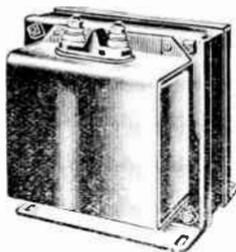


Fig. F

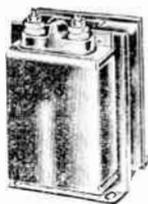


Fig. G

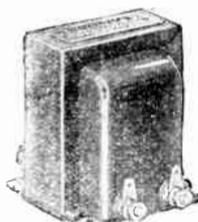


Fig. H

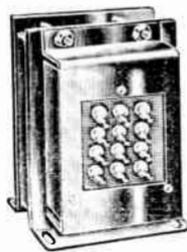


Fig. I

## Filament Transformers

### Single Secondary Types

For 210, 865, 841, RK18, etc., Tubes  
7.5 V. at 2.5 Amps.

T-6413 has primary taps for 105, 110, and 115 volts. Secondary center tapped, 1600 volt insulation. Shielded with solder lug terminals. Wt. 2 3/4 lbs. Size 2 1/2 x 3 3/8 x 2 1/2". Illustrated Fig. L. List..... **\$2.06**

For 203A, 852, etc., Tubes  
10 V. at 6.5 Amps.

T-6414 has primary taps for 105, 110, and 115 volts. Secondary center tapped, 1600 volt insulation. Shielded with solder lug terminals. Wt. 3 3/4 lbs. Size 3 x 3 3/4 x 3 1/2". Illustrated Fig. L. List..... **\$3.20**

For 204A, 849, etc., Tubes—11 V. at 10 Amps.  
T-6415 has primary taps for 105, 110, and 115 volts. Secondary center tapped, 1600 volt insulation. Shielded with solder lug terminals. Wt. 7 1/2 lbs. Size 3 3/4 x 4 1/2 x 4 1/4". Illustrated Fig. L. List..... **\$4.12**

For 204A, 849, 851, etc., Tubes  
11 V. at 15.5 Amps.

T-6419 has secondary center tapped. Shielded with solder lug terminals, 1600 volt insulation, 115 volt primary. Wt. 11 1/4 lbs. Size 4 3/8 x 6 x 4 3/8". Illustrated Fig. K. List..... **\$5.30**

For 872, 875, etc., Tubes—5 V. at 25 Amps.  
T-6420 is a heavy duty filament supply for the most severe service, 10,000 volt insulation, 115 volt primary. Shielded "AIR-COOLED" construction with high tension terminals on porcelain stand-off insulators. Wt. 16 lbs. Size 5 7/8 x 6 x 6 1/8". Illustrated Fig. J. List..... **\$10.60**

For 866 Tubes—2.5 V. at 10 Amps.

T-6433 is designed to provide filament supply for two 866 rectifier tubes. Primary tapped for 105, 110 and 115 volts. 7500 volt insulation. Shielded with solder lug terminals. Wt. 3 1/4 lbs. Size 3 3/4 x 3 3/4 x 3 1/2". Illustrated Fig. L. List..... **\$3.53**

For 800, 865, 841, 210, RK18, etc., Tubes  
7.5 V. at 6.5 Amps.

T-6435 has adequate regulation to permit operation at any current rating up to maximum with satisfactory voltage output, 1600 volt insulation, 115 volt primary. Shielded with solder lug terminals. Wt. 4 1/2 lbs. Size 3 3/8 x 4 x 2 1/2". Illustrated Fig. L. List..... **\$2.94**

6.3 V. at 2.5 Amps. or 5 V. at 3 Amps.  
or 2.5 V. at 3 Amps.

T-6185 has a single secondary that will supply any of the above voltages at the specified currents. 115 volt primary, 1600 volt insulation. Open type mounting with solder lug terminals. Wt. 2 lbs. Size 2 3/8 x 2 1/4 x 2 1/4". Illustrated Fig. M. List..... **\$1.18**

For 5Z3, '83, '80, etc., Tubes—5 V. at 5 Amps.  
T-6399 provides filament supply for all 5 volt tubes. 1600 volt insulation, 115 volt primary. Shielded with solder lug terminals. Wt. 2 lbs. Size 2 1/2 x 3 3/8 x 2 1/2". Illustrated Fig. L. List..... **\$2.06**

For all 2.5 Volt Tubes—2.5 V. at 10 Amps.  
T-6432 provides up to 10 amps. Unusually high regulation, together with 105, 110, and 115 volt primary taps, allows this transformer to supply almost any number of tubes until the maximum current is reached, without danger of abnormal voltage on small current drain. 1600 volt insulation. Shielded with solder lug terminals. Wt. 3 lbs. Size 3 x 3 3/4 x 3 1/2". Illustrated Fig. L. List..... **\$2.65**

T-5455, same as above, unshielded with leads. 110 Primary. Net..... **\$1.65**  
2.5 V. at 5 Amps.

T-5469 has 115 volt primary and 1600 volt insulation. Open type mounting with leads. Wt. 2 lbs. Size 2 1/4 x 2 1/2 x 3". Illustrated Fig. M. List..... **\$1.32**

### Multiple Secondary Types

10 V.—10 V.—7.5 V.—2.5 V.—For Oscillator and Amplifier Stages

T-6416 has four secondary windings providing 10 volts at 3 1/4 amps., 10 volts at 6 1/2 amps., 7.5 volts at 1 1/4 amps., and 2.5 volts at 5 amps. Insulated for 1600 volts. Shielded with solder lug terminals. Wt. 11 lbs. Size—4 3/8 x 6 x 4 3/4". Illustrated Fig. L. List..... **\$6.77**  
7.5 V.—7.5 V.—2.5 V.

For Oscillator and Amplifier Stages

T-6417 has three secondary windings providing 7.5 volts at 6 1/2 amps., 7.5 volts at 4 1/2 amps., and 2.5 volts at 4 amps. Insulated for 1600 volts. Shielded with solder lug terminals. Wt. 7.5 lbs. Size 3 7/8 x 4 1/2 x 4 1/4". Illustrated Fig. L. List..... **\$5.30**

5 V.—2.5 V.—For 866 and '83 Rectifiers

T-6421 heats the filaments of two 866 rectifiers supplying high power stages and one '83 rectifier supplying the low power stages. Provides 5 volts at 3 amps. and 2.5 volts at 10 amps. Insulated for 3000 volts. Shielded with solder lug terminals. Wt. 4 1/2 lbs. Size 3 3/4 x 4 1/4 x 3 3/4". Illustrated Fig. L. List..... **\$3.53**

5 V.—2.5 V.—2.5 V.

T-6094 has three secondary windings, providing 5 volts at 6 amps., 2.5 volts at 14 amps., and 2.5 volts at 3.5 amps. 1600 volt insulation. Shielded with solder lug terminals. Wt. 6 lbs. Size 3 5/8 x 3 3/4 x 4 3/8". Illustrated Fig. D. List..... **\$2.94**

7.5 V.—7.5 V. at 5 Amps.

T-5466 has two center tapped secondaries each supplying 7.5 volts at 2.5 amps. 1600 volt insulation, 115 volt primary. Open type mounting with 3 1/2 lbs. Size 3 1/2 x 3 x 3 3/4". List..... **\$1.76**

# THORDARSON

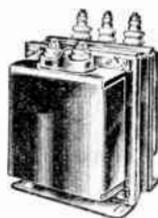


Fig. J

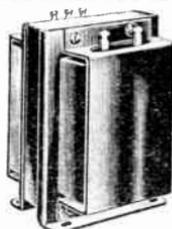


Fig. K



Fig. L

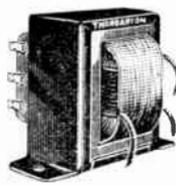


Fig. M

## CHOKES—Input and Filter

Type	Purpose	MA. Current	Henries		Ohms D.C. Resistance	Volts Insulation	Mounting (See key Fig. below)	Dimensions	Weight Lbs.	List
			Rated Current	Zero Current						
T-6405	Input	150	9.85	30.3	200	2000	SSL	L 4 x4 x3 1/2	5	\$2.94
T-6409	Filter	150	19.7		275	2000	SSL	L 4 5/8 x 3 7/8 x 4 1/8	6 1/2	3.53
T-6315	Input	280	12.3	19	175	5000	HTT	G 6 3/4 x 4 1/2 x 4 3/8	10	5.00
T-6408	Filter	280	23.6		190	5000	HTT	G 6 3/4 x 5 x 4 3/8	12	5.88
T-6406	Input	380	10.4	19	93	5000	HTT	G 6 3/4 x 5 x 4 3/8	15	7.06
T-6407	Filter	380	20		160	5000	HTT	F 7 1/2 x 6 3/8 x 5	25	9.40
T-6316	Input	500	8.2	17	70	5000	HTT	G 6 3/4 x 4 1/2 x 4 3/8	20	8.24
T-6410	Filter	500	16.5		110	5000	HTT	F 7 1/2 x 6 x 6 3/8	25 1/2	10.00
T-5517	Input	400	25.6	40	118	3000	HTT	F 6 7/8 x 6 3/4 x 6 7/8	29	10.60
T-5450	Filter	250	12.9		121	1600	OL	R 3 7/8 x 3 1/4 x 4 3/8	7	2.94
T-2353A	Input	200	5		80	1600	SST	L 3 x 3 1/4 x 3 3/4	3	2.94
T-6749	Input	200	5		80	1600	SSP	H 3 x 3 1/4 x 3 3/4	3	2.80
T-1700	Filter	130	8.75		231	1600	SST	L 3 x 3 7/8 x 3 7/8	3	2.65
T-4991	Input	120	4.2		120	1600	SSP	H 1 3/4 x 2 x 2 1/2	1 1/2	.88
T-5319	Filter	120	7.2		290	1600	OL	R 2 x 2 x 2 1/2	1 1/4	.88
R-196	Filter	85	15		375	1600	SST	L 2 1/2 x 2 1/2 x 3	2 1/2	1.76
T-4402	Filter	80	12		405	1600	OT	R 2 3/8 x 1 7/8 x 2	1 1/4	.88
T-5751	Input	80	5		138	1600	OT	R 2 x 2 x 2 3/8	1 1/4	.88
T-4707	Filter	75	12		290	1600	OT	M 2 3/8 x 2 1/2 x 2 1/8	2 1/4	1.03
R-105	Filter	75	10		266	1600	OT	S 1 7/8 x 2 x 2 3/8	1 1/2	1.03
T-1891	Filter	75	22		405	1600	OT	R 2 3/8 x 2 1/2 x 2 1/8	2	1.03
T-3736	Impedance	5	510		6470	1600	SSP	H 2 x 2 x 2 1/2	1 1/2	1.63
T-6746	Impedance	5	510		6470	1600	OT	R 2 x 2 x 2 1/2	1 1/2	1.32
T-2927	Impedance	.5*	1080		6150	1600	OT	R 1 3/4 x 2 1/4 x 2 1/2	1	.73
T-5298	Impedance	.5*	1080		6150	1600	SSP	H 1 1/4 x 2 1/4 x 2 1/2	1 1/4	1.03

### Class B Transformers

T-6422 INPUT TRANSFORMER for coupling push-pull 45 or 2A3 tubes to Class B 800, 830B, RK18, etc., tubes. Shielded with solder lug terminals on sides. Wt. 3 1/2 lbs.

Size 2 3/4 x 4 1/8 x 3". Net..... **\$2.94**

T-6423 OUTPUT TRANSFORMER for coupling Class B 800, 830B, RK18, etc., tubes to 5000 or 20,000 ohm load. Secondary will carry Class C stage current of 100 ma. at 20,000 ohm load or 200 ma. at 5000 ohm load. Shielded with terminals through high tension porcelain stand-off bushings. Wt. 18 lbs. Size 6 1/2 x 5 1/4 x 8".

Illustrated Fig. N. Net..... **\$9.40**

T-6140 INPUT TRANSFORMER for coupling push-pull 2A3 tubes to Class B 203A or UV211 grids. Shielded with screw terminals. Wt. 3 1/4 lbs. Size 3 x 3 3/4 x 3 1/2".

Net..... **\$3.53**

T-5251 INPUT TRANSFORMER for coupling push-pull 250 or 2A5 triode tubes to Class B 203A or UV211 grids. Shielded with screw terminals. Wt. 4 3/4 lbs. Size 3 3/4 x 4 3/4".

Illustrated Fig. O. Net..... **\$4.70**

T-6424 OUTPUT TRANSFORMER for coupling Class B 203A or UV211 tubes to 2500 or 10,000 ohm load. Secondary will carry Class C current of 400 ma. with 2500 ohm load or 200 ma. with 10,000 ohm load. Shielded with terminals through high tension porcelain stand-off bushings. Wt. 25 lbs. Size 7 1/2 x 5 3/4 x 8 1/2".

Illustrated Fig. N. Net..... **\$14.10**

T-6734 INPUT TRANSFORMER for coupling a 500 ohm line to push-pull parallel 203A tubes. (See table below for coupling push-pull tube output to

500 ohm line.) Shielded with solder lug terminals. Wt. 5 1/4 lbs. Size 3 3/8 x 4 1/4 x 4".

Illustrated Fig. O. Net..... **\$5.88**

T-6429 INPUT TRANSFORMER for coupling 500 ohm line to Class B 204A grids. (See table below for coupling push-pull tubes to 500 ohm line.) Shielded with solder lug terminals. Wt. 4 3/4 lbs. Size 3 3/8 x 4 x 3 1/2".

Illustrated Fig. O. Net..... **\$5.88**

T-6819 INPUT TRANSFORMER for coupling a push-pull 845 stage to two 204A tubes in Class B. Shielded with solder lug terminals. Wt. 11 lbs. Size 4 3/8 x 3 3/4 x 6".

Illustrated Fig. O. Net..... **\$7.06**

T-6430 OUTPUT TRANSFORMER for coupling Class B 204A tubes to 5000 ohm load. Secondary will carry Class C stage current of 500 ma. Shielded with terminals through high tension porcelain stand-off bushings. Wt. 71 lbs. Size 13 x 7 1/2 x 9 1/4".

Illustrated Fig. C. Net..... **\$73.00**

T-5289 INPUT TRANSFORMER for coupling a single 46 or 59 to Class B 46 or 59 grids. Shielded construction with solder lug terminals. Wt. 2 lbs. Size 3 x 3 3/4 x 3 1/2".

Illustrated Fig. O. Net..... **\$2.35**

T-6778 is the same as the above transformer but is for sub-panel wiring. Wt. 2 lbs. Size 3 x 3 3/4 x 3 1/2".

Illustrated Fig. H. Net..... **\$2.20**

T-6426 OUTPUT TRANSFORMER for coupling Class B 46 or 59 tubes to 5000 or 10,000 ohm load. Secondary will carry Class C stage current of 100 ma. Shielded construction with solder lug terminals. Wt. 3 1/4 lbs. Size 3 x 3 3/4 x 3 1/2".

Illustrated Fig. O. Net..... **\$3.82**

## Class B Audio Transformers

Four 46 or 59

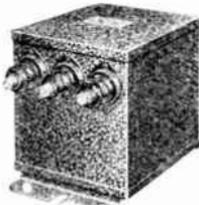


Fig. N

Tubes in Class B  
T-6698 INPUT TRANSFORMER for coupling push-pull 46 or 59 tubes to push-pull parallel 46 or 59 tubes in Class B. Shielded with solder lug terminals on bottom for sub-panel wiring. Wt. 4 lbs. Size  $4\frac{1}{8} \times 2\frac{3}{4} \times 3$ ". Illustrated Fig. H. List..... **\$3.08**

T-6699 OUTPUT TRANSFORMER for coupling Class B push-pull parallel 46 or 59 tubes to 500, 3500, or 6250 ohm load. Secondary will carry Class C stage current of 215 ma. Shielded with terminals through high tension porcelain stand-off bushings. Wt.  $16\frac{1}{2}$  lbs. Size  $6\frac{1}{2} \times 5\frac{1}{4} \times 8$ ". Illustrated Fig. N. List..... **\$9.40**

Two 210 Tubes in Class B  
T-5100 INPUT TRANSFORMER for coupling push-pull 45 tubes to Class B 210 grids. Shielded with solder lug terminals. Wt.  $3\frac{1}{4}$  lbs. Size  $3\frac{3}{4} \times 3\frac{1}{2} \times 3$ ". Illustrated Fig. O. List..... **\$2.94**

T-6425 OUTPUT TRANSFORMER for coupling Class B 210 tubes to 5000 or 10,000 ohm load. Secondary will carry Class C stage current of 200 ma. Shielded with solder lug terminals. Wt.  $7\frac{3}{4}$  lbs. Size  $3\frac{3}{4} \times 4\frac{1}{2} \times 4\frac{1}{2}$ ". Illustrated Fig. O. List..... **\$5.30**

Single 53 or 79 in Class B  
T-6747 INPUT TRANSFORMER to couple a 53 in Class A, elements in parallel, to a 53 in Class B. Shielded with solder lug terminals. Wt.  $1\frac{1}{4}$  lbs. Size  $2\frac{7}{8} \times 2 \times 2\frac{3}{8}$ ". Illustrated Fig. N. List..... **\$1.92**

T-6750 INPUT TRANSFORMER to couple an 89 in Class A to a 79 in Class B. Shielded with solder lug terminals. Wt.  $1\frac{1}{4}$  lbs. Size  $2\frac{7}{8} \times 2 \times 2\frac{3}{8}$ ". Illustrated Fig. N. List..... **\$1.63**

T-6759 OUTPUT TRANSFORMER to couple a 53 or 79 in Class B to a 3000 ohm load. Secondary will carry 100 ma. Class C stage current. Shielded with solder lug terminals. Wt. 2 lbs. Size  $3\frac{3}{8} \times 2\frac{1}{2} \times 3$ ". Illustrated Fig. H. List..... **\$2.65**

Single 19 in Class B  
Specially Designed for Small 5-Meter Transmitters.  
T-5463 INPUT TRANSFORMER to couple a 30 in Class A to Class B 19 grids. Shielded with solder lug terminals. Wt.  $1\frac{1}{4}$  lbs. Size  $2\frac{7}{8} \times 1\frac{1}{8} \times 2\frac{3}{8}$ ". Illustrated Fig. H. List..... **\$1.63**

T-6769 OUTPUT TRANSFORMER to couple a 19 in Class B to 2700 ohm load. Secondary will carry Class C stage current of 50 ma. Shielded with solder lug terminals on bottom for sub-base wiring. Wt.  $1\frac{3}{4}$  lbs. Size  $1\frac{7}{8} \times 2 \times 2\frac{3}{8}$ ". Illustrated Fig. H. List..... **\$1.76**

Grid Modulation Coupling Transformers  
T-6773 GRID MODULATION TRANSFORMER for coupling a single 46 or 59 modulator to amplifier grid. Shielded with solder lug terminals. Wt. 2 lbs. Size  $2\frac{1}{2} \times 2\frac{1}{2} \times 3$ ". Illustrated Fig. Q. List..... **\$2.35**

T-6774 GRID MODULATION TRANSFORMER for coupling push-pull 45 or 2A3 modulators to the amplifier grid. Shielded with solder lug terminals. Wt.  $3\frac{1}{2}$  lbs. Size  $3\frac{1}{2} \times 3 \times 3\frac{3}{4}$ ". Illustrated Fig. O. List..... **\$2.94**

## Audio Transformers for Small Transmitters, Receivers and Transceivers

T-6760 OUTPUT TRANSFORMER to couple a 19 in Class B to 4 or 8 ohm voice coil and 2000 ohm magnetic speaker or headphones. Shielded with solder lug terminals for sub-panel wiring. Illustrated Fig. H. List..... **\$1.92**

T-6806 OUTPUT TRANSFORMER for 41, 2A5, 47 or other pentode tubes to 2000 ohm magnetic speaker or headphones and 10 ohm voice coil. Shielded with sub-panel leads. Illustrated Fig. H. List..... **\$1.47**

T-6137 OUTPUT TRANSFORMER to couple a single pentode to the low impedance receiver of telephone headset (Western Electric or Kellogg). Wt.  $1\frac{1}{4}$  lbs. Size  $1\frac{7}{8} \times 2 \times 2\frac{3}{8}$ ". Illustrated Fig. R. List..... **\$1.79**

T-6138 AUDIO AND MICROPHONE TRANSFORMER with a winding for any single button microphone and regular 3 to 1 audio primary and secondary windings. Specially designed for use in transceivers. Wt. 2 lbs. Size  $2\frac{1}{2} \times 2\frac{1}{2} \times 3$ ". Illustrated Fig. R. List..... **\$2.35**



Fig. P

## Class A Audio, Microphone, Line, and Output Transformers

For Coupling a Single Tube to a Single Grid

Type	Mounting	Ratio	Price
R-100	Universal	1-3	\$1.03
R-260	Screw Ter.	1-3.2	1.76
R-300	Screw Ter.	1-3	2.35
T-5738	Sub-Panel	1-3	1.92
T-5737	Open	1-3	1.76
R-400	Screw Ter.	1-4	2.35

For Coupling a Single Tube to P. P. Grids

T-3391	Open	1-3	\$1.18
T-5739	Sub-Panel	1-3	1.32
T-4304	Screw Ter.	1-3	2.65
T-5743	Sub-Panel	1-3	2.20
T-6578	Sub-Panel	1-3	2.94

For Coupling P. P. Tubes to P. P. Grids

T-6434	Open	1-1.5	\$2.06
T-5397	Sub-Panel	1-1.5	2.20
T-2933	Screw Ter.	1-2	4.12
T-5870	Sub-Panel	1-1.5	2.20

Microphone Coupling (2-button)  
For Coupling to 100,000 Ohm Grid

Type	Mounting	Ratio	Price
T-3020	Screw Ter.	1-22	\$2.35
T-6573	Sub-Panel	1-22	2.20
T-5837	Sub-Panel	1-22	1.76
T-3180	Screw Ter.	1-27	5.00

Single Button

T-2357	Screw Ter.	1-64	\$1.47
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Ribbon or Velocity Microphone  
To a Single 100,000 Ohm Grid

T-6123	Sub-Panel		\$1.76
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Coupling Push-Pull Plates to 500 Ohm Line

Type	Application	Mounting	List
T-6594	Class A 2A5s,	Sub-Panel	\$2.94
T-5873	Class A 2A3s	Screw Ter.	2.06
T-6167	Class A 845s	Screw Ter.	7.06

# THORDARSON

## Sound Amplifier Transformers

The following pages contain additional THORDARSON Transformers that have been specially designed for sound amplifier application. For complete description of these transformers and valuable amplifier circuit diagram, write for a copy of the new THORDARSON Sound Amplifier Manual. Enclose 25c.

### Microphone to Line

- T-6573 To couple a double button carbon microphone to a 200 or 50 ohm line. Sub-panel mounting, net.....**\$2.40**
- T-6745 Screw terminal mounting, net..... **2.53**
- T-6197 To couple a ribbon or velocity type microphone to a 200 or 50 ohm line. Sub-panel mounting, net..... **1.80**

### Tube to Line

- T-5515 To couple a single tube to a 200 or 50 ohm line. Sub-panel mounting, net.....**\$1.80**
- T-6226 To couple a tube to 500 or 125 ohm line. Sub-panel mounting, net..... **1.80**

### Line to Line

- T-6195 To couple a 200 or 50 ohm source to a 200 or 50 ohm load. Sub-panel mounting, net.....**\$2.40**
- T-6196 To couple a 500 or 125 ohm source to a 200 or 50 ohm load. Sub-panel mounting, net..... **2.40**
- T-6374 To couple a 5000 or 2000 ohm source to a 200 or 50 ohm load. Sub-panel mounting, net..... **2.40**

### Line to Grid

- T-5516 To couple a 200 or 50 ohm line to a single grid. Sub-panel mounting, net.....**\$1.80**
- T-6193 To couple a 500 or 125 ohm line to a single grid. Sub-panel mounting, net..... **2.40**
- T-6372 To couple a 50, 100, 150, or 200 ohm line to a single grid. Sub-panel mounting, net..... **2.40**
- T-6371 To couple a 200, 400, 600, or 800 ohm line to a single grid. Sub-panel mounting, net..... **2.40**
- T-6194 To couple a 500 or 125 ohm line to push-pull grids. Sub-panel mounting, net.... **2.40**

### Single Plate to Push-Pull Grids

- T-6578 To couple a single type 2A5 tube as triode to the grids of two 2A5 tubes as triodes in push-pull Class AB. Sub-panel mounting, net.....**\$3.00**

### Push-Pull Plates to Push-Pull Grids

- T-5870 To couple two type tubes to the grids of two or four tubes, in push-pull or push-parallel Class AB. Sub-panel mounting, net.....**\$2.25**
- T-6791 Open type mounting, net..... **2.10**
- T-6790 To couple the plates of two type 53 tubes in Class A to the grids of two type 53 tubes in push-pull parallel Class B. Sub-panel mounting, net..... **2.25**

### Push-Pull Output Transformers

- T-6760 To couple a type 19 tube in Class B to a loud speaker having 4, 8, or 2000 ohms impedance. Shielded sub-panel mounting, net.....**\$1.95**
- T-6754 To couple two type 2A3 tubes or type 48 tetrodes to a loud speaker having 4, 8, 15, or 500 ohms impedance. Shielded sub-panel mounting, net..... **3.00**
- T-5872 To couple 2A3 tubes to a loud speaker having 4, 8, or 15 ohms. Shielded screw terminals, net..... **2.10**
- T-6751 To couple the plates of two tubes, to a loud speaker system having 4, 8, 15, or 500 ohms impedance. Shielded sub-panel mounting, net..... **2.25**
- T-6752 To couple two 53 tubes in push-pull parallel Class B to a loud speaker system having 4, 8, 15, or 500 ohms impedance. Shielded sub-panel mounting, net..... **3.00**
- T-6792 To couple four 2A3 tubes in push-pull parallel Class AB to a loud speaker system having 4, 8, 15, or 500 ohms impedance. Shielded sub-panel mounting, net.. **3.60**
- T-6753 To couple 46 or 59 tubes in push-pull Class B to a loud speaker system having 4, 8, 15, or 500 ohms impedance. Shielded sub-panel mounting, net..... **3.00**

## Push-Pull Output Transformers

- T-6753 To couple four 46 or 59 tubes in push-pull parallel Class B to a loud speaker having 4, 8, 15, or 500 ohms impedance. Shielded sub-panel mounting, net.....**\$4.50**
- T-6755 To couple two 800, 830-B, or RK 18 tubes in Class B to a loud speaker having 500 ohms impedance. Shielded with solder lugs, net ..... **7.20**
- T-5701 An universal output transformer to couple push-pull or single tubes to voice coils from 1/10 to 29 ohms. Open type mounting, net ..... **1.20**
- T-6125 Universal output transformer. This is accomplished by means of taps on the secondary winding. Open type with solder lugs, net ..... **1.80**
- T-6126 Universal output transformer to couple tubes in push-pull to a 500 ohm line. Open type with solder lugs, net..... **1.80**

## Line to Voice Coil Transformers

- T-5381 Will couple a 500 ohm or 250 ohm line to loud speaker voice coils having impedances of 4, 8, or 15 ohms. Shielded with screw terminals, net.....**\$2.70**
- T-6048 Will couple a 500 ohm line to any voice coil impedance from .06 ohms to 8 ohms. A chart is supplied illustrating how it is possible to connect as many as six of these transformers in parallel across a 500 ohm line without inductive loading. In this way, it is possible to match as many voice coils as is necessary having impedances ranging from .06 ohms to 48 ohms. Open type with solder lugs, net..... **1.80**

## Plate and Filament Transformers

- T-6826 Sub-panel mounting with leads out bottom. Primary 115 volts 50-60 cycles. Secondaries 550 volts each side at 150 ma. 5 volts at 3 amp, for 5Z3 rectifier. 7½ volts at 2½ amp. C. T., 2½ volts at 5 amp. C. T., net.....**\$3.90**
- T-5822 Sub-panel mounting with leads out bottom. Primary 115 volts 50-60 cycles. Secondaries 365 volts 115 ma. out of filter. 5 volts at 3 amp, for 5Z3 rectifier. 2½ volts at 14 amp. C. T., net..... **3.60**

- T-6793 Has primary 115 volts 50-60 cycles. Secondaries 300 volts D. C. at 200 ma. out of filter. 5 volts at 3 amp. for 83 rectifier. 2½ volts at 15 amp. C. T. for all amplifier tube filaments. 5 volts at 2 amp. for 80 rectifier, net .....**\$4.80**
- T-5514 Sub-panel mounting with lugs out bottom. Primary 115 volts 50-60 cycles. Secondaries 400 volts D. C. 30 to 200 ma. choke input out of filter 5 volts at 3 amp. for 83 rectifier C. T. 2½ volts at 5 amp. C. T., 2½ volts at 2 amp. C. T., net..... **6.00**

## Speaker Field Supply Transformer

- T-6797 Speaker field supply transformer will deliver 30 watts D. C. at 115 volts when used with a type 83 rectifier tube, T-2353-A, or T-6749 choke, and a 12 mfd. condenser. Choke input is necessary to provide correct voltage and filtering, net..... **3.00**

## Filter Choke Coils

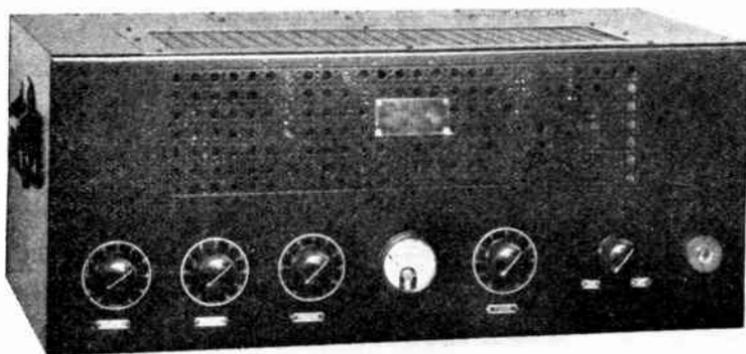
- T-6808 22 Henries actual inductance at 35 ma. D. C. resistance 405 ohms. Sub-panel mounting, net .....**\$1.20**
- T-1892 Open with leads, net..... **1.05**
- T-1607 15 Henries actual inductance at 85 ma. 375 ohms D. C. resistance. Sub-panel mounting, net ..... **1.65**
- T-6807 Open type mounting, net..... **1.50**
- T-5754 9.5 Henries actual inductance at 110 ma. 200 ohms D. C. resistance, net..... **1.35**
- T-5753 Open type mounting, net..... **1.20**

## Exciter Lamp Transformers

- |        | Primary            | Secondary                  | Net           |
|--------|--------------------|----------------------------|---------------|
| T-6437 | —110-115-120 volts | 10 volts at 7½ or 5 amp... | <b>\$3.00</b> |
| T-6438 | —110-115-120 volts | 8.5 volts at 4 amp. ....   | <b>2.40</b>   |
| T-6439 | —110-115-120 volts | 27 volts at 1 amp. ....    | <b>2.40</b>   |

# SOUND AMPLIFIERS

## New MID-WEST Super - Power 60-Watt Class A Prime Amplifier



This is by far the finest sound amplifier obtainable at any price. Despite the tremendous undistorted output and unsurpassed frequency range that mark it as being far in advance of other equipment, the price is exceedingly low.

Some of its outstanding features are:

- (1) Actual 60-watt undistorted audio output with a peak output of 75 watts.
- (2) Four stages of audio amplification giving gain equal to that of an ordinary six stage amplifier.
- (3) Employs ten audio amplifying tubes and two rectifier tubes
- (4) Complete self-contained pre-amplifier makes possible direct operation of crystal and velocity microphones
- (5) Elaborate fading and mixing panel equipment has built-in transformers and attenuators for microphone, radio and phonograph pick-up operation
- (6) Dual microphone input provisions and T-pad mixers allow accurate control and mixing of each microphone pick-up.
- (7) Phonograph and radio inputs have separate T-pad for adjustment of level.
- (8) Meter in plate circuit shows output current and thus forms monitor for determining output with various inputs.
- (9) Input impedances provided are two

at 200 ohms, two at 500 ohms, and one at 10,000 ohms. All have attenuator controls.

(10) Tone compensating adjustment allows control of frequency response to suit acoustic conditions of any auditorium or speaker system.

(11) Output impedances of 4, 8, 16, and 500 ohms are provided.

(12) Fuse in A.C. line protects against damage from internal shorts.

The MID-WEST 60 Watt amplifier employs a type 56 pre-amplifier stage coupled to a second 56 stage driving a pair of 2A5s in push-pull. The output stage uses six 2A3s in triple push-pull parallel. Plate voltages are supplied by an 83. and grid bias by an 80 rectifier.

The output transformer to handle this tremendous power is specially designed, and is a feature of remarkable merit. Ample power is provided for covering audiences of 25,000 to 50,000 people with suitable speaker equipment.

The entire unit is housed in a shielding case with convenient carrying handles. All controls are accessible without removing the case. Size 30" long, 13" high, and 14" deep. Shipping wt. 85 lbs.

Net price, complete  
with 12 tubes..... **\$95.00**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# SOUND AMPLIFIERS

HERE ARE THE FINEST AMPLIFIERS THAT MODERN DESIGN AND QUALITY MATERIALS CAN PRODUCE

*Conservative Ratings Assure Satisfaction*

## 35-Watt High Fidelity Class A—Four Stages

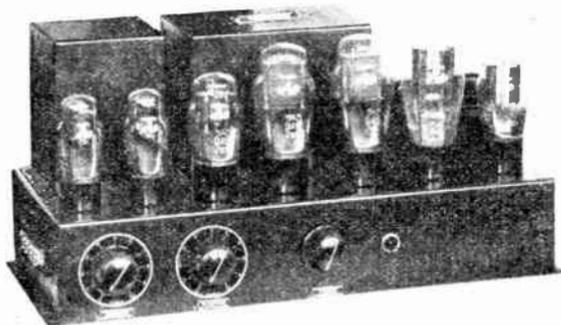
An amplifier of such high quality that it is widely used by broadcasting stations for remote pick-ups. The exceptionally high gain of 95 d.b. is maintained from 50 to 10,000 cycles affording the finest possible reproduction of the entire musical scale. With suitable speaker system, it will cover audiences of 5,000 to 10,000 people, with record, microphone or radio input.

**TUBES:** A type 56 pre-amplifier input stage is coupled to a second 56 stage which then couples into the 2A5 voltage amplifier stage. The final output stage is push-pull parallel with four 2A3 tubes. This high gain permits the direct connection of crystal or dynamic microphones. 35 watts is the normal rating, far higher peaks being developed without distortion. A 5Z3 rectifier is used.

**INPUT:** Built-in mixer controls allows perfect regulation of phonograph, radio and microphone input, and mixing or fading between inputs without disconnecting any input.

Amplifier supplies current for standard two-button carbon microphones. Condenser type microphone with head amplifier, dynamic velocity and crystal microphones may be used.

Tone compensating adjustment provides a means of eliminating acoustic feed-back, carbon-hiss, and correction for lisping or poor microphone voices. Inputs of 200, 500, and 10,000 ohms. inpanels may



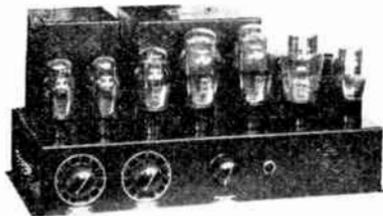
be connected directly to the amplifier without need for external matching transformers.

**OUTPUT:** Impedances of 4, 8, 16, and 500 ohms are provided for easy matching to any speaker system. Stepless T-pad volume control allows any desired output free from distortion.

**MECHANICAL:** The heavy metal base is finished in black Duco. Overall dimensions of the amplifier are 18x9 $\frac{3}{4}$ x7 $\frac{3}{4}$ ". Shipping weight 50 lbs. Completely shielded to eliminate all external inductive field effects. Power supply is fused. Operates from 110-volts 60 cycle A.C., consuming 175 watts.

**MID-WEST 35-Watt Amplifier**, complete with input controls as described above, ready for operation with addition of tubes, microphone and speakers, net only..... **\$42.50**  
Kit of Raytheon or Arcturus Tubes, net..... **\$5.65**  
(See following pages for speaker and microphone equipment.)

## 20-Watt High Fidelity Class A



Maintains the same engineering and performance standards as the above amplifier. Conservatively rated at 20-watts steady output. Frequency output curve is practically flat over the entire audible range, assuring best reproduction of voice and musical instruments.

**TUBES:** The type 56 tube pre-amplifier stage is

coupled to a second 56 stage in turn being coupled to a 2A5 voltage amplifier stage. The final output is a push-pull 2A3 stage. High gain makes possible direct operation of crystal and dynamic microphones.

**INPUT:** Built-in mixer control for phonograph, microphone and radio inputs. T-pad attenuators afford smooth adjustment down to absolute zero. Input impedances 200, 500 and 10,000 ohms. Amplifier supplies microphone current.

**OUTPUT:** Impedances of 4, 8, 16, and 500 ohms match all speaker systems. Tone compensator adjustment provides means for eliminating acoustic feed-back and other objectional noises.

**MECHANICAL:** Heavy metal base measures 18x9 $\frac{3}{4}$ x7 $\frac{3}{4}$ ". Shipping weight 40 lbs. Completely shielded and finished in black Duco. Power supply is fused.

**MID-WEST 20-Watt Amplifier**, complete as described above, net only..... **\$26.50**  
Kit of Raytheon or Arcturus Tubes, net..... **\$3.72**

## 6-Watt Speech Amplifier

A high grade 6-watt amplifier that is well suited for both public address work and as a speech amplifier in a phone transmitter. Uses a type 56 tube input and a pair of type 59 tubes in the output. Output transformer provides a secondary impedance of 8 ohms for direct connection to

dynamic speaker voice coil. Extra 2.5 volt, 8 amp. filament winding will supply tuner or oscillator filaments. Power supply has adequate rating to supply receiver tube plates and energize dynamic speaker field. Uses a type 80 or 83 rectifier tube.

**MID-WEST 6-Watt Amplifier**, net only..... **\$6.95**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# SOUND AMPLIFIERS

## 20-Watt Complete Portable System

This complete sound system incorporates the MID-WEST 20-Watt Amplifier together with complete accessories for a portable sound system, all contained in a single compact carrying case.

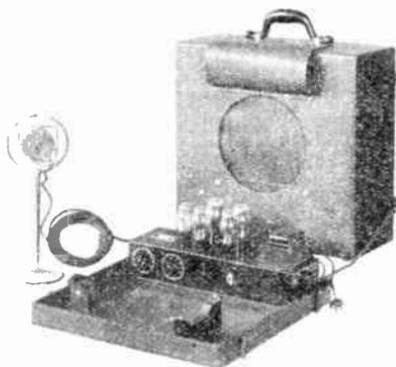
**MICROPHONE:** Equipped with a Gibbs Double Button Carbon Microphone that is the equal of the finest carbon microphone ever built. Has 18-inch chromium plated table stand with demountable ring and 10-ft. microphone cable and plug. Amplifier provides current for a second microphone if desired. Tone compensator eliminates back-ground noise and acoustic feed-back.

**SPEAKER:** Has a 12-inch auditorium public address type dynamic speaker mounted in the carrying case cover. 25-foot speaker cable allows convenient location of speaker. Amplifier output may also be coupled directly to low impedance telephone line.

**CARRYING CASE:** Attractive leatherette, contains all equipment. Measures 20x20x11". Wt. 50 lbs.

MID-WEST 20-Watt Portable Amplifier System, complete with tubes, microphone, amplifier, one speaker, carrying case and all accessories, net only..... **\$57.50**

Additional 12-inch dynamic speaker with cable and carrying case, net only..... **\$21.50**



## 7-Watt Portable System

Has built-in mixer controls, tone compensator and all other features of the larger systems. Furnished complete with two-button carbon microphone, desk stand and 10-ft. cable with plug. 8-inch dynamic speaker built into the carrying case cover. Supplied with 25-ft. cable.

MID-WEST 7-Watt Portable Amplifier System, complete with tubes, all accessories, measuring

13 1/2 x 13 1/2 x 10". Wt. 25 lbs. Net only..... **\$34.50**

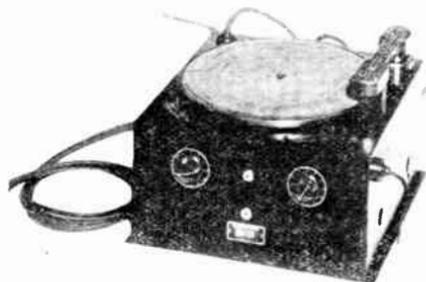
Additional dynamic speaker mounted in carrying case, with 25-foot cable and plug, net only..... **\$11.50**

## 12-Watt Portable System

Employs the MID-WEST 12-Watt Amplifier described on the opposite page. Similar in equipment to the above portable system. Overall gain of 80 d. b. will bring any input up to satisfactory level. Complete in leatherette carrying case with two-button microphone, 10-ft. microphone cable, chromium plated 18-inch stand, 10-inch dynamic auditorium speaker and 25-foot cable, and built-in mixer controls for phonograph, microphone or radio input. Carrying case measures 18x18x10". Wt. 35 lbs. MID-WEST 12-Watt Portable Amplifier, complete as described above with tubes, all accessories, net only..... **\$42.50**

Additional 12-inch auditorium dynamic speaker in carrying case and with 25-ft. cable, net only **\$16.50**

## MID-WEST 6-Volt 20-Watt Mobile Sound System for sound trucks or locations without 110-V.A.C.



This is an extremely successful system that has been specially designed for sound truck and other applications where 110 volt 60 cycle A. C. power is not available.

The amplifier and all accessories are built in a single unit, all operated from the 6-volt storage battery, without the bulk and expense of dry-cell batteries. An unusual Class B amplifier with a type 77 tube input, type 89 voltage amplifier and driver, and a pair of 79 tubes in a twin Class B push-pull output stage has been developed.

Plate voltages are supplied by a compact, high efficiency rotary motor-generator unit that never needs attention or adjustment.

Two-speed phonograph turntable (6-volt operation) and the phonograph pick-up unit are specially designed for mobile service. Microphone current is also supplied for standard two-button type. Input impedances of 200, 500, and 10,000 ohms allow radio, phonograph or microphone to be connected directly. Built-in mixer controls allow separate mixing and fading of any input.

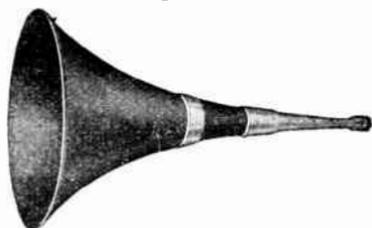
Universal type output transformer allows one or more speakers to be operated. Provides full 20-watt output for heavy duty outdoor service without distortion. Thoroughly filtered to give noise and hum free output.

Entire unit is built in a single metal case, measuring only 14x14x10". Motor generator, phonograph turntable, pick-up, mixer controls and amplifier are included. Weight 50 lbs.

MID-WEST 20-Watt Mobile Sound System, complete as described above with tube. Net only..... **\$69.50**

# RACON-MAGNAVOX

## Trumpet Horns



Racon Horns are the standard for indoor and outdoor installations the world over. Their exclusive trumpet design affords an efficiency of sound distribution that makes any wattage output give greater coverage, at uniform high levels.

3½-ft. Regular Trumpet with 22½-inch bell. For indoor use only. Wt. 6½ lbs. Net.....\$12.95

3½-ft. Stormproof, same as above, but fully waterproofed for outdoor or indoor use, net.....\$25.94

6-ft. Regular Trumpet, with 30-inch bell. Metal beaded edge and cast aluminum throat. Wt. 17 lbs. Net.....\$32.34

6-ft. Stormproof, same as above, but completely weather proofed for outdoor or indoor installation. Net.....\$42.00

## Dynamic Horn Units

Powerful dynamic re-producer units for powering the above or any similar trumpeted type horns. All parts are heavily constructed and carefully machined to assure perfect performance.



MASTER Racon dynamic horn unit has a continuous rating of 20 watts, peak of 50 watts. 6-8 volt field excitation at 1.1 amp. 15 ohm voice coil. Wt. 13½ lbs. Net.....\$25.88

GIANT Racon dynamic horn unit has a continuous rating of 20 to 22 watts, and a peak of 50 watts. Exceptionally heavy duty construction for the most severe service. 15 ohm voice coil. 6-8 volt field coil draws 1.1 amps. Wt. 19 lbs. Net.....\$32.34

JUNIOR Racon dynamic horn unit has a continuous rating of 15 to 20 watts and a peak of 50 watts. 6-8 volt field coil draws 1.1 amp. 15 ohm voice coil. Wt. 11 lbs. Net (Type B).....\$19.42

BABY Racon dynamic horn unit has a 10 to 15 watt continuous rating, and 50 watt peak. 6-8 volt field draws 1.25 amps. 15 ohm voice coil. Wt. 6¼ lbs. Net (Type B).....\$14.57

FIELD SUPPLY for above dynamic speaker unit. Single speaker supply, net.....\$12.95  
Double speaker supply, net.....22.64  
Four speaker supply, net.....38.82

## High Frequency Unit

A new efficient unit designed to meet the highest requirements for wide-range reproduction. Covers the frequency band from 3,000 to 12,000 cycles. Horn and speaker are a single unit. Voice coil 15 ohms. 6 or 110 volt field. \$16.18  
Wt. 3 lbs. Net.....

## MID-WEST Dynamic Speakers

MID-WEST offers buyers of sound equipment a new high-speed speaker service. You can have for immediate shipment any standard field and voice coil impedances in any of the models listed below. Our engineering department is always ready to help you determine the exact specifications of any sound equipment needed. This speaker service greatly speeds shipment of sound equipment engineered to your exact needs.

Model 5D—5", net.....\$2.64  
Model 6E—6", net.....3.25  
Model 8A—8", net.....4.35  
Model 10A—10", net.....5.40  
Model 12A—12", net.....6.19

Specify resistance of field and type tube for output transformer. If transformer is not necessary deduct 50c.

### HEAVY DUTY MODEL

Model 12B—12-inch designed for extra heavy service, will handle up to 20 watts, net.....\$7.95

## A. C. Dynamic Speakers

These speakers have built-in power supplies for field excitation, operating from 110 v. 60 cycle A.C. Use a 280 tube.

8A A.C. 8" speaker, complete less tube, net.....\$11.17

10A A.C. 10" speaker, complete less tube, net.....12.94

12B A.C. 12" extra heavy duty speaker, less tube, net.....14.70

Prices complete with input transformer. Deduct 50c if transformer is not wanted. 6-ohm voice coil.

## New MAGNAVOX Super High Fidelity Speaker



This is the latest development from the research laboratories of this pioneer builder of dynamic speakers. It is a major advancement in acoustic design. Higher efficiency, wider frequency range, and greater power handling ability than that of any other cone type speaker are offered.

The power handling ability is in excess of 25-watts under

continuous service. This high output has been secured through a voice coil and cone design that is entirely new. Greater resistance to paper rattle and cone-break-up have been achieved through the use of a new cone having special variable cross-section.

They are available in any standard voice coil and field impedances. Models for A.C. operation are also available. Be sure to include full specifications when ordering.

Model 512, complete with transformer, net.....\$21.90

Model 512, less transformer, net.....20.70

Model 522, for A.C. operation, tube, net.....32.10

Model 522, for A.C. operation, tube and transformer, net.....30.90

FILTER NETWORK designed to operate between the output of the amplifier and the combination of high and low frequency speakers. Provides one output range up to 3000 cycles for low frequency speakers and the other from 3000 cycles up for the high frequency speaker. Includes coupling transformers. Net.....\$11.76

Specify whether for 500 or 4000 ohm input.

# UNIVERSAL

## "E" Condenser Microphone



Complete unit including 2-stage amplifier housed in metal shell. Output greater than a two-button carbon microphone. Even frequency response from 35 to 10,000 cycles. Has automatic barometric adjustment. Connects to standard 200 ohm input circuit. Absolutely no background hiss. Uses non-phononic tubes. Head has 90% swivel. Case finished in black crackle. Complete with 25 ft. cable with tubes. Net..... **\$35.28**

## "G" A.C. Operated Condenser

The newest development in condenser microphones. Operates completely from 110 V., 60 cycle A.C. socket. No hum, guaranteed as quiet as battery operated units. Frequency response 70 to 7,000 cycles. Ideal for installation where operation is not under supervision of a technician. Complete for connection to 200 ohm amplifier input. Net, less tubes..... **\$49.39**

## Humless Power Supply

A complete unit that does away with batteries for any condenser microphone using 230 tubes in series. Net, less tubes..... **\$23.52**

## Model "KK" Microphone



Substantial general purpose microphone. Ideal for studio broadcasting and recording. Frequency range from 40 to 6000 cycles. 200 ohm impedance per button. Finished in bright chrome. 2 1/2" dia., 1 1/4" thick. Net..... **\$23.52**

## Model "LL" Microphone

Standard radio station broadcast model Extra rugged, dependable and long lasting. Assembly of high carbon steel. Rust proof. Pure gold contacts on each side of stretched and balanced diaphragm. Dia. 3 1/2" 1 3/4" thick. Net..... **\$35.28**

## Model "BB" Microphone

Two-button, stretched diaphragm, fully protected. A quality all-purpose microphone for voice and music; full size, heavy construction. 3" diameter, 2" thick. Polished chromium plate. Fr. 70 to 4500 cycles, 200 ohm buttons. Special price. Net..... **\$14.70**



## Lapel Microphones

TWO-BUTTON—A full laboratory designed and tested unit. Provides real broadcasting reproduction. Thin, compact, with a minimum of bias. Dia. 2 1/4", thickness 3/8". **\$14.70**  
 Net. only 2 oz. Net..... **\$1.76**  
 MODEL W—Single button, very sensitive and fully protected for detectafone and inter-office communicating system..... **\$1.76**  
 Net..... **\$1.18**  
 MODEL Y—Single Button is a very high grade unit at remarkably low price. Net..... **\$1.18**

## Model "X" Microphone

A single button microphone of outstanding performance that has won it wide acceptance. Low hiss, fully protected diaphragm are some of its many outstanding features.

Net..... **\$4.41**  
 MODEL "XX" Double Button microphone similar to the above. Net..... **\$5.88**



## Model "A" Microphone

A high grade single button microphone. Fully protected diaphragm. New heavy duty design through out. Stretched diaphragm with 24 kt. gold contacts. Scientifically damped. Net only..... **\$8.82**

## Handi Mikes



Carefully designed to stand the hard service to which these instruments are subjected. Have off and on switch in handle. Diaphragm has gold contact, faces. Length 6".  
 Single Button Model. Net..... **\$5.88**  
 Double Button Model. Net..... **\$8.82**

## Desk Mounts

Model X Desk Mount for any medium or small diameter microphone. Highly polished nickel plate, ebony rubber base cover and 8 suspension rings, net..... **\$2.06**  
 Model K Desk Mount may be used for any 4 point mount microphone. Highly polished chromium plate. Blank call letter plate at top. Without covers, net..... **\$2.35**  
 With covers, net..... **\$3.53**  
 Suspension springs, high grade steel, each net..... **\$0.03**

## Floor Stands

A high grade stand at extremely low price. Telescopes down to banquet size when desired. Easily adjusted. Light in weight. Complete with springs. Net..... **\$5.88**  
 Heavy duty model, with 12" base. Height 5 1/2 ft. Base frosted crackle finish. Stand highly polished chrome plating. Blank call letter plate at top of microphone ring. May be had for mounting condenser microphones. State type desired when ordering. Net..... **\$9.41**

## Model 12 Recorder

Makes up to 12-inch records. Has powerful motor to assure even speed. Two speeds, 33 1/3 and 78 r.p.m. Fitted with volume indicator, volume control, off and on switch. Combination pickup and cutting head cuts 80-lines per inch. Complete as described. Net..... **\$44.10**

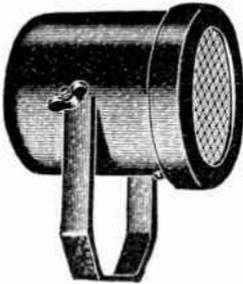
## Needles

Genuine sapphire for grooving and recording aluminum discs. Net..... **\$2.06**  
 For recording and playback pre-grooved composition and aluminum discs in 25 deg. cutting head. Net..... **\$2.06**  
 Genuine sapphire for playing regular records and transcriptions, such as Victor, Columbia, etc. Net..... **\$1.76**  
 Sapphire for cutting celluloid and cellulose coated records. Net..... **\$2.82**  
 Bamboo playback needles for all records. Per 100 net..... **\$0.59**

# MICROPHONES

## AMERICAN Microphones

### Dynamic Moving Coil Type



with suspension bail, less stand, net only..... **\$24.94**

An unusually fine microphone of the dynamic moving coil type that is universally used in all broadcast work. The frequency response is practically flat from 50 to 7400 cycles. Has a permanent magnet that requires no polarizing current. There are no moving parts to wear. The output impedance is 200 ohms. Complete

### Ribbon (Velocity) Microphone

The frequency response of this microphone is unusually fine in comparison to others available at this price range. The instrument is 5 3/4" in height and 2 1/4" in width. The mounting case contains an output transformer for coupling to a 200 ohm amplifier input. Net only..... **\$14.70**

### Model EL—Two Button

The only low-priced carbon microphone with a thin dural stretched diaphragm. The contacts are 24 k. gold. While low in price, it offers frequency response comparable to that usually found only in far more expensive types. Finished in bright nickel. Size 2 3/4" by 1 15/16". Net only..... **\$4.90**



### Model CD—Two Button

This is an outstanding carbon microphone, providing level output from 50 to 4200 cycles. Exceedingly popular in better class public address and transmitting installations. The diaphragm is hard duralumin. 24 k. button contacts are used. Polished nickel finish. 200 ohms per button resistance. Net only..... **\$11.25**

### De Luxe Lapel Microphone



200 ohms impedance. Net..... **\$14.70**

This is a new model to afford far higher quality output in the increasingly popular lapel style. It will operate satisfactorily in any position. Moving while in operation does not introduce noise. The high quality output is more than adequate for the speaking voice. Single button,

### Model BH

The famous button-hole microphone that is universally used for picking up platform speakers' voices. The output range is fully adequate for a voice purposes. Single button with 200 ohms resistance. Black art finish. Net..... **\$4.90**

### Model B

### Condenser

Composed of a Model B Condenser microphone head and a two-stage resistance coupled amplifier which incorporates high-gain 6-volt tubes. The output is about plus 3 db. from a 200 ohm line. All fittings are of highly polished nickel, and the case is finished in art metal, black. Furnished complete with tubes, less batteries or plate supply and stand,



net..... **\$34.92**

### Phonograph Motors and Turntables

#### Portable A.C. Motor and Pickup

Complete unit housed in an attractive leatherette case having a compartment for records. A.C. operated motor and turntable is furnished with and off and on switch, and speed regulator. The high impedance Webster pickup couples directly to the grid of the first audio tube. Just the thing for playing records on your radio, or for providing recorded music on sound systems. Complete as described. Net..... **\$16.75**

### Green Flyer Two-Speed Phonograph Turntable

Newest type complete with standard 12-inch turntable speed regulator and speed change lever with plate. Operates at 78 and 33 1/3 r.p.m. For use on 60 cycle 110 volt A.C. r.p.m. For use on 60 cycle 110 volts A.C. only. Net..... **\$9.60**  
Six and 110 volt D.C. motors are available on special order.

### Packard Automatic Record Changer

Plays eight 10-inch records automatically, of either 33 1/3 or 78 r.p.m. type. Equipped with highest grade magnetic pickup and volume control. Easy to install and absolutely fool-proof in operation. Universally used in the finest automatic phonographs and sound installations. For 110 volt, 60 cycle A.C. operation. Complete unit ready mounted on a 14x15 inch plate. Net only..... **\$30.85**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# MICROPHONES

## The PIEZO-ASTATIC Crystal Microphone



Here is an advance in microphone design that is of great importance. These remarkable new microphones cover the entire musical range with uniform response —yet they are rugged, free from background noise and require no operating current. Couple directly to the grid of the input tube. May be mounted directly on the top of a microphone stand with-

out the use of a suspension ring. Housed in a chromium plated case 3" in dia. and 1" thick. Net complete, less stand, **\$12.60**

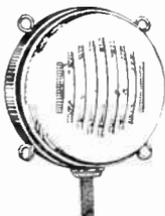
## ASTATIC Crystal Pickup



This pickup brings as great an advance to the reproduction of recorded music as does the above microphone to direct reproduction. Connects directly to input tube. No adjustments of other need for repairs. Provides wider range of reproduction than any previous type of pickup. Low in weight, only 2 3/4 oz. for the standard counter-balanced type to play up to and including 12 inch records. Net only, **\$9.00**

## TURNER Crystal Microphone

Priced slightly less than a good carbon microphone, this newly developed crystal microphone (licensed under Brush patents) has won wide acceptance for broadcast and public address work. Many leading phone operators are using them with unusual satisfaction. Extremely rugged to withstand handling that would ruin a carbon microphone of comparable sensitivity. Has hooks for standard ring mounting or may be housed in an attractive desk type cast mounting. Supplied with six foot shielded cable. Microphone only. Net, **\$12.00**



Cast desk mounting case, complete with microphone. Net, **\$15.65**

Free wiring diagrams for use of Crystal Microphones and pickups will be sent to any on request.

## Phonograph Pickups

These high grade magnetic phonograph pickups are suited for public address work, talking pictures and transcription reproduction, as well as ordinary recordings. They are made to operate with both 33 1/3 and 78 r.p.m. recordings. When ordering, request 200 (low) or 2000 (high) ohm impedances. Model V-8 has 8 3/4" arm, less volume control, net, **\$3.95**  
Model V-8 same as above, complete with volume control, **\$4.95**



Model V-11 has 11 1/4-inch arm, for 78 r.p.m. recordings, complete less volume control, **\$3.95**  
Net, **\$4.95**  
Model V-11, same as above, but complete with volume control, **\$4.95**  
Net, **\$4.95**



## Cabinet Magnetic Speaker



A highest grade magnetic reproducer motor mounted in a heavy mantel type cabinet of finest hand rubber finish. May be used for public address systems or as a speaker with short-wave and battery operated sets. The heavy cabinet is designed to bring out to the best advantage the wide frequency range of this reproducer. Exceptionally large power handling ability. Net complete, with cord, **\$4.25**

### Magnetic Speaker Chassis

Powerful magnetic speaker motor and large 9-inch cone combination to afford the finest reproduction that is possible from this type of unit. The permanent magnet is of unusually fine steel to retain its magnetism after years of service. Can easily be installed in wall mounting for hotel and apartment sound systems. Ideal for low cost portable receivers. Net only, **\$2.45**

## Special GIBBS Microphone

Engineers of this foremost amplifier and microphone manufacturer have specially designed and built this high grade microphone for MID-WEST. It is doubly guaranteed for full satisfaction by us and the maker. Has a uniform frequency response from 70 to 5000 cycles. The impedance is 200 ohms per button. Has genuine sputtered gold double button construction. The diaphragm is protected by a wire mesh. Low noise level fits it exceptionally well for amateur and public address service. Net only, **\$7.50**

# Power Units -- R. F. Coils

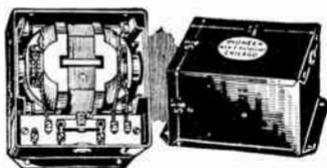
## PIONEER Converters—

These compact, completely filtered units provide A.C. for operation of radio sets and appliances from D.C. of 110, 32 or 6 volts. All ratings are extremely conservative. Guaranteed for one year. Plug converter into D.C. source and plug the A.C. unit into the outlet on base. No complicated wiring.



110 V. D.C. to 110 V. A.C.		110 V. D.C. to 110 V. A.C.	
Output V. A.	Net	Output V. A.	Net
80	\$23.10	200	\$30.30
110	24.90	250	33.30
150	27.60	300	38.70
32 V. D.C. to 110 V. A.C.		32 V. D.C. to 110 V. A.C.	
80	\$23.10	200	\$30.30
110	24.90	250	33.30
150	27.60	300	38.70
6 V. D.C. to 110 V. A.C.		6 V. D.C. to 110 V. A.C.	
40		60	\$30.90

## PIONEER Gen-E-Motors

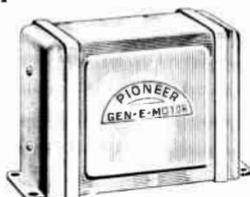


These compact units for B eliminators for auto-radios, and may be used to supply pure D.C. to receiver transmitter and power amplifier plates. Complete with built-in filter. Low in price, yet provide guaranteed performance. Used by U. S. Army, Dept. of Commerce and others.

6 V. D.C. Input	
200 volts D.C. at 40 ma., net.....	\$10.60
300 volts D.C. at 100 ma., net.....	20.00
32 volts D.C. Input	
180 volts D.C. at 40 ma., net.....	\$13.54
300 volts D.C. at 100 ma., net.....	23.52

## Auto-Radio Vibrator Replacement

The new Model J PIONEER Gen-E-Motor has been designed to provide a permanent repair of annoying and costly repeated vibrator power unit failures. Just remove the old vibrator and connect not over three wires. Can be installed within most receiver chassis. Bolt on outside of others. Guaranteed for ONE FULL YEAR. No adjustments or lubrication needed.



Net..... **\$7.50**

## Dials

FAN TYPE extremely smooth drive, 0-100 calibration. For 3/8" or 1/4" shaft. Complete with escutcheon plate. 3 1/2" diameter.

Net..... **\$9c**

SPOTLIGHT FULL VISION TYPE. Tuning ratio 4 1/2 to 1. The panel light travels with a pointer. Bronze escutcheon plate, 0-100 calibration. For 3/8" or 1/4" shaft. Dimensions of escutcheon 4 1/2" wide by 3 3/8" high.

Net..... **\$1.18**

## NEW Special Band-Spread Condenser, Dial and Superhet Coils, 550 to 20,000 k.c.

Here is the exact condenser being featured in this season's most popular short-wave and all-wave receivers. Has the regular three gang construction with auxiliary tuning three gang micro-unit that gives "split-second" band-spread, continuously over the entire tuning range.

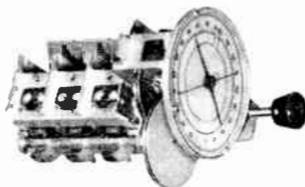
Antenna, r.f., and oscillator coils are wired to a four position switch mounted beneath the coils. The entire unit is fitted to a sub-panel that may be easily mounted in a cut-out on any chassis, thus making the unit extremely suitable for bringing any super up-to-date with all-wave continuous band-spread operation.

Each circuit has individual trimming condensers for accurate tracking on all bands. Uses 456 k.c. intermediate transformers that are of the double-tuned high-gain type.

Furnished with full instructions, including chassis layout, coil connections and a blue-print for the complete six-tube receiver.

Complete wired all-wave coil assembly, including r.f., detector, oscillator and two i.f. coils, wave change switch, tuning and padding **\$8.53**

DeAdeco three-gang band-spread tuning condenser and calibrated aeroplane dial for use with above coil assembly (.00037 mfd. per section), complete with calibrated dial. Net.....



Net..... **\$6.90**

(For modernizing old All-Wave supers)

SKIP-BAND) wired assembly similar to above, but covers only 18 to 55 meters and 1725 to 550 kc. with two tuning bands. Single i.f. r.f., detector and oscillators stage. Net complete.....

**\$3.63**

DeAdeco two-gang band-spread tuning condenser. Complete with dial. Net.....

**\$6.28**

### A.C.—D.C. Receiver Coils

Complete coil kit (1-ant. and 1 r.f. coils, unshielded) and circuit diagram for construction of compact A.C.—D.C. set. Net.....

**69c**

### 4 or 5 Tube T.R.F. Receiver Coils

Complete coil kit for tuned radio frequency receiver using two-gang condenser (.00035-37 mfd.) Coils completely shielded. Blue-prints included. Net.....

**79c**

Same as above with taps for 120 band, net.....

**85c**

### Replacement R.F. and I.F. Transformers

550 k.c. I.F. Transformers, complete with padding condensers. Net each.....

**89c**

456 k.c. six-coil, high-gain i.f. transformer complete with padding condensers. Net.....

**95c**

456 k.c. standard i.f. transformer with condenser, net.....

**69c**

Antenna coil for T.R.F. receivers. Net.....

**29c**

Shielded T.R.F. coils. Net.....

**35c**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# HEADPHONES--RELAYS



## Featherweight

P-100. Custom built for a i r c r a f t, amateurs, etc. Bakelite shell and cap. Cobalt steel magnet. Diameter 2 3/4". Depth, 3/4". Net weight 4 oz. Complete with 2 phone units, 5' cord and adjustable spring steel headband.

Net..... **\$5.88**

## High Resistance Featherweight

F-101. For Short-wave reception. 24,000 ohm, Impedance 36%. Cobalt steel magnet. Adjustable light-weight spring steel headband.

Net..... **\$5.88**

## Special Headset

No. 65. A dependable, high quality headset. Bakelite shell and cap, forged chrome steel magnet. 2000 ohms D.C. resistance.

Net..... **\$1.79**



## Acme Headset

An efficient, comfortable, low price headset. Chrome steel magnets, polished aluminum shell, adjustable headband.

2000 ohms, **\$0.99**

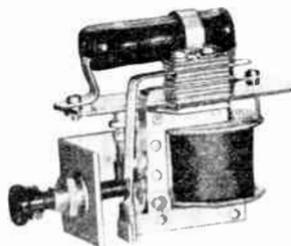
Net.....

4000 ohms, **1.33**

Net.....

## GUARDIAN Relays for Safe, Convenient Operation of Transmitters

### Overload Relays



Model L-250. Break the primary voltage when a current of 250 milliamperes is reached, protecting transmitting equipment from destructive overloads. Reset by pressing push-button.

Model L-500. Identical to L-250 except that

it is designed for larger transmitters and opens at 500 milliamperes. Shunt resistor may be used to make opening current still higher.

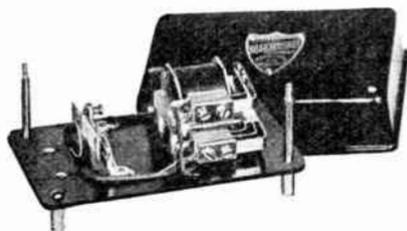
Model L-250 Overload Relay, **\$4.40**

Net.....

Model L-500 Overload Relay, **\$4.40**

Net.....

### T-100 Time Delay Relay



Prevents damage of rectifiers from application of plate current before filaments are warm. Closing of the A.C. line switch starts filament heating. Adjustable thermostatic time delay then holds plate transformer open for any desired period between 10 seconds and 1 minute. Furnished complete on bakelite base, with dust-proof metal cover for panel or baseboard mounting. Solder terminals provided.

Model T-100. Time Delay Relay. **\$8.82**

Net.....

### K-100 Keying Relay

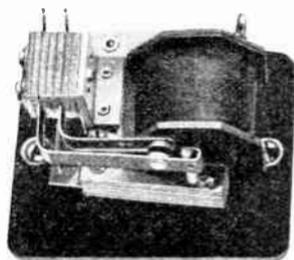
A new compact unit that secures its energizing current from a ny filament transformer winding, ranging from 5 to 16 volts A.C. or from any convenient D. C. source. Low current drain will not disturb the voltage of the

circuit from which it secures power.

The relay contacts that break the transmitter keying circuit are pure silver and will handle up to 5000 volts at the highest possible rate of transmission with standard or "bug" keys. Bakelite base with two mounting studs furnished.

Model K-100. Keying Relay..... **\$3.20**

Net.....



### B-100 DP-DT A.C. Relay

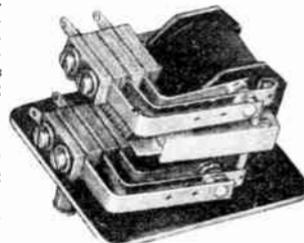
A new relay specially designed to provide a convenient means for switching from receiving to transmission without having to operate a number of switches.

B-100 Relay is essentially a double

pole, double throw switch, actuated by opening or closing a switch in the 110 volt A.C. line supplying power to its magnet coil. A frequently employed installation is to have the B-100 connect the antenna and plate voltage to the receiver when open. Closing a toggle switch in the 110 volt circuit to the relay magnet, placed near the key, disconnects the receiver antenna and plate voltage, connects the antenna to the transmitter and closes the 110 volt primary of the plate transformers.

Model B-100 Break-in Relay. **\$4.40**

Net.....



## Signal SEMATIC Key



A professional key of the very latest design. Built to the highest standards throughout. Will give years of trouble-free service. Can be used

as a double action or semi-automatic key. Heavy, but quick breaking contacts. Extremely well insulated to handle the highest keying potentials. Heavy black cast base with nickel parts. R-62,

net..... **\$10.60**

## Dual Contact Key

A high grade key with backstop contacts for break-in systems where the auxiliary contacts can be used to operate the break-in relay. R-75, net.....



**\$2.35**

## Standard Wireless Key



A sturdily made key with moulded insulating base. Very modern design. Has "A" coin silver contacts. Lacquered brass metal

parts. R-62, net.....

**\$2.25**

## Junior Key

Black enamel key base. Mahogany finish base. Nickel plated lever, platinum contacts. M-112-K, net.....

**\$1.32**

## Wireless Practice Set

A complete unit including key and high frequency buzzer mounted on a base. The code is printed on a brass plate affixed to the base. R-68, net.....



**\$2.00**

## Legless Key

Polished and lacquered brass base, nickel plated lever, platinum contacts. M-100, net.....

**\$1.76**

## Leg Key

A high grade key with long mounting legs and thumb-nuts. Polished and lacquered brass base, nickel plated lever, platinum contacts. M-101, net.....

**\$1.83**

## Learner Set

Consists of a good key and sounder mounted on a heavy base. Black enamel key base and bar frame. Brass bridge and aluminum sounding bar. Nickel plated key lever. Mahogany finish base. 4 ohm. M-112, net.....

**\$2.65**

## Sounder

Black enamel box frame. Aluminum sounding bar. Mahogany finish base. Gives a clear signal that is easily read. 4 ohm. M-112-S, net.....

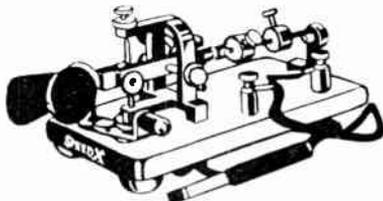
**\$1.75**

## High Frequency Buzzer

The same as used in Wireless Practice Set. Note is adjustable. Black crystal lacquer finish. Resistance 20 ohms. R-60, net.....

**\$1c**

## Low Price Automatic Keys



## Speedex Model 510

A smaller model of the well-known key described below. No. 510, net.....

**\$5.60**

## Speedex Model 500

Has satisfied users all over the world and is fast becoming the universal speed key among experienced radio men. Adjustable from 8 words per minute to as high a rate as desired. Standard construction used throughout. Will not lose adjustment at any speed. Black wrinkled base. All other parts chrome plate. No. 500, net.....

**\$7.35**

## Model 300 Practice Key

An extremely low price key that is carefully adjusted to have the feel of more expensive keys. Black base. All other parts chrome plate. No. 300, net.....

**\$1c**

## Model 301 Amateur's Key

A high-grade key designed for the exact requirements of the amateur transmitter. Pure coin silver contacts. Black base, all other parts chrome plated. No. 301, net.....

**\$1.05**

## Model 310 Standard Key

A fine example of high grade balance and machine work. Heavy duty contacts assure a quick, clean break. Has provisions for plugging in the Models 500 or 510 HI-SPEED Automatic Keys. Black base. No. 310, net.....

**\$1.18**

No. 311—Chrome base.....\$1.29

## Model 320 Heavy Duty Key

The finest of the standard SPEEDEX line. Has one-quarter inch solid coin silver contacts. Well insulated for heavy duty work. Supplied with black base. All other parts chrome plated. No. 320, net.....

**1.65**

No. 321—Chrome base.....\$1.80

## Navy Type Key Knob



Molded black composition of the double button design universally used by navy and experienced operators. Will fit any key. Special large size, net.....

**15c**

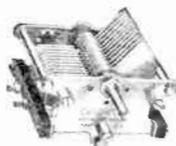
Whatever your key needs may be MID-WEST can offer you the greatest value. A key, unlike many other pieces of equipment never wears out or is out grown. Once you invest in a good key, it will be a constant pleasure throughout all your transmitting days.

# TRANSMITTING CONDENSERS

Allen D. Cardwell Mfg. Co.

For years the standard of comparison. Unexcelled in design, quality of materials and precision workmanship. A unit on which it does not pay to economize if the best transmitting or receiving performance is desired.

## Transmitting Condensers



Type	Max. Cap. Mmfd.	Air Gap	Net
123B	480	.030"	\$2.35
137B	960	.030"	2.94
164B	220	.070"	2.75
147B	440	.070"	4.12
T199	330	.084"	5.88
DT199 (Split)	650	.084"	12.94
520B	242	.100"	\$5.38
521B	525	.100"	12.35
T183	110	.171"	5.30
DT183 (Split)	228	.171"	10.58

## Neutralizing Condensers

Type	Max. Cap. Mmfd.	Net	Type	Max. Cap. Mmfd.	Net
511B	23	\$1.76	515B	56	\$5.88
513B	50	3.53	415B	34	3.20

## Split Stator Condensers

Type	Cap. per Sec. Mmfd.	Air Gap	Net
156B	500	.030"	\$3.53
197B	80	.070"	2.94
157B	210	.070"	4.70
512B	50	.171"	5.88

## Heavy Duty Transmitting Types

The Cardwell 16-B Construction Design that has never been surpassed in a condenser for use with the higher powered tubes. Large air gaps. Plates rounded and well polished. Mycalex insulation throughout.

Type	Max. Cap. Mmfd.	Air Gap	Net
3279	315	.168"	\$21.33
3280	147	.168"	15.30
3281	84	.168"	13.25
3276	160	.294"	20.00
3277	80	.294"	14.65
3278	47	.294"	13.25

## DWYER Transmitting Condensers

Designed with the requirements of the progressive amateur as the deciding factors, these condensers offer radical departures from previously accepted standards. Chief among these features embodied in the lines the elimination of stacked or swaged plates allowing for an assembly that may be readily altered to meet the ever changing requirements of an amateur transmitter.

### Standard Type

Type	Max. Cap. Mmfd.	Voltage	Air gap	Net
607	72	5,000	.168"	\$3.53
613	140	5,000	.168"	4.59
625	280	5,000	.168"	6.62
635	385	5,000	.168"	8.53
1203	18	11,000	.356"	3.18
1207	43	11,000	.356"	4.12
1213	80	11,000	.356"	5.59
1229	180	11,000	.356"	9.11

## Mid-Way Condensers

Feather weight condensers of true Cardwell quality. Aluminum used throughout for all metal parts except bearings that are steel, cadmium plated.

### RECEIVING

Type	Max. Cap. Mmfd.	Net
401-B	26	\$1.36
402-B	50	1.42
403-B	70	1.48
404-B	105	1.55
405-B	150	1.63
406-B	260	1.36
407-B	365	1.95
407-BS Split Stator	375 mfd.	each section. .020" air gap, net price.....

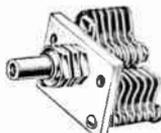


### TRANSMITTING

Type	Max. Cap. Mmfd.	Air Gap	Net
408-B	22	.070"	\$1.68
409-B	35	.070"	1.75
410-B	50	.070"	2.07
411-B	70	.070"	2.33
412-B	100	.070"	2.59
413-B	150	.070"	3.20
415-B	34	.171"	3.60

(for neutralizing 50 watt stages)

## Trim-Air Midget

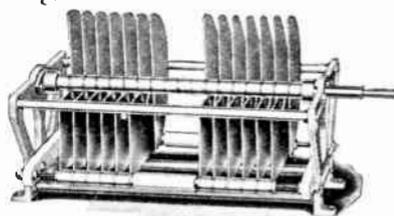


Used as air dielectric trimmers for ganged stages, padding condensers and for tuning i. f. transformers. Use of isolantite insulation makes these condensers excellent for ultra-high frequency work. Detachable shaft rotor locking nut.

Panel mounting by means of bushing and nut.

Type	Max. Cap. Mmfd.	Net	Type	Max. Cap. Mmfd.	Net
RT-15	15	\$0.73	RT-50	50	\$0.94
RT-25	25	.79	RT-75	75	1.00
RT-35	35	.88	RT-100	100	1.03
			RT-140	140	1.84

Type XT-30 for transmitting.  
 50 mfmfd. cap. net..... **\$1.05**  
 Mounting bracket with screws and nut, ea. net \$ .06  
 Extra extension shaft for ganging, ea. net..... .05  
 Mount'g posts with screw and lock washer, net .06



### Split Stator Type

Type	Max. Cap. Mmfd.	Voltage	Air gap	Net
807	72	5,000	.168"	\$6.47
813	140	5,000	.168"	8.28
821	235	5,000	.168"	11.22
1407	43	11,000	.356"	7.35
1413	80	11,000	.356"	9.91

MID-WEST RADIO MART

520 S. State St., Chicago, Ill.

# Transmitting Condensers--Crystals

## Aerovox High Voltage Transmitting Condensers



Aerovox oil filled condensers give dependable service as they are specially designed for high voltage work. Only the finest materials are used. The dielectric is 100% pure linen paper. Section impregnated in high grade oil and surrounded in the can by protective oil bath for better insulation, proper cooling and long life. Rectangular can type has section mounted in clamps to avoid fluttering of plates, a frequent cause of breakdowns.

- No. 1006—1000 volts D.C.,  
1 mfd.—\$2.65; 2 mfd.—\$3.38; 4 mfd.—\$5.00.  
No. 1506—1500 volts D.C.,  
1 mfd.—\$3.38; 2 mfd.—\$4.85; 4 mfd.—\$7.06.  
No. 2006—2000 volts D.C.,  
1 mfd.—\$5.60; 2 mfd.—\$7.20; 4 mfd.—\$9.70.  
No. 2506—2500 volts D.C.,  
1 mfd.—\$8.20; 2 mfd.—\$10.00;  
4 mfd.—\$14.70.  
No. 3006—3000 volts D.C.,  
1 mfd.—\$13.60; 2 mfd.—\$15.00;  
4 mfd.—\$23.05; 5 mfd.—\$11.76.  
No. 4006—4000 volts D.C.,  
1 mfd.—\$14.10; 2 mfd.—\$17.64;  
5 mfd.—\$13.20.  
No. 5006—5000 volts D.C.,  
1 mfd.—\$16.75.

## Round Can Type

- No. 1005—1000 volts D.C.,  
1 mfd.—\$1.89; 2 mfd.—\$2.50;  
4 mfd.—\$3.53.  
No. 2005—2000 volts D.C.,  
1 mfd.—\$2.79; 2 mfd.—\$3.82.



## Continental Transmitting Condensers



A high grade transmitting condenser manufactured to highest specifications, compact and conservatively rated. Highest grade paper foil windings. Thoroughly inspected and tested. Housed in drawn aluminum containers, thoroughly impregnated and sealed against moisture. Leads brought out through porcelain stand-off insulators insuring against shorts to can. Guaranteed by Midwest and Continental when operated at proper voltage.

Cap.	Voltage	Net Price	Cap.	Voltage	Net Price
1 mfd.	1000	\$1.25	4 mfd.	1500	4.95
2 mfd.	1000	1.80	1 mfd.	2000	2.10
4 mfd.	1000	3.15	2 mfd.	2000	3.60
1 mfd.	1500	1.65	4 mfd.	2000	6.75
2 mfd.	1500	2.70			

## Sprague Oil Filled Condensers

A new type of oil impregnated and oil filled transmitting condensers that is highly desirable for amateur use. Highest grade paper foil windings housed in round metal containers and immersed in a non-deteriorating oil that will insure long life. Mounting clamp is included.

Capacity	Voltage	Net Price
1 mfd.	1000	\$1.47
2 mfd.	1000	2.65
2 mfd.	2000	4.70
4 mfd.	1000	4.12

## BLILEY CRYSTALS

The Bliley BC3 mounted crystal is designed primarily for the amateur who wants to buy his crystal complete in a unit, plug it into his transmitter and forget frequency problems. The cost of the crystal and holder is little more than a BCX crystal alone.

Bliley features X-cut, power type. More powerful special size crystal. Mounted in compact moulded bakelite holder. Single frequency oscillation. More accurate calibration. Frequency marked on each name plate.



## BC3 Mounted Crystals

Mc Band	Supplied to specified freq. within			
	10 Ke	5 Ke	1 Kc	Exact F.
7.0, 3.5	3.95	\$4.90	\$5.90	\$7.50
1.7	4.80	5.80	6.80	8.40

Add 50c if genuine G.R. Co. plugs (3/4" spacing) desired.

## Single Signal Filter

Finest short-wave receivers use this Bliley quartz crystal. Supplied to 465, 500 or 525 k. c. Completely mounted. Type SSF.

Net.....\$5.90

## Standard Frequency Crystals

A 100 K. c. ideal for frequency meter use. Snap of a switch outlines and equally subdivides the amateur bands. Completely mounted. Instructions for frequency meter construction included.

Type BC5. Net.....\$9.50

## Unmounted Crystals

One inch square X-cut power type crystal. Frequency accuracy within 0.05%. Your choice from our large stock of 40, 80 or 160 meter bands.

Net.....\$3.90

## Crystal Holder

Moulded bakelite holder with tube-pin arrangement for mounting. Threaded top excludes dust and moisture. Plane lapped electrodes with variable spring tension. Mounts in any position. For 80-160 meter crystals.

Net.....\$1.00

## Crystal Oven

Holds temperature within 1 degree constant. Plugs into 5 prong socket. Heats quickly on 7.5 v. at 1/4 amp. draw. For 1" square 80 or 160 meter crystals.

Weight, 6 oz. Net.....\$7.50

MID-WEST RADIO MART

520 S. State St., Chicago, Ill.

# AEROVOX

## HI-FARAD Dry Electrolytic Condensers

### Standard Round Can

Type E condensers are hermetically sealed in round aluminum cans. Universal mounting, standard size. Wide range of capacities in single and multiple units for general replacement needs. 450 volts working.

#### Single Section

Cap. mfd.	Net. E5
4	
8	\$0.50
4	.62
Cap. mfd.	Net. E5
5-15	\$1.35
8-8	1.05

#### Triple Section

8-8-8	\$1.59
9-9-18	2.20

#### Quadruple Section

9-9-18-18	\$3.09
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### Moulded Mica Condensers

Made of finest grade India Ruby Mica, special foil and sealed in moulded bakelite and rugged metal containers. Thoroughly impregnated to protect them from



moisture and insure long life.

Type 1467—500 volts, 1/2" square.			
Cap. mfd.	Net	Cap. mfd.	Net
.00004	\$0.09	.00025	\$0.12
.00005	.09	.0005	.12
.00007	.09	.001	.15
.0001	.09	.002	.21
.0002	.12	.0025	.27
Type 1450—1000 volts.			
Cap. mfd.	Net	Cap. mfd.	Net
.00005	\$0.15	.002	\$0.21
.00007	.15	.003	.24
.0001	.15	.004	.27
.0002	.15	.005	.27
.00025	.15	.006	.33
.0005	.15	.01	.47
.001	.18	.02	.56

### Compact Round Can

Type EM5—450 volts D.C. Working.	Cap. Size	Net EM5	Cap. Size	Net EM5	
1	1x1 1/8	\$0.41	6	1x4 3/8	\$0.59
2	1x2 1/8	.44	8	1x4 3/8	.62
4	1x2 1/8	.50			

### Inverted Round Can

Same Size as Above.

Compact can type. Type GM5—450 volts D.C. working.

Single Section			
Cap. mfd.	Net GM5	Cap. mfd.	Net GM5
1	\$0.41	6	\$0.59
2	.44	8	.62
4	.50		



Type GG5 Double Section 450 volts D.C. working.			
Cap. mfd.	Net, GG5	Cap. mfd.	Net, GG5
4-8	\$0.85	8-8	\$0.94

Type G5—450 volts D.C. working.			
Cap. mfd.	Net, G5	Cap. mfd.	Net, G5
1	\$0.41	8	\$0.62
2	.44	10	.91
4	.50	12	.94
6	.59		

Type 15—450 volts D.C. working.			
Cap. mfd.	Net, 15	Cap. mfd.	Net, 15
1	\$0.41	8	\$0.62
2	.44	10	.91
4	.50	12	.94
6	.59		

### Round Can By-Pass

Type SM25—25 volts D.C. working.			
Cap. mfd.	Net	Cap. mfd.	Net
10	\$0.42	25	\$0.59
Type SM50—50 volts D.C. working.			
Cap. mfd.	Net	Cap. mfd.	Net
10	\$0.48	25	\$0.65

### Bakelite Case

Type 250-X—250 volts.	
Cap. mfd.	Net
.05	\$0.39
.1	.41
.25	.44
.5	.50
.1	.63

### Cardboard Cased

Type P5—450 volts D.C. working.			
Single Section			
Cap. mfd.	Net	Cap. mfd.	Net
1	\$0.33	8	\$0.56
2	.39	10	.73
4	.44	12	.81
6	.54		
Double Section			
Cap. mfd.	Net	Cap. mfd.	Net
4-4	\$0.61	8-12	\$1.18
8-8	.88		
Cardboard Cased By-pass, 1 1/8 x 2 3/8"			
Type PB2—200 volts, D.C. working.			
Cap. mfd.	Net	Cap. mfd.	Net
1	\$0.33	6	\$0.41
2	.33	8	.48
4	.39		



### Cardboard Tube Type

Type PR25—25 volts D.C. working.			
Cap. mfd.	Net	Cap. mfd.	Net
10	\$0.29	50	\$0.56
25	.39		
Type PR50—50 volts D.C. working.			
Cap. mfd.	Net	Cap. mfd.	Net
10	\$0.39	50	\$0.71
25	.48		
Type PR100—100 volts D.C. working.			
Cap. mfd.	Net	Cap. mfd.	Net
10	\$0.41	25	\$0.56

### Stamped Case Units



Non-inductively wound, hermetically sealed in stamped metal cans.

Type 260-X—200 volts.			
Cap. mfd.	Net	Cap. mfd.	Net
.1-.1	.1		\$0.39
Type 261-X—200 volts.			
Cap. Mfd.	Net	Cap. mfd.	Net
.1-.1-.1			\$0.62
Type 460—X—400 volts.			
Cap. mfd.	Net	Cap. mfd.	Net
.05	\$0.27	.5	\$0.44
.1	.29	.1-.1	.40
.25	.35	.1-.1-.1	.56
Type 461-X—400 volts.			
Cap. mfd.	Net	Cap. mfd.	Net
.1	\$0.59	.25-.25-.25	\$0.71
.5-.5	.65		

# CORNELL-DUBILIER

## World's Finest Condenser Line

### Pyranol (Oil) Filled

These are the finest high voltage oil filled condensers ever offered by this oldest builder of radio condensers. Pyranol is an improved dielectric oil that offers greatly improved performance over ordinary oil filled condensers. Sealed in metal containers, with porcelain standoff terminals.



D.C.		
Volts	Cap.	Net
1000	1 mfd.	\$1.50
1000	2 mfd.	2.70
1000	4 mfd.	4.20
1500	1 mfd.	2.25
1500	2 mfd.	3.75
1500	4 mfd.	5.40
2000	1 mfd.	3.15
2000	2 mfd.	4.80
2000	4 mfd.	6.60
3000	1 mfd.	10.80
3000	2 mfd.	13.80

### Electrolytic Condensers



New small size, "Handi-Mikes" have cardboard containers with wire leads. 450 working volts.

1 mfd. 2 1/2 x 1 1/4 x 1/2"	net.....	33c
2 mfd. 2 1/2 x 1 1/4 x 3/8"	net.....	39c
4 mfd. 2 1/2 x 1 1/4 x 3/8"	net.....	45c
8 mfd. 2 1/2 x 1 3/8 x 1 1/8"	net.....	57c

Standard size electrolytic units in cardboard containers with lug terminals. 450 working volts.

Single Section		
2 mfd., net.....	39c	4 mfd., net.....45c
6 mfd., net.....	54c	8 mfd., net.....57c
Double Section		
4-8 mfd., net.....	81c	8-8 mfd., net.....90c

Upright round metal container dry electrolytic condensers. Negative grounded to container. Multiple section units have common negative, the container. 450 working volts.

2 mfd., net.....	45c
4 mfd., net.....	51c
8 mfd., net.....	63c
10 mfd., net.....	75c
12 mfd., net.....	84c

Insulated container types, with two wire leads.

2 mfd., net.....	45c
4 mfd., net.....	51c
6 mfd., net.....	60c
8 mfd., net.....	63c

Inverted mounting, can negative. Solder lug terminal for positive.

4 mfd., net.....	51c
8 mfd., net.....	63c
10 mfd., net.....	75c
12 mfd., net.....	84c

Multiple section dry electrolytic condensers in round upright metal containers. Can common negative.

5-15 mfd., net.....	\$1.38
8-8 mfd., net.....	1.08
8-8-8 mfd., net.....	1.62
9-9-18 mfd., net.....	2.25
8-8-18-18 mfd., net.....	2.91



### Mica Condensers with Molded Bakelite Cases

These mica dielectric transmitting condensers have wide application in transmitting and all other high voltage circuits. Accurate and permanent.



D.C. Test Voltage 1000	Working Voltage 600
.00005 mfd., net.....24c	.001 mfd., net.....30c
.0001 mfd., net.....24c	.002 mfd., net.....30c
.00025 mfd., net.....24c	.003 mfd., net.....36c
.0005 mfd., net.....24c	.01 mfd., net.....69c
D.C. Test Voltage 5000	Working Voltage 2000
.0001 mfd., net.....54c	.001 mfd., net.....\$0.90
.00025 mfd., net.....63c	.002 mfd., net.....1.35
.0005 mfd., net.....75c	.005 mfd., net.....1.98
.01 mfd., net.....	\$2.46

### High Voltage Mica Units

A new mica condenser for extreme high voltage applications. Have a ceramic casing that eliminates all capacity to ground. Will stand temperatures at high frequencies that would ruin glass dielectric condensers.



.0001 mfd. 12,500 V. D.C., net.....	\$2.25
.00025 mfd. 12,500 V., net.....	2.25
.0005 mfd. 7,000 V., net.....	2.25
.001 mfd. 7,000 V., net.....	2.55
.001 mfd. 12,500 V., net.....	3.00
.002 mfd. 7,000 V., net.....	3.15
.002 mfd. 12,500 V., net.....	3.90

### Paper Condensers



Dwarf Tiger Paper Condenser Units are new more compact tubular condensers that are offered at remarkably lower cost.

400 V. D. C. Working Potential		
.02 mfd., net.....	12c	.25 mfd., net.....27c
.05 mfd., net.....	15c	.5 mfd., net.....30c
.1 mfd., net.....	18c	

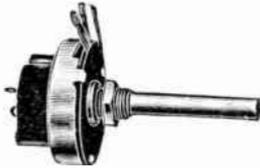
600 V. D.C. Working Potential		
.002 mfd., net.....	12c	.1 mfd., net.....21c
.006 mfd., net.....	12c	.25 mfd., net.....30c
.01 mfd., net.....	12c	.5 mfd., net.....36
.05 mfd., net.....	18c	

1000 Volt D.C. Working Potential		
.01 mfd., net.....	18c	.1 mfd., net.....27c
.05 mfd., net.....	24c	.25 mfd., net.....45c

Drawn metal container paper dielectric condenser units. 400 V. D.C. working potential Single and multiple section types.		
.1 mfd., net.....	30c	1.0 mfd., net.....60c
.25 mfd., net.....	36c	2.0 mfd., net.....93c
.5 mfd., net.....	45c	
1-1 mfd., net.....	39c	
.25-.25 mfd., net.....	48c	
.5-.5 mfd., net.....	60c	
1-1-1 mfd., net.....	51c	
.25-.25-.25 mfd., net.....	63c	
1-1-1-1 mfd., net.....	66c	

# CLAROSTAT - SANGAMO - PANELS

## Clarostat Volume Controls



Listed below are a few of the many stock values of this well known Ad-a-switch variable resistor of the composition type:

Res.	Curve	Res.	Curve	Res.	Curve
1,000	Tapered	10,000	Tapered	100,000	Uniform
2,000	Tapered	15,000	Tapered	200,000	Uniform
3,000	Tapered	20,000	Tapered	250,000	Uniform
5,000	Tapered	50,000	Tapered	500,000	Uniform
7,500	Tapered	75,000	Tapered	1,000,000	Uniform

Any of above types may be used as rheostat or potentiometers, less power switch. Net.....\$0.45

For power switch, add net.....\$0.20

Write for the CLAROSTAT Receiver Volume Control replacement guide, that tells the proper replacement unit for all popular receivers.

## Eby Molded Sockets



This one piece molded socket is suitable for universal use wherever a high grade socket is desired. Mounting holes 1 11/16" apart

- 4-prong, net.....14c
- 5-prong, net.....15c
- 6-prong, net.....20c

- 7-prong, (small) net.....20c
- Combination large and small 7-prong, net.....24c

**MOLDED SOCKET CABLE CONNECTOR**—Consists of a molded socket and molded cap fitting together by a bayonet connector. 4-prong, net 18c, 5-prong, net, 21c, 6-prong, net, 24c.

**MOLDED PLUG CABLE CONNECTOR**—A bayonet socket plug with removable cap. Fit cable sockets described above, and any standard tube socket. 4-prong net, 09c, 5-prong, net, 12c, 6-prong, net, 15c.

**EBY LO LOSS SOCKETS**—Made of the highest quality low-loss ceramic which is glazed to prevent moisture absorption. Phosphor bronze contacts. Will mount on 1 11/16 or 1 27/32" centers. 4-prong, net, 29c, 5-prong, net, 29c, 6-prong, net, 33c, 7-prong, net, 33c.

**WAFER TYPE SOCKETS**—Stamped of highest grade fabric bakelite. 1 11/16 mounting centers or 1 1/2" mounting center. 4-prong, net, 05c, 5-prong, net, 05c, 6-prong, net, 07c. Small 7-prong, net, 07c. Large 7-prong, net, 07c.

## Bakelite Panels

Cut to any size, up to 38" by 42". Black, 100% perfect. 1/8" thick, per sq. in., net, 01c. 3/16" thick, per sq. in., net, 01 1/2c.

## Bakelite Tubing

1/2", 3/4", 1" dia. per in. length.....	4c
1 1/4", 1 1/2", 1 3/4" per in. length, net.....	5c
2", 2 1/2", 3" dia., per in. length, net.....	7c
4" dia. per in. length, net.....	10c

## Aluminum Panels

1/16" thick, cut to any size up to 24" by 72", per sq. in., net.....	0075c
1/8" thick, cut to any size up to 18" by 72", per sq. in., net.....	01c

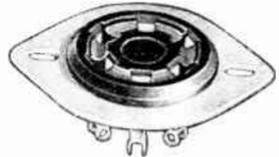
## Eraydo Metal Panels

Newly developed non-magnetic metal that cuts and drills easily yet will not rust. One side finished in satin silver.

Cut to any size from 22 1/2" by 72 1/2" .05" thick per sq. in. net.....	5c
.0625 thick per sq. in. net.....	0075c

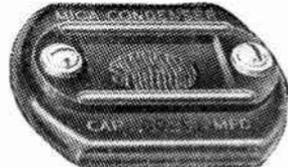
## Clip-Tite Bakelite Socket

Molded bakelite socket with adapter plate to fit any mounting centers from 1 1/2" to 2". Unique construction allows socket to be turned to any position on adapter plate for most convenient wiring. All types, 4, 5, 6, small and large 7-prong sockets, net each.....7c



Tube shield base for above socket, net.....2c

## Sangamo Mica Condensers



Highest grade mica condenser with molded bakelite case. Ample safety above rated voltage. Capacities are extremely accurate.

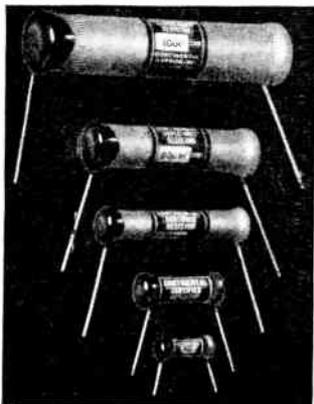
### 1000 volt rating

mfd.	net	mfd.	net	mfd.	net
.0005	\$0.24	.001	\$0.29	.006	\$0.50
.0001	.24	.0015	.29	.008	.59
.00015	.24	.002	.29	.01	.62
.0002	.24	.003	.35	.012	.71
.00025	.24	.004	.35	.015	.73
.0005	.24	.005	.41		

### 5000 volt rating

mfd.	net	mfd.	net
.00005	\$0.54	.0005	\$0.73
.0001	.54	.0010	.89
.00015	.59	.0015	1.15
.0002	.62	.002	1.32
.00025	.62		

## Continental Moulded Carborite Resistors



### Continental Auto Radio Ignition Suppressors New Universal Types

These new 1934 Continental "Certified" Suppressors in trim Isolantite housings will successfully eliminate all interference resulting from the spark plugs, coils, distributor, etc., without affecting the efficiency of the ignition system. Made for hard service, these suppressors will withstand the heat, vibration, oil and water encountered under the hood. They make possible thrillingly clear reception that will increase your enjoyment 100%. Made in five types to meet every installation requirement.



S15—Standard universal spark plug suppressor with U terminal  
Net, each..... **18c**



T11—Distributor suppressor—fits all makes. Net, each..... **18c**

S18—New Flexo Terminal spark plug suppressor. Terminal can be bent for vertical or horizontal mounting. Net, each..... **18c**

C10—Cable suppressor. Net, each..... **18c**

S12A—New Buick, Packard and Chrysler type spark plug suppressor which takes place of terminal on ignition cable. Net, each..... **18c**

Triple coated with new 1000 volt breakdown proof insulation, the new Continental Certified Resistors, completely eliminate shorts to the chassis or adjacent wiring. The effects of load, age, temperature and humidity have been rendered negligible. Rigidly tested for accuracy, quiet in operation and non-inductively wound, Continental Resistors are clearly marked with standard RMA color code markings and bear Continental's "Certified" label. Type D2—1 watt and Type G4 ½ watt are available in the all resistance values from 150 ohms to 5 megohms.

Type D2—1 Watt Resistor, **12c**

Net, each.....

Type G4—½ Watt Resistor, **12c**

Net, each.....

### Resistor Kit

"Metal-Pac" Resistor Kit contains 25 Type D2—1 watt resistors ranging from 250 ohms to 2 megohms. Combination chart in the lid of the metal carrying case tells without computation what standard values to combine in parallel to give unusual resistor values. Case keeps resistors in perfect condition and when empty, provides a useful container. Continental Metal-Pac Resistor Kit. **\$2.95**



Net..... **\$2.95**

### Continental Color Code

The copyrighted Continental R.M.A. Resistor Color Code Indicator, printed in nine colors on heavy stock and coated for long wear. 3/4 inches in diameter. Easy to use

Continental. Net..... **12c**

Free with every order of 25 Continental Resistors.

### Lynch METALLIZED Resistors

The famous METALLIZED Resistor that has been known from the earliest days of radio for its quiet and dependable performance. Offered in two ratings, one and two watts. Have combination grid clip and pig-tail leads.

#### STOCK SIZES (In Ohms)

100	450	3500	80000
150	500	4000	10000
200	600	4500	15000
250	700	20000	100000
300	800	25000	200000
350	900	30000	250000
400	1000	40000	300000
1500	5000	50000	400000
2000	6000	60000	500000
2500	7000	75000	750000
3000	7500		

1, 2, 3, 5, and 10 megohms  
One-watt, all values, net 12c—Two-watt, all values net.....18c

# ELECTRAD

## Vitreous Grid Leaks

100 Watt Rating; Non-inductively wound, 1" x 7" Ceramic Tube.

Resist. Ohms	Mils.	Net	Resist. Ohms	Mils.	Net
5000	140	\$0.88	30000	57	\$0.88
10000	100	.88	50000	44	.88
15000	81	.88	60000	40	1.18
25000	63	.88	75000	33	1.18

200 Watt Rating; Non-inductively wound, 1 1/4" x 10 1/2" Ceramic Tube.

Resist. Ohms	Mils.	Net	Resist. Ohms	Mils.	Net
5000	200	\$1.18	30000	81	\$1.47
10000	141	1.18	60000	57	1.47
15000	115	1.18	50000	63	1.44
20000	100	1.18	80000	50	1.47
25000	90	1.47	100000	44	1.47

## Sectional Resistors

200 Watt Rating; Each Section 1/10 of total resistance. 1 1/4" x 10 1/2" Ceramic Tube.

Resist. Ohms	Mils.	Net	Resist. Ohms	Mils.	Net
100	1414	\$1.62	20000	100	\$1.62
500	632	1.62	30000	81	1.62
1000	447	1.62	40000	70	1.62
5000	200	1.62	50000	63	1.62
10000	141	1.62			

## Vitreous Resistors

10 Watt Rating—3/8" x 1 1/4" Ceramic Tube; Monel Metal Lugs

1	2	3	4	5	7.5	12	15	20
25	30	35	40	50	75	100	125	150
200	250	300	400	500	600	750	1000	1200
1000	1200	1500	2000	2500	3000	4000	5000	6000
7500	10000	12000	15000	20000	25000	30000	40000	50000
75000	100000							
Net, each..... <b>21c</b>								

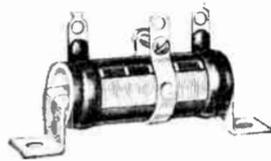
20 Watt Rating—1/2" x 2" Ceramic Tube; Monel Metal Lugs

5	10	25	50	75	100	150	200
250	300	350	400	500	650	700	750
800	850	1000	1100	1200	1250	1500	1750
1850	2000	2250	2400	2500	2750	3000	3500
4000	4500	5000	6000	7000	7500	8000	10000
10000							
Net, each..... <b>29c</b>							
12,500	15,000	25,000	35,000	40,000	50,000	70,000	75,000
ohms. Net, each..... <b>38c</b>							
80,000 - 90,000 - 100,000 ohms. Net, each..... <b>44c</b>							

50 Watt Rating—3/4" x 4" Ceramic Tube; Monel Metal Lugs

10	20	50	100	250	500	700	750
1000	1500	2000	2250	2500	3000	4000	5000
5000	6000	7000	7500	8000	9000	10,000	12,500
15,000	17,500	20,000					
25,000 ohms. Net, each..... <b>53c</b>							
50,000 - 40,000 - 50,000 - 60,000 - 75,000 - 100,000 ohms Net, each..... <b>73c</b>							

## Variohm Resistors



30 Watts—3/8" x 2 1/2" Tube

1	3	5	10	15	25	75	100
150	200	250	500	750	800	1000	1500
2000	2500	3000	3500	4000	5000	6000	7500
10,000 ohms. Net, each..... <b>44c</b>							
12,000 - 15,000 - 25,000 - ohms. Net, each..... <b>53c</b>							

50 Watts—3/8" x 4 1/2" Tube

5	10	25	50	75	100	150	200
250	500	750	800	1000	1500	2000	2500
2500	3000	4000					
5000 ohms. Net, each..... <b>65c</b>							
7500 - 8000 - 10,000 - 12,000 - 15,000 - 20,000 - 25000 ohms. Net, each..... <b>73c</b>							
50,000 - 40,000 - 50,000 ohms. Net, each..... <b>79c</b>							

75 Watts—3/8" x 6 1/2" Tube

10	15	25	50	100	250	300	500
500	750	1000	1500	2000	2500	3500	5000
7500	10,000	15,000	20,000	25,000	30,000	40,000	50,000
Net, each..... <b>88c</b>							
30,000 - 35,000 - 40,000 - 45,000 - 50,000 - 60,000 - 80,000 - 100,000 ohms. Net, each..... <b>94c</b>							

100 Watts—1" x 7" Tube

1000	2000	3000	4000	5000	6000	8000	10,000
15,000	20,000	25,000	30,000	35,000	40,000	50,000	60,000
75,000 ohms. Net, each..... <b>\$1.18</b>							

200 Watts—1 1/4" x 10 1/2" Tube

500	1000	1500	2000	2500	3000	5000	10,000
10,000	20,000	25,000	30,000	35,000	40,000	50,000	100,000
Net, each..... <b>\$1.47</b>							

## Power Rheostats

Electrad Vitreous Enameled Rheostats are ruggedly built for long life at rated current loads. Smooth and noiseless in action. Mount in single hole with provision for anchoring against rotation of base. Shaft and bushing are insulated from contact arm to permit mounting on metal panel without insulating washers.

Type 5X—50 Watt Rating

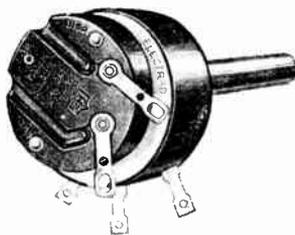
1	1.5	2	2.5	3	4	5	6	8
10	15	20	25	30	40	50	75	100
150	200	300	500	800	1000			
ohms resistance. Net, each..... <b>\$2.06</b>								

Type 15X—150 Watt Rating

1	1.5	2	2.5	3	5	7.5	10	15
25	35	50	75	100	125	150	200	250
300	500	750	1000	1500	2000			
ohms resistance. Net, each..... <b>\$3.82</b>								

# ELECTRAD-OHMITE

## Electrad Volume and Tone Controls



In this new control the resistance element is applied and baked to the flat outer rim of a bakelite ring, forming a firm base for the element which cannot warp out of line with the contact arm. The mechanical strength, electrical stability, and wearing qualities of this unit are exceptional.

This model is extremely compact, protruding only 1/2" inside the panel mounting, preventing overcrowding of instruments. The control is smooth and noiseless in operation.

Standard Replacement Control

No.	Resist. No.	Resist.	No.	Resist.
204W	10 232W	2000	279	25000
269W	20 233W	3000	280	25000
270W	30 277W	4000	241	30000
271W	50 234W	5000	205	50000
272W	100 278	5000	202	75000
273W	200 560	7500	242	100000
274W	400 283	10000	281	200000
282W	600 240	10000	208	250000
275W	800 573	12000	203	500000
276W	1000 201	15000	206	1000000

W.—Indicates wire resistance element. Complete controls with insulated shaft. Net, each..... **59c**

### Volume Control Guide

Contains a complete alphabetical list of receivers for which Electrad standard or replacement controls are made. Name of manufacturer and Model number of set are given with the proper Electrad replacement control. Resistance values and list prices are given. Ordering controls specified by this guide assures the use of proper replacement units. Free with every order of Electrad Controls.

### Precision Resistors

Electrad Precision Wire-Wound Resistors are accurate and dependable with a minimum of inductance and distributed capacity. Type 6P utilizes a non-porous ceramic form having 6 sections. Resistance wire ends spun under caps to insure positive contact. Thoroughly impregnated against moisture. Dimensions are 9/16" diameter; 1" long. Rating 1 1/2 watts.

Resist. Ohms	Net	Resist. Ohms.	Net
500	<b>\$0.44</b>	50,000	.73
1,000	.47	75,000	.88
2,500	.50	100,000	1.03
5,000	.53	150,000	<b>\$1.32</b>
10,000	.57	200,000	1.32
15,000	.59	250,000	1.47
20,000	.73	300,000	1.62
25,000	<b>\$0.73</b>	400,000	1.62
30,000	.73	500,000	1.92
35,000	.73	750,000	2.35
40,000	.73	1,000,000	2.94

Ferrule terminals for converting Type 6P to a ferrule type resistor. Ferrules may be screwed on ends of any Type 6P resistor. Net, per pair..... **09c**

### Truvolt Adjustable Resistors

Truvolt Adjustable Resistors are of the wire wound type with adjustable sliding clip. The heat conducting copper core and greater radiating surface insure more even heat distribution and cooler operation. Full length insulating fibre guard. Standard tolerance is 5%.

Type A—10 watts. Size 3/8"x1 1/4".

Resistance in Ohms				
.5	7.5	50	500	2500
1	10	75	800	3000
2	15	100	1000	4000
2.5	20	200	1250	5000
3	25	300	1500	7500
5	30	400	2000	10,000

Type A—10 watts. Net, each..... **29c**

### T Pads and L Pads

Electrad Constant Impedance T Pads are useful for volume control of microphones, talking pictures amplifiers, and other amplifying systems.

#### Line Impedance in ohms

15—200—500—3000 and 5000

Net, each (all sizes)..... **\$2.06**

L Pad Attenuators. Line impedance in ohms: 15—200—500—3000 and 5000. Net each

(all sizes)..... **\$1.47**

T type Attenuator Controls. Tap switch variety utilizing noiseless self-cleaning contacts. Resistance elements are wire wound in these non-inductive, low capacitive units.

Type	Imped. Ohms	Net	Type	Imped. Ohms	Net
8AT15	15	<b>\$11.76</b>	8AT202	200	<b>\$7.35</b>
8AT50	50	7.35	8AT500	500	7.35
8AT52	50	7.35	8AT502	500	7.35
8AT200	200	7.35	8AT602	600	7.35

### Ohmite Amateur Radio Handbook

A valuable and interesting reference book for the amateur, packed with information that will save time and effort. 16 pages of data on receiver power equipment, Class B phone modulators, a handy table of bias resistors for cathode circuits, a description of a new Frequency Meter-Monitor and other usable, practical information.

Net, per copy..... **10c**



# OHMITE

## Filament Rheostats



These heavy duty rheostats make ideal controls for the filament circuit of radio transmitting tubes. The voltage can be adjusted to exact value required for maximum tube life and best performance. Rheostat should be used in the primary circuit of the transformer to avoid unbalancing the secondary. The table shown below is calculated for use with transformers having 115 volt primary tap. 110 volt line is connected to this tap so that, with no additional primary resistance, secondary is at a higher voltage than needed for tubes.

Rheostat Resistance	Price	Rheostat Resistance	Price
500 ohms	\$2.06	75 ohms	\$2.06
350 ohms	2.06	50 ohms	2.06
250 ohms	2.06	35 ohms	2.35
175 ohms	2.06	22 ohms	2.35
125 ohms	2.06	16 ohms	3.53
100 ohms	2.06	10 ohms	3.53

## RED DEVIL Resistors



Red Devil resistors are wire-wound over a porcelain core, and covered with a special high temperature refractory cement which protects the wire from injury even though a red heat is reached. Their high over-load capacity and freedom from deterioration make them ideal replacement resistors. Red Devils are made in two sizes. The ten watt—from 1 through 25,000 ohms is 1 3/4" x 3/8". The twenty watt—from 30,000 through 100,000 ohms—is 2" x 1/2". All units have 1/2" tinned wire leads and terminal lugs. Stock values for the 10 watt Red Devils are: 1 to 250,000 ohms. **21c**  
10-watt type each, net.....  
Stock values for the 20 watt resistors are: 30,000 to 100,000 ohms. **38c**  
Each, net.....

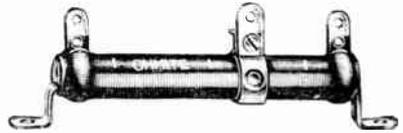
## Wire-Watt Resistors

Wire-Watt resistors are wire-wound units rated at 1 watt and small enough to be used in almost all radio circuits. They embody the finest type of resistor construction and will give satisfactory service in all amateur applications. Wire-Watts have no voltage or temperature characteristics and are quiet in operation. 1/2" tinned wire soldering lugs are attached. Stock values are:

100	750	2500	10000	350	1250	6000	20000
125	800	3000	12500	400	1500	7000	22500
150	900	3500	15000	500	1750	7500	25000
200	1000	4000	16000	600	2000	8000	
250	1100	4500	17500	700	2250	9000	
300	1200	5000	18000				

Net. each..... **12c**

## Multivolt Dividers



Ohmite MULTIVOLT resistors are standard tapped units, primarily intended for use as voltage dividers though they have many other uses. Each resistor has ten equal sections which make it possible to get a large variety of resistance values from one unit. All resistors are furnished with brackets. Sizes: 50 watt—6" x 1 1/16", mounting centers 7"; 75 watt—6 1/2" x 7/8", mounting centers 7 1/4"; 150 watt—8 1/2" x 1 1/4", mounting centers 9 1/4". Stock values of Multivolts are:

50 Watts		150 Watts	
No.	Resist. Ohms	Resist. Ohms	Net Price
1206	10000	1407	15000
1201	100	1408	20000
1202	500	1409	25000
1203	1000	1410	30000
1204	2500	1411	40000
1205	5000	1412	50000
1207	15000		
1208	20000		
1209	25000		

75 Watts		150 Watts	
No.	Resist. Ohms	Resist. Ohms	Net Price
1401	100	1601	100
1402	500	1602	500
1403	1000	1603	1000
1404	2500	1604	2500
1405	5000	1605	5000
1406	10000	1606	10000
		1607	15000
		1608	20000
		1609	25000
		1610	30000
		1611	40000
		1612	50000
		1613	75000
		1614	100000

## Vitreous Enameled Fixed Resistors

	100 Watt Rating	200 Watt Rating
5,000 ohms net.....	\$0.72	\$1.44
10,000 .....	.84	1.44
25,000 .....	.90	1.50
50,000 .....	1.02	1.65
75,000 .....	1.26	1.80
100,000 .....	1.35	1.80

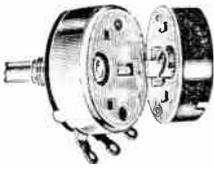
## Center-Tapped Resistors

	Red Devil 10-Watt	Wire-Watt 1-Watt
20 ohms .....	\$0.21	\$0.27
50 .....	.21	.27
75 .....	.21	.27
100 .....	.21	.27
200 .....	.21	.27

## "Cordohm" Line Cord Resistors

This unit is used by leading set manufacturers for securing filament voltage from 110 volts in the design of A.C.-D.C. receivers. Composed of a standard appliance cord with socket plug, and in addition a conductor which is a resistor of long length, easily dissipating the heat developed. Available in resistances of 135, 160, 220, 290 and 330 ohms. **60c**  
Net complete, any value.....

## New YAXLEY Universal Volume Control

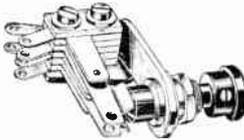


This entirely new Yaxley volume control offers the most flexible design ever developed. It has a 3/2 shaft that may be easily trimmed off to any desired length. It will fit knobs intended for either flat or round shafts. Since the resistance curve has an adjustable taper, this single style makes an exact volume control replacement for over 90% of all receivers.

Smooth and quiet in action, these improved units meet every need of the serviceman, set builder and amateur. Their high grade construction assures long, quiet life.

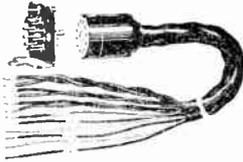
STOCK SIZES: 2, 6, 10, 20, 50, 60, 100, 200, 500, 1000, 2000, 3000, 5000, 7500, 10000, 15000, 25000, 50000, 100000, 250000, 500000 ohms and Net, any value.....59c A.C. Switch..... 25c

### Push Button Switches



Compact switches that make or break contact when the bakelite button is pressed. Mount in a single 7/16" hole on panels up to 1/4" thick.  
 S.P. Make contact, non-locking, net.....\$0.54  
 S.P. Break contact, non-locking, net..... .34  
 S.P. Double throw, non-locking, net..... .59  
 2 pole, make two contacts, non-locking, net..... .71  
 2 pole Double throw, non-locking, net..... .89

### Pin Plug Receptacles



These units provide a convenient means of connecting leads to amplifiers, power supplies and transmitting units. Pin Plug, with cover, 7 conductor, net.....59c  
 Receptacle Plug, with cover, 7 conductor, net.....44c  
 Pin Plate, for panel or base mounting, 7 conductor, net.....44c

### Phone Plugs and Extension Jacks



Highest grade bakelite insulation to prevent leakage. Patent-



ed tip feature insulates tip from sleeve to prevent short circuits.  
 Combination screw and solder terminals, net.....29c  
 Quickly connects extension cord so that loud speaker or phones may be plugged in at any distant point. Complete with bakelite cover, net.....44c

### Dial and Pilot Lights

The Yaxley Pilot Light Bracket complete with socket and through-panel illuminator, Red Jewel. Net .....29c  
 The Yaxley Pilot Light Bracket, complete with socket and through-panel illuminator, Green Jewel. Net .....29c  
 The Yaxley Pilot Light Bracket, complete with socket through-panel illuminator, Amber Jewel. Net .....29c  
 Jewels only .....15c

### Selector Switches

These newest type tip switches for wave-band change and many other applications, are offered in one, two, three and four gang units.

Single gang, one to four points, net.....\$0.59  
 Single gang, one to eleven points, net......62  
 Two gang, one to four points, net..... .94  
 Two gang, one to eleven points, net.....1.23  
 Three gang, one to four points, net.....1.30  
 Three gang, one to eleven points, net.....1.59  
 Four gang, one to four points, net.....1.63  
 Four gang, one to eleven points, net.....1.76

Single section combination switches will offer the following: single pole single throw, single pole double throw, two pole single throw, two pole double throw, three pole single throw, three pole double throw, four pole single throw, four pole double throw, net.....\$0.45

Single section combination switch same as above but also offers five pole and six pole connections, net..... **59c**

### Jack Switches



Yaxley Jack Switches are suitable for mounting in small space as the switch lies parallel with the panel at a depth of

1 1/4". Furnished complete with black knob and off-on name plate.

#### Two Position

Single pole single throw.....45c  
 Single pole double throw.....54c  
 Double pole single throw.....59c

#### Three Position

Single pole double throw.....54c  
 Double pole double throw.....75c  
 Three pole double throw.....96c  
 Four pole double throw.....\$1.20

### Etched Dial Plates

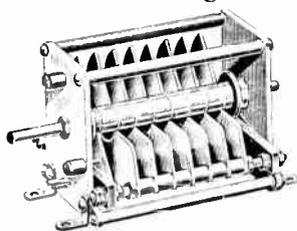
For rheostats and potentiometers. Calibrated 0 to 100. Black and silver 2 1/4" diameter, net.....\$0.09  
 For tap and short-wave switches.

Marked	Net	Marked	Net
1 to 2	\$0.09	1 to 8	\$0.09
1 to 3	.09	1 to 9	.09
1 to 4	.09	1 to 10	.09
1 to 5	.09	1 to 11	.09
1 to 6	.09	1 to 12	.09
1 to 7	.09		

For selector switches where "Off" position is required.

# JOHNSON

## NEW Variable Air Transmuting Condensers



Especially designed for high and ultra-high frequency transmission. Extremely compact. Mycalex insulation standard. Complete range of popular capacities for high-and-

low C tank circuits in both single and dual section ("split-stator") types. Peak voltages are 4900 and 9800 R.M.S. with air gaps of .080 and .175 respectively. Complete with mounting screws and posts, base mounting brackets, and drilling template.

Catalog No.	R.M.S. Volts per Section	Capacity M.M.F. per Section	List Price
100D35	3,500	100	\$ 5.00
250D35	3,500	250	6.47
500D35	3,500	500	9.24
100D70	7,000	100	5.88
100DD35	3,500	100	7.35
200DD35	3,500	200	10.88
100DD70	7,000	100	10.15

## Tuning Handle and Indicator



No. 204 Commercial type handle indicator with etched scale. Handle and indicator of one-piece moulded black bakelite. Standard model takes 3/4" shaft. Also used on coupling shafts and anywhere indicating control handle is needed. Complete with scale and hardware.

Net..... **\$1.32**

No. 206 same as No. 204, but larger. Scale 6" diameter. Standard model takes 3/4" shaft. Net..... **\$1.76**

## Porcelain Stand-off Insulators

Made of dense, high quality glazed porcelain with accurate nickel plated brass hardware.

No.	Net
24 H.T., 1 1/8", Body 1/2", ea. 10 for	.41
22 H.T., 1 3/8", Body 1", ea. 10 for	.05
20 H.T., 2", Body 1 1/2", ea. 10 for	.08
62 H.T., 3 3/8", Body 2 3/8", Base 1 7/8" sq.	.72
60 H.T., 5 1/4", Body 4 1/2", Base 2 3/8" sq.	\$0.21
each	.33
20-J—No. 74 jacks on No 20 Insulators, ea.....	.09



## Thru-panel Type

Highly vitrified, glazed, low absorption porcelain. Single hole mounting. Jack types furnished with solder lug above or below panel.

No.	Net
40, 1 1/4" above, 1/2" below panel	\$0.15
42, 3/8" above, 3/8" below panel	.12
44, 3/4" above, 3/4" below panel	.09
40-J—No. 75 jacks on No. 40 insulators	.18
42-J—No. 75 jacks on No. 42 insulators	.25



## Get HIGH EFFICIENCY with this "Q" Antenna

New 5 meter antenna. The "Q" principle applied to a highly efficient 56 m.c. antenna system. Easily converted for portable or home station use. Accurately matched impedances throughout. Complete with instructions for operating on any desired frequency in the band..... **\$3.82**



Regular Band "Q" Systems. Models available for 10, 20, 40, and 80 meter transmitters.

Type	Net
10 Q Asst. for 10 meter (28 MC) antenna.....	\$ 3.75
20 Q Asst. for 20 meter (14 MC) antenna.....	5.95
40 Q Asst. for 40 meter (7 MC) antenna.....	10.50
80 Q Asst. for 80 meter (3.5 MC) antenna.....	19.65

## Doublet Antenna Kit



Kit "A". All essential material for highly efficient doublet type receiving antenna system for short-wave, all-wave, and broadcast receivers. Provides noise-free reception without loss of signal strength. Kit includes two 100-foot coils No. 14 enameled solid copper antenna

wire, 8 airplane type insulators for use at ends and center of antenna flat-top, 20 No. 31 Johnson Transposition Insulators, and complete

instructions. Net..... **\$2.80**

Kit "B" same as "A", but less wire. Net..... **\$1.95**

## Antenna Insulators

No.	Net
No. 107, length 7", power watts 100, net.....	\$0.42
No. 112, length 12", power watts 250, net.....	.50
No. 120, length 20", power watts 1000, net.....	.88

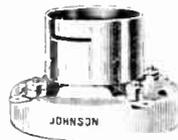
## Plugs and Jacks

Phosphor bronze springs, heavy terminals. Accurate standard threads and holes, milled nuts, large hex heads.

No. 70 Transmitting, 1 1/2" high, net.....	\$0.18
No. 71 Transmitting Plug, 3/8" dia., net.....	.08
No. 72 Transmitting Jack, 1 1/8" high, net.....	.12
No. 73 Transmitting Plug, 1/4" dia., net.....	.03
No. 74 Plug, G. R. Type, net.....	.04
No. 75 Plug, G. R. Type, net.....	.05

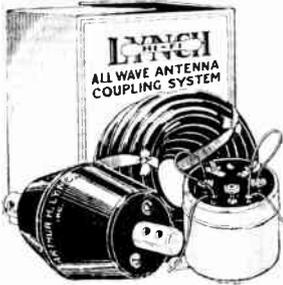
## Transmitting Socket

No. 211 is for 50 watt tubes. Dual phosphor bronze contacts and soldering terminals are formed in 1 piece and cadmium plated. Highly polished, nickel-plated, brass shell and glazed porcelain base.



Net.....	<b>\$1.18</b>
No. 211 FD. For vertical panel mounting, black finish cast aluminum base.	
Net.....	<b>\$2.06</b>
No. 210 Socket. For 852-210-866 etc. Base net	\$0.73

## "HI-FI" Doublet Antenna Coupling System



A new and improved doublet antenna coupling system. The impedance matching device for the center of the doublet makes the antenna efficient on all waves. High quality is built into this antenna coupling system. It will improve

any doublet antenna and operates on any wavelength from 360 to 600 meters. The duplex antenna coupling device is made of highly polished, moulded bakelite; the center strain insulator is of high-grade glazed porcelain.

**Contents of the Lynch HI-FI (Hi-Fidelity) Kit:**  
 Lynch "HI-FI" duplex antenna coupler.....\$2.06  
 Lynch "HI-FI" receiver coupler..... 1.47  
 50 feet of Lynch Giant Killer Cable..... 1.80  
 Complete Kit..... **\$3.95**  
 Net.....

## "HI-FI" All-Wave Antenna Kit

A complete antenna kit of the highest quality and efficiency. Recommended by RCA Licensees. Simple to install. Consists of the following equipment:

125 ft. HI-MHO heavy wire, net.....\$1.12  
 35 ft. Giant Killer Cable, net..... 1.26  
 1 Lynch HI-FI Receiver Coupler, net.....1.50  
 1 Porcelain Lead-in Tube, net..... .06  
 1 3" Stand-off Insulator, net......06  
 3 Navy type Antenna Insulators, net......45  
 2 Split Knobs, net......10  
 Complete Kit..... **\$4.12**  
 Net.....

## Lynch Transposition Blocks

Made of Lynchite, a new high resistance, low loss material. Designed to reduce electrical losses to a minimum, offset effects of exposure and secure best results. Light and durable.  
 Kit of 10, Net..... **\$1.62**

## Cage Aerial Spreaders

These new Lynchite spreaders reduce electrical losses to a minimum and bring out the greater pick-up qualities of the cage type aerial. 2 3/4" square. Kit of 10.  
 Net..... **\$1.62**

## Antenna Insulators

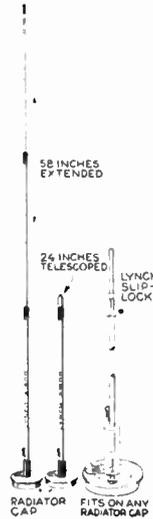
This type of insulator is in constant use in the Navy S. W. Experimental Laboratories. Eliminates electrical loss and leakage across antenna insulators.  
 Kit of 8—Commercial Type..... **73c**  
 Net.....  
 Kit of 8—Navy Type..... **\$1.18**  
 Net.....

## Lightning Arrestors

Afford positive protection for all types of receivers.  
 Single Arrestor, with mount..... **44c**  
 Net.....  
 Double Arrestor, with mount for use on all two-wire transmission lines..... **73c**  
 Net.....

## Airod 5 Meter Antenna System

Rigid, durable, and light in weight, the Lynch Airod Antenna is an ideal unit for 2.5 meter operation, especially for portable or mobile stations. For aircraft, the quarter wave Airod, operating against the body of the ship as a counterpoise, or the half-wave Airod, centered, is ideal. The former may be mounted vertically; the latter, either vertically or horizontally without any noticeable difference in range. For automobiles, the quarter-wave Airod, mounted on the radiator cap is the best arrangement. The car capacity is the counterpoise. For ground stations, either the half-wave doublet or the di-pole, mounted vertically, is ideal. Impedances are evenly matched and the units are extremely simple to adjust.



### AUTO TYPES

1/4 Wave—5 meter (2 sections) net.....\$2.06  
 1/4 Wave—2.5 & 5 meter (3 sections) net..... 2.35

### AIRCRAFT AND GROUND STATION TYPES

1/2 Wave—5 meter (4 sections) net.....\$4.12  
 1/2 Wave—2.5 & 5 meter (6 sections) net..... 4.40  
 1/4 Wave—5 meter—3/8x32x3/4x30 with 3/4"

## R. C. A. Double-Doublet Antenna

A revolutionary forward step in antenna design. Composed of an interconnected pair of doublet antennas, one tuned to 16 meters and the other to 49 meters. A special two-wire transmission line connects to a transformer at the receiver. Furnished complete with all necessary antenna wire, lead-in, insulators, ground clamp and transformer for entire installation. Operates with any receiver. Net..... **\$3.60**

## Clough Brengle STATICLEAR All-Wave Antenna System



The Staticclear Balanced Antenna System provides a 100% dependable means of eliminating man-made static. It is a highly efficient antenna for both broadcast and shortwave bands. Lead-ins up to 1000' in length may be used with reduction of

signal longer result in only slight attenuation. Staticclear is easy to install; merely clip it on any antenna and run the ready soldered transmission line to the set. No bother with special antennae or transposition blocks. Staticclear permits the operation of ten or more receivers from the same antenna.

STATICCLEAR Model 45 All-Wave Balanced Antenna System, complete with Balanced antenna coupler, 75 ft. Balanced two-wire transmission line, and balanced receiver coupler, packed in cardboard box. Net..... **\$3.20**

# I. C. A. Short-Wave Accessories

## Insulated Jacks for Banana Type Plugs



These jacks designed for transmitting and receiving coils, test leads, etc. Take banana type plugs. Insulated washer for use on metal panels included. Moulded black or red bakelite. Complete with soldering lugs.

bakelite. Complete with soldering lugs.

- No. 1891 Black, net.....\$0.09  
No. 1892 Red, net......09

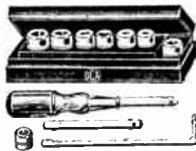


## Jumbo Spaghetti Tubing

Finest insulating varnished cambric, ideal for high frequency work. Comes in 36" lengths, 25 to the package. Diameter, 9/64" I. D., 1-5/65" O. D. Black only. per length.

Net..... per length..... **21c**

## Wrench Sets



All parts steel, cadmium plated. Set includes: Screw driver and handle, 1/4" L extension, 1/4" hex. handle and 5/8 extension, 3" straight extension, 3/16, 1/4, 5/16, 11/32, 3/8 and 7/16 inch sockets, internal knurled socket—fits any 12 point double hex nut, sizes

3/16" to 3/8". Complete with box, net..... **\$1.47**

## Neutralizing Tools

- No. 1019—Comb. screw driver and wrench. Key slot and nut wrench. Net, each.....\$0.44  
No. 996—Neutralizing tool with metal ribs. Net.....\$0.88  
No. 356—Test leads, black and red tubing with wire Tip type. Net, each.....\$0.27  
No. 382—Needle point. Leads black and red. Tip type. Net.....\$0.41

## Test Leads

- No. 381—Needle point test leads that penetrate insulation. Does not injure insulation. Spade or phone tip terminals. Overall length 50 inches. Net..... **41c**  
No. 383—For resistance and continuity tests. Made of Insuline Tubing. Long prods. Net..... **29c**

## Bakelite Vernier Dial

- Useful where complete insulation of dial from condenser shaft is required. 3" wide by 3/4" high. Adjustable lock bushing for 1/4" shaft. No set screws to tighten. Scale travels 360°; each half calibrated 0-100 or 100-0 for use with clockwise or counter clockwise condensers. Black or Walnut. No. 2204—Black, net.....\$0.49  
No. 2205—Walnut, net......49

## Filtervolt Jr. Noise Eliminator

- No. 94—Eliminates noises caused by electrical appliances. Installed at source of interference or at set. Extremely compact. Housing body of black enameled metal with nickeld brass end rings. With instructions. Net..... **\$1.79**

## I. C. A. Double Phone Plug

- No. 24—Plug of moulded brown bakelite with nickel plated brass hardware. Takes 2 cord tips, held with 2 screws. Packed singly. Net..... **25c**

## Microphone Plug and Jack



No. 1901—3-way microphone plug. Has connections for 3 wire cable. Moulded bakelite with brass parts.

- Net.....\$0.44  
No. 1902—3 conductor jack for use with No. 1901 plug. High insulation factor. Standard size. Positive contact. Net..... **29c**

## Phanstock Clips

- No. 370—Spring brass clips for general radio or electrical use. Net per doz.....\$0.09  
Box of 100.....\$0.59

## Ear Cushions for Phones

- No. 195—Ear cushions of high grade soft rubber. Used by leading air lines. Net, per pair..... **45c**

## ICA Speaker Extension Cords

- Two conductor cords with special Insulcord insulation insures perfect transmission. Bakelite connector.
- | No.  | Length                        | Net    |
|------|-------------------------------|--------|
| 186A | 10 feet.....                  | \$0.27 |
| 187  | 20 feet.....                  | .33    |
| 188  | 30 feet.....                  | .48    |
| 189  | 50 feet.....                  | .68    |
| 191  | Bakelite Connector, each..... | .09    |

## Flexible Shaft Couplers

- No. 2100—Insulex flexible coupler. 3/4" disc of Insulex and two 1/4" bushings mounted on flexible phosphor bronze springs. Low loss. Extreme flexibility. Net, each..... **35c**  
No. 2101—Flexible coupler. Made of flexible fibre with 2 1/4" bushings mounted on phosphor bronze spring. Efficient and inexpensive. Net, each..... **24c**

## Insulexmitting Plug-in Coil

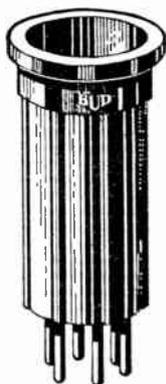
- Used in oscillators and power amplifiers in medium power transmitters. 7 prongs fit 7 prong large UX Socket. Of moulded INSULEX, 2 1/4" diameter x 4" high. Maximum efficiency; extremely low loss. Net, each..... **\$1.05**

## INSULEX Transmitting Socket

- For use with '52, '66 and '10 type tubes. Base of INSULEX, a non-hydrosopic, ceramic compound, unaffected by weather conditions. Contacts of heavy phosphor bronze. Excellent for perfect low loss and short-wave operation. For sub-panel or base mounting. No. 2600. Net..... **29c**

# BUD Short-Wave Accessories

## Bud Giant Plug-in Coil



Ideal for transmitter inductances and long wave receiver inductances. Diameter 2 1/4"; winding space 3". Low loss bakelite with standard base to fit 4, 5 or 6 prong socket. Moulded grip edge. In four colors: Brown, Black, Green and Red.

4 prong Giant Plug-in Coil. Net .....\$0.44  
 5 prong Giant Plug-in Coil. Net .....\$0.47  
 6 prong Giant Plug-in Coil. Net .....\$0.49

## BUD Lo-Coil Kits

Senior LO-COIL kit made of Senior Coil Forms in 4, 5 or 6 prong units. Each Kit consists of 4 wound coils and will cover a wave length of 16 to 200 meters when tuned with .00015 mfd. condenser.

4 prong Senior Lo-Coil Kit, net.....\$1.75  
 5 prong Senior Lo-Coil Kit, net..... 1.95  
 6 prong Senior Lo-Coil Kit, net..... 2.15  
 8 Coil Kit. 4 four prong coils and 4 five prong detector coils for electron coupled circuits. Net.....\$3.75



Junior LO-COIL Kits made of Junior Coil Forms in 4 or 6 prong units. Kit consists of 4 coils and covers a wave-length of 11 to 210 meters when turned with .00015 mfd. condenser.

4 Prong Junior Lo-Coil Kit, net.....\$1.15  
 6 Prong Junior Lo-Coil Kit, net..... 1.75

## Broadcast and Ultra Short-Wave Plug-in Coils

Senior Broadcast Coil	Wave-length Range	Net
4 prong—185-360	Meters	\$.44
4 prong—350-565	Meters	.44
6 prong—185-360	Meters	.59
6 prong—350-565	Meters	.59
Junior Broadcast Coil	Wave-length Range	Net
4 prong—185-360	Meters	\$.41
4 prong—350-565	Meters	.41
6 prong—185-360	Meters	.53
6 prong—350-565	Meters	.53
Ultra Short-Wave Coil	Wave-length Range	Net
4 prong Senior	9.5-21 Meters	\$.59
6 prong Senior	9.5-21 Meters	.72
4 prong Junior	9.5-21 Meters	.53
6 prong Junior	9.5-21 Meters	.59

## Front Panel Socket

Ideal for use on transmitters, sound amplifiers, etc. Affords easy access to tubes. Made of rugged cast aluminum, baked kinkle enamel finish. Height 1.5/16"; Width, 3"; Depth, 3/8". Socket hole 1 1/8" dia. Net, each.....**35c**

## Bud R. F. Chokes

A new efficient popular priced choke of sectionalized winding. Thoroughly impregnated against moisture.

Inductance	D. C.	Rating	Net
M.H.	Resistance	M.A.	
80	250	75	\$0.27
60	120	80	.27
50	70	100	.27
8	35	125	.23
10	40	125	.23
5.5	55	125	.23
3.4	40	125	.23
2.5	50	125	.23

## Crystal Holder

Suitable for use with crystals covering frequencies from 500-14,000 KCS. Holds crystals up to 1/32" square, .250 thick. Case of glazed ISOTEX, moisture and dust proof. Top of polished aluminum with polished brass parts. Permits fine adjustment. Net.....**\$1.18**  
 New low priced MID-WEST Crystal holder. Takes all amateur band crystals, net.....\$0.88

## Easy Starting Screw Holder

Will start any screw even in most inaccessible places. Releases itself after screw is started. Double-Grip handle of moulded bakelite. Blued prong steel fingers. Net, each for No. 2—6 inc.10c; for No. 6 to 12 inc., 14c; for No. 10 to 18 inc. 16c; and for No. 2 to 8 inc. 18c.

## Insulated Screw Driver

Absolutely shock-proof. Double grip moulded bakelite handle.

Blade width	Length	Net
1/8"	5 3/8"	\$0.12
3/8"	5 3/8"	.18
7/8"	7 7/8"	.18
1 1/4"	10 3/8"	.24

## Zepp Aerial Insulator

An entirely new and different insulator for use with Zepp type or current feed antenna systems. Permits feeders being brought in to transmitter from any angle and still be kept tight and of an even length. Net.....**54c**

## Tube Socket Plugs

These plugs find a wide range of uses such as for connection of speaker to receiver, for set analyzers and similar devices. 4-prong, net 12c—5-prong, net 12c—6-prong, net 15c.

## Microphone Plug and Connector

Three-prong polarized microphone plug with armored cord grip. Universally used for microphone cords. Net.....**45c**  
 Microphone cord connector used as a fitting for making up microphone extension cord sets. Fits above plug. Moulded bakelite body 1 1/8" diam. ter. Net.....**71c**

## 4 in 1 Aligning Tool

A positive necessity for adjusting and aligning modern radio receivers. Fits all standard i.f. transformers and variable condenser trimmer condensers. Net.....**45c**

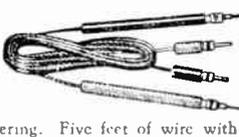
## Radio Knobs

Fit standard 1/4" shafts. Made of pressed wood or bakelite.

Bakelite knob with arrow pointer, net.....6c  
 Pressed wood knob to match all large receivers, 15c  
 Octagon top pressed wood knob, net.....8c  
 Small bakelite knob for compact and midget sets .....8c

# TESTING EQUIPMENT PARTS

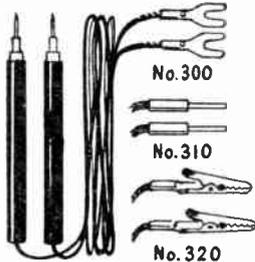
## Solderless Test Prods



Handles are 5" long and equipped with special steel needle point phone tips for piercing insulation. Wires can be replaced without soldering. Five feet of wire with insulated phone tips. Handles are red and black.

No. 450—5¼" long, 60" wire. Net.....**59c**

## Heavy Duty Test Prods



Fibre handles ½" diameter and 5" long equipped with 5 ft. of red and black heavy duty wire and needle point phone tips. Tips pierce insulation, and make standard phone tip connections. With tapered lugs, phone tips or alligator clips.

No. 300—6½" long, 60" wire, taper lugs.....**\$0.54**  
 No. 310—6½" long, 60" wire, phone tips.....**.54**  
 No. 320—6½" long, 60" wire, alligator clips.....**.59**

## Pencil Type Test Prods



Ideal for getting into tight places. Handles are 6" long and only ¼" thick. Sharp test points fit standard jacks. With phone tips, spade lugs or alligator clips.

No. 330—7" long, 60" wire, spade lugs.....**\$0.44**  
 No. 340—7" long, 60" wire, phone tips.....**.44**  
 No. 350—7" long, 60" wire, alligator clips.....**.54**

## Test Pick Prod Handles



Completely solderless

phone tip, needle point prod. Handle 5½" long. In red, black, blue, green, purple, or yellow. No. 145 Net, each.....**15c**

## Plug-in-Prongs and Jacks

These insulated plug-in-prongs are useful for all types of connections. Fine for short-wave and laboratory work. A screw is located in the side of the insulation for solderless connection. In red, black, blue, green, purple or yellow. No. 131—1¾" long. Net.....**9c**

Plug-in-prong jacks are used with the above prongs. Equipped with a shoulder washer for insulation when used on metal panel. Terminal lug for soldering. In red, black, blue, green, purple or yellow. No. 136—¾" long. Net.....**8c**

## Test Prod Handles



A screw for solderless connection is located under an insulated cap which, when in place, covers the connection, making a completely insulated handle. Wire passes through hollow handle. In red, black, blue, green, purple or yellow. No. 134—4" long. Net.....**\$0.15**  
 No. 135—2½" long. Net.....**.12**

## Insulated Binding Posts



This plug type post has a non-removable top with non-slip grip. Top takes all types of plugs: base takes standard phone tip or spade lug. Bottom knurled to prevent turning while tightening. In red, black, blue, green, purple or yellow. No. 143. Net.....**9c**

## Colored Binding Posts

Standard high quality binding posts colored for easy identification. In red, black, blue, green, purple and yellow. No. 146. Net.....**8c**

## Insulated Tapered Plugs

New type terminal lug. Takes all screw diameters up to No. 10. Back of lug fits prod handles. In red, black, blue, green, purple or yellow. 1½" long. No. 133. Net.....**6c**

## Insulated Phone Tip Plugs



Junior solderless. Fits standard phone tip jacks. Nut holds wire in place

—no solder. In red, black, green, blue, purple, or yellow. 1½" long. No. 142. Net.....**8c**  
 Senior Solderless. Same as above, but 2" long. No. 141. Net.....**8c**

Needle point plug. Fits all standard phone tip jacks. Back of tip fits test prod handles. In red, black, blue, green, purple or yellow. 1½" long. No. 132. Net.....**6c**

## Insulated Phone Tip Jacks

Positive grip springs hold phone tips tight and straight. Insulated head is ¾". Supplied with shoulder washer to insure complete insulation in panel mounting. Same colors as plugs. No. 138. Net.....**6c**

## Alligator Testing Clips

Handy for testing purposes. Long and thin for getting into tight places. Round barrel end fits plug in prongs. Positive grip.



Only ¼" wide by 2" long.

No. 45AT. Net.....**5c**  
 Box of 100.....**\$3.95**

## Alligator Clip Insulators

Especially made for No. 45AT alligator clips. Only tip of clip protrudes from end of insulator. This new style insulator permits the use of high voltage on this small clip. In red, black, blue, green, purple or yellow. No. 150. Net.....**9c**

## Phone Pin Tip Jacks

An ideal jack for set analyzers, amplifiers, etc. Holds plug firmly. Nickel-plated brass. Mounts in ¼" hole on panels up to ⅜" thick. No. 137. Net.....**5c**



## Solderless Phone Tips



Hole in the side for insertion of wire makes these tips completely solderless. Fit all types of phone tip jacks. Ideal for set analyzers and quick connections. Nickel plated brass. No. 9—Jr. Solderless. Net.....**\$0.05**  
 No. 10—Sr. Solderless. Net.....**.05**

# AMERICAN RADIO HARDWARE

## Shaft Couplings, Reducers and Extenders

No. 25-75, Length $\frac{3}{8}$ ", Hole, I.D. $\frac{1}{4}$ ", O.D. $\frac{3}{8}$ ", Dial bushings, net, each.....	5c
No. 250, Length $\frac{3}{4}$ ", Hole, I.D. $\frac{1}{4}$ ", O.D. $\frac{1}{2}$ ", Brass Coupling, net, each.....	9c
No. 375, Length $\frac{3}{4}$ ", Hole, I.D. $\frac{3}{8}$ ", O.D. $\frac{5}{8}$ ", Brass Coupling, net, each.....	9c
No. 75-50, Length $\frac{3}{4}$ ", Hole, I.D. $\frac{3}{8}$ " O.D. $\frac{5}{8}$ " Brass Coupling, net, each.....	9c
No. 50-50, Length $1\frac{1}{8}$ ", Hole, I.D. $\frac{1}{4}$ ", O.D. $\frac{1}{2}$ " Brass Reducer, net, each.....	9c
No. 50-75, Length $1\frac{1}{8}$ ", Hole, I.D. $\frac{3}{8}$ ", O.D. $\frac{5}{8}$ " Brass Reducer, net, each.....	9c
No. 750, Length $1\frac{1}{8}$ ", O.D. $\frac{1}{2}$ ", Brass Reducer, Net, each.....	9c
No. 637-C, Length 6", O.D. $\frac{1}{4}$ " dia. insulated black shafting, net.....	18c
No. 1237-C, Length 12", O.D. $\frac{1}{4}$ ", insulated black shafting, net.....	29c

## Grommets and Washers

### Shoulder Fibre Washers



No. 92— $\frac{1}{8}$ " O.D.—No. 6 Hole, Net per 100....	42c
No. 93— $\frac{3}{8}$ " O.D.—No. 8 Hole, Net, per 100....	48c
No. 94— $\frac{1}{2}$ " O.D.—No. 8 Hole, Net, per 100....	51c
No. 95— $\frac{1}{2}$ " O.D.—No. $\frac{1}{4}$ "— $\frac{5}{8}$ ", Net per 100....	54c

### Rubber Grommets

No. 96— $\frac{1}{8}$ " I.D. $\frac{1}{8}$ " mounting hole. Net, per 100.....	\$1.18
No. 97— $\frac{1}{4}$ " I.D. $\frac{1}{2}$ " mounting hole. Net, per 100.....	\$1.75
No. 98— $\frac{3}{8}$ " I.D. $\frac{1}{2}$ " mounting hole. Net, per 100.....	\$2.35
No. 99— $\frac{1}{2}$ " I.D. $\frac{1}{8}$ " mounting hole. Net, per 100.....	\$2.95

## Screen Grid Caps



New type insulated screen grid caps that fit all standard types of screen grid tubes. The lead is soldered to the metal cap under the insulation and the cap is tapered to assure positive contact. Ideal for replacements on tube testers, meter boxes, analyzers, etc. In red, black, blue, green, purple or yellow.

No. 139—Insulated cap—8" lead. Net, each.....	9c
No. 140—Insulated cap—12" lead. Net, each.....	9c

An improved screen grid cap with bead edge around prong tips that acts as a side-wiping contact. These caps are of spring material, cadmium plated, and feature a built in bridge in the lug end for easy soldering.

No. 102— $\frac{7}{8}$ " caps. Net, three for.....	5c
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## Up Clip Sockets

These dial sockets clip over the condenser or bridge of the chassis. Standard screw shell takes standard type bulbs. The socket is furnished with two lugs for solder connection. Overall height is  $\frac{3}{4}$  inches.

No. 34—Up-clip Dial Sockets. Net, each.....	6c
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## Spaghetti Tubing

Available in red, black, blue and green. Fits standard round and square buss-bar. Spaghetti Tubing, 24" lengths. Net, per length.....

9c

## Terminal Lugs



Ideal terminal lugs for set builders and experimenters. Made of tinned copper. Made in two types: Closed end lug  $\frac{3}{8}$ " long, No. 8 hole. Net per 100.....

Flat type lug $\frac{1}{2}$ " long, No. 100.....	20c
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Net, per 100.....

20c

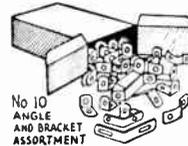
## Assorted Receiver Hardware

Complete assortment of machine screws, wood screws, hexagon nuts, brass and fibre washers, rubber grommets, terminal lugs, screen grid caps, bushings. Approximately 225 pieces to the box. An ideal set of hardware for the average set builder.

No. 1000—Assortment.....

95c

## Angles and Brackets



No. 10 ANGLE AND BRACKET ASSORTMENT

A handy assortment of angles and brackets for the radio service man. Contains 28 of the most popular sizes of angles and brackets as follows: 6— $\frac{1}{2}$ "x $\frac{1}{2}$ " angles; 4— $\frac{3}{4}$ "x $\frac{3}{4}$ " angles; 2—1"x1" angles; 2—1 $\frac{1}{8}$ "x1 $\frac{1}{2}$ " oval hole angles; 6 grid leak brackets; 4— $\frac{3}{8}$ "x $\frac{1}{2}$ " brackets; 2—1"x $\frac{1}{2}$ " brackets and 2— $\frac{3}{4}$ " high 2 type brackets. They are made of nickel plate.

No. 10—Angle and bracket assortment, Net.....

29c

## Machine and Wood Screws

A very useful assortment for the service man. Each box contains the following sizes: 20— $\frac{1}{4}$ ", 20— $\frac{3}{8}$ ", 15— $\frac{1}{2}$ ", 10— $\frac{3}{8}$ ", 10— $\frac{3}{4}$ ", and 10—1" screws.



No. 1 Round Head 6-32 N.P. Machine Screws. 85 to the box. Net.....	29c
No. 2 Flat Head 6-32 N. P. Machine Screws. 85 to the box. Net.....	29c
No. 3 Oval Head 6-32 N. P. Machine Screws. 85 to the box. Net.....	29c
nuts. 75 to the box. Net.....	29c
No. 4 Round Head 8-32 N.P. Machine screws and No. 5 Round, Flat and Oval Head assorted wood screws. 85 to the box. Net.....	29c
No. 6 Round Head 6-32 Screws, Nuts and Washers. 100 to the box. Net.....	29c
Round Head Steel Nickel Plated Machine Screws. Size Net per 100	
$\frac{3}{8}$ x6-32 .....	\$0.20
$\frac{1}{2}$ x6-32 .....	.25
Size Net per 100	
$\frac{1}{4}$ x6-32 .....	\$0.25
$\frac{1}{4}$ x8-32 .....	.25

# WIRE -- Soldering Irons

## MID-WEST Antenna Wire

### Solid Enamelled

No. 14, per 100 ft.....	35c	per 200 ft.....	65c
No. 12, per 100 ft.....	45c	per 200 ft.....	85c
No. 10, per 100 ft.....	85c	per 200 ft.....	\$1.65

### Bare Stranded

7 strands No. 26 copper wire, per 100 ft.....	23c
7 strands No. 22 copper wire, per 100 ft.....	29c

### Enamelled Stranded

7 strands No. 26 enamelled wire, per 100 ft.....	35c
7 strands No. 20 enamelled wire, per 100 ft.....	89c

### Hook-Up Wire

No. 19 tinned push-back wire, cotton insulation, parafin impregnated available in red, green, blue, yellow and black color:

25 ft. coils.....	14c	50 ft. coils.....	25c
100 ft. coils.....	45c	1000 ft. coils.....	\$3.75

BELDEN No. 22 parafined cotton covered "clip" wire with rubber under insulation.

1000 ft. roll, net..... **\$2.75**

In 25 ft. lengths.....10c

7500 volt insulated "clip" wire, cotton over rubber with shellac finish. No. 12 stranded copper conductor. The finest wire for hooking-up transmitters, per ft..... **1c**

No. 16 stranded push-back wire. Tinned copper conductor. Heavy 1000-volt cotton covering, net per 25 ft. coil..... **15c**

### Shielded Lead-In Wire

No. 18 shielded rubber-covered lead-in wire, per ft. ....2c per 50 ft. coil.....65c

### Lead-In Wire

Rubber covered solid No. 16 lead-in wire, 50 ft. rolls .....29c

Weather-proof braid over rubber covering, No. 14 conductor 50 ft. rolls.....39c

Balanced twisted pair, weather-proof braid and rubber covered for doublet and other noise-free antennas, per 50 ft. roll..... **\$1.35**

### Shielded Slewing

Tinned copper shielded slewing for covering conductors and grounding to prevent radiation or pick-up.

1/4" dia. per ft.....3 1/2c 3/8" dia. per ft.....5c

### Ground Clamp

Fits up to 2" pipe. Attaches instantly and securely with a double bite from both the jaw and hardened screw point. Easily cuts through rust paint, etc. Net only..... **10c**

### Insulated Window Lead-In

Made of pliable copper strips thoroughly impregnated in parafine with heavy black cotton weather-proof braid insulation. Fahnstock clip connections on each end.

Net..... **7c**

### Appliance and Extension Cords

Heavy live rubber covered flexible duplex cable for power input lines to transmitter, etc. Net per ft..... **6c**

## Magnet Wire at Savings

Enamel		Double Cotton Covered			
No.	1/4 Lb. Net	1/2 Lb. Net	1/4 Lb. Net	1/2 Lb. Net	
14.	\$0.13	\$0.22	14.	\$0.16	\$0.25
16.	.13	.22	16.	.16	.28
18.	.13	.22	18.	.16	.30
20.	.14	.24	20.	.18	.32
22.	.14	.25	22.	.21	.36
24.	.15	.26	24.	.24	.40
26.	.15	.29	26.	.30	.50
28.	.19	.35	28.	.36	.65
30.	.22	.39	30.	.45	.79
32.	.23	.40	32.	.55	.92
34.	.26	.45	34.	.65	1.05
36.	.32	.59	36.	.75	1.22

### Shielded Rubber Covered

For microphone and speaker connector cables.

2 wire, per ft. net.....	\$0.04
3 wire, per ft. net.....	.06
4 wire, per ft. net.....	.07
5 wire, per ft. net.....	.07
6 wire, per ft. net.....	.08

### Multi-Conductor Wire

Fabric covered cables composed of two or more individually insulated conductors. Suitable for connecting transmitter and amplifier units, or for leads to power supply. Each lead color coded for easy identification:

2-wire, per ft.....	3c	3-wire, per ft.....	4c
4-wire, per ft.....	5c	5-wire, per ft.....	6c
6-wire, per ft.....	6c	7-wire, per ft.....	7c
8-wire, per ft.....	8c	12-wire, per ft.....	10c

### Lightning Arrestors

An Monarch Lightning Arrestor is fully approved by National Board of Fire Underwriters. It is of the non-air gap type that safely passes powerful lightning and static discharges. Carries a FREE \$100.00 damage insurance. Net only..... **35c**

## Soldering Irons



DRAKE Soldering Irons are built to the highest standards and will stand up under rough usage. The 80 and 100 watt units are guaranteed for two years service. Supplied complete with one extra copper tip.

50 watt, net only.....	\$0.95
70 watt, net only.....	1.85
80 watt, net only.....	3.15
100 watt, net only.....	4.20



ESICO offer unusual value in high grade soldering irons. Have rich dark mahogany handles with one piece blued steel cases. The replaceable forged copper tips screw into the iron. Furnished with one extra tip.

65 watts, net only.....	\$1.03
85 watts, net only.....	\$1.63



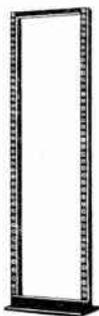
ESICO Plug Tip Soldering Irons. The copper tip is held by set screws making replacement very easy. Furnished complete with metal stand.

65 watts, net.....	\$2.95
100 watts, net.....	\$3.20

# Famous MIDWEST "BUYS"

world's finest radio parts  
offered at tremendous savings

## Dress up your rig with this RELAY RACK



One of our buyers was able to secure for our customers a supply of this very desirable relay rack. Frame is constructed of 1/2-inch steel drilled for easy mounting of panels. Base is of forged steel right angles. Overall height 78". 72 1/2" between cross-pieces. 18 1/4" between uprights. Outside width 22 5/8". Similar in appearance and construction to the finest broadcasting station

equipment. Buy one today and give your transmitter that highly prized "finished" look, not only..... **\$8.50**  
(Shipping weight 125 lbs. complete)

## 3" Pyrex Standoffs at a fraction of usual cost

The universally used 3" Pyrex Standoff insulator with heavy polished brass cap and base. Base measures 1 3/4" x 2 3/4", with four mounting holes. Have lowest loss factor of any insulator made. Can be used in circuits of 20,000 volts and more. Ideal for high-frequency work..... **39c**  
Net only.....  
10 for.....\$3.25



## MID-WEST 210 Tube —an outstanding value

A tube that is nationally known for its ability to give thousands of hours of service under conditions that mean short life for ordinary tubes. Has an extra large plate to handle potentials of 500 and 600 volts. Used frequently also as buffer in high power transmitters. Net only..... **98c**

## Use this Kellogg Mike in your portable job



The original No. 29 Kellogg Hand Microphone with single gold button of 200 ohms impedance. Ideal for use in small portable transmitters, transceivers, p.a. systems, etc. Light weight yet sturdy to withstand abuse. Complete with handle and cord..... **89c**

## Save money on genuine R.E.L. 250-watt sockets

This extra heavy duty socket fits all standard double end tubes, such as the 04-A, 49, 51, 61, 69, etc. Filament clips will carry 20 amperes and are mounted on glazed insulantite blocks. All metal parts are nickel plated. Grid and filament blocks have two screw hole mounting provisions. Net price per set..... **\$3.25**

## Baldwin Mica Diaphragm Headphones at a saving

The regulation type Baldwin Phones such as are used by both the army and navy. Their extreme sensitivity makes working d.x. much easier. Fine for broadcast reception because the mica diaphragm amplifies and reproduces with wonderful fidelity. Complete with cord and adjustable headband. Net..... **\$2.95**

## CARDWELL Transmitting Condensers from Universal Wireless Co.'s unused stocks

This condenser is the finest obtainable for high power rig. It is constructed of highly polished brass plates with H. F. Insulation. End frames are of cast aluminum with monel metal bearings and phosphor bronze contact brush. General specifications on this 10,000 volt condenser are:

Maximum capacity.....	297 mmfd.
Minimum capacity.....	.38 mmfd.
Airgap between plates.....	218"
Number of plates.....	23
No. 166 RB, Net.....	\$13.75

## Get the MID-WEST Monthly Bargain MSC.

Here is a monthly release of the many famous bargains that are found by MID-WEST buyers. Frequently quantities of special bargains are not large enough to warrant placing in our regular catalogs. If you want the latest and best in radio parts and set bargains, write in today, requesting that your name be placed on this mailing list.

See following pages for additional great values

MID-WEST RADIO MART

520 S. State St., Chicago, Ill.

# MID-WEST SPECIALS-Every One

## Mershon Self-Healing Electrolytic Condensers

An exceptional purchase enables these dependable condensers to be offered at a small fraction of their regular net price. Every one is brand new, fully guaranteed by both the maker and by MID-WEST. Capacity and voltage are conservative. Compare these specifications and prices:

Mfd. Capacity	Working Volts	Mounting Style	Net Each	Lot of 10
8	450	Inverted Clamp	\$0.22	\$1.95
8	450	Stud	.29	2.45
8	500	Stud	.35	2.95
10	450	Stud	.35	2.95
12	450	Stud	.35	2.95
16	450	Stud	.39	3.15
18	450	Stud	.45	3.75

## Highest Grade Mica Condensers

Small size mica condensers of the highest test standards, 400 volt rating. All marked, and with lug connections. Available in the following sizes:

.00004 mfd.	.00015	.0004	.0009
.00005	.0002	.00045	.001
.00006	.00025	.0005	.002
.000065	.0003	.0006	.003
.0001	.00035	.0007	.006
			.007

net only per lot of 10, assorted sizes..... **75c**

## Metal Case By-Pass Condensers

Bath-tub type metal case. Non-inductive for r.f. work. Accurate capacity. Rating 200 volts working potential. 1/4 or 1/10 mfd.

Sizes, net each only..... **10c**

Lots of 10, net..... **\$0.95**

FOUR 1/10 mfd. condensers in single metal case.

Has four leads, one common, net only..... **19c**

DUAL 1/10 mfd. condensers in single metal case.

400 volt rating. Non-inductive. Net only..... **15c**

## Porcelain Pilot Light Sockets

Small 1-inch porcelain bases. Hold standard radio dial pilot lights. For r.f. indicators and similar applications.

Net only..... **10c**

## Circuit Closing Jacks

Single circuit jacks for plug-in operation of plate milliammeter.

Net only..... **10c**

Double Pole jack for milliammeter and plate circuit, net only..... **15c**

## Shield Cans

An extremely useful shield box for monitors, frequency meters, speech amplifiers and receivers. Constructed of Erado metal that can be easily drilled or cut, although it is strong and rust-proof. Non-magnetic. A 2" sub-base provides for wiring and cable connections. Size 8"x8"x8". Weight 3 pounds.

Net only..... **\$1.50**

## Dry Electrolytic Condensers at give away prices

Here is a special value in finest quality dry electrolytic condensers. Rated at 400 volts. Strong mechanically and weatherproofed for the most severe service.

Fibre Containers	Metal Containers
4 mfd., net.....\$0.21	8 mfd., net.....\$0.35
8 mfd., net......29	8-8 upright mfd......69

## 600 v.—2 mfd. Paper Condensers

A high quality condenser made by the Condenser Corp. of America. Housed in metal container with leads out of bottom for above panel mounting. Use in low powered plate supply for amplifiers or transmitters. Can be hooked in series for 1200-volt operation. Size 1 1/2"x2"x5". Net only..... **39c**

## 17-Contact Plug and Jack

Has ample connections for interconnecting any two units of your transmitter. An absolute essential for neat and serviceable portables and for quickly knocked down amplifiers. Plug is made of double layer bakelite body. Has solder lugs for easy connection. Plug has metal cap with ring for easy disconnection.

Net only..... **59c**

## Circular Panel Hole Cutters

Will make clean, neat holes in bakelite, wood or soft metal panels. Offered in three sizes, 2", 2 1/2", and 3". Round drill stem shank

extra if desired. Net only..... **25c**

Round drill stem, net only..... **\$0.10**

## 465 k. c. I. F. Transformers

High Q coils in standard shielding mounting. Variable twin padding condenser with adjustment at top. Dipped in impregnating solution. Shield can measures 1 1/2"x3". Round cans.

Net only..... **69c**

# AN UNEQUALLED BARGAIN!

## Transformers and Chokes at Less Than Half!

### 1100 v. Plate—3 Filament Windings

THORDARSON T-3773 Plate and Filament Transformer. A low price transformer made to the specifications of this famous builder of the finest transmitting equipment. Furnishes filament and plate voltage for oscillator, buffer, final amplifier, modulator or speech amplifier. Two of these transformers may be used in series to operate a fifty watt tube.

Provided 550 volts either side of center tap at 150 ma., 7.5 volts (c.t.) at 2.5 amps, 5 volts at 3 amps. (for 83 rect.) and 2.5 volts at 5 amps. for 46, 47, 59 tubes. Completely shielded with colored leads at the bottom. Shipping weight **\$1.95**  
8 lbs. Size 4x4x5". Net.....

### 1380 v. Plate—3 Filament Windings

THORDARSON T-6878 Plate and Filament Transformer is one of the finest values we have ever offered at this remarkable new price. Gives the following ratings under load from 110v., 60 cycle line: 625 volts at 200 ma., 7.5 volts at 3 amps., 5 volts at 3 amps, and 2.5 volts at 10 amps. Upright mounting with lugs on side. Weight 9 lbs. Size 4x4x6". **\$2.95**  
Net.....

### 30 H.—125 Ma. Choke

A heavy duty choke that has many uses. Tapped at 20 ohms for use with a .01 mfd. shunting condenser to eliminate tuneable hum when employed in a short-wave receiver power supply. Housed in a compound filled crackle finished case with leads coming out from the bottom. Weight 3 lbs. Size 4½x3x2". **49c**  
Net.....

### 7.5 V. Filament Transformer

THORDARSON R-175 delivers 7.5 volts at 2.5 amps. Housed in black crackle case with binding posts on the front panel. Size 2¾x4½x6". Wt. 6 lbs **49c**  
Net.....

### Carter Rheostats

The famous Carter Imp Rheostat is official in a good assortment of sizes at unheard of prices: 1½, 3, 6, 10, 25, 40, 75, 200, 400, 500, 1000, net.....**10c**

### Toggle Switches

Single pole, single throw, net.....**17c**  
Single pole, double throw, net.....**25c**  
Double pole, single throw, net.....**30c**  
Double pole, double throw, net.....**35c**

### 15 H.—250 Ma. Choke No. 6877—Thordarson

A husky choke designed for heavy duty service. Open core. 15 Henries inductance at rated current of 250 ma. **\$2.10**  
Net only.....

### Push-Pull Audio Output to Headphones

Couples two 171, 245, 250 or equivalent tubes into a 4900 ohm load such as headphones or magnetic speaker. Fully shielded with lug terminals mounted on bakelite terminal strip. **95c**  
Net only.....

### Shielded 3 to 1 Audio Transformer

THORDARSON T-3878 completely shielded audio transformer with leads out bottom for sub-panel wiring. Size 2x2¼x3". **89c**  
Net only.....

### Push-Pull Output To Dynamic Speaker Voice Coil

Designed for use with push-pull 250, 245, 171 and equivalent tubes. Couples output to a 3 ohm voice coil. Open core type **65c**  
mounting, Net.....

### Class B Push-Pull Input

A Class B input transformer of extremely compact design fitting it for use in the modulators of transceivers and compact portable transmitters. Ratio 1.5 to 1/10. **59c**  
Net only.....

### 30 H.—100 Ma. Choke

An open core type choke manufactured by the Zenith Radio Corp. Has a wide range of applications in receivers and transmitters. **59c**  
Size 2x2x3". Net.....

### Porcelain Knife Switches

Single pole, single throw, net.....**15c**  
Single pole, double throw, net.....**18c**  
Double pole, single throw, net.....**22c**  
Double pole, double throw, net.....**27c**

### "A" and "B" Batteries

A fresh stock of batteries are always carried by MID-WEST Constructed of the finest materials, they assure you of constant service over a greater period than the ordinary battery.

Heavy Duty, 45 volt "B".....**\$1.19**  
Standard 45 volt "B".....**.79**  
Standard 22½ volt "C".....**.69**  
Standard 4½ volt "C".....**.25**  
Standard 1½ volt "A".....**.21**

# More Great MID-WEST "BUYS"

## Special 250 Tube

We have contracted with a leading tube manufacturer to build this fine tube to our own extra duty specifications. Has bigger envelope, large plate, but characteristics are standard in every other respect. A pair will drive push-pull watt modulators. Net only..... **95c**

## A C H 156 to 1 Worm Drive Dial

Combination direct drive and vernier worm control. No backlash. Put this on your tuning condenser to split up the crowded bands. Bakelite thumb screw releases the vernier instantly when desired. 3" diameter. **19c**  
Net only.....

## MID-WEST R. F. Chokes

Accurately wound chokes. Impregnated on wooden bobbins. Have long leads or lug terminals. Suitable for countless r.f. circuits.



4 millihenry, net..... **\$0.10**  
6 millihenry, net..... **.10**  
10 millihenry, net..... **.10**

## Copper Tubing for Transmitting Inductances

The finest grade soft copper drawn tubing with bright finish that easily works up into attractive and stable transmitting inductances.

1/8" tubing, net, per ft..... **\$0.03**  
1/4" tubing, net, per ft..... **.04**  
3/8" tubing, net per ft..... **\$0.03 1/2**

## Antenna Insulators

5-inch annealed glass, net each..... **\$0.10**  
3-inch annealed glass, net each..... **.04**  
Porcelain Nail Cleats..... **.02**

## 50-Watt Wire-Wound Resistors for 1/5 the usual price

A fortunate "buy" enables these first quality wire-wound resistors to be offered for less than a small fraction of the usual net price. By a full dozen while they last—it will be an investment that is sure to save you money. Following sizes are available: 400, 500, 1000, 1500 ohms. You can well afford to use these in series and parallel to secure additional resistances. **10c**  
Net each.....  
Lots of 12, net..... **\$0.95**



## Variable Tuning Condensers at lowest prices ever offered

**2-Gang Superheterodyne Type**  
Capacity .00035 mfd. per section. One section cut for tracking with oscillator. **69c**  
1/4-inch shaft. Net only.....

**3-Gang Superheterodyne Type**  
Originally made for Grigsby-Grumow Co. Capacity .00035 mfd per section, one cut for oscillator tracking. **\$1.19**  
Net only.....

**3-Gang R. F. Receiver Type**  
Made by Federal Instrument Co. Can be used with any r.f. circuit. Capacity .00035 mfd. per section. Shaft 1/8-inch diameter. **95c**  
Net only.....

**4-Gang Shielded Section Type**  
Each section is individually shielded. Capacity .0005 mfd. **69c**  
Net only.....

**3-Gang V-Type Condenser**  
A bargain that can never be equalled. This V type condenser can be re-built for almost any amateur purpose. Capacity .00035 mfd. per section. Net..... **19c**

## Get your magazines and books at MID-WEST!

For your convenience we always carry a complete stock of the latest radio magazines. Listed below are some of the better known ones, and a number of books especially interesting to short-wave transmitter and receiver operators:

Q. S. T. Magazine, net per copy.....	<b>\$0.25</b>
Radio Amateur Call Book, per copy.....	<b>1.10</b>
Radio News, per copy.....	<b>.25</b>
Short-Wave Craft.....	<b>.25</b>
Radio Craft.....	<b>.25</b>
Radio.....	<b>.25</b>
Radio World.....	<b>.15</b>
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A. R. R. L. License Manual.....	<b>.25</b>
A. R. R. L. Amateur Handbook.....	<b>1.00</b>
How To Become An Amateur.....	<b>.25</b>
A. R. R. L. Station Log Book.....	<b>\$0.40 each, 3 for 1.00</b>
A. R. R. L. Radiogram Blanks, per pad \$0.40, 3 pads for.....	<b>1.00</b>

# SKYRIDER Short-Wave Radio

Famous Custom Built Professional Sets



## The New SUPER SKYRIDER

This mighty new receiver has been designed to meet most exacting requirements of the experienced commercial operator—yet to provide an ease and assurance of dependable reception even when in the hands of the least experienced broadcast listener.

Such performance is not just "talked" into the new Super SKYRIDER—it is built in by means of advanced engineering features, many of which are not even found in the most expensive sets and all of which are its exclusive property in this price class. Several of these outstanding improvements are:

**PRE-SELECTION** to greatly reduce noise level over that of ordinary receivers. Also builds signal and provides a new high order of sensitivity.

**BUILT-IN POWER PACK AND DYNAMIC SPEAKER**—No expensive extras to double your actual cost. Everything you need for reception on all short-wave bands is included at this low net price.

**NO PLUG-IN COILS** to complicate operation. —and countless others. Write for complete descriptive circular.

Four bands tuning from 13 to 210 meters. Optional fifth band obtainable of either 10 or 550 meters at slight additional cost.

Net complete with seven Raytheon tubes..... **\$59.95**

## The Famous T. R. F. SKYRIDER

TUNES FROM 12 TO 200 METERS



Short-Wave radio's biggest value! Brings such features as Continuous Band-Spread, Wave-Change Switch, Built-in Dynamic Speaker and countless others to the low price field for the first time. Standard model operates from 110-volt 60 cycle A.C. line. Battery model is also available. Get the complete description before buying any short-wave receiver.

For 110 v. A.C. operation, net complete with 5 tubes..... **\$39.95**

Battery model, complete with tubes and speaker. Net..... **\$42.50**

**MID-WEST RADIO MART**

**520 S. State St., Chicago, Ill.**

# MID - WEST Engineers Develop new SUPER-VALUE Transformers

Compare WEIGHTS and DIMENSIONS of these with any Transformer of equal rating, regardless of price.

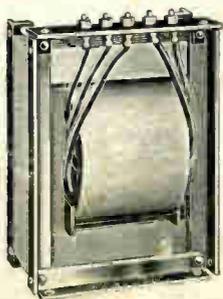


Fig. 1

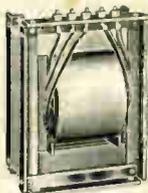


Fig. 2

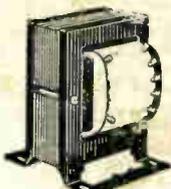


Fig. 3

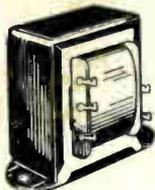


Fig. 4

## 1000-1500 V. PLATE TRANSFORMER

Type 9600—Provides 1500 volts or 1000 volts D.C. at 350 ma. with filter. A heavy duty transformer for use with 50 and 100 watt tubes or 852's in bridge rectifier systems. Separate rectifier systems may be used at 1000 and 1500 volts, with total current output of 350 ma. If used with 4-866's 2000 volts at 250 ma. or 3000 volts at 175 ma. "Hi-Cool" construction with open type mounting. Special winding treatment assures quiet operation. Size is 9x6x4". Shipping weight 35 pounds. Fig. 1. Net. **\$12.25**

## 750—1000 V. PLATE TRANSFORMER

Type 9500—Provides 1000 volts or 750 volts D.C. at 300 ma. with filter. May also be used with two separate rectifiers or in bridge circuits as described above. "Hi-Cool" construction. Open mounting with bakelite terminal strip. Size 9x6x3½". Shipping weight 25 pounds. Fig. 2. Net. **\$7.95**

## 30 H.—200 MA. SMOOTHING CHOKE

Type 8500—For use as a second choke in filter system. Has D.C. resistance of 150 ohms. Insulated for 3000 volts. May also be used as modulation choke in low power transmitter. "Hi-Cool" construction with open mounting. Solder lug terminals. Size 4½x3½x3¼". Shipping weight 4 pounds. Net. **\$1.25**

## 5 H.—200 MA. INPUT CHOKE

Type 8300—Specially designed for use in mercury vapor power supplies. 50 ohm D. C. resistance. Insulated for 3000 volts. "Hi-Cool" construction with open mounting. Solder lug terminals. Size 3x2½x2¼". Shipping weight 3 pounds. Fig. 4. Net. **95c**

## Extra Heavy Duty

### 30 H.—300 Ma. Smoothing Choke

Type 8800—For use in high voltage filter supplies. D.C. resistance 95 ohms. Insulated for 3000 volts. "Hi-Cool" construction with open type mounting. Size 4½x3½x3¼". Shipping weight 6 pounds. Fig. 4. Net. **\$1.95**

Type T-3773—Provides 550 volts each side of center tap at 150 ma. and has filament windings for 7.5 volts at 2.5 amps., 2.5 volts at 5 amps. and 5 volts at 3 amps. Complete shielded with leads. Size 4x4x5". Shipping weight 8 lbs. Net. **\$1.95**

Type T-6878—Provides 625 volts each side of center tap at 200 ma. Has filament winding for 7.5 volts at 3 amps., 5 volts at 3 amps. and 2.5 volts at 10 amps. Open type mounting with solder lug terminals. Size 4x4x6". Shipping weight 9 pounds. Fig. 3. Net. **\$2.95**

## MULTIPLE WINDING FILAMENT TRANSFORMER

7.5 V.—7.5 V.—2.5 V.

Type 7200—Provides three separate filament voltages from three secondary windings. 7.5 volts at 2.5 amps., 7.5 volts at 2.5 amps. and 2.5 volts at 10 amps. Size 3x7½x2½". Shipping weight 3 pounds. Fig. 4. Net. **\$1.95**

## FILAMENT SUPPLY

Type 7100—Provides 2.5 v. at 10 amps. for 866's and all other 2.5 filament tubes. Has 3000 volt insulation. "Hi-Cool" construction with open mounting. Solder lug terminals. Size 3x2½x2¼". Shipping weight, 3 pounds. Fig. 4. Net. **95c**

For additional transformer bargains  
See "specials" on front catalog pages

# MID - WEST RADIO MART

520 S. STATE STREET

CHICAGO, U. S. A.