

# BULLETIN 930

## CORRECTIONS

We regret that this bulletin contains many errors, typographical and otherwise, and we hope that you will overlook them while a new issue of the bulletin is being prepared. As many of the errors are obvious we are not including them in the list of corrections below. The following corrections to code words, prices, etc. should, however, be applied.

<i>Page</i>	<i>Correction</i>
9364	Type UX-280 or CX-380 Tube ..... Price \$4.50
9367	Type 302 Dial ..... Code Word DAISY
9367	Type 303 Dial ..... Code Word DAILY
9368	Type 366 Choke ..... Price \$5.00
9370	Type 276-A—160 Meter Crystal .... Code Word LABOR
9370	Type 276-A— 80 Meter Crystal .... Code Word LAYER
9370	Type 356 Crystal Holder ..... Code Word LASSO
9371	Type 309 Socket Cushion ..... Code Word SABER
9372	Type 280 Insulator ..... Price \$0.12
9372	Type 260 Insulator ..... Price \$0.20
9374	Last line to read: Type 301 Rheostat
9380	Type 334-V Condenser ..... Price \$2.50
9380	Type 334-T Condenser ..... Price \$2.75
9380	Type 334-V Condenser ..... Code Word BIPED
9380	Type 334-T Condenser ..... Code Word BILLY
9383	Type 137-J Knob with pointer—to read: same as used on Type 301 Rheostat

**GENERAL RADIO COMPANY**

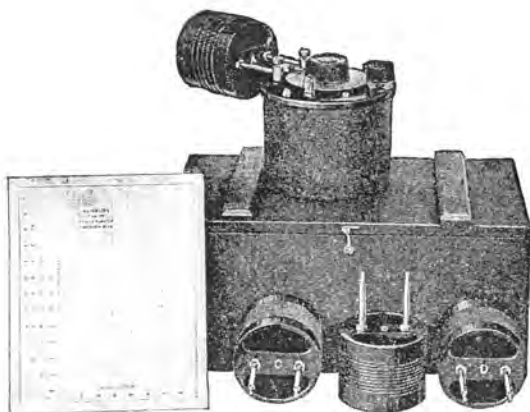
JULY 1928

BULLETIN 930



# GENERAL RADIO

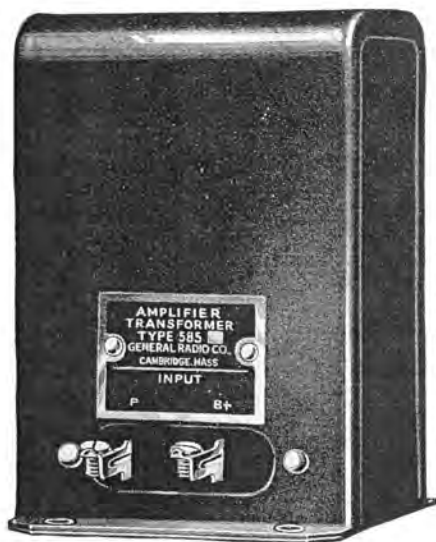
QUALITY  
APPARATUS



MANUFACTURED BY THE

**GENERAL RADIO CO.**

30 STATE STREET,  
CAMBRIDGE, MASS., U. S. A.



TYPE 585

**HIGH QUALITY AMPLIFIER TRANSFORMER**

The Type 585 High quality Audio Transformers possess even frequency characteristics from 30 cycles to 10,000 cycles. They are designed primarily for amplifiers where the utmost in tone quality is desired. They are available in two ratios.

**SPECIFICATION**

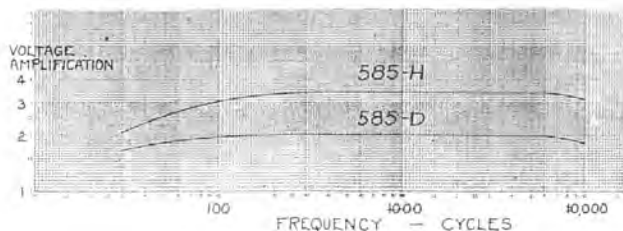
**TYPE 585 D**

**TYPE 585 H**

Primary Inductance: 79 henries  
 Pri. Direct Current Resistance: 2000 ohm  
 Secondary Inductance: 316 henries  
 Sec. Direct Current Resistance: 9300 ohm  
 Turns ratio 1:2  
 Core: Annealed silicon steel  
 Permissible current in pri: 5 milliamperes  
 Weight: 2¼ lbs.  
 Dimensions: 4½" x 3½" x 2¾"  
 Case ..... Steel  
 Finish ..... Black Japan  
 Code Word: "TIMID."

Primary Inductance: 71 henries  
 Pri. Direct Current Resistance: 2000 ohm  
 Secondary Inductance: 866 henries  
 Sec. Dir. Current Resistance: 11,000 ohm  
 Turns ratio: 1:3.5  
 Core: Annealed silicon steel  
 Permissible current in pri: 5 milliamperes  
 Case ..... Steel  
 Weight: 2¼ lbs.  
 Dimensions: 4½" x 3½" x 2¾"  
 Finish ..... Black Japan  
 Code Word: "TIPSY."

Price ..... \$7.00





Type 541-B

### PUSH-PULL TRANSFORMERS

The types 541-A, 541-B and 541-C are push-pull transformers possessing unusually good frequency characteristics and designed for use in push-pull amplifiers where the utmost in quality is desired. The type 541-A is a push-pull input transformer and may be used to feed any type of amplifier tube in a push-pull stage. The type 541-B and 541-C are output transformers for high impedance speaker



TYPE 541-A



TYPE 541-C

er (type 541-B) and low impedance speaker of the dynamic type (type 541-C) respectively. These output transformers are so designed that they may be used with the high plate current of the type 250 tubes. The push-pull transformers are supplied in packages only, containing two units i. e. 541-A and 541-B transformer and a 541-A and 541-C transformer.

### SPECIFICATIONS

#### 541-A

Primary Inductance—65 henries  
 Permissible current through primary—6 milliamperes  
 Turns ratio 1:3 (primary to whole secondary)  
 Direct Current resistance primary 1750 ohms

#### 541-B

36 henries  
 60 milliamperes each side  
 750 ohms (whole primary)

(The electrical specifications for the type 541-C are the same as the type 541-B Transformer with the exception of the turns ratio).

Dimensions of Type 541-A and Type 541-C:  $4\frac{1}{4}'' \times 3\frac{1}{2}'' \times 3''$ . Weight  $2\frac{1}{4}$  lbs.

Dimensions of Type 541-B:  $4\frac{1}{4}'' \times 3\frac{5}{8}'' \times 4\frac{1}{2}''$ . Weight 3 lbs.

Type 541-A and Type 541-B Push-pull transformers (for Standard Speaker)...\$25.00  
 Code Word "TALLY-TORSO."

Type 541-A and Type 541-C Push-pull transformers (for Dynamic Speaker)...\$25.00  
 Code Word "TALLY-TAPER."



**MISCELLANEOUS TRANSFORMERS**

**OUTPUT TRANSFORMER  
FOR DYNAMIC SPEAKER**

The Type 585-O Output Transformer possesses the same quality and appearance as the other Type 585 Transformer and is especially designed to work out of a 2000 ohm tube into the moveable coil of a dynamic speaker. The primary direct current resistance is but 464 ohms thus reducing the voltage lost in the primary coil to a minimum. This Transformer has a turns ratio of 25:1. The permissible current in the primary is 55 milliamperes permitting it to be used with the UX-250 (CX-350) power amplifier tube.

Type 585-O High Quality Output Transformer for dynamic speaker.....\$7.00  
Dimensions 4½" x 3½" x 2¾". Weight 2¼ lbs. Code Word: "TITLE."

**MICROPHONE TRANSFORMERS**

Type 585-M Single Microphone to Grid Coupling transformer is designed for coupling a 200 ohm microphone to the grid of the modulator tube. It is of the same physical appearance as the type 585 transformer.

Primary	Secondary
Inductance: .95 henries	Inductance: 692 henries
Direct Current Resistance: 20 ohms	Direct Current Resistance: 10800 ohms

The Type 585-M2 is similar to the Type 585-M but is designed for coupling a double microphone to grid of the modulator tube. It possesses the same electrical characteristics as the Type 585-M.

Type 585M Modulation Transformer ..... Price \$12.00  
Code Word: "TARDY."

Type 585M2 Modulation Transformer ..... Price 12.00  
Code Word: "TARRY."

Dimensions 4½" x 3½" x 2¾". Weight 2¼ lbs.

**LINE TRANSFORMERS**

The Type 284 Transformers have the same physical appearance as those of the 585 group. They are designed for remote control and line amplifier work. Their power rating is 20 watts.

Type 284-D Plate to Telephone line coupling Transformer.

Turns ratio 3.6:1.

This Transformer is designed to work out of the plate of a vacuum tube into the standard telephone line (500-600 ohms impedance).

Type 284-E Telephone line to grid coupling Transformer.

Turns ratio 1:7.3.

A coupling unit for working out of the low impedance of a telephone line into the high impedance grid circuit of a vacuum tube.

Type 284 Transformer (either type).....\$12.00  
Dimensions 4½" x 3½" x 2¾". Weight 2¼ lbs.



**TYPE 285  
AMPLIFIER TRANSFORMER**



In order to sustain both the upper and lower ends of the amplification curve transformers must be designed not only with a high inductance value but with low distributed capacity. This has been accomplished in the Type 285 transformers by a large core of high quality silicon steel and proper coil design.

The Type 285-H transformer, for best results, should follow a low impedance tube. The Type 285-D transformer has been designed to have a high input impedance and may be used with excellent results after high impedance tubes, such as the UX 200-A or CX 300-A detector tubes.

**TYPE 285-H TRANSFORMER  
Specifications**

Primary Inductance: 25H  
Secondary Inductance: 870H  
Primary DC Resistance: 1300 ohms  
Secondary DC Resistance: 15000 ohms  
Turns Ratio: 1:6

Case ..... Steel  
Finish ..... Black Japan

**TYPE 285-D TRANSFORMER  
Specifications**

Primary Inductance: 46H  
Secondary Inductance: 390H  
Primary DC Resistance: 1650 ohms  
Secondary DC Resistance: 12000 ohms  
Turns Ratio: 1:2.7

Dimensions ..... 3 1/2" x 3 1/4" x 2 1/2"  
Weight ..... 1 1/2 lbs.

Type	Description	Code Word	Price
285-D	Amplifying Transformer	"TOTEM"	\$4.00
285-H	Amplifying Transformer	"TOKEN"	\$4.00

**TYPE 373  
DOUBLE IMPEDENCE COUPLER**

The Type 373 Double Impedance Coupler incorporates two chokes and a coupling condenser mounted within a steel case making a coupling unit for insertion between the plate and grid circuits of successive amplifier tubes.

**SPECIFICATIONS**

Inductance—each choke: 55 henries  
Direct Current Resistance—each choke: 1500 ohms  
Coupling Condenser: 1 MF  
Case: Steel  
Finish: Black Japan  
Dimensions: 4 1/2" x 3 1/2" x 3"  
Weight: 2 1/2 lbs.

Type 373 Double Impedance Coupler .....\$4.50  
Code Word: "JELLY."



(Manufactured under U. S. Patent 1589692)





### TYPE 387A SPEAKER FILTER

The action of most loudspeakers, especially those of the balanced armature type is affected by plate current of more than a few milliamperes.

The function of a Speaker-Filter is to protect the speaker windings from the direct current of the plate while allowing an unimpeded flow of audio frequency current.



#### SPECIFICATIONS

- Inductance of Choke Coil: 30 henries
- Permissible Current Through Coil: 20 milliamperes
- Value of Condenser: 2 MF
- Direct Current Resistance of Coil: 350 ohms
- Case: Steel
- Finish: Black Japan
- Dimensions: 4 1/4" x 3 1/2" x 3"
- Weight: 2 1/2 lbs.

Type 387-A Speaker-Filter.....\$4.50  
Code Word: "TOWEL."

### TYPE 367 OUTPUT TRANSFORMER

The Type 367 Output Transformer is designed for use after a low impedance tube on the order of 5000 ohms. It serves to adapt the impedance of the tube to the impedance of the average cone speaker and at the same time prevents the flow of plate current through the speaker winding.

#### SPECIFICATIONS

- Primary Inductance: 9.9H
- Secondary Inductance: 8.2H
- Primary DC Resistance: 300 ohms
- Secondary DC Resistance: 367 ohms
- Permissible Current in Pri.: 10 milliamperes
- Case: Steel
- Finish: Black Japan
- Dimensions: 3 1/2" x 3 1/4" x 2 1/2"
- Dimensions: 3 1/2" x 3 1/4" x 2 1/2"
- Weight: 1 1/2 lbs.

Type 367 Output Transformer.....\$3.50  
Code Word: "TESTY."



### TYPE 369 IMPEDANCE

The Type 369 impedance is a unit suitable for use in impedance coupled amplifiers or in parallel plate feed systems.

#### SPECIFICATIONS

- Inductance (no d.c.): 98 henries
- Direct Current Resistance: 1750 ohms
- Permissible Current Through Coil: 10 milliamperes
- Case: Steel
- Finish: Black Japan
- Dimensions: 3 1/2" x 3 1/4" x 2 1/2"
- Weight: 1 1/2 lbs.

Type 369 Impedance.....\$2.50  
Code Word: "TONIC."





### TYPE 445 PLATE SUPPLY AND GRID BIAS UNIT

The General Radio Type 445 Plate Supply has been designed to meet the demand for a thoroughly dependable light socket "B" power unit that is readily adaptable to the tube requirements of any standard type of radio receiver. The current output at different voltages is sufficiently high to permit its use with receivers of the multi-tube type where the current drain is unusually large. Through a unique method of voltage control any combination of voltages from 0 to 180 may be taken from the four positive "B" terminals. An adjustable grid bias voltage from 0 to 50 is also available for use on the power tube of an amplifier.

Voltages are varied by moving adjustable clamps with thumb screws along a wire-wound resistance. When the clamps are set for the proper operating voltages of the tubes, the thumb screws are tightened and voltages will remain constant, but may be easily readjusted to meet new tube requirements if the unit is to be used with a different receiver.

To make the unit absolutely safe even in the hands of persons not familiar with electrical devices, an automatic cut-out switch is provided which breaks the 110 volt A. C. circuit when the cover is removed for adjusting voltages or connecting wires to binding posts. The Type 445 Plate Supply is designed for use on 105 to 125 volt A. C. lines (50-60 cycles), and uses the UX-280 or CX 380 rectifier tube.

Type 445 Plate Supply and Grid Bias Unit.....\$35.00  
UX-280 or CX-380 Rectifier Tube for above..... 5.00

Dimensions 15 1/4" x 7" x 7". Weight 16 lbs.

Code Word: "APPLE."

The Type 445 unit is licensed by the Radio Corporation of America for radio amateur, experimental, and broadcast reception only, and under terms of the R.C.A. license the unit may be sold only with tubes.







TYPE 400

PLATE SUPPLY AND SINGLE STAGE POWER AMPLIFIER

The Type 400 uses the UX-280 (CX-380) Rectron rectifier tube and the UX-171 (CX-371) Power tube in the amplifier. This unit operates from the 105-125 (50-60 cycle AC) line and provides voltages of 45, 90 and 135 for the receiver and a high plate voltage of 180 volts together with the necessary grid bias for the power tube.

Voltages are secured by means of fixed resistance. The voltage drop per milliampere load are as follows:—

Tap	Open Circuit	Voltage drop per milliampere
45	50	2.35
90	118	2.35
135	179	2.92

Type 400 Plate Supply and Power Amplifier without tube.....\$35.00  
 Dimensions 15¼" x 7" x 7". Weight 18¼ lbs. Code Word: "ANNUL"



Type 400 Power Amplifier with the exception that it does not include a 135 volt tap. This kit includes a drilled baseboard, cord with wall plug, sockets, binding post strip, binding posts, and all screws and nuts.

Type 390 Rectron Kit without Tube.....\$24.00  
 Dimensions 15" x 7½" x 5¼". Weight 17½ lbs. Code Word: "ANVIL"

The Type 395 Raytheon unit is exactly the same as the Type 390 with the exception that it employs the Raytheon or similar gaseous tubes as a rectifier.

Type 395 Raytheon Kit without tubes.....\$25.00  
 Dimensions 15" x 7½" x 5¼". Weight 17 lbs. Code Word: "APART"

TYPE 390 and 395  
 PLATE SUPPLY AND POWER AMPLIFIER KITS

The Type 390 kit contains all parts necessary for the construction of a Plate Supply and Power Amplifier unit similar in operation to the

TYPE 405 PLATE SUPPLY UNIT

The Type 405 Plate Supply unit utilizes the Raytheon Type BH tube as a rectifier and supplies four positive plate voltage taps of 45, 90, 130 and 200. Voltages are secured by means of a fixed resistance unit. The voltage drop at the various taps per milliampere load are as follows:—

Tap	Open	Rate of drop per milliampere
45	55	2.25 volts
90	132	3.50 volts
130	205	3.10 volts
200	260	1.80 volts

Type 405 Plate Supply unit less tube.....\$20.00  
 Dimensions 9½" x 7" x 6". Weight 13 lbs.  
 Code Word "ANODE."

Type BH Raytheon Rectifier Tube.....\$ 4.50





### TYPE 565 TRANSFORMERS

The Type 565 Transformers are especially designed for use in heavy duty rectifier systems employing either one or two UX 281 (CX381) Rectifier tubes. They provide adequate power without overheating. All connections are in the form of wire leads, thus removing the danger from exposed terminals.

#### Type 565A Half Wave Transformer

Sec. No. 1: 600 v. 200 milli. no cen. tap	Sec. No. 2: 7.5 v. 2½ amp. no cen. tap
Sec. No. 3: 7.5 v. 2½ amp. no cen. tap	Sec. No. 4: 2.5 v. 4 amp. no cen. tap
Primary:—105-120 volt 50-60 cycle AC	Power rating:—200 watts
Case: Steel	Finish:—Black Japan
Dimensions: 5¾" x 5¼" x 5¼"	Weight: 14¼ lbs.

Price ..... \$13.50  
Code Word "TABOO."

#### Type 565B Full Wave Transformer

Sec. No. 1: 1200 v. cen. tapped 200 milli.	Primary: 105-120 volt 50-60 cycle AC
Sec. No. 3: 7.5 v. 2½ amp. no cen. tap	Sec. No. 2: 7.5 v. 2½ amp. no cen. tap
Case: Steel	Power rating:—200 watts
Dimensions: 5¾" x 5¼" x 5¼"	Finish: Black Japan
	Weight: 14¼ lbs.

Price ..... \$13.50  
Code Word "TACIT."

### TYPE 527 A RECTIFIER FILTER

The Type 527A Rectifier filter is a complete filter for heavy duty plate supply units incorporating two chokes and a condenser assembly of 4-2-4 mf. It is similar in appearance to the Type 565 transformers. Connections are in the form of wire leads of generous proportions.

#### SPECIFICATIONS

Inductance each choke: 15 henries  
 Current carrying cap. each choke: 100 milli.  
 DC resistance each choke: 175 ohms  
 Condenser Assembly: 4-2-4 mf.  
 Voltage rating of condenser: 1000 volts  
 Case: Steel  
 Dimensions: 5¾" x 5¼" x 5¼"  
 Code Word "FATTY"



Finish: Black Japan  
 Weight: 9½ lbs.  
 Price ..... \$17.50





### TYPE 587 B SPEAKER FILTER

The Type 587B Speaker Filter consists of a large choke coil and suitable condensers mounted within a steel case. This unit is designed for use between the output of 2000 ohm power tubes and the standard type of speaker. The manner of connecting the condenser is such that the speaker is thoroughly insulated from the high plate voltage of the power tube.

#### SPECIFICATIONS

Inductance of choke coil:—15 henries  
 DC resistance of coil:—175 ohms  
 Case:—Steel  
 Dimensions:— $4\frac{1}{4}''$  x  $3\frac{5}{8}''$  x  $4\frac{1}{2}''$

Permissible current through coil:—100 M.A.  
 4 mf. condenser in each speaker lead.  
 Finish:—Black Japan  
 Weight:—4 lbs.

Type 587 B Speaker Filter.....\$9.00  
 Code Word: "FATAL."

### VERNIER DIALS

Frosted Silver Finish

The General Radio dials are furnished in frosted silver with graduated scale in black. The Type 302 and 303 dials are provided with a specially designed vernier attachment. Each dial is packed with a celluloid indicator and template for mounting purposes. All dials are designed for  $\frac{1}{4}''$  in shaft.



TYPE 303

Type	Description	Dimensions	Weight	Code Word	Price
302	$2\frac{3}{4}''$ Vernier Dial	$4\frac{5}{8}''$ x $3\frac{3}{4}''$	10 oz.	"DALLY"	\$1.25
303	$4''$ Vernier Dial	$3\frac{1}{2}''$ x $3\frac{1}{4}''$	6 oz.	"DAISY"	\$2.00

#### DIALS AND INDICATORS (Without Vernier)

Type	Description	Dimensions	Weight	Code Word	Price
310	$3\frac{3}{4}''$ Dial and Indicator	$2\frac{3}{4}''$ x $\frac{5}{8}''$	$3\frac{1}{2}$ oz.	"DANDY"	\$.50
317	$4''$ Dial and Indicator	$4''$ x $3\frac{1}{4}''$	$6\frac{1}{2}$ oz.	"DEBUT"	\$1.00





### TYPE 365 RECTIFIER TRANSFORMER

With the development of satisfactory and reliable rectifying devices there has arisen a demand for a suitable transformer for use in plate supply units. The Type 365 Transformer has been developed especially for this use and has a wide range of applicability to various rectifying devices.

#### SPECIFICATIONS

Primary—105 to 125 volts 50-60 cycles  
 Secondary No. 1—550 volts centre tapped will supply 70 milliamperes to either a half or full wave rectifier system.  
 Secondary No. 2—7.5 volts no centre tap will deliver 2.5 amps  
 Case ..... Steel      Finish ..... Black Japan  
 Dimensions ..... 4¼" x 3⅝" x 9½"      Weight ..... 4½ lbs.  
 Power Rating ..... 70 watts      Code Word: "TENOR."  
 Type 365 Rectifier Transformer.....\$6.00

### TYPE 366 FILTER CHOKE

The Type 366 Filter Choke is actually two chokes assembled in one case.

Four terminals are brought out to the panel, so that the chokes may be connected in any type of filter system the constructor may desire.



#### SPECIFICATIONS

Inductance each choke: 30 henries with 10 mils DC  
 Direct current Resistance each choke: 350 ohms  
 Case ..... Steel      Finish ..... Black Japan  
 Dimensions ..... 4¼" x 3⅝" x 4½"      Weight ..... 4¾ lbs.  
 Type 366 Filter Choke.....\$6.00      Code Word: "TEPID."

### TYPE 440-A LOW VOLTAGE TRANSFORMER

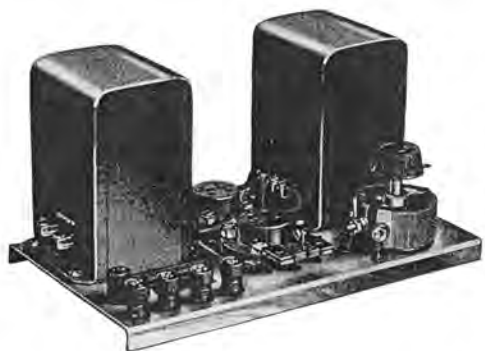
The new A. C. tubes require a source of low voltage and large current. The Type 440-A low voltage transformer supplies voltages for the new A. C. tubes and sufficient current for all ordinary receiver requirements.



#### SPECIFICATIONS

Power Rating ..... 70 watts  
 Primary ..... 105-125 volt, 50-60 cycle A.C.  
 2 Volt Secondary Delivers 10 Amperes      5 Volt Secondary Delivers 2.5 Amperes  
 3.5 Volt Secondary Delivers 5 Amperes      7.5 Volt Secondary Delivers 2.5 Amperes  
 Case ..... Steel      Dimensions ..... 4¼" x 3⅝" x 4½"  
 Finish ..... Black Japan      Weight ..... 4½ lbs.  
 Type 440-A Low Voltage Transformer.....\$7.00      Code Word: "TIGER."





**Type 441  
PUSH-PULL AMPLIFIER**

The Type 441 push-pull amplifier is a completely wired unit and consists of two high quality push-pull transformers with the necessary sockets and resistances mounted on a brass base-board. A push-pull amplifier in the last audio stage provides the speaker with ample power to sustain a high volume level without tube overloading. It also has the advantage that certain harmonics created by the tubes themselves tend to cancel out.

**TYPE 441 AMPLIFIER**

For use with UX 226, CX 326, UX 171, CX 371, UX 210 or CX 310 tubes.

Input inductance .....	30 henries
Input turns ratio .....	1:2.25
Output impedance ratio .....	10:1
(Whole primary to secondary)	
Direct current resistance primary input transformer: 1600 ohms	
Direct current resistance primary output transformer: 850 ohms	
(Whole primary)	
Dimensions .....	9" x 5 1/4" x 5"
Weight .....	5 1/2 lbs.

The Type 441 unit is licensed by the Radio Corporation of America for Radio amateur, experimental and broadcast reception only, and under the terms of the R.C.A. license the unit may be sold only with tubes.

Type 441 Push-Pull Amplifier.....	\$15.00
Code Word: "ASIDE."	
Type UX 226 or CX 326 Amplifier Tube.....	\$2.50
Type UX 171 or CX 371 Amplifier Tube.....	3.00
Type UX 210 or CX 310 Amplifier Tube.....	9.00

**RADIO FREQUENCY CHOKE**

The inductance of the Type 379 Choke is approximately 60 millihenries. Its design is such that it presents a high impedance to frequencies in the broadcast and amateur bands.

The effective capacity does not exceed 4 MMF at any wavelength between 20 and 640 meters. The resistance of the Type 379 Choke is about 140 ohms and its current rating 90 milliamperes, corresponding to a D.C. power rating of 1 1/2 watts. The Type 379-T has an inductance of 8 millihenries, a resistance of 34 ohms and a continuous current rating of 200 milliamperes, corresponding to a power rating of 1.4 watts.

The current ratings are for continuous service. For intermittent service, as for instance in a transmitter which is being keyed, the current ratings of both types 379 and 379-T may be doubled with safety.

The choke is contained within a moulded bakelite case and is impregnated with wax.



Type	Description	Dimensions	Weight	Code Word	Price
379-T	Radio Frequency Choke, 8 millihenries	2" x 1 3/4" x 1 3/4"	6 oz.	"JIMMY"	\$1.25
379-R	Radio Frequency Choke, 60 millihenries	2" x 1 3/4" x 1 3/4"	6 oz.	"JEWEL"	\$1.25





**INDUCTANCE AND  
COUPLING COILS**

The Type 277 Coils are so shaped in ratio of diameter to length, the materials so chosen, and the construction such that they have very low losses.

Models A, B and C have single windings and are wound in two sections so that the mid-point may be obtained or coupling turns added at the center point. Models D, D $\frac{1}{2}$ , and D $\frac{1}{4}$  are coupling coils with a small primary winding.

Mounting holes are arranged so that Type 274-P Plugs may be inserted and coils may be used interchangeably in the Type 274 mounting bases.

Type	Wavelength with 500 MMF	Inductance	Code Word	Price
277-A	50 to 150 meters	14 micro-henries	"VALOR"	\$1.00
277-B	100 to 300 meters	55 micro-henries	"VAPID"	1.00
277-C	200 to 600 meters	217 micro-henries	"VENUS"	1.00
277-E	300 to 900 meters	440 micro-henries	"VIRUS"	1.15
277-D	Coupling Coil, 200 to 600 meters	217 micro-henries	"VIGIL"	1.15
277-D $\frac{1}{2}$	Coupling Coil, 100 to 300 meters	55 micro-henries	"VIPER"	1.15
277-D $\frac{1}{4}$	Coupling Coil, 50 to 150 meters	14 micro-henries	"VILLA"	1.15
277-U	Unwound Coil Form		"VIGOR"	.70

Dimensions 3 $\frac{1}{2}$ " x 2 $\frac{1}{4}$ "

**TYPE 276 QUARTZ PLATE**

The Type 276 Quartz Plates are intended primarily for use by amateurs in controlling the frequency of transmitters but, of course, may be used for any purpose in which plates in general are adapted. The frequency of the Type 276 A 160 plate is between 1750 and 2000 kilocycles (171.4 and 150 meters). The frequency of the Type 276 A 80 plate is between 4000 and 3500 kilocycles (75 and 85.7 meters). These plates are supplied at random frequencies thus permitting the operation of a transmitter on any of the amateur bands by tuning to the proper harmonics.



The frequency of each plate accurate to  $\frac{1}{4}\%$  is stated on the container.

Type 276A—160 Meter Crystal.....	\$15.00
Type 276A— 80 Meter Crystal.....	\$25.00
Type 356 —Spring Pressure Type of Holder.....	\$ 1.50

(Suitable for use with above crystal.)



**TYPE 268  
VARIOCOUPLER**

The stator inductance of the Type 268 variocoupler is 380 micro-henries; the rotor inductance is 106 micro-henries. This instrument is especially compact and very efficient in circuits which require a high grade coupler.

Type 268 Variocoupler.....\$2.50

Dimensions 4" x 4" x 2 1/2". Weight 6 oz. Code Word: "VALET."

**TYPE 269  
VARIOMETER**

The Type 269 Variometer is much smaller than the average variometer which gives it a decided advantage when compactness and portability of the set are considerations. It is equally efficient mechanically and electrically and has a maximum to minimum inductance range of 820 to 80 micro-henries.

Type 269 Variometer.....\$3.50

Dimensions 4 3/4" x 3" x 1 3/4". Weight 7 oz. Code Word: "VALID."



TYPE 346



TYPE 309

**TYPE 346 ADAPTER**

The Type 346 Adapter enables the UX-199 and UX-120 tubes to be used in standard tube sockets. The adapter is of moulded bakelite. A set-screw is provided for securing the tube base firmly in the adapter.

Type 346 Adapter.....\$0.20

Dimensions 1 1/2" x 1 1/2" x 3/8". Weight 1 oz. Code Word "AMASS."

**TYPE 309 SOCKET CUSHION**

Many of the undesirable noises heard in a radio set are due to the microphonic action of the tubes. This condition may be somewhat reduced by the use of the Type 309 Socket Cushion under the Types 156, 299, 349 and 438 Sockets. This cushion is of sponge rubber.

Type 309 Socket Cushion.....\$0.25

Dimensions 2 1/4" x 2 1/2" x 3/8". Weight 1 oz. Code Word "SAGER."





**Type 260**

**Type 280**

### PORCELAIN INSULATORS

#### TYPE 280 ANTENNA INSULATOR

For antenna insulation, correctly designed porcelain strain insulators are to be preferred to other commercial types. The Type 280 Strain Insulator, illustrated above, will be found particularly satisfactory. It is made of carefully glazed brown porcelain and will withstand severe weather conditions.

Type	Description	Dimensions	Weight	Code Word	Price
280	Strain Insulator	4½" x 1⅛" x 1"	4 oz.	"CRULLER"	\$0.15

#### TYPE 260 WALL INSULATOR

Another convenient insulator is the Type 260, illustrated above. It may be used inside to support wiring or instruments, or may be used outside for supporting lead-ins or ground wires. Two of these insulators with a threaded rod connecting them make an excellent lead-in combination. As they are also constructed of glazed brown porcelain they may be used either indoors or out.

Each insulator is equipped with nuts and washers assembled, as shown above.

Type	Description	Dimensions	Weight	Code Word	Price
260	Insulator	2½" x 2½" x 2"	4 oz.	"CONIC"	\$0.25

#### CENTER TAP RESISTANCE UNITS



**TYPE 439**

The Type 439 Center tap resistance is designed to mount directly across the filament or heater terminals of any tube socket by means of adjustable contact prongs. This unit provided the center tap of the filament in circuit requiring such a connection. It has a total direct current resistance of 60 ohms or 30 ohms on each side of the center tap and is capable of carrying 200 milliamperes without damage.



**TYPE 437**

Type	Description	Dimensions	Weight	Code Word	Price
439	Center Tap Resistance	1½" x 1¼" x ⅝"	1 oz.	"PASTY"	\$ .35

Conditions often arise due to unbalancing when it is desirable to have a tap slightly off center across the filament of tubes having their filaments lighted by AC. The Type 437 adjustable center tap resistance is similar to the Type 439 except that the tap is made by means of an adjustable slider. This enables the tap to be placed at a neutral point thus reducing hum to a minimum.

Type	Description	Dimensions	Weight	Code Word	Price
437	Adjustable Center Tap Resistance	1⅝" x 1¼" x ⅞"	1 oz.	"PERIL"	\$ .50







WAVEMETER AND FILTER



The range of the 247-W Wavemeter is 200 to 600 meters. Wavelengths may be determined by direct readings from the condenser dial which is calibrated with an accuracy of 2%.

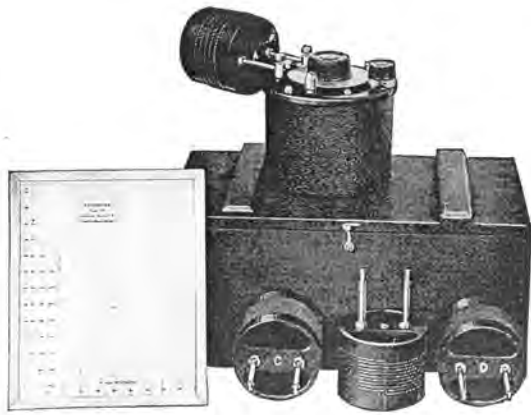
The filter coil may be connected either in series or parallel with the receiving set. When used in series connecting a single interfering broadcasting station may be eliminated. The parallel filter is used to eliminate several interfering stations simultaneously and accept only one station within the filter range.

A full set of instructions accompanies each instrument.

Type	Description	Dimensions	Weight	Code Word	Price
247-W	Wavemeter and Filter	6" x 4½" x 8"	2½ lbs.	"WAGON"	\$7.00
247-W2	Extension Coil (400-1200 meters)	4" x 4" x 3"	6 oz.	"VOCAL"	2.75
247-W½	Extension Coil (100-300 meters)	4" x 4" x 3"	6 oz.	"VIZOR"	2.75
247-W¼	Extension Coil (50-150 meters)	4" x 4" x 3"	6 oz.	"VIVID"	2.75

Type 358  
AMATEUR  
WAVEMETER

The General Radio Type 358 Wavemeter is designed particularly for amateur use. It covers a wavelength of approximately 14 to 220 meters, by means of four coils. The condenser capacity is 125 MMF. Mounted on the condenser panel and connected in series between the condenser and coil is a resonance indicator in the form of a small lamp. The lamp socket is so arranged that it is short circuited when the lamp is removed.



Each wavemeter is individually calibrated with an accuracy of 1%. The coil ranges, providing adequate overlaps, are as follows:

- Coil A ..... 14 to 28 meters      Coil C ..... 54 to 114 meters
- Coil B ..... 26 to 56 meters      Coil D ..... 105 to 220 meters

The condenser, coils and chart are contained in a wooden box which provides proper protection for the instrument when not in use.

Type	Description	Dimensions	Weight	Code Word	Price
358	Wavemeter complete	11¾" x 7¼" x 5½"	4½ lbs	"UPPER"	\$15.00





**RHEOSTATS**



**TYPE 214**



**TYPE 410**



**TYPE 301**

**TYPE 410 RHEOSTAT**

The type 410 rheostats are of the single hole mounting type. The resistance unit is tightly wound on a specially treated fiber strip. Genuine moulded bakelite is used for the base. A moulded bakelite knob is also provided. The shaft is  $\frac{1}{4}$ " in diameter and the outside diameter of the bushing is  $\frac{3}{8}$ ". The length of the bushing is such that the rheostat may be easily mounted on panels up to  $\frac{3}{8}$ " in thickness.

Resistance	Current	Code Word
0.5 ohms	3.5 amp.	SAVOR
1.5 ohms	2.00 amp.	SAXON
6 ohms	1.00 amp.	SABOT
12 ohms	0.75 amp.	SALON
25 ohms	0.5 amp.	SALTY
200 ohms Pot.	175 MA	SATIN

Type 410 Rheostat or Potentiometer.....\$1.00

**TYPE 301 RHEOSTAT**

The type 301 Rheostats and Potentiometer are similar in general appearance and construction as the Type 410 rheostat except they do not possess the single mounting hole feature. The type 301 rheostats are designed for base-board as well as back of panel mounting.

Resistance	Current	Code Word
6 ohms	1.00 amp.	PALSY
12 ohms	0.75 amp.	REMIT
25 ohms	0.5 amp.	RENEW
200 ohms Pot.	175 MA	REBUS

Dimensions  $2'' \times 1\frac{3}{4}'' \times 2\frac{1}{8}''$   
Weight 4 oz.

Type 310 Rheostat or Potentiometer.....\$1.00





**TYPE 214 RHEOSTAT**

The Type 214 Rheostats are larger than the Type 301 Rheostats and are capable of a more accurate and gradual resistance control. This rheostat is made in two types the 214-A for back of panel mounting and the 214-B for table mounting.

**CODE WORD**

Resistance	Current	Type 214-A Panel Mounting	Type 214-B Table Mounting
3/4 ohms	5 amp.	"SHINY"	"SILLY"
2 ohms	2.5 amp.	"RUDDY"	"RUMOR"
7 ohms	1.5 amp.	"RURAL"	"RUSTY"
20 ohms	0.75 amp.	"RAZOR"	"READY"
50 ohms	0.5 amp.	"RAPID"	"RAVEL"
400 ohms Pot.	175 MA	"ROSIN"	"ROWEL"

Type 214 Rheostat .....	\$1.50
Type 214 400 ohm Potentiometer .....	\$1.75
Dimensions 3" dia. x 2 1/4". Weight 7 oz.	

A rheostat of 2500 ohms is also supplied in the Type 214 for use as a variable biasing resistor in AC operated power amplifier. This unit is capable of carrying 75 milliamperes.

Type	Description	Dimensions	Weight	Code Word	Price
214-A	2500 ohm Rheostat	3" dia. x 2 1/4"	7 oz.	"SYRUP"	\$2.25
214-B	2500 ohm Rheostat	3" dia. x 2 1/4"	7 oz.	"SYNOD"	2.25

**TYPE 558 AMATEUR BAND WAVEMETER**



The Type 558 Wavemeter is especially designed for the new amateur wavelengths. This meter follows a design generally used for broadcasting stations in that the variable condenser is shunted by a fixed condenser, greatly reducing the tuning range. This, of course, means more divisions per meter and greater accuracy of setting.

The indicator is of the neon type especially made for this purpose. It has a low ignition voltage and draws so little current that it produces a negligible change of calibration when lighted.

There are five coils, four of which are spaced wound on bakelite tubing. These coils cover the 10, 20, 40, and 80 meter bands. The 5 meter coil is a simple loop of heavy brass rod.

The type 558 amateur band wavemeter is provided in a strong packing case with position for the condenser, five

coils and a calibration chart. Each instrument is individually calibrated. Accuracy of calibration is to within 1/4 of 1%.

Type 558 Amateur Band Wavemeter .....	\$20.00
Dimensions 11 3/4" x 7 1/4" x 5 1/2".	Weight 4 1/2 lbs. Code Word: "UNION."





### SOCKETS



349



156



438



299

In the design of all General Radio sockets care has been given in each case to make the socket meet specifically the requirement of the tube with which it is to be used.

#### TYPE 156 SOCKET

This socket is designed for tubes having the large UV or UX Base. The phosphor bronze contact springs are so arranged as to make positive contact on the sides of the tube prongs.

Type	Description	Dimensions	Weight	Code Word	Price
156	Socket	$2\frac{1}{2}'' \times 2\frac{1}{2}'' \times 1\frac{3}{4}''$	4 oz.	"SOBER"	\$ .75

#### TYPE 299 SOCKET

The Type 299 socket is designed for the UV-199 tube. A multiple spring makes contact to the bottom of the tube prongs.

Type	Description	Dimensions	Weight	Code Word	Price
299	Socket	$2\frac{3}{8}'' \times 1\frac{3}{8}'' \times 1''$	2 oz.	"STORY"	\$ .35

#### TYPE 349 SOCKET

This socket is designed for the UX types of tubes. Positive contacts are made with double gripping springs to the sides of the tube prongs.

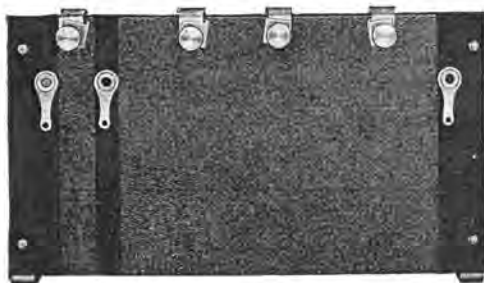
Type	Description	Dimensions	Weight	Code Word	Price
349	Socket	$2\frac{1}{4}'' \times 2\frac{1}{4}'' \times \frac{3}{4}''$	2 oz.	"SEDAN"	\$ .35

#### TYPE 438 SOCKET

The Type 438 socket is designed for use with tube having a five prong base. Its construction is similar to the Type 439 Socket.

Type	Description	Dimensions	Weight	Code Word	Price
438	Socket for UY tubes	$2\frac{1}{2}'' \times 2\frac{1}{2}'' \times \frac{3}{4}''$	2 oz.	"STUDY"	\$ .35

#### TYPE 446 VOLTAGE DIVIDER



The Type 446 Voltage Divider has been especially designed for use as an output potentiometer device for 300 Volt rectifying systems. It is wound in two sections, one of 15000 ohm for the plate supply and a 1500 ohm section for obtaining the bias voltage for a power tube. It is equipped with four adjustable sliders suitably engraved by means of which any combination of voltages may be obtained from the plate supply unit.

This unit will dissipate 60 watts. If this unit is intended for use with a 500 volt rectifying system two voltage dividers should be connected in series.

Type 446 Voltage Divider with four sliders.....	\$2.75
Dimensions $7\frac{1}{2}'' \times 4\frac{5}{16}'' \times 1\frac{1}{4}''$ . Weight 5 oz.	
Code Word "VISTA."	





TYPE 127 A



TYPE 127 B



TYPE 127 C

### HOT WIRE AMMETERS

The Type 127 Hot Wire Ammeters are made in three types, the flush mounting for use on panels, the front-of-board mounting for use on switch boards, and the portable type for general use. These meters are equally accurate on direct or alternating currents of any frequency. They may be used for measuring filament currents, storage battery charging rates, antenna radiation and have many other purposes.

Range		TYPE 127-A Flush Mounting Code Word	TYPE 127-B Front-of-Board Code Word	Price
100	Milli-Amps.	MEDAL	MAYOR	\$6.00
250	Milli-Amps.	MERCY	MADAM	6.00
500	Milli-Amps.	MERIT	MAJOR	6.00
1	Ampere	MERRY	MANOR	6.00
1.5	Amperes	MINUS	MISTY	6.00
2.5	Amperes	MINOR	MAPLE	6.00
5	Amperes	MINIM	MATIN	6.00
10	Amperes	MINNY	MAXIM	6.00
	Galvanometer	MITER	MAGIC	5.75

Dimensions 3" x 1½". Weight 9½ oz.

Range		TYPE 127-C Code Word	Case	Price
100	Milli-Amps.	MUGGY	Portable	\$6.50
250	Milli-Amps.	MOCHA	Portable	6.50
500	Milli-Amps.	MOGUL	Portable	6.50
1	Ampere	MOLAR	Portable	6.50
2.5	Amperes	MOTOR	Portable	6.50
5	Amperes	MUMMY	Portable	6.50
10	Amperes	MUSTY	Portable	6.50
	Galvanometer	MOTTO	Portable	6.25





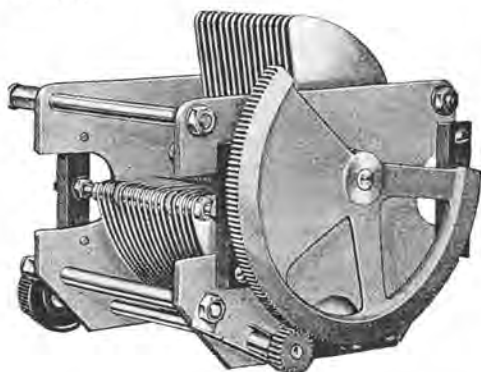
## VARIABLE AIR CONDENSERS

The General Radio Company has been very closely associated with condenser development and has contributed much to the science of radio in condenser design. In 1915 it supplied the first low loss type of condenser. In 1922 the present low loss soldered plate type was introduced. In the soldered plate type the rotors and stators are each soldered in specially constructed jigs uniformly spaced. This method of assembly not only insures accurate spacing but a low resistance and a permanent contact between plates. It also makes the entire assembly very rigid.

To secure smoothness in operation and uniformity of turning torque all rotors are carefully counter-balanced. Where slow motion is desired to secure fine settings the condensers are equipped with a gear and pinion.

The mounted condensers are supplied in a metal case finished in black crystalline. The case is grounded to the rotor plate thus shielding the condenser. In addition to the regular degree graduations of the etched metal dial this dial is also marked with a scale to show capacitance measurement in micromicrofarads.

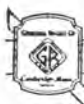
There are two general types of condensers manufactured by the General Radio Co., the insulated (hard rubber end plate) and the metal (aluminum end plate) type. The overall losses are essentially the same and the installation conditions will determine which type should be used. The Type 247 condensers have the bakelite end plates while the 334 and 374 series have metal end plates which are grounded to the condenser rotors.



**TYPE 239**  
**PANEL MOUNTING**  
**CONDENSER**

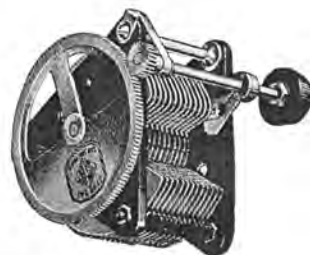
For wavemeter use and occasionally for use in receiving sets a large condenser is required. The Type 239 is ideal for this use.

Type	Capacity	Description	Dimensions	Weight	Code Word	Price
239-H	1000 MMF	Unmounted without gear	4½" x 4¾" x 6"	2 lbs.	"BARON"	\$ 7.00
239-G	1000 MMF	Unmounted with gear	4½" x 4¾" x 6"	2 lbs.	"BASAL"	10.00
239-M	2000 MMF	Unmounted without gear	4½" x 4¾" x 6"	3 lbs.	"BAYAN"	10.50
239-L	2000 MMF	Unmounted with gear	4½" x 4¾" x 6"	3 lbs.	"BEFIT"	13.50





## TYPE 247 CONDENSERS



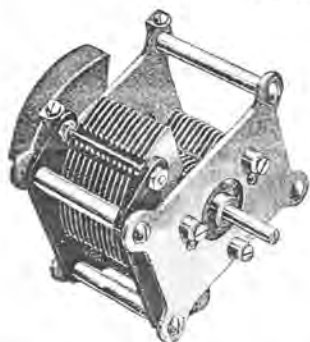
These are the condensers which stand out pre-eminently as the leaders of radio frequency condensers and still sell at popular prices. The panel mounting models have straight line wavelength plates. The case mounted models have straight line capacity plates and dials with capacity calibrations. They make excellent standards for the experimenter.

Type	Capacity	Description	Dimensions	Weight	Code Word	Price
247-F	500 MMF	Panel Mntg. with ctwt.	4" x 4" x 4½"	1 lb.	"COCOA"	\$3.00
247-H	500 MMF	Panel Mntg. with gear	4" x 4" x 4½"	1½ lb.	"COMIC"	3.75
247-E	500 MMF	Case Mtd. without gear	5" x 5" x 4½"	2 lb.	"COUPE"	5.00
247-G	500 MMF	Case Mtd. with gear	5" x 5" x 4½"	2¼ lb.	"COLIC"	5.75
247-N	350 MMF	Panel Mntg. with ctwt.	4" x 4" x 4½"	1 lb.	"ABASE"	2.75
247-P	350 MMF	Panel Mntg. with gear	4" x 4" x 4½"	7/8 lb.	"ABBAY"	3.50
247-K	250 MMF	Panel Mntg. with ctwt.	4" x 4" x 4"	7/8 lb.	"CARGO"	2.50
247-M	250 MMF	Panel Mntg. with gear	4" x 4" x 4"	7/8 lb.	"CIGAR"	3.25
247-J	250 MMF	Case Mtd. without gear	5" x 5" x 4½"	1¾ lb.	"CANON"	4.50
247-L	250 MMF	Case Mtd. with gear	5" x 5" x 4½"	2 lb.	"CAROM"	5.25





### TYPE 334 CONDENSERS



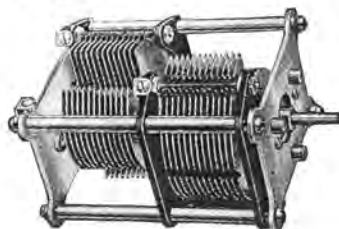
Where the shielding effect of metal end plates is desirable the Type 334 condensers are particularly recommended for use in receiving sets. They are of low loss construction and very rugged.

The Type 334-T and V Condensers are similar in appearance to all other Type 334 Condensers except they have double spacing for use in short wave transmitters on voltages up to 2000. They are supplied with counter weights only.

Type	Capacity	Description	Dimensions	Weight	Code Word	Price
334-F	500 MMF	Panel Mntg. with	ctwt. 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ lb.	"BEGIN"	\$3.25
334-H	500 MMF	Panel Mntg. with	gear 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ lb.	"BELAY"	4.00
334-N	350 MMF	Panel Mntg. with	ctwt. 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ lb.	"BESET"	3.00
334-P	350 MMF	Panel Mntg. with	gear 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ lb.	"BEVEL"	3.75
334-K	250 MMF	Panel Mntg. with	ctwt. 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ lb.	"BELOW"	2.75
334-M	250 MMF	Panel Mntg. with	gear 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ "	1 $\frac{1}{2}$ lb.	"BERYL"	3.50
334-V	50 MMF	Panel Mntg. with	ctwt. 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4"	1 lb. 4 oz.	"BILLY"	2.75
334-T	100 MMF	Panel Mntg. with	ctwt. 3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4"	1 lb. 4 oz.	"BIPED"	2.50

### TYPE 374 CONDENSERS

These condensers are similar in general construction to the Type 334 except that the plates are cut so as to give a straight line frequency variation. A feature of this type of straight line frequency condenser is that it requires no more panel space than the straight line wavelength type of condenser and may be substituted for either the Type 247 or 334 since the mountings are exactly the same.



Type	Capacity	Description	Dimensions	Weight	Code Word	Price
374-B	125 MMF	Single without gear	3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 3 $\frac{1}{4}$ "	1 lb.	"BONUS"	\$2.75
374-K	250 MMF	Single without gear	3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 4 $\frac{1}{4}$ "	1 lb. 2 oz.	"BOSOM"	3.50
374-N	350 MMF	Balanced without gear	3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 5"	2 lbs.	"BOXER"	4.25
374-F	500 MMF	Balanced without gear	3 $\frac{3}{4}$ " x 3 $\frac{3}{4}$ " x 6"	2 lbs. 2 oz.	"BRAVO"	5.00

### TYPE 368 MICRO-CONDENSERS



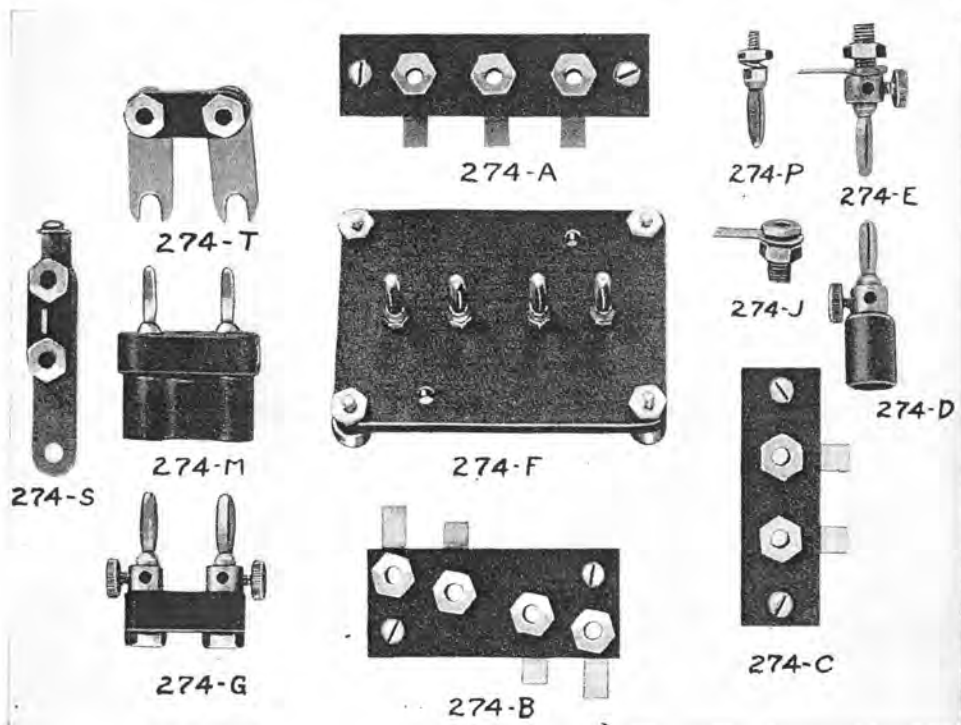
A small balancing or vernier condenser is required in some of the most recent circuits. For such uses the Type 368 single hole mounting micro condensers are particularly recommended.

Type	Capacity	Description	Dimensions	Weight	Code Word	Price
368-A	12 MMF	Micro Condenser	2" x 2" x 1 $\frac{1}{4}$ "	2 oz.	"BULLY"	\$.75
368-B	50 MMF	Micro Condenser	2" x 2" x 2"	2 $\frac{1}{2}$ oz.	"BURIN"	1.00

All of the soldered plate condensers listed above are made under U. S. Patent No. 1,542,995 and all except semi-circular plates under U. S. Patent No. 1,258,423.







The experimenter will find the various items listed under the Type 274 group convenient for experimental work. This group consists of multi-conductor plugs, jacks, plugs, transformer mounting bases and coil mounting bases. The various parts of this group will be found handy in comparing different methods of coupling either at radio or audio frequencies.

Type	Description	Price
274-A	3 Jack Base .....	.60
274-B	4 Jack Base .....	.65
274-C	2 Jack Base .....	.50
274-D	Single Insulated Plug .....	.25
274-E	Single Plug .....	.20
274-F	4 Plug Mounting Base .....	.75
274-G	Open Double Plug .....	.50
274-J	Jack .....	.05
274-M	Insulated Double Plug .....	.40
274-P	Plug .....	.06
274-R	4 Gang Plug .....	.50
274-S	Short Circuit Jack .....	.50
274-T	Double Adjustable Jack .....	.50





410 KNOB



137-H



137-D



137-J



137-K



171-F



202



139-A



138-A



138-Y



138-Z



138-W



138-C



138-Q



138-B



138-D



138-T



138-U

**MISCELLANEOUS PARTS FOR THE EXPERIMENTER**

We are listing for the convenience of experimenters standard parts used in the assembly of General Radio instruments. These parts have the advantage of matching those used on instruments already installed. All metal parts are nickel plated, knobs and other moulded parts are of bakelite.





### BINDING POSTS

Type	Description	Diameter	Height	Screw Size	Price
138-A	Bakelite	3/8"	3/8"	10-32	\$ .18
138-W	N. P. Brass	7/16"	1/2"	6-32	.08
138-Y	N. P. Brass	1/2"	3/4"	10-32	14
138-Z	N. P. Brass	3/8"	3/8"	6-32	07

### SWITCH CONTACTS AND STOPS

Type	Description	Price
138-B	1/4" Contact for 171-F Switch.....	\$ .04
138-C	5/16" Contact for 139-A or 202 Switch.....	.04
138-D	3/16" Contact for 171-F Switch.....	.03
138-Q	Switch stop with nut.....	.04

### SWITCHES

Type	Description	Price
139-A	Multiple Leaf Switch 1 3/8" Radius.....	\$ .50
171-F	Single Leaf Switch 7/8" Radius.....	.30
202	Low Contact Resistance Switch 1 3/8" Radius.....	.75

### KNOBS

Type	Description	Price
137-D	Moulded knob with pointer (same as used on 139-A switch).....	\$ .30
137-D	Moulded knob without pointer.....	.25
137-H	Moulded knob (same as used on 317 Dial).....	.50
137-J	Moulded knob with pointer (same as used on 310 Rheostat).....	.20
137-J	Moulded knob without pointer.....	.15
137-K	Moulded knob (same as used on 247 Vernier).....	.15

### BINDING POST TOPS

Type	Description	Price
138-U	Jack top binding post .....	\$ .10
138-T	Jack top binding post .....	.16



### TYPE 337 SWITCHES

The experimenter will find the type 337 switches convenient for experimental work. The construction is such that a quick change over may be effected. These switches are equipped with the type 138-U bottle neck binding posts which permit the use of the type 274 Plugs.

Type 337-A	DPDT Switch .....	\$ 3.00
Type 337-B	4PDT Switch .....	7.00
Type 337-C	6PDT Switch .....	10.00





## *SHIPMENT and TERMS*

Unless specific shipping instructions accompany an order, we will use our best judgment as to the method of shipment. All prices are F. O. B. Cambridge, Mass. There is no domestic packing charge and no charge for shipping cases unless so stated with the price of the instrument.

When ordering by telegraph, please specify quantity and our code word. Foreign customers will find it convenient to use Bentley's Code. Our cable address is Genradco, Boston.

Quantity discounts are as follows:—

Lots 10 to 24 5%

Lots 25 to 99 10%

Lots 100 or more 20%

Regular terms on orders shipped open accounts, 2% 10, net 30 days.

Cash discount not allowed on cash orders except when transportation charges are included in payment.

No cash discount on C. O. D. shipment.

Shipping charges paid on cash orders where cash discount is not deducted.

All other sales are F. O. B. factory except when otherwise quoted.

Unless credit has already been established we will make all shipments C. O. D.





**T**HE GENERAL RADIO COMPANY was incorporated in 1915 for the purpose of developing and manufacturing radio apparatus for use in laboratory experimental work and in radio transmission and reception.

Since 1915 the General Radio Company has done much in scientific research and development work to promote the present-day efficiency of broadcast reception.

Low loss condenser design has received much attention, and the General Radio Company was the first in this country to supply such condensers commercially. It was also the first company to supply closed core audio frequency amplifying transformers, and has been foremost in supplying audio frequency transformers to accompany the great improvements in broadcasting station quality of transmission and improved loud speaker reproduction.

The products of the General Radio Company include not only those listed in this catalog, but also radio and electrical laboratory apparatus.

Information and bulletins of special apparatus will be sent on request.

These instruments include:

Oscillograph	Galvanometer Shunt
Decade Condensers	Impedance Bridge
Precision Condensers	Capacity Bridge
Variometers	Audibility Meter
Standards of Inductance	Ratio Arm Box
Wavemeters	Hot Wire Ammeters

Low Loss Variable Air Condensers

Decade Resistance Boxes

Standards of Resistance

Recorders

Miscellaneous Apparatus

The instruments manufactured by the General Radio Company are the result of careful engineering design. In many cases they represent the result of years of development work and investigation in the General Radio laboratories.

It has been the aim of this company to contribute only quality instruments to the radio and electrical industry.

*Every instrument is guaranteed.*

*This bulletin replaces Bulletin No. 929.*

