Catalog of Quality Radio Apparatus

Scientifically Designed by Radio Engineers

Manufactured by the

GENERAL RADIO Co
Cambridge, Mass., U.S.A.

FOREWORD

IN buying radio apparatus it is always well to remember that Radio is a Science depending upon definite electrical principles.

It, therefore, requires instruments that are scientifically correct—mechanically and electrically.

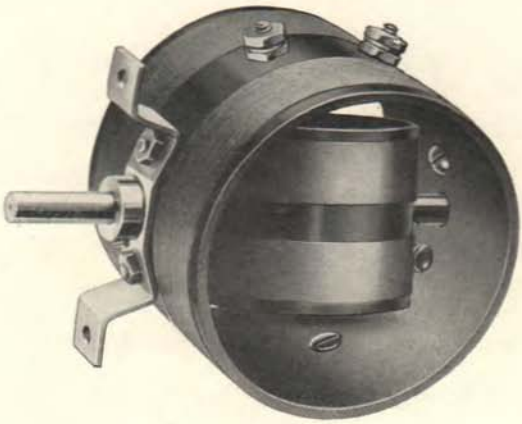
The radio apparatus described in this catalog has been developed by experienced radio engineers after exhaustive research and careful study of actual operating conditions. This development work has been conducted in the well equipped electrical laboratories of the General Radio Company.

All General Radio parts are constructed to meet the most exacting requirements of radio broadcast reception and are of the same high standard of material and workmanship as the radio laboratory instruments manufactured by the General Radio Company.

The prices listed in this catalog are as low as the highest quality of materials, workmanship and manufacturing methods permit. Prices are revised and correct to the date of this issue. They are, however, subject to change without notice due to market changes of raw materials and other conditions beyond our control.

When ordering by telegraph specify quantity and our code word.

Unless otherwise instructed we shall use our own judgment regarding method of shipment.



Type 268

VARIO COUPLER

While it was formerly considered good practice to have a large number of taps in vario-coupler primaries, in most modern receiving sets taps have been omitted entirely. With the condensers and circuits now in general use taps on a vario-coupler are of little importance.

There are times, however, particularly in controlling regeneration, when a single tap is of advantage. Thus to make the type 268 vario-coupler efficient, yet simple in operation a single center tap has been brought out on the stator coil.

The type 268 vario-coupler covers the band of wavelengths from 150 to 600 meters which includes practically all popular radio broadcast reception. This instrument is especially compact and very efficient in circuits which require a high grade coupler.

Both the rotor and stator forms are of genuine moulded bakelite and are wound with green silk covered wire. The metal parts are of nickel finish.

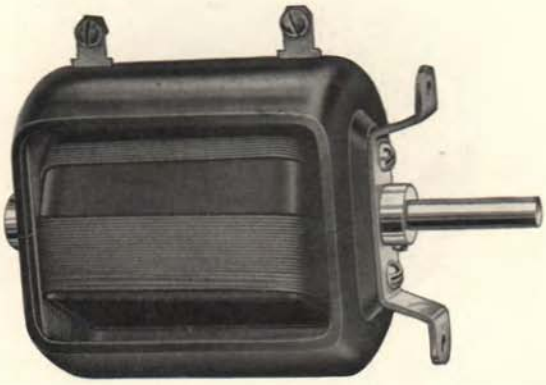
The bearings are exceptionally accurate and smooth running so as to insure uniform operation over long periods of use.

Mounting to panel is by means of a convenient and rugged mounting bracket. Necessary screws and nuts are provided with each instrument.

Type 268 Vario-Coupler..... $3.50

Dimensions 4″ x 4″ x 2½″. Weight 8 oz.

Code Word: "VALET."



Type 269

VARIOMETER

The outstanding features of the Type 269 variometer are its size and its efficiency of operation.

It is much smaller than the average variometer which gives it a decided advantage where compactness and portability of the set is a consideration. It is equally efficient mechanically and electrically and covers a range of wavelengths from 150 to 600 meters. The ratio of maximum to minimum inductance is 10 to 1.

The stator and rotor forms are of genuine moulded bakelite, wound with green silk covered copper wire. Terminals are very accessible and a soldering lug is provided for using the instrument in circuits requiring split variometer connections. The bearings are accurate and very smooth running.

All metal parts are brass with nickel finish. Panel installation is made easy by a convenient mounting bracket.

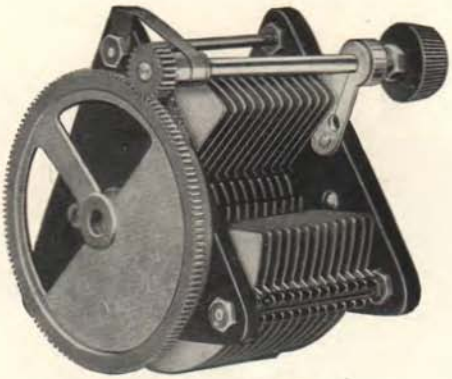
Necessary screws and nuts are provided for mounting.

The advantages of this type variometer are readily appreciated by radio experimenters because of its unusual compactness and efficiency.

Type 269 Variometer..... $5.00

Dimensions 4¾" x 3 x 1¾". Weight 14 oz.

Code Word: "VALID"



Type 247-H

GEARED VARIABLE CONDENSER

No single instrument in a radio set has greater influence over the successful operation of a receiver than a variable condenser.

In order to obtain the degree of selectivity necessary to separate stations broadcasting on wavelengths only a few meters apart, it is essential that a condenser should have very low losses.

Particular care has been taken in designing the General Radio Type 247 condensers to keep the losses at a minimum.

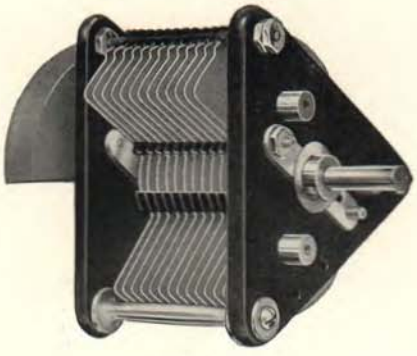
This is accomplished by interspacing the plates of the rotor and stator groups in a specially designed jig and soldering them while they are in perfect alignment. It can be readily understood why this method is far superior to the method of interspacing plates by means of metal spacers. It not only reduces the resistance losses to minimum but makes the assembly as a whole much more rigid and insures perfect alignment of plates, which keeps the plate resistance and capacity values always constant.

Exhaustive laboratory tests have been made in which the losses of General Radio Condensers have been compared with the losses of many other standard makes of condensers. At radio frequencies General Radio Condensers were found to have the lowest losses.

The vernier adjustment used on Type 247 condensers and recognized by radio engineers as the most efficient is the balanced gear method which provides for a minute adjustment of the whole rotor group.

Type 247-H 500 M M F. Panel mounting with gear $5.00
Dimensions 4″ x 4″ x 4⅛″. Weight 1⅛ lbs.
Code Word: "COMIC."

Type 247-M 250 M M F. Panel mounting with gear $4.75
Dimensions 4″ x 4″ x 4″. Weight ⅞ lbs.
Code Word: "CIGAR."



Type 247-F

PLAIN VARIABLE CONDENSER

The construction of the Type 247-F condenser shown above is the same as the Type 247-H with the exception of the balanced vernier gears. In place of the vernier gear attachment a counterweight is provided on the model 247-F and K condensers to balance the rotor plates.

A feature of this, as well as all type 247 condensers, is the special type of spring bearing which insures good contact being made with the rotor group. With this type of bearing the tension always remains the same, and there is no chance for the rotor group to loosen as the bearing wears. These bearings are so arranged that all the thrust is on one bearing so that there is no danger of the condenser short circuiting or changing its capacity if the distance between the bearings becomes changed.

This type of condenser is capable of very minute capacity variations when used with a type 302 or 303 vernier dial shown on page 9081 of this catalog.

Type 247-F 500 M M F. Panel mounting, without gear.....$3.25
Dimensions 4″ x 4″ x 4⅛″. Weight 1 lb.
Code Word: "COCOA."

Type 247-K 250 M M F. Panel mounting without gear..... $3.00
Dimensions 4″ x 4″ x 4″. Weight ⅞ lb.
Code Word: "CARGO."

Type 247

MOUNTED VARIABLE CONDENSER

Experimental radio receiving sets require condensers high in quality and reasonable in price The Types 247-E, G J and L condensers definitely meet this demand. These types are mounted in a metal case finished with a black crystalline finish, the same as is used on expensive laboratory instruments. This case is grounded to the rotor plates, thus shielding the condenser and eliminating many of the disturbing effects due to bringing the hand near the condenser.

The minimum capacity of these condensers is approximately 20 micromicrofarads. This low value makes a wide range of wavelengths possible.

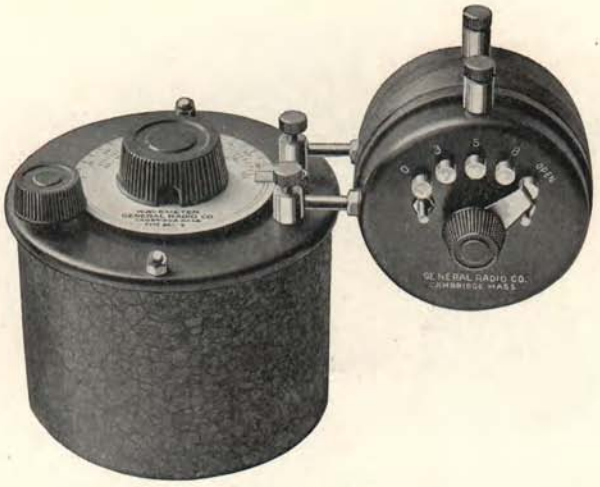
In addition to the regular degree graduations of the etched metal dial, this dial is marked with a scale to show capacity measurements in micromicrofarads. This is a unique and valuable feature for radio receiving condensers, and it enables the operator to know at all times just what capacity he is using.

Type 247-E 500 M M F. mounted without gear..... $5.50
Dimensions 5″ x 5″ x 4½″. Weight 1¾ lbs.
Code Word: "COUPE."

Type 247-G 500 M M F. mounted with gear..... $7.25
Dimensions 5″ x 5″ x 5⅛″. Weight 2lbs.
Code Word: "COLIC."

Type 247-J 250 M M F. mounted without gear..... $5.25
Dimensions 5″ x 5″ x 4½″. Weight 1½lbs.
Code Word: "CANON."

Type 247-L 250 M M F. mounted with gear..... $7.00
Dimensions 5″ x 5″ x 4½″. Weight 1½lbs.
Code Word: "CAROM."



Type 247-W

WAVEMETER AND FILTER

The selectivity of a receiving set is greatly improved by a Radio Filter. Interference from various sources may also be reduced to a minimum by use of a reliable filter.

The Type 247-W wavemeter is ideally adapted to this purpose. The filter coil may be connected either in series or parallel with the receiving set. When used in series connection 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.

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%.

A full set of instructions accompanies each instrument.

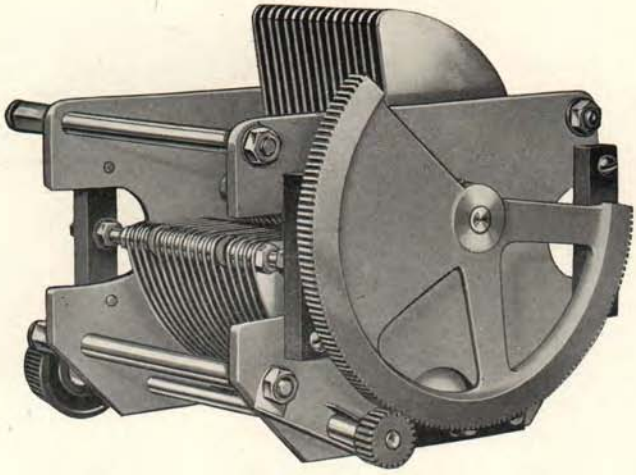
Type 247-W Wavemeter and Filter $10.00
Dimensions 5″ x 4½″ x 8″. Weight 3 lbs.
Code Word: "WAGON."

When longer or shorter wavelengths are desired types 247-W2, 247-W½ and 247-W¼ extension coils may be used interchangeably.

Type 247-W2 Extension Coil (400-1200 meters) $3.00
Dimensions 4″ x 4″ x 3″. Weight 8 oz.
Code Word: "VOCAL."

Type 247-W½ Extension Coil (100-300 meters) $3.00
Dimensions 4″ x 4″ x 3″. Weight 8 oz.
Code Word: "VIZOR."

Type 247-W¼ Extension Coil (50 to 150 meters) $3.00
Dimensions 4″ x 4″ x 3″. Weight 8 oz.
Code Word: "VIVID."



Type 239

SPECIAL GEARED CONDENSER

To meet the most exacting requirements of carefully designed radio sets, and for general laboratory use the above illustrated Type 239 condenser is particularly recommended. It is similar in design to the General Radio precision condenser. It has metal end plates, locked cone bearings and is rigidly supported. The only solid dielectric material used is in the form of supporting strips for the fixed plates. These strips are of selected hard rubber, and are placed in a weak and non-varying electrostatic field. This reduces the dielectric loss to a minimum.

The rotor plates are grounded to reduce body capacity. The plates are of heavy aluminum and are so shaped as to give a nearly uniform wavelength variation.

The Type 239 condensers are supplied either with slow motion gear or counterweight.

A precise vernier adjustment is made possible on the models with counterweights by use of vernier dials shown on page 9081.

Type 239-H 1000 M M F. unmounted without gear..... $10.00
Dimensions 4½" x 4¾" x 6". Weight 2 lbs.
Code Word: "BARON."

Type 239-G 1000 M M F. unmounted with gear..... $13.50
Dimensions 4½" x 4¾" x 6". Weight 2 lbs.
Code Word: "BASAL."

Type 239-M 2000 M M F. unmounted without gear..... $13.00
Dimensions 4½" x 4¾" x 6". Weight 3 lbs.
Code Word: "BAYAN."

Type 239-L 2000 M M F. unmounted with gear..... $16.50
Dimensions 4½" x 4¾" x 6". Weight 3 lbs.
Code Word: "BEFIT."

Type 271

MEDIUM FREQUENCY TRANSFORMER

The amplification of wavelengths of the order of 10,000 meters (30 K. C.) requires a transformer of design materially different from that required for short wave radio frequency or audio frequency amplification.

The 271 M. F. transformer has been designed to meet the specific requirements of a medium frequency transformer for use in long wave reception and in superheterodyne sets. It is shielded both electrostatically and electromagnetically, making it possible to use several of these transformers in cascade with a separation as small as one inch. This shielding also makes it possible to operate the amplifying tubes at their full capacity.

The working range is from 7,000 to 12,500 meters with a peak frequency of 10,000 meters. The turns ratio is 3.1 to 1. The core is of very thin laminations of silicon steel. It is so constructed as to give sufficient electromagnetic shielding and at the same time permits the use of only the small amount of steel that is required in a transformer of this type. The whole unit is enclosed in an attractively japanned metal case fitted with convenient terminal posts and mounting holes.

Many comparative tests have been made on standard medium frequency transformers, in which the General Radio Type 271 has proven its unquestionable superiority over other standard makes.

In Superheterodyne sets four of these transformers may be used with excellent results without a tuned input or output transformer, inasmuch as each individual transformer is sharply tuned to give maximum amplification at 10,000 meters.

Type 271 Medium Frequency Transformer.....$5.00
Dimensions 2½" x 2¼" x 1½". Weight 6 oz.
Code Word: "TULIP."

Type 231-A

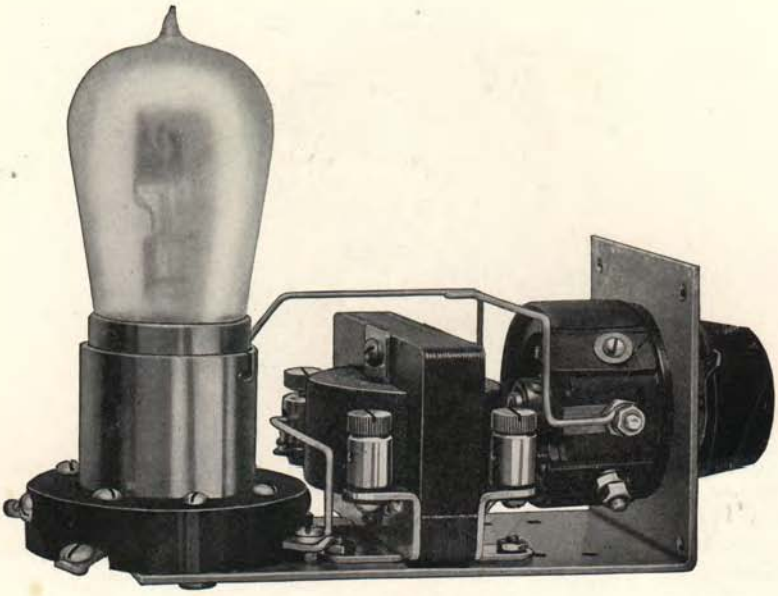
AUDIO AMPLIFYING TRANSFORMER

The Type 231-A Amplifying Transformer was designed by experienced radio engineers after a long period of research and study of actual operating conditions. It is scientifically correct in principle—mechanically and electrically. It is designed to produce the greatest amount of volume with unusual tone clarity. It has no resonance point within the audio range, thus amplifies tones of high or low pitch to approximately the same degree. This accounts for its unusually natural reproduction of tone and makes it perfectly suited to all stages of multi-stage amplification with equal efficiency.

This transformer has a shell type closed core, constructed of a high grade of silicon steel. The coils are wound with No. 40 copper wire and are properly insulated and impregnated to prevent short circuited turns.

It is mounted by means of nickel brackets and wiring connections are made easy by conveniently located binding posts. In addition to its excellent electrical characteristics this transformer is very compact and rugged. Each transformer is individually tested before leaving the factory and is guaranteed to be correct in every detail. Amplifier diagram with instructions for wiring is furnished with every instrument.

Type 231-A Amplifying Transformer..... $5.00
Dimensions 2⅝" x 2½" x 2½". Weight 1 lb.
Code Word: "TUTOR."



Type 300-D

AUDIO AMPLIFIER UNIT

For persons building their own sets these amplifying units are very convenient as they greatly simplify the construction of an audio frequency amplifier.

The unit is self contained except for tubes and batteries and is ready for connection to either tube or crystal detector set. Provision is made for either table or panel mounting

The instruments are securely mounted on the bracket and all internal wiring has been provided. The mounting bracket is of heavy brass with a white nickel finish.

This unit is supplied in two models, 300-D for standard base tubes, such as the UV-201A, and 300-C for the UV-199 tubes. The only difference being in the size of the socket. A sheet giving complete instructions for installation and operation is packed with each unit.

Type 300-D Amplifier unit for UV-201-A tubes $8.00

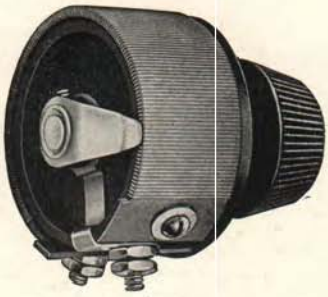
Dimensions 6½" x 2½" x 2¾". Weight 1½ lbs.

Code Word: "ARSON".

Type 300-C Amplifier unit for UV-199 tubes..... ..... $7.75

Dimensions 6½" x 2½" x 2¾".

Code Word: "ARROW."



Type 301

RHEOSTATS

Rheostats used in vacuum tube circuits must be so constructed and the contact so arranged that there is no possibility of a momentary opening of the circuit, or a sudden change of resistance in the circuit. Either of these would result in an objectionable click in the ear phones or loudspeaker.

The resistance of the Type 301 rheostat changes gradually and uniformly throughout its entire range, and thereby secures the same degree of control for all working conditions of the battery. With the tubes now available and with the gradual change of resistance provided by the Type 301 rheostat no vernier attachment is necessary.

The resistance unit is tightly wound on a specially treated fibre strip. Genuine moulded bakelite is used for the base. A tapered knob with pointer indicates position of the contact arm. The shaft is ¼" in diameter and is arranged to fit panels up to ⅜" thick.

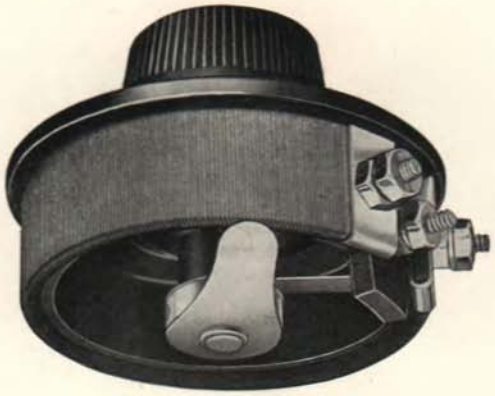
Type 301 Rheostat $1.25
Dimensions 2" x 1¾" x 2⅛". Weight 4 oz.

Resistance	Current	Code Word
10 ohms	.75 Amp.	REMIT
30 "	.5 "	RENEW

POTENTIOMETERS

Type 301—200 ohm Potentiometer $1.25
Dimensions 2" x 1¾" x 2⅛". Weight 4 oz.
Code Word: "REBUS."

In ordering be sure to specify resistance desired.



Type 214

RHEOSTATS

Where the best in rheostat construction is desired and for laboratory use, the Type 214 is particularly recommended. This rheostat is made in two types, 214-A for back of panel mounting and 214-B for front of panel or table mounting. The Type 214 rheostats are larger than the Type 301 and are therefore capable of a more gradual and accurate resistance control. It is similar in general construction to the Type 301, and embodies the best of materials and workmanship.

Type 214 Rheostat $2.25

Dimensions 3″ dia. x 2¼″. Weight 7 oz.

		CODE WORD	
		Type 214A	Type 214B
Resistance	Current	Panel Mounting	Table Mounting
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

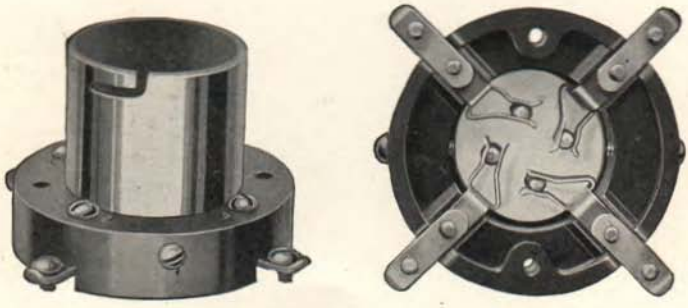
POTENTIOMETERS

Many of the most efficient circuits now in common use require a potentiometer to control the grid potential. The Type 214 is supplied with a high resistance winding and a third connection which enables it to be used as a potentiometer capable of extremely fine voltage control.

Type 214—400 ohm potentiometer $3.00

Dimensions 3″ dia. x 2¼″. Weight 7 oz.

Code Word, Type 214A, panel mounting: "ROSIN."
Code Word, Type 214B, table mounting: "ROWEL."



Type 156

STANDARD TUBE SOCKET

A vacuum tube socket must be more than a tube mounting device. It must not only hold the tube securely to prevent vibration, but also must make firm electrical contact with the four tube prongs. The best features of socket design are incorporated in the Type 156 Vacuum Tube Socket.

This socket is designed for the standard base four prong tubes such as the UV-200, UV-201A, UV-202 and WD-12.

The base is of heavy moulded bakelite which provides proper insulation. The springs are of phosphor bronze, nickel finished. They are so arranged as to make positive contact on the sides of the tube prongs. As a wiping, spring contact is made, a clean, positive connection is always assured. The tube is of heavy brass with highly polished nickel finish and carefully grooved bayonet slot to take the tube base locking pin.

Each of the four connecting terminals are plainly marked and each terminal is provided with slotted binder head screw for making a firm connection.

The contacts are heavy enough to carry without arcing the high filament current of a 5 watt transmitting tube.

Type 156 socket $1.00

Dimensions 3½" x 2½" x 1¾". Weight 4 oz.

Code Word: "SOBER."

Type 299

Type 299-S

UV-199 TUBE SOCKET

This socket is designed for UV-199 tubes. It is of genuine moulded bakelite and has its four terminals plainly marked.

The springs are of phosphor bronze with double leaf blades to provide good contact with the tube prongs. This feature insures good contact over a long period of use, as there is little tendency for the tension of the contact blades to weaken.

The mounting holes of this socket are spaced the same as those of the Type 156 socket. This makes it preferable when changing over to dry cell tubes to change the socket rather than to bother with an adapter.

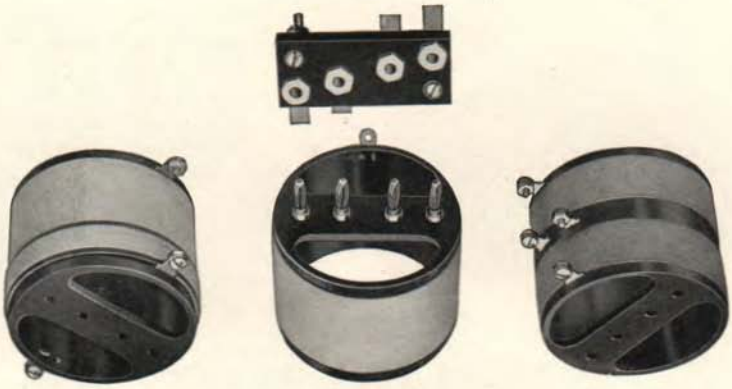
Type 299 socket $0.50
Dimensions 2⅜″ x 1⅜″ x 1″. Weight 2 oz.
Code Word: "STORY."

TUBE SOCKET CUSHION

A special base of sponge rubber is now available for the Types 299 and 156 sockets. Because of the shock absorbing properties of this base, tubes are completely protected against any vibration and greater clarity of reception results. The space between mounting holes is the same as between mounting holes of the Types 299 and 156 sockets and may be used with either socket with equal efficiency.

Type 299-S Socket Cushion $0.25
Dimensions 2¼″ x 2½″ x ⅜″. Weight 1 oz.
Code Word: "SABER."

C B D



Type 277

INDUCTANCE AND COUPLING COILS

The above shown low loss coils are furnished with windings to cover three wave length ranges from 50 to 600 meters.

Type 277-D has a tuned winding for 200 to 600 meters and an aperiodic antenna coil of 15 turns very closely coupled.

Type 277-C has a total inductance of .22Mh. and is wound in two sections as required in some modern circuits. This coil when used with the types 247 F and H Condensers with shaped plates will give a reading directly in wave length if used with a General Radio Type 313 dial described on page 9081. Type 277-B will read ½ wavelength and type 277-A ¼ wavelength.

If the scale is set accurately on one known broadcasting station the readings over the whole range will be correct to better than 2 per cent.

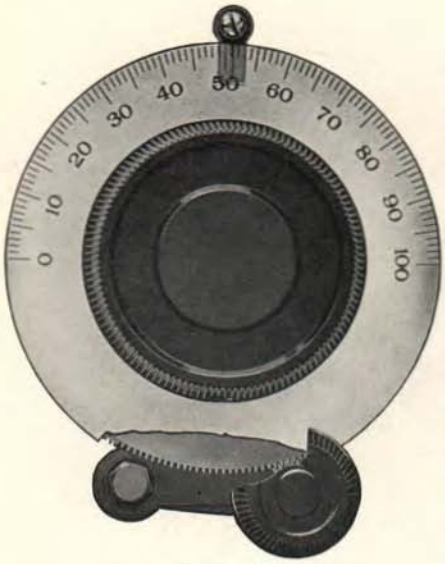
These coils have been very carefully designed to give the lowest possible losses with consequent sharp tuning and immunity from interference.

Mounting holes are so arranged that type 274-P plugs may be inserted so that coils may be used interchangeably.

Type	Wavelength	Code Word	Price
277-A	50 to 150 meters	VALOR	$1.00
277-B	100 to 300 meters	VAPID	1.00
277-C	200 to 600 meters	VENUS	1.00
277-D	Coupling Coil	VIGIL	1.25
277-U	Coil Form (unwound)	VIGOR	.75

Dimensions 3½" x 2¼". Weight 5 oz.

274-B—Base with 4 Sockets	$1.00	each
274-C—Base with 2 Sockets	.75	"
274-P—Contact Terminal	.15	"
274-J—Jacks, per pair	.25	"



Type 303

VERNIER DIALS

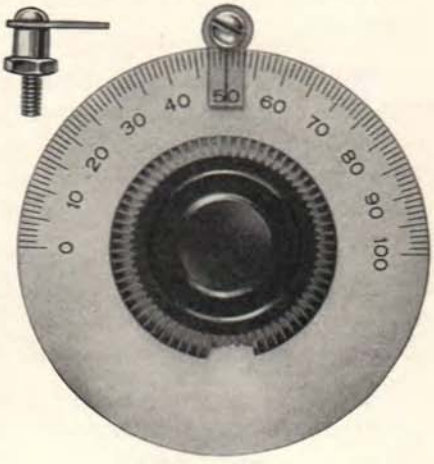
The types 302 and 303 dials are provided with a specially designed vernier attachment. A brass gear with accurately machined teeth is swedged firmly to the back of the dial. A small fibroil pinion under the vernier knob is kept in tight contact with this gear by a spring arm. The finish of the dial is frosted silver with graduated scale in black. Extremely accurate adjustments are made possible by the use of this vernier dial, inasmuch as there is absolutely no backlash. Each dial is packed with a celluloid hair line indicator and template for drilling panel for mounting the spring arm.

Type 302—2¾ in Vernier Dial, for ¼ in. Shaft.....$1.50
Dimensions 3½" x ¾". Weight 6 oz. Code Word: "DAISY."
Type 303—4 in. Vernier Dial, furnished for ¼ in. or ⅜ in. Shaft $2.50
Dimensions 4⅝" x ¾". Weight 10 oz. Code Word: "DALLY."

DIAL AND INDICATOR WITHOUT VERNIER

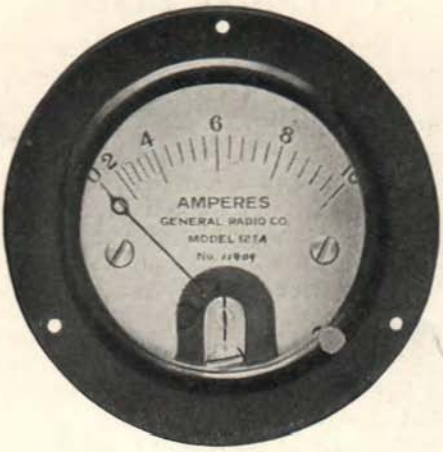
The type 310 dial and indicator combination permits precise dial setting and is a great help in logging stations. The dial is of brass with a frosted silver finish and graduated scale in black. The knob is of bakelite. The indicator of transparent celluloid with fine line is mounted by a nickel finished screw and nut.

For use with the Type 277 coils the 313 dial is available. In addition to the 0 to 100 scale this dial has an accurately calibrated wavelength scale in meters, and is the same in price as the 310.



Type 310

Type 310—2¾ in. Dial and Indicator.....$0.50
Dimensions 2¾" x ⅝". Weight 3½ oz. Code Word: "DANDY."
Type 317—4 in. Dial and Indicator.....$1.50
Dimensions 4" x ¾". Weight 6½ oz. Code Word: "DEBUT."



Type 127-A

Type 127-B

HOT WIRE AMMETERS

The Type 127 Hot Wire Ammeters are equally accurate on direct or alternating currents of any frequency. They may be used for measuring filament currents, storage battery charging rates, plate currents and many other purposes.

The expanding strip of these meters is of thin platinum, so as to prevent oxidation. It is so proportioned that it works at a low temperature and is of low resistance. These are two highly desirable features, since the former permits reasonable overloading without burning out, and the latter minimizes the losses.

The type of multiplying action is such that a more uniform scale is obtained than with many hot wire meters. These meters have been corrected for temperature so that there is very little shift of zero, and this is easily taken care of by the knurled adjusting screw.

These instruments 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. The flush type meters are mounted in metal cases finished in black japan, while the front-of-board and portable types have cases of moulded bakelite.

Type 127-C

		TYPE 127A	TYPE 127B	
	Range	Flush Mounting	Front-of-Board	Price
100	Milli-Amps.	MEDAL	MAYOR	$9.00
250	Milli-Amps.	MERCY	MADAM	7.75
500	Milli-Amps.	MERIT	MAJOR	7.75
1	Ampere	MERRY	MANOR	7.75
1.5	Amperes	MINUS	MISTY	7.75
2.5	Amperes	MINOR	MAPLE	7.75
5	Amperes	MINIM	MATIN	7.75
10	Amperes	MINNY	MAXIM	7.75
	Galvanometer	MITER	MAGIC	7.25

Dimensions 3″ x 1½″. Weight 9½ oz.

TYPE 127C

	Range	Code Word	Case	Price
100	Milli-Amps.	MUGGY	Portable	$10.00
250	Milli-Amps.	MOCHA	Portable	9.00
500	Milli-Amps.	MOGUL	Portable	9.00
2.5	Amperes	MOLAR	Portable	9.00
1	Ampere	MOTOR	Portable	9.00
5	Amperes	MUMMY	Portable	9.00
10	Amperes	MUSTY	Portable	9.00
	Galvanometer	MOTTO	Portable	8.50

Dimensions 3″ x 4″ x 1½″. Weight 10½ oz.

Type 260 Type 280

PORCELAIN INSULATOR

Porcelain, which has losses but one tenth that of the usual moulded materials is rapidly becoming the standard material for insulators.

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 280—Strain Insulator $0.15
Dimensions 4½" x 1⅜" x 1". Weight 4 oz.
Code Word: "CRULLER."

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.

Three polished nickel mounting screws are also provided.

Type 260—Insulator $0.25
Dimensions 2⅛" x 2⅛" x 2". Weight 4 oz.
Code Word: "CONIC."

MODULATION TRANSFORMER

Type 231-M

This transformer is similar in general design to the Type 231A amplifying transformer and has many desirable features. Its windings have been designed particularly for use with the Radiotron UV-202 five-watt transmitting tubes and other tubes of similar characteristics.

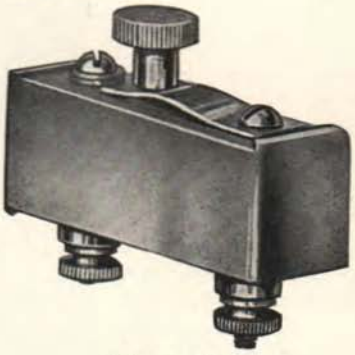
To get the maximum modulation, the modulating device should have an impedance somewhat greater than the input impedance of the tube. This impedance is of the order of several hundred thousand ohms, while that of a telephone transmitter is but a few ohms. A modulation transformer serves to adapt the telephone transmitter impedance to that of the input circuit of the tube.

Type 231M—Modulation Transformer $5.00

Dimensions 2⅝" x 2½" x 2½". Weight 1 lb.

Code Word: "TUNIC."

HIGH FREQUENCY BUZZER



Type 178

This buzzer has been designed for both laboratory and radio use. It combines pureness of tone, simplicity of adjustment, and durability.

The frequency is approximately 800 cycles, but depends on the setting of the knurled adjusting screw. As the current required for the operation of the buzzer is approximately only 30 milli-amperes it may be operated for long periods of time from small batteries. One dry cell will provide sufficient potential to operate this buzzer satisfactorily, and in no case should more than two be used.

One of the noteworthy features of this buzzer is its freedom from sparking. This is important where pure tones are required. This feature makes the buzzer particularly adapted as a supply source for bridge measurements and for continuous wave telegraph modulation.

Type	Mounting	Code Word	Price
178A	Above Panel	BEFOG	$2.00
178B	Below Panel	BEGET	2.00

Dimensions 2" x 1¾" x 1". Weight 3 oz.

Type 283

TUBE PROTECTING RESISTANCE UNIT

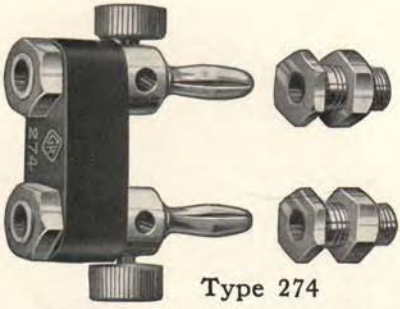
The Type 283 unit is designed to protect tubes from burning out if the "B" battery is accidentally connected across the filament terminals.

The unit consists of a specially wound resistance unit of 500 ohms, enclosed in a bakelite tube and is connected in series with the negative terminal of the "B" battery. It not only affords absolute protection from tubes burning out but protects the "B" battery from short circuits.

A Type 236-.5 MF. By-Pass Condenser should be used across both the "B" battery and resistance unit

Type 283—Tube Protecting Resistance Unit..... $0.60
Dimensions 1½" x 1" x ⅝". Weight ½ oz.
Code Word: "PANIC."

Type 236—.5 MF. By-Pass Condenser $1.00
Dimensions 4" x 1⅛" x 1⅛". Weight 5 oz.
Code Word: "PECAN."



Type 274

MULTI-CONNECTOR PLUG

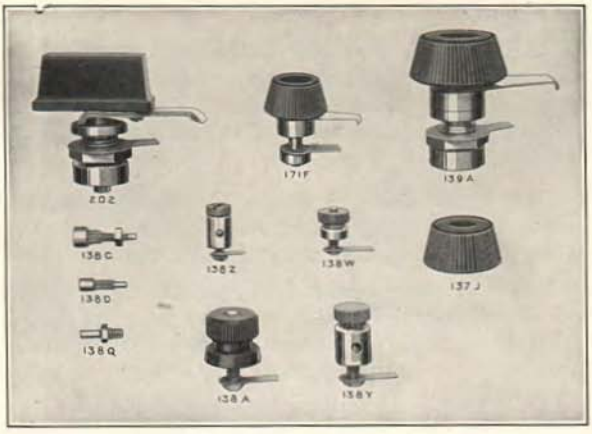
The many uses of the type 274 multi-connector plug will be readily appreciated by radio experimenters.

They may be used as coil mounting plugs as illustrated on page 9080. One of these plugs mounted on the bakelite strip makes an excellent phone or loud speaker plug, and any number of parallel connections may be made using several of these plugs.

The contact points consist of four springs which are squeezed together as the plug is inserted into the socket, thus making a perfect sliding contact.

A binding post is provided on the shank of the contact point for making external connections.

Type 274—Multi-Connector Plug Complete with Jacks..... $1.00
Dimensions 1½" x 1⅝" x ½". Weight 2 oz.
Code Word: "PAPER."



STANDARD PARTS

Experimental work frequently requires certain standard parts. Consequently we are listing for the convenience of experimenters many of the parts used in the assembly of General Radio instruments, which have the advantage of matching parts used on instruments already installed.

BINDING POSTS

Type	Description	Diameter	Height	Screw Sizes	Price
138A	Insulated	3/4"	5/8"	10-32	$0.25
138W	N. P. Brass	7/16"	1/2"	6-32	0.12
138Y	" "	1/2"	3/4"	10-32	0.15
138Z	" "	3/8"	5/8"	6-32	0.10

SWITCHES AND PARTS

Type	Description	Price
139A	Multiple Leaf Switch 1 3/8" Radius	$0.95
171F	Single Leaf Switch 7/8" Radius	0.40
202	Low Contact Resistance Switch 1 3/8" Radius	1.25
138C	5/16" Contact for 139A or 202 Switches	0.05
138D	3/16" Contact for 171F Switch	0.04
138Q	Switch Stop with Nut	0.05
137D	Moulded Knob (same as used on 139A Switch)	0.30
137H	Moulded Knob (same as used on 317 Dial)	0.75
137J	Moulded Knob (same as used on 301 Rheostat)	0.30
137K	Moulded Knob (same as used on 247 Vernier)	0.25

The types 137D and J Knobs are for 1/4" shaft, while the 137H may be supplied for either 1/4" or 3/8" shafts. The 137K Knob is tapped for a 10-32 thread.

THE 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. It was instrumental in obtaining the adoption of the standard four-prong vacuum tube socket.

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

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

These instruments include:—

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

Low Loss Variable Air Condensers
Decade Resistance Boxes
Standards of Resistance
Precision Condensers
Recorders

Amplifiers and 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.

Quality Easily Recognized