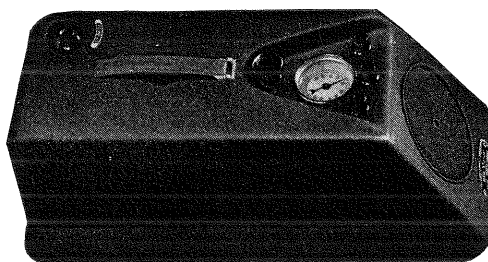


# **RCA Victor M-116**

**"Portette" Superheterodyne Receiver**

**For Auto and Home**

## **INSTRUCTIONS**



**RCA Victor Company, Inc.**

CAMDEN, N. J., U. S. A.



Figure 1

Instructions for  
**RCA Victor M-116**  
Portable "Arm Rest" Automobile-and-Home Receiver

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## INTRODUCTION

This radio receiver was conceived by the motor-ing public. It has been designed to meet the growing demand for a portable set equally useful in the automobile or home; that is, operable from either the car battery or the alternating-current house-lighting circuit. Because of its versatility as to power requirements, this instrument will find especial favor among tourists and commercial travelers; it also should appeal strongly, however, to a large number of persons living more or less per-manently in hotels or furnished apartments.

In achieving such utility, no sacrifice of per-formance in either mode of operation has been introduced. Excellent sensitivity and selectivity, realistic reproduction, abundant reserve power for use in congested traffic districts and automatic volume control are features worthy of mention.

Transfer of installation, whether to the car or home, is extremely simple, electrical connections only to the power source and antenna being required. In automobile service, the current drawn from the stor-age battery approximates that used by a single head-light bulb.

The distinctive metallic carrying-case contains a compactly-built chassis upon which are assembled a five-tube superheterodyne receiver, an electrody-namic loudspeaker and independent "B" battery eliminators for either type of power supply. The in-strument is completely shielded and equipped to prevent objectionable interference from the auto-mobile ignition system. All controls are located on the top of the case, permitting easy adjustment when the set is placed as intended upon an automobile seat beside the driver or any passenger.

## GENERAL INFORMATION

### Equipment

#### A. Equipment Furnished:

##### 1. Receiver Package—Contains:

- (a) **The Receiver**—Equipped and tested at the factory with RCA Radiotrons—Shipped with all tubes installed in their proper sockets—In-cludes one dial lamp (6-8 volts) and one each of the following Radiotrons: RCA-78, RCA-6A7, RCA-6B7, RCA-41 and RCA-1-V.
- (b) **Ignition Interference Suppression Equip-ment**—As follows:
  - 8 Spark-plug type suppressors (extra units, when required, to be obtained from dealer).
  - 1 Distributor type suppressor.
  - 2 Capacitors.
- (c) **Power Cord**—For house-lighting circuit.
- (d) **Shielded Lead-in Wire**—For automobile antenna.
- (e) **Connector**—For home antenna lead-in wire.
- (f) **Instruction Booklet.**

##### 2. Battery Cable Package—Contains:

- (a) The cable for automobile battery supply. Length proper for use in coupes and roadsters and in the front compartment of sedans, coaches and

touring cars. Equipped with fuse receptacle containing one 20 ampere fuse.

NOTE—This cable is supplied in two forms, identical except for connections, to accommodate either polarity of storage battery supply: that is, either positive (+) or negative (−) grounded batteries. It is the dealer's responsibility to select the correct cable for your car. An addi-tional cable of suitable length to permit operation of the receiver on the rear seat is procurable from the dealer.

#### B. Additional Equipment Required:

##### 1. Automobile Antenna—One of the following types (listed in the order of preference):

- (a) **Roof (Concealed) Type.**
- (b) **Roof (Interior) Type**—For attachment to head-lining of enclosed models or insertion beneath top fabric of open and convertible models. A special antenna of this type complete with pin-hooks and lead-in wire may be pur-chased from your dealer.
- (c) **Plate (Sub-mounted) Type**—For attachment to channel members of car chassis. An efficient plate antenna completely equipped for mounting and a specially-designed shielded lead-in wire are also obtainable from the dealer.

## Antenna

**General Considerations**—Although this receiver has excellent sensitivity, best results naturally will be obtained with a good antenna. For any temporary installation, such as when stopping overnight at a hotel, satisfactory reception should be obtained with a short length of insulated wire strung around the room or dangling from a window. However, in any permanent or semi-permanent location, such as the automobile or home, the antenna installation should merit careful consideration.

**For Automobile Service**—As listed in the preceding section under "Additional Equipment Required," three types of antenna are available for automobile use:

**Roof (Concealed) Type**—Enclosed models of practically all modern (1932-33-34) automobiles are equipped at the factory with a radio antenna concealed in the roof. Certain convertible and open type cars also contain a suitable antenna in the form of flexible wire strands woven into the folding top fabric; the latter practice, however, is recent and, except for cars in the higher price class, has not been generally adopted. A "concealed" roof antenna naturally is the neatest and most satisfactory arrangement and, therefore, is recommended for use in all automobiles with enclosed bodies. Owners of cars not already equipped with an antenna of this type may have one installed, if desired, by the dealer from whom this radio receiver was purchased. Such work ordinarily involves a nominal additional charge since the services of an experienced automobile upholsterer are required.

**Roof (Interior) Type**—This antenna is extremely simple to install and often provides a very satisfactory substitute for the preferred concealed unit. It is designed for attachment to the head-lining of a closed car or for insertion beneath the top fabric of open or convertible models and thus renders unnecessary any upholstery work. The effective antenna wire is covered by durable paper obtainable in either gray or tan finish as desired to harmonize with the car interior. For an enclosed car having a wire support screen in the roof grounded to (in contact with) the metallic frame, this type of antenna will not be suitable, as the screen will divert incoming radio waves and seriously impair reception. Before purchase, therefore, consult the dealer who sold this instrument if you are in doubt as to whether such a condition exists in your car.

**Plate Type**—Although not as efficient as either roof-mounted unit, the sub-mounted plate type antenna affords a concealed installation and may be used in any automobile irrespective of its body style or roof construction, being designed for attachment to the chassis frame

beneath the car body. It is adjustable as to length and ground clearance, thus facilitating installation and insuring optimum results. This type of antenna may be depended upon to provide good reception from local or moderately distant powerful stations.

**For Home Service**—A single-wire outdoor antenna of maximum convenient height and having a length of from 25 to 75 feet including the lead-in is recommended for home service. Because of its high sensitivity, however, this receiver should operate satisfactorily from an indoor antenna of short or medium length if the building in which it is installed is of non-metallic construction. The antenna should be well insulated from all objects and should run neither close nor parallel to electric circuits inside or outside the building. It will be desirable to have a permanent antenna erected at each point where the instrument is to be used more or less regularly.

In some cases, better reception will be obtained by making a ground connection to the shield of the short antenna lead extending from the receiver. The ground lead should be as short as possible and attached preferably to a cold water pipe; if a piped water supply is not available, an excellent alternative ground can be procured by attachment to a metallic stake driven from four to six feet into moist earth. The surface of the pipe or stake should be scraped clean and an approved ground clamp used to insure a tight and permanent connection.

## Power Supply

Two distinct and independent circuits, for excitation of the Radiotrons from either an automobile storage battery or an alternating-current power line, are contained in this receiver. The battery circuit embodies a synchronous vibrator mechanism of the full-wave type, whereas the a-c operated circuit is actuated by means of a tube rectifier. These functions are interchangeable by simply turning a switch accessible from the outside of the case (see frontispiece for location of all controls) and by substituting power cords. Since the cords are of entirely different construction and can be attached to the receiver only in the correct manner, no confusion will be experienced.

The battery cable is equipped with metallic lugs for attachment to the battery terminal clamps and when installed may be left in the car at all times. The a-c power cord is terminated by a standard attachment plug for an electrical outlet and may be either carried in the car for ready use or left in the home as deemed most convenient.

# INSTALLATION

## Automobile Installation

A typical installation of this receiver in an automobile is shown in the frontispiece illustration and is accomplished in the following manner: Lift the seat upon which the instrument will rest, lay the battery cable and antenna shielded lead-in wire in position and then replace the seat. In cases where the automobile battery is mounted beneath that seat, however, it will be necessary to connect the battery cable to the battery (as described in the subsequent paragraph entitled "Connection to Battery") before replacing the seat. Finally, mount the receiver on the seat, attach the connector of the lead-in wire to the short (antenna) lead extending from the rear of the instrument and, with the power switch "off" (in AC position), insert the battery cable plug in the receptacle located adjacent to the antenna lead entrance.

**Connection to Antenna**—Feed the antenna lead-in wire beneath floor mat to the side of car nearest the wire extending from the antenna. The wire from a factory-installed roof antenna ordinarily is brought down one of the front pillar posts and left in a coil behind the instrument panel. In such cases, therefore, the lead-in wire after leaving the floor mat should be concealed behind the kick-board, then soldered to the wire extending from the antenna at the lower end of the body pillar post, after cutting the necessary length from each wire to eliminate excessive slack. Insulate the joint with tape and then solder or bond the pig-tail extension from the lead-in shield braid to the car frame.

A similar procedure is followed when either alternative form of antenna ("interior" roof or plate type) is employed except that the lead-in wire probably will follow a different route in each case. Such antennas should be mounted as far to the rear of the car as possible to insure minimum ignition interference. The lead-in wire for the interior type unit thus may be carried down the rear quarter of top and then behind the back cushion of seat in open and convertible models or may be anchored to any convenient pillar post in closed models. With the plate antenna, the lead-in wire should be fed through any opening in the floor board.

**Connection to Battery**—Since, in most cars, the storage battery is located below the floor boards of the driving compartment, the battery cable has been made sufficiently long to reach the battery after passing beneath the driver's seat (see note concerning longer cable available for rear seat operation—Equipment, "Battery Cable Package"). Run the cable under the floor mat and through the floor opening provided above the battery and

connect the cable lugs to the battery terminal clamps as illustrated. The lug stamped "BATT. GROUND" must be connected to that side of the battery grounded to the car frame and the remaining lug (on lead with fuse receptacle) attached to the supply side of the battery. Finally, replace the floor cover, notching the side of the opening if necessary to provide clearance for the battery cable.

### Suppression of Ignition Interference—

1. Disconnect all wires from the spark plugs. Fasten one spark-plug suppressor to the top of each plug and re-attach the wires to the free ends of the suppressors. These suppressors may be mounted either in line with or at right angles to the plugs in order to avoid interference with metallic parts grounded to the engine or frame.

2. If the distributor is of the plug-in type, disconnect the center wire from the head. Plug the distributor suppressor into the distributor head and insert the wire in the free end of the suppressor.

NOTE—For cap-type distributors, exchange the distributor suppressor at your dealer's for one of a special type. Cut the wire leading from the distributor to the coil and screw the suppressor into the end attached to the distributor. Screw the other end of the wire (leading to the coil) into the opposite end of the suppressor.

3. Clamp the generator capacitor against the generator frame. The screw holding the cut-out ordinarily may be utilized for securing this unit. Connect the capacitor lead to the terminal on the generator side of the cut-out switch. (In some cases, however, less interference will be encountered with this lead connected to the opposite side of the cutout; the most suitable position therefore should be determined by trial.)

4. The ignition capacitor (unit with two leads) must be connected between the battery terminal of the ammeter and any convenient screw on the instrument panel. In certain cars, interference will be reduced still further by connecting an additional capacitor (obtainable from your dealer) between the battery side of the ignition coil and the car frame.

## Home Installation

The circular insert on the frontispiece illustrates a typical installation of this receiver on lighting-circuit operation. Simply place the instrument upon a table or other level surface, attach the antenna lead-in wire (using the small connector furnished) and, with the power switch "off" (in "AUTO" position), connect the power cord to an electrical outlet supplying *alternating current* at the voltage and frequency (cycles) specified on the rating label inside the case.

## OPERATION

The instrument should be operated as follows:

1. Turn the Power Switch to the "AUTO" position for automobile service or to the "AC" position for home service. At this point, normal functioning will be evidenced by illumination of the tuning dial, although it will be necessary to wait a few seconds for the Radiotrons to attain their proper operating temperature before reception is possible.

2. With the Volume Control turned fully clockwise, rotate the Station Selector in either direction until a desirable station program is heard.

**NOTE**—The dial scale is calibrated in channels to aid in station identification. Add one cipher to the scale numerals to obtain frequency in kilocycles.

3. After receiving a signal, turn the Volume Control counter-clockwise until the volume is reduced to a low level. Now, readjust the Station Selector to the position midway between the points where the signal becomes distorted or disappears. *This operation insures the best quality of reproduction.*

4. Finally, advance the Volume Control (clockwise) until the desired level is obtained. Except

on weak signals, the automatic volume control will maintain the volume substantially at the latter level, thereby precluding further manual adjustments. (Fading of the signal may be experienced in extreme cases, as when passing under bridges or other metallic structures, since such structures almost completely shield the antenna.)

5. Adjust the Tone Control for the preferred tonal shading. *Full-range* reproduction will be obtained when the control knob is turned fully *clockwise*. Treble response may be reduced as desired and static interference (when present) may be decreased by turning the knob counter-clockwise.

6. The Sensitivity Switch ordinarily should be left in the *counter-clockwise* position which provides maximum distance reception. At times when static interference is objectionable or when local reception is preferred, this switch should be set clockwise for most satisfactory results.

7. When through operating, turn the Power Switch to the opposite position; that is, to the "AC" position to discontinue automobile service and to the "AUTO" position to discontinue home service.

## MAINTENANCE

**Initial Installation**—If the receiver either performs imperfectly or fails to operate when first connected to the power supply (preferably the home-lighting circuit for an initial test) it is probable that one or more of the tubes or dome-terminal (grid) clips have been jarred loose in shipment. With the five control knobs detached, remove the four screws at the outside edges of the bottom panel and lift off the case. Then examine the tube installation, referring to the diagram printed on the rating label, and make certain that all Radiotrons are properly inserted and that the spring clips on the short flexible (grid) leads are pressed down firmly over the respective dome terminals.

**Radiotrons**—The Radiotrons should be tested periodically and replaced if necessary in order to maintain best performance. The efficiency of each Radiotron may be checked by comparison with a new one of the same type in its place. Spare Radiotrons of each type should be kept on hand.

**Fuse**—For automobile service, the instrument is protected by a fuse contained in the fuse receptacle attached to the battery cable. If the set fails to operate and the dial lamp does not light, this fuse should be removed for examination. If found to be burned out, the wiring should be inspected for short-circuits or grounds and all tubes tested prior to in-

sertion of a new fuse. *The replacement fuse must be of the same ampere rating.*

**Vibrator "B" Battery Eliminator**—When operating from the automobile storage battery, a slight buzz should be noticed to emanate from the receiver. This buzz should be taken as indicative of proper operation of the vibrator. Failure to observe this buzz, accompanied by repeated necessary replacement of the fuse, will denote a faulty condition, and, in such cases, the complete receiver should be taken to the dealer for inspection. *Do not attempt to adjust the vibrator yourself.*

**Automobile Antenna**—A properly installed roof antenna of the concealed or interior type should require no attention. When the plate antenna is employed, the insulator bushings should be cleaned occasionally to prevent grounding.

**Automobile Ignition System**—The ignition system of the car must be kept in good condition. Fouled plugs or plugs with improperly adjusted gaps will affect the operation of the receiver as well as of the automobile. Burned or improperly adjusted breaker points will also impair the performance. It will be advisable to advance the generator charging rate in order to compensate for the additional drain on the car storage battery imposed by this instrument.







# SERVICE DATA

Power Requirements . . . . . 105-125 volt,  
50-60 Cycle A. C. or 6-volt Storage Battery  
Power Consumption . . 115 Volts, 60 Cycles A. C.—40 Watts,  
Battery—5.7 Amperes at 6.3 Volts  
Number and Types of Radiotrons . . . . . 1 RCA-78,  
1 RCA-6A7, 1 RCA-6B7, 1 RCA-41, 1 RCA-1-V—Total 5  
Maximum Undistorted Power Output . . . . . 1.8 Watts  
Maximum Output . . . . . 3.6 Watts  
Type of Rectifier . . . . . A. C.—Radiotron RCA-1-V  
Battery—Vibrator Inverter-Rectifier  
Tuning Frequency Range . . . . . 540 K. C.—1500 K. C.

This automobile receiver is of unique design and construction. Among its many features is its adaptability to either battery or 110-volt alternating current operation. This is accomplished by having a separate power transformer and a

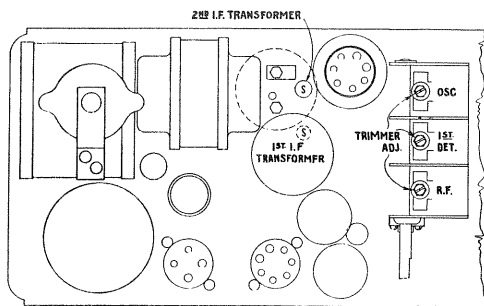


Figure C—Location of Line-up Capacitors

tube rectifier for alternating current, while the conventional vibrator inverter-rectifier with its associated transformer is used for battery operation.

Other important features include its compact portable size, full vision "airplane" type dial, tone control, sensitivity switch, electro-dynamic loudspeaker and the inherent sensitivity, selectivity and tone quality characteristic of the super-heterodyne.

Figure A shows the schematic diagram, Figure B the wiring diagram, Figure C the location of the line-up capacitors and Figure D the wiring of the battery cable. A brief description of the circuit follows:

**Radio Circuit**—The radio circuit consists of four Radiotrons; namely, an RCA-78 R. F. stage, an RCA-6A7 first detector-oscillator, an RCA-6B7 intermediate frequency amplifier, second detector and A. V. C. and an RCA-41 output amplifier.

**Power Circuit**—The power circuit for battery operation consists of a vibrator inverter-rectifier with its associated transformer and filter circuits. The heaters of the various Radiotrons are powered direct from the car storage battery. The operating switch is so arranged that at one position battery operation is obtained, while at the other position, proper connections are made for A. C. operation.

When the switch is at the A. C. position, the A. C. input current is connected to the primary of the A. C. transformer. Two secondaries are provided, one for furnishing power to the Radiotron heaters and the dial lamp, the other for plate supply to Rectifier RCA-1-V. The output of the rectifier is then filtered by the same filtering system as that used for battery operation. The loudspeaker field is used as a filter reactor.

## Inverter-Rectifier Adjustments

This receiver uses a vibrator inverter-rectifier for supplying all plate and grid voltages when operated from a battery source. *This unit is accurately adjusted and sealed at the factory and service adjustment should not be attempted.*

## Line-up Capacitor Adjustments

The three R. F. line-up capacitors and two I. F. tuning capacitors are accessible and may require adjustments. The R. F. adjustments are made at 1400 K. C. and the I. F. adjustments at 175 K. C. In order to make these adjustments, it is first necessary to remove the cover of the instrument. The following procedure should be used:

### R. F. Adjustment :

- Check the position of the dial pointer. It should be aligned with the low-frequency end graduation, as indicated by the small arrow marked "Max. Cap." when the tuning capacitor rotor is fully meshed with the stator.
- Procure a modulated oscillator giving a signal at 1400 K. C. (Stock No. 9050), a non-metallic screw driver (Stock No. 7065) and an output meter. Connect the output meter across the cone coil of the loudspeaker.
- Couple the output of the oscillator from antenna to ground, set the dial at 140, and the oscillator at 1400 K. C.
- Place the oscillator and receiver in operation and adjust the oscillator output so that a small deflection is obtained in the output meter when the volume control is at its maximum position.
- Then adjust the three line-up capacitors until a maximum deflection in the output meter is obtained. Readjust these capacitors a second time, as there is a slight interlocking of adjustments.

### I. F. Adjustments :

- Procure a modulated oscillator giving a signal at 175 K. C. (Stock No. 9050), a non-metallic screw driver (Stock No. 7065) and an output meter.
- Connect the oscillator between the control grid of the first detector and ground.
- Connect the output meter across the voice coil of the loudspeaker. Then connect the antenna lead to ground and adjust the tuning capacitor so that no signal except the I. F. oscillator is heard at maximum volume. With the volume control at maximum, reduce the external oscillator output until a small deflection is obtained. Unless this is done, the action of the A. V. C. will make it impossible to obtain correct adjustments.
- Each transformer has but one winding that is tuned by means of an adjustable capacitor, the other windings being untuned. The capacitors should be adjusted for maximum output. At the time I. F. adjustments are made it is good practice to follow this adjustment with the R. F. adjustments, due to the interlocking that always occurs. The reverse of this, however, is not always true.

## RADIOTRON SOCKET VOLTAGES

115 Volts A. C. or 6.3 Volt Battery—No Signal—Max. Sensitivity

Radiotron No.	Cathode to Ground	Cathode to Screen Grid Volts	Cathode to Plate Volts	Cathode Current M. A.	Heater Volts
RCA-78 R. F.	4.2	86	216	5.5	5.9
RCA-6A7 First Detector	4.2	86	216	10.0	5.9
6A7 Oscillator		—	216	Total	
RCA-6B7 Second Det.	2.7	87	207	4.5	5.9
RCA-41 Power	15.0	255	235	30.0	5.9
RCA-1-V	—	—	325 RMS	50.0	5.9

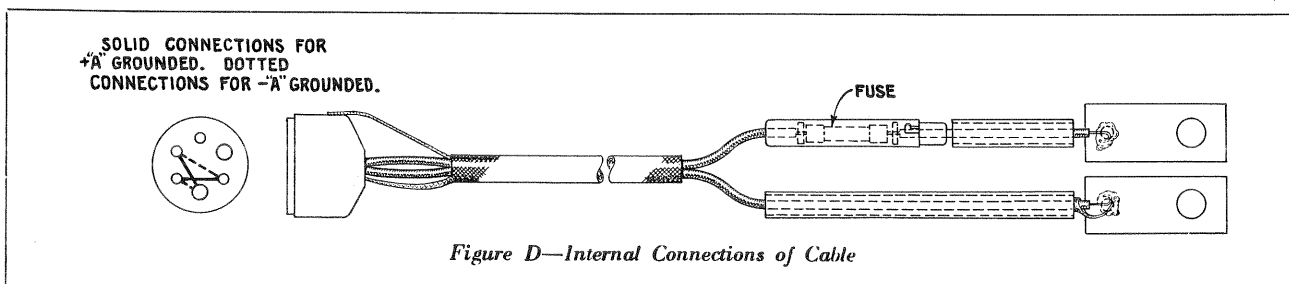


Figure D—Internal Connections of Cable

# REPLACEMENT PARTS

Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
<b>RECEIVER ASSEMBLIES</b>					
2240	Resistor—30,000 ohms—Carbon type— $\frac{1}{4}$ watt (R6).....	\$0.22	9456	Transformer—Power transformer—105-125 volts, 50-60 cycles (T2).....	\$4.00
2734	Capacitor—745 mfd. (C-36)—Package of 5.....	1.50	9457	Transformer—Power transformer—9 volts (T1).....	4.78
2747	Cap—Contact cap—Package of 5.....	.50	<b>CABLE ASSEMBLIES</b>		
2917	Washer—"C" washer for condenser drum and shaft assembly—Package of 10.....	.25	3466	Connector—Antenna lead-in connector.....	.16
3218	Resistor—600 ohms—Carbon type— $\frac{1}{4}$ watt (R8)—Package of 5.....	1.00	3646	Fuse—20 amperes—Package of 5.....	.40
3469	Resistor—2,500 ohms—Carbon type—1 watt (R15)—Package of 5.....	1.10	4008	Shield—Metal shield for cable plug—Package of 5.....	.58
6844	Capacitor—Comprising two 5.0 mfd. (C17, C22).....	1.10	4009	Terminal—Metal terminal (plain) for battery connection—Package of 5.....	.44
3572	Socket—7-contact Radiotron socket.....	.38	4010	Terminal—Metal terminal engraved "Batt-Ground"—For battery connection—Package of 5.....	.44
3584	Ring—Antenna, R. F. or oscillator coil retaining ring—Package of 5.....	.40	6150	Plug—Battery cable plug.....	.50
3597	Capacitor—0.25 mfd. (C33).....	.40	6516	Connector—Fuse connector.....	.16
3602	Resistor—60,000 ohms—Carbon type— $\frac{1}{4}$ watt (R1, R5)—Package of 5.....	1.00	6760	Cable—7-conductor shielded—Switch cable.....	.40
3619	Resistor—400,000 ohms—Carbon type— $\frac{1}{4}$ watt (R10)—Package of 5.....	1.00	6761	Cable—2-conductor shielded—Approximately 10 $\frac{1}{2}$ inches long, from resistor board to volume control.....	.26
3621	Coil—Choke coil—Located on terminal board (L14).....	.35	6762	Lead—Antenna lead-in—Approximately 15 $\frac{3}{4}$ inches long—With connector.....	.44
3623	Shield—Antenna, R. F. or oscillator coil shield.....	.30	6773	Cable—Battery cable—Plus A grounded—Overall length approximately 61 inches—Complete with plug, fuse, fuse connector and terminal.....	2.36
3632	Resistor—500 ohms—Carbon type (R13)—Package of 5.....	1.10	6774	Cable—Battery cable—Minus A grounded—Overall length approximately 61 inches—Complete with plug, fuse, fuse connector and terminal.....	2.36
3639	Capacitor—0.02 mfd. (C16).....	.25	6775	Cable—Battery cable—Plus A grounded—Overall length approximately 105 inches—Complete with plug, fuse, fuse connector and terminal.....	3.30
3696	Capacitor—40 mmfd. (C9).....	.22	6776	Cable—Battery cable—Minus A grounded—Overall length approximately 105 inches—Complete with plug, fuse, fuse connector and terminal.....	3.30
3699	Capacitor—720 mmfd. (C20).....	.40	6777	Cable—Antenna lead-in cable—Shielded—Approximately 98 inches long—With connector.....	1.26
3744	Resistor—250,000 ohms—Carbon type— $\frac{1}{4}$ watt (R12)—Package of 5.....	1.00	6779	Cable—2-conductor shielded cable—Approximately 58 inches long—Battery cable, less fuse plug and connectors.....	1.10
3751	Capacitor—0.5 mfd. (C25).....	.40	6780	Cable—2-conductor shielded cable—Approximately 102 inches long—Battery cable, less fuse plug and connectors.....	2.04
3877	Capacitor—0.1 mfd. (C8).....	.32	6834	Cable—Battery cable—Minus "A" grounded—Overall length approximately 185 inches—Complete with plug, fuse, fuse connector and terminal.....	3.92
3888	Capacitor—0.05 mfd. (C1, C5).....	.25	6835	Cable—Battery cable—Plus "A" grounded—Overall length approximately 185 inches—Complete with plug, fuse, fuse connector and terminal.....	3.92
3920	Capacitor—0.003 mfd. (C23).....	.25	7008	Lacquer—Touch up lacquer (1 pint of lacquer and 1 pint of thinner).....	2.25
3937	Capacitor—300 mmfd. (C15, C18).....	.34	<b>MISCELLANEOUS PARTS</b>		
3950	Shield—Radiotron shield.....	.26	3960	Handle—Carrying handle.....	.44
3954	Screw—Chassis mounting screw and washer assembly—Package of 10.....	.32	3961	Knob—Tone control, volume control or suppressor switch knob—Package of 5.....	.60
3955	Coil—Choke coil—Located on terminal board (L12).....	.68	3962	Knob—Station selector knob—Package of 5.....	1.00
3956	Clamp—Capacitor mounting clamp—Package of 5.....	.32	3963	Knob—"AC-DC" switch knob—Package of 5.....	.60
3957	Indicator—Station selector indicator pointer—Package of 5.....	.42	3964	Bezel—Metal bezel for station selector dial glass.....	.54
3958	Plug—2-contact "AC" connection plug.....	.50	3965	Glass—Station selector dial glass.....	.22
3959	Plug—6-contact "DC" connection plug.....	.40	3966	Spring—Contact spring—Grounds vibrator shield to case—Package of 10.....	.92
3968	Spring—Tuning condenser drive cord tension spring—Package of 10.....	.30	4011	Capacitor—0.5 mfd. (C24).....	.60
3969	Cord—Tuning condenser drive cord—Package of 10.....	1.22	4017	Scale—Station selector dial scale—Package of 5.....	1.38
3970	Drum and shaft assembly—Small—For tuning condenser drive.....	.24	6151	Suppressor—Spark plug suppressor.....	.56
3971	Escutcheon—Switch escutcheon engraved "AC-DC".....	.24	6152	Suppressor—Distributor suppressor.....	.56
3972	Drum and bushing assembly—Large—For tuning condenser drive.....	.34	6175	Suppressor—Distributor suppressor—Splice in type.....	.56
3993	Screw—Set screw for tuning condenser drive drum—Package of 10.....	.25	6494	Capacitor—0.5 mfd.—Ammeter capacitor.....	.46
4001	Capacitor—1.02 5mmfd. (C12).....	.32	6495	Capacitor—0.5 mfd.—Generator capacitor.....	.72
4002	Capacitor—375 mmfd. (C31).....	.30	6670	Suppressor—Spark plug suppressor—"Elbow" type.....	.56
4003	Capacitor—700 mmfd. (C32).....	.30	6763	Cord—Power cord with connectors.....	.94
4020	Resistor—750 ohms—Carbon type— $\frac{1}{4}$ watt (R4)—Package of 5.....	1.00	7694	Vibrator—Complete (C27, C28, L13, R14).....	7.20
4089	Capacitor—Two 0.05 mfd. (C34, C35).....	.40	7696	Housing—Metal housing—Top section.....	5.44
4508	Connector—Flat type, female section—Used with plug No. 3958.....	.30	7697	Base—Housing base.....	.90
6135	Resistor—270 ohms—Carbon type— $\frac{1}{4}$ watt (R3)—Package of 5.....	1.00	9050	Oscillator—Test oscillator—150 to 25,000 K. C.....	29.50†
6165	Lamp—Station selector dial lamp—Package of 5.....	1.75	<b>REPRODUCER ASSEMBLIES</b>		
6186	Resistor—500,000 ohms—Carbon type— $\frac{1}{4}$ watt (R7)—Package of 5.....	1.00	6750	Screen—Dust screen.....	.28
6242	Resistor—2 megohms—Carbon type— $\frac{1}{4}$ watt (R2)—Package of 5.....	1.00	6751	Screen—Metal screen.....	.46
6282	Resistor—60,000 ohms—Carbon type— $\frac{1}{2}$ watt (R5)—Package of 5.....	1.00	6764	Transformer—Output transformer (T4).....	1.42
6300	Socket—4-contact Radiotron socket.....	.35	6772	Ring—Felt ring—Used between speaker and metal housing—Package of 5.....	1.20
6512	Capacitor—0.005 mfd. (C21).....	.28	8987	Cone—Reproducer cone (L11)—Package of 5.....	5.00
6738	Capacitor—8.0 mfd. (C30).....	1.54	9458	Reproducer complete.....	5.20
6739	Condenser—3-gang variable tuning condenser assembly (C2, C3, C6, C7, C10, C11).....	5.16	9459	Coil—Comprising field coil, magnet and cone support (L15).....	3.34
6740	Transformer—First intermediate frequency transformer (L7, L8, L14).....	2.16			
6741	Transformer—Second intermediate frequency transformer (L9, L10, C19).....	1.78			
6742	Coil—Antenna coil assembly (L1, L2).....	.38			
6743	Coil—R. F. coil assembly (L3, L4).....	.98			
6744	Capacitor—0.05 mfd. (C26).....	.30			
6745	Coil—Oscillator coil assembly (L5, L6).....	.62			
6746	Volume control (R9).....	1.20			
6747	Tone control (R11).....	1.20			
6748	Switch—Noise suppressor switch (S5).....	.40			
6749	Switch—AC-DC switch (S1, S2, S3, S4).....	2.14			
6759	Transformer—Intermediate transformer (T3).....	2.55			
6781	Capacitor—Comprising one 3.6 mfd. and one 1.0 mfd. (C4, C13).....	1.10			
6782	Capacitor—4.0 mfd. (C29).....	1.10			
7485	Socket—6-contact Radiotron socket.....	.40			

† Full Discount not allowed.