

RCA VICTOR MODELS 8BT, 8BK, 8BT6, and 8BK6

Eight-Tube, Three-Band, Battery-Operated, Superheterodyne Receivers

TECHNICAL INFORMATION

Electrical Specifications

FREQUENCY RANGES

"Standard Broadcast" (A).....	530-1,780 kc
"Medium Wave" (B).....	1,780-6,300 kc
"Short Wave" (C).....	6,300-22,000 kc

Intermediate Frequency..... 460 kc

ALIGNMENT FREQUENCIES

"Standard Broadcast" (A).....	600 kc (osc.), 1,500 kc (osc., ant.)
"Medium Wave" (B).....	6,000 kc (osc., ant.)
"Short Wave" (C).....	20,000 kc (osc., ant.)

RADIOTRON COMPLEMENT

(1) RCA-1A6.....	First Detector	(5) RCA-1F6.....	Second Detector—A.F.—A.V.C.
(2) RCA-1B4.....	Heterodyne Oscillator	(6) RCA-30.....	Audio Driver
(3) RCA-1A4.....	First Intermediate Amplifier	(7) RCA-49.....	Power Output
(4) RCA-1A4.....	Second Intermediate Amplifier	(8) RCA-49.....	Power Output

Pilot Lamps..... 8BT or 8BK (1); 8BT6 or 8BK6 (2); 2.0 volts, .06 ampere, miniature screw base, T-3¼ clear

BATTERIES REQUIRED

8BT or 8BK..... "A," one plug-in 2½-volt Air-cell (Eveready A-600 or equivalent), or one 2-volt storage battery; "B," three 45-volt, heavy duty, plug-in type B batteries; "C," one 7½-volt C battery tapped at -3 volts; and four bias cells (Stock No. 12681).

8BT6 or 8BK6..... "A," one 6-volt storage battery; "B," none required; "C," one 7½-volt C battery tapped at -3 volts; and four bias cells (Stock No. 12681).

CURRENT CONSUMPTION

	8BT or 8BK	8BT6 or 8BK6
"A" at 2 volts.....	0.58 amp. (pilot lamp off)	
"A" at 2 volts.....	0.64 amp. (pilot lamp on)	
"A" at 6.0 volts.....		1.35 amps.
"A" at 6.3 volts.....		1.40 amps.
"B" at 135 volts.....	19 ma.	(Supplied from vibrator)
Fuse Rating.....	½ amp.	3 amp.

POWER OUTPUT

Undistorted.....	1.2 watts	1.0 watts
Maximum.....	2.2 watts	1.6 watts

Mechanical Specifications

CABINET DIMENSIONS	8BT	8BK	8BT6	8BK6
Height.....	22½ inches	40 inches	22½ inches	40 inches
Width.....	17 inches	25½ inches	17 inches	25½ inches
Depth.....	9¼ inches	12½ inches	10¼ inches	12½ inches

WEIGHTS

Net.....	28 pounds	56 pounds	38 pounds	66 pounds
Shipping.....	37 pounds	71 pounds	46 pounds	80 pounds

Chassis Base Dimensions..... 14¾ inches x 8 inches x 3¼ inches

Over-all Height of Chassis..... 9¼ inches

Operating Controls..... (1) Volume, (2) Tuning, (3) Range Selector, (4) Tone, (5) Power Switch (located on right side of cabinet).

Tuning Drive Ratios..... 10 to 1 and 50 to 1

General Features

These receivers employ the same type chassis. The table models 8BT and 8BT6 each employ an eight-inch, dust-proof, permanent-magnet, dynamic loudspeaker while the console Models 8BK and 8BK6 each employ a twelve-inch, dust-proof, permanent-magnet,

dynamic loudspeaker. Models 8BT and 8BK obtain their plate supply from "B" batteries and their filament supply from either a 2½-volt Air-cell or a 2-volt storage battery. Models 8BT6 and 8BK6 obtain their plate supply from a compact, vibrator power-

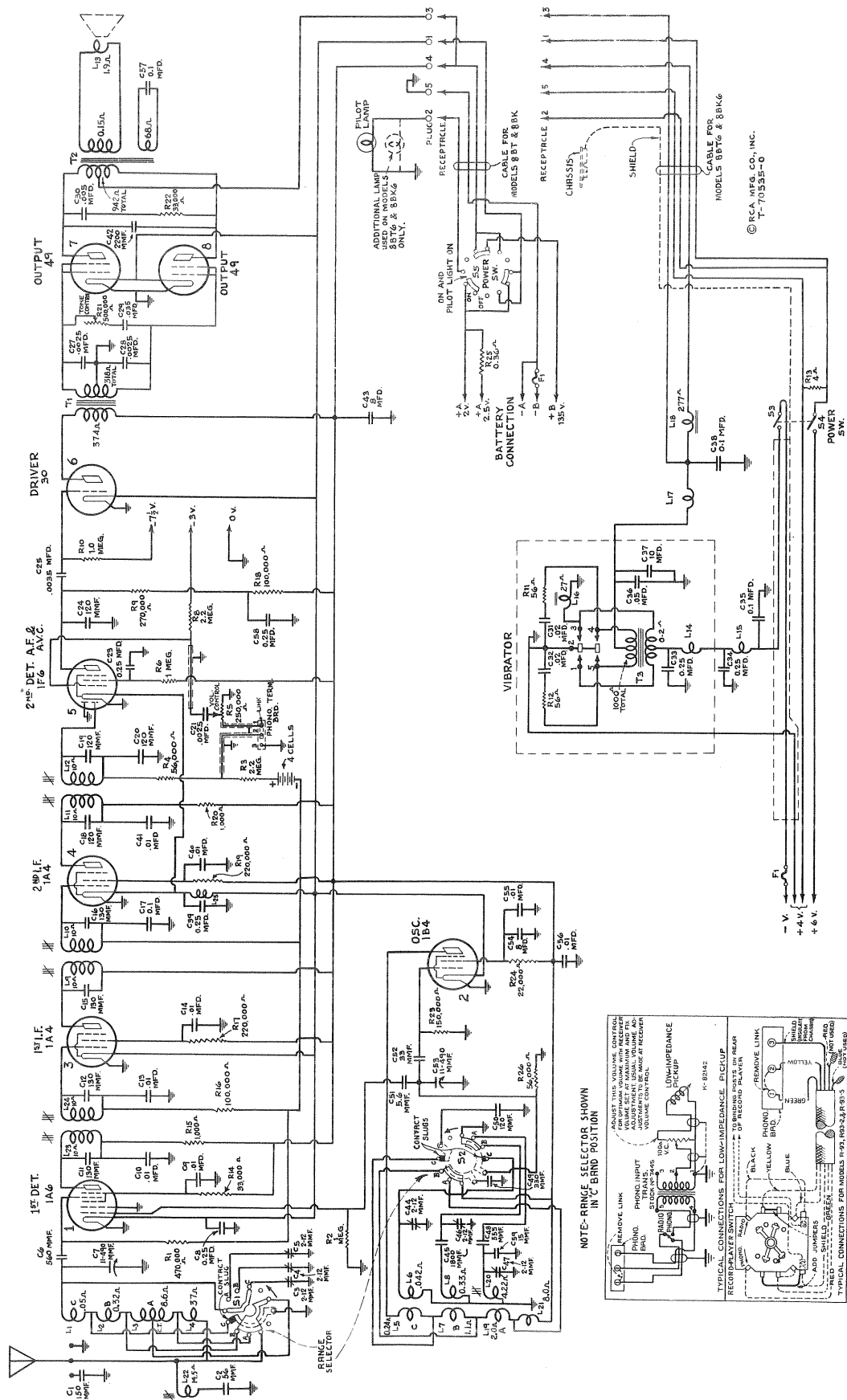
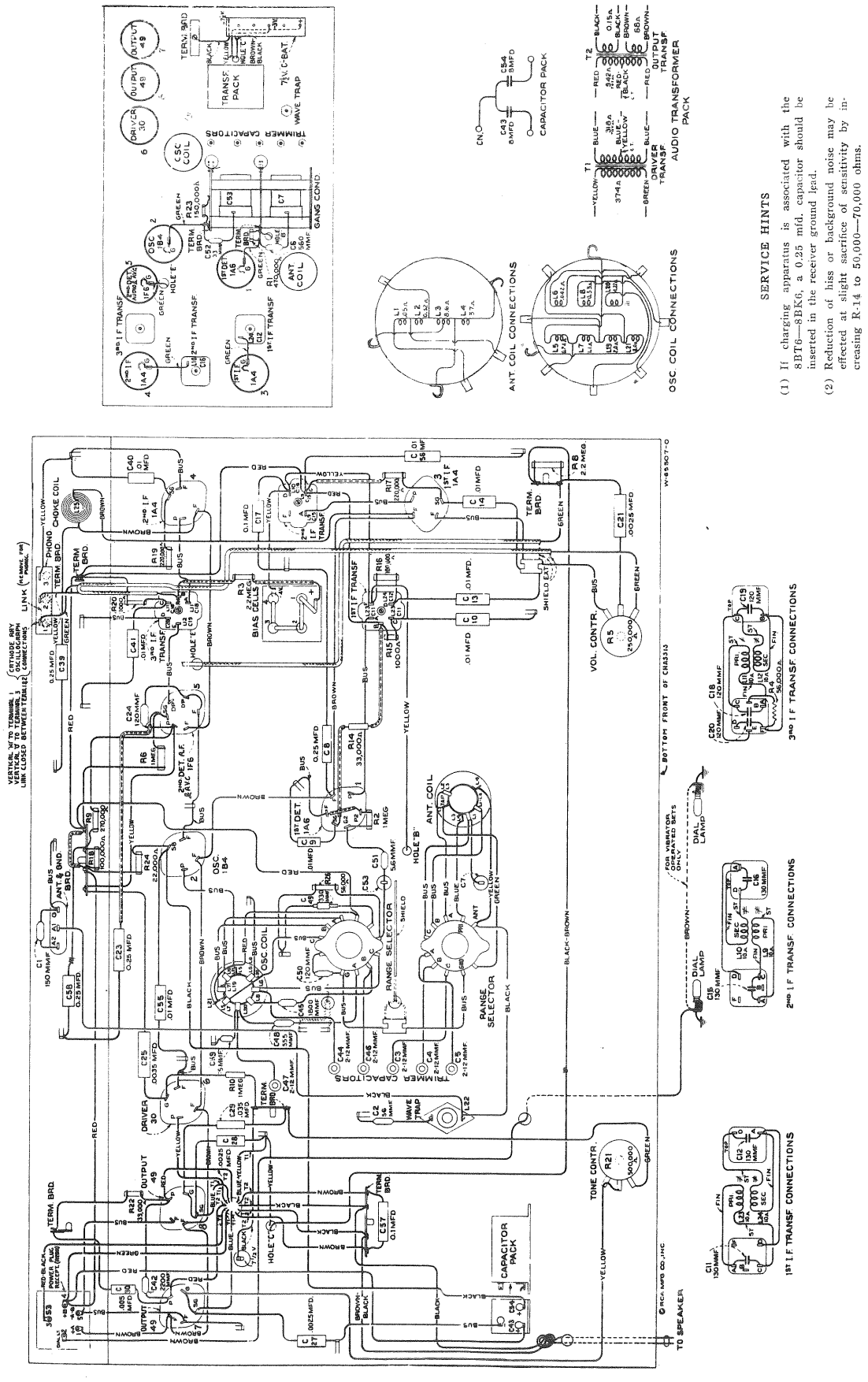


Figure 1—Schematic Circuit Diagram



SERVICE HINTS

- (1) If charging apparatus is associated with the 8BT6—8BK6, a 0.25 mid. capacitor should be inserted in the receiver ground lead.
- (2) Reduction of hiss or background noise may be effected at slight sacrifice of sensitivity by increasing K-14 to 50,000—70,000 ohms.

Figure 2—Chassis Wiring Diagram

supply unit, which, in turn, is operated from a 6-volt storage battery. One cell (2 volts) of this same storage battery is used to supply filament voltage to the Radiotrons. The vibrator is of the "plug-in" type which permits ready removal or replacement. Models 8BT and 8BK have a pilot-lamp switch combined with the main power switch so that the pilot

lamp may be turned off, after the receiver is tuned in, to conserve battery current.

The tuning range is continuous through the "Standard broadcast," "Medium wave," and "Short wave" bands. This extensive range includes the important short-wave broadcast bands at 49, 31, 25, 19, 16, and 13 meters in addition to channels assigned for police, amateur, and aviation communication.

Circuit Arrangement

The signal entering the antenna circuit is coupled to control grid No. 1 of the RCA-1A6 through a tuned i-f transformer. This transformer is tapped to provide correct inductance for the band being used, and at the same time selecting the proper winding which serves as the primary and shorts out the unused coils to prevent any interaction which might otherwise occur. The locally generated oscillator signal is fed to control grid No. 2 of the RCA-1A6 through capacitor C51. Separate windings are employed in the oscillator stage for each band. The unused portions of the oscillator coil are shorted out when not in use. The output of the first-detector stage is fed through a two-stage i-f amplifier, consisting of two RCA-1A4's and three i-f transformers, to the diode portion of the RCA-1F6. Such an i-f amplifier arrangement provides excellent selectivity and gain, while its design gives increased fidelity due to its flat-top characteristic. The audio frequency secured by the detection process develops a voltage across resistors R4 and R5. The voltage developed across R5 is applied as a.v.c. bias to the first detector and i-f

tubes. The arm of the volume control R5 selects a portion of the audio voltage which is applied to the control grid of the RCA-1F6 for voltage amplification. The output of this stage is resistance-capacitance coupled to the RCA-30 driver tube. The output of the driver stage is transformer coupled to the class "B" push-pull output stage using RCA-49's. The output of this push-pull stage is transformer coupled to the permanent magnet dynamic loudspeaker. A tertiary winding on the output transformer shunted by C57 provides sharp cutoff of the high audio frequencies. A continuously variable high-frequency tone control R21 in series with C29 provides manual high-frequency tone control.

Models 8BT6 and 8BK6 obtain their plate supply from a vibrator-type power unit. The vibrator together with the power transformer T3 combine the functions of generating alternating current and rectification. Filter chokes and capacitors are built into this unit to eliminate interference (noise) which would otherwise be introduced into the receiver circuits.

SERVICE DATA

The various diagrams in this booklet contain such information as will be needed to isolate causes for defective operation if such develops. The ratings of the resistors, capacitors, coils, etc., are indicated adja-

Caution: The four bias cells are used only for the purpose of supplying bias potential and should never be measured with an ordinary voltmeter or other device which draws any current. A simple check on these cells may be made by connecting a milliammeter in the plate circuit of either RCA-1A4 tube and noting the plate current reading. Then remove the two bias cells (3 and 4), being careful that the spring contact clips do not short-circuit them during removal. Connect a 4-volt battery between the + and - 4v. terminals of the bias cell board, and again note the plate current reading. If the first reading obtained (with bias cells) is more than 40% from the latter reading (with 4-volt battery), all bias cells should be replaced. This 40% difference is equivalent to a change of approximately 25% battery voltage.

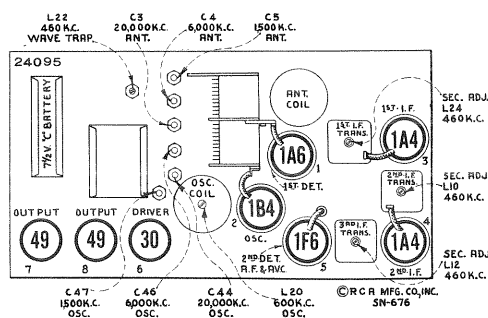


Figure 3—Radiotron, Coil, and Trimmer Locations

cent to the symbols signifying these parts on the diagrams. Identification titles, such as C1, L1, R1, etc., are provided for reference between the illustrations and the Replacement Parts List. The coils, reactors, and transformer windings are rated in terms of their d-c resistance only. Ratings of less than one ohm are generally omitted.

Alignment Procedure

There are seven alignment adjustments provided in the antenna and oscillator coil tuned circuits. Six of these adjustments are plunger type air trimmers and require use of an RCA Stock No. 12636 Adjusting Tool. The i-f transformer adjustments are made by means of screws attached to molded magnetite cores.

The cathode-ray method of alignment is preferred due to the flat-top i-f characteristics of these receivers.

This type of alignment is possible through use of apparatus such as the RCA Stock No. 9558 Frequency Modulator and the RCA Stock No. 9545 Cathode-Ray Oscillograph. If this equipment is not available, an approximate alignment may be performed by the output-indicator method with an instrument such as the RCA Stock No. 4317 Neon

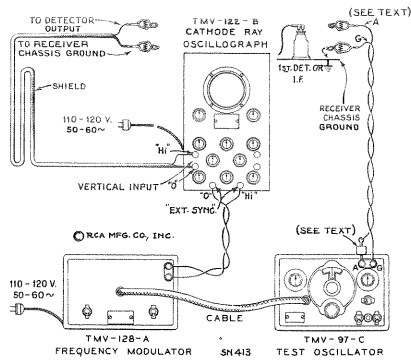


Figure 4—Alignment Apparatus Connections

Glow Indicator attached across the loudspeaker voice coil. Alignment by this method is similar to the cathode-ray method outlined below except that the receiver volume control should be at maximum, and the test oscillator sweeping operations omitted. The i-f adjustments should be made so that the test-oscillator frequency can be shifted 2 kc above and below the 460 kc alignment frequency with little change in output. The r-f adjustments should be peaked.

Cathode-Ray Alignment

Make alignment apparatus connections shown on figure 4. Remove the plug of the frequency modulator cable from the test oscillator jack. Connect the receiver chassis to a good external ground. Connect oscillograph "Vertical" input terminals as indicated on figure 2. Set oscillograph power switch to "On" and adjust "Intensity" and "Focus" controls to give a clearly defined spot, or line, on the screen. Set oscillograph "Ampl. A" switch to "On," "Vertical gain" control full-clockwise, "Ampl. B" switch to "Timing," "Range" switch to No. 2 position, and "Timing" switch to "Int." Place the "Sync." control, "Freq." control, and "Horizontal gain" control to about their mid-positions. For each of the following adjustments, the test oscillator output must be regulated so that the image obtained on the oscillograph screen will be of the minimum size for accurate observation. The receiver volume control setting is optional.

I-F Adjustments

- Connect the "Ant." output of the test oscillator to the grid cap of RCA-1A4 second i-f tube (with grid lead in place) through a .05-mfd. capacitor, with "Gnd." to receiver chassis. Tune the test oscillator to 460 kc, place its modulation switch to "On" and its output switch to "Hi."
- Turn on the receiver and test oscillator. Increase the output of the test oscillator until a deflec-

tion is noticeable on the oscillograph screen. The figures obtained represent several waves of the detected signal, the amplitude of which may be observed as an indication of output. Cause the wave image formed (400-cycle waves) to be spread completely across the screen by adjusting the "Horizontal gain" control. The image should be synchronized and made to remain motionless by adjusting the "Sync." and "Freq." controls.

- Adjust the two magnetite core screws L12 and L11 (see figures 3 and 7) of the third i-f transformer (one on top and one on bottom) to produce maximum vertical deflection of the oscillographic image. This adjustment places the transformer in exact resonance with the 460-kc signal.
- The sweeping operation should follow using the frequency modulator. Shift the oscillograph "Timing" switch to "Ext." Insert plug of frequency-modulator cable in test-oscillator jack. Turn the test-oscillator modulation switch to "Off." Turn on the frequency modulator and place its sweep-range switch to "Hi."
- Increase the frequency of the test oscillator by slowly turning its tuning control until two separate, distinct, and similar waves appear on the screen. If only one wave appears, increase the "Freq." control on the oscillograph to obtain two waves. These waves will be identical in shape,

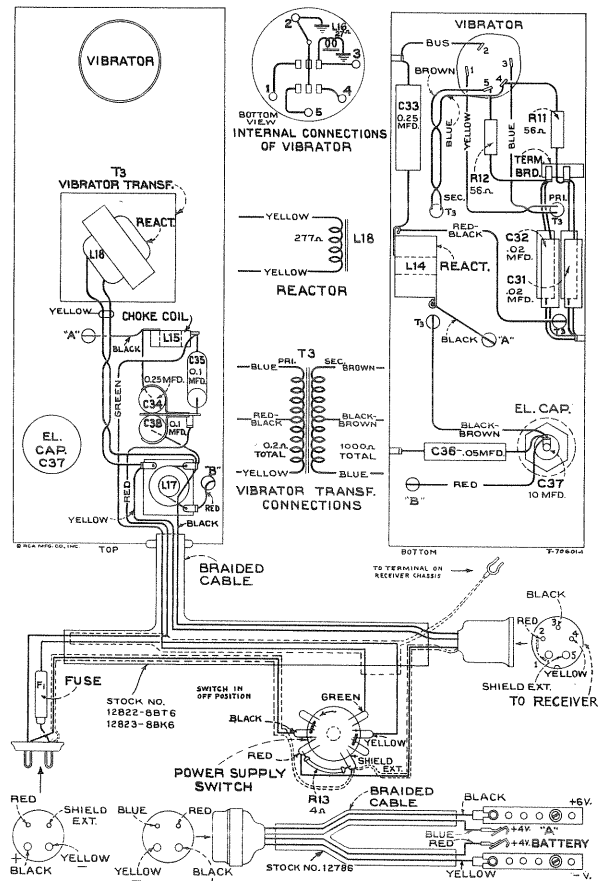


Figure 5—Power Unit Wiring (8BT6 and 8BK6)

totally disconnected, and appear in reversed positions. They will have a common base line, which is discontinuous. Adjust the "Freq." and "Sync." controls of the oscillograph to make them remain motionless on the screen. Continue increasing the test oscillator frequency until these forward and reverse curves move together and overlap, with their highest points exactly coincident. This condition will be obtained at a test oscillator setting of **approximately 575 kc.**

- (f) With the images established as in (e), re-adjust the two magnetite core screws on the third i-f transformer so that they cause the curves on the oscillograph screen to become exactly coincident throughout their lengths and have maximum amplitude.
- (g) Without altering the adjustments of the apparatus, shift the "Ant." output of the test oscillator along with the .05-mfd. capacitor to the grid cap of the RCA-1A4 first i-f tube (with grid lead in place). Adjust the two second i-f transformer magnetite core screws L10 and L9 so that they cause the forward and reverse curves to become coincident throughout their lengths and have maximum amplitude.

- (h) Shift the "Ant." output of the test oscillator along with the .05-mfd. capacitor to the grid cap of the RCA-1A6 first detector tube. Adjust the two magnetite core screws L24 and L23 of the first i-f transformer so that they cause the forward and reverse curves to become coincident and have maximum amplitude. The composite wave obtained in this manner represents the resonance characteristic of the total i-f system. Lack of symmetry or irregularity of the resultant image will indicate the presence of a defect in the i-f system.

R-F Adjustments

Calibrate the pointer of the tuning dial by adjusting it to the extreme low-frequency end of dial scale (530 kc) with the plates of the gang tuning condenser in full mesh. Alignment must be made in the sequence of "Short wave" band, "Medium wave" band, "Wave-trap," and "Standard broadcast" band.

"Short Wave" Band

- (i) Connect the "Ant." output of the test oscillator to the antenna terminal "A1" through a 300-ohm

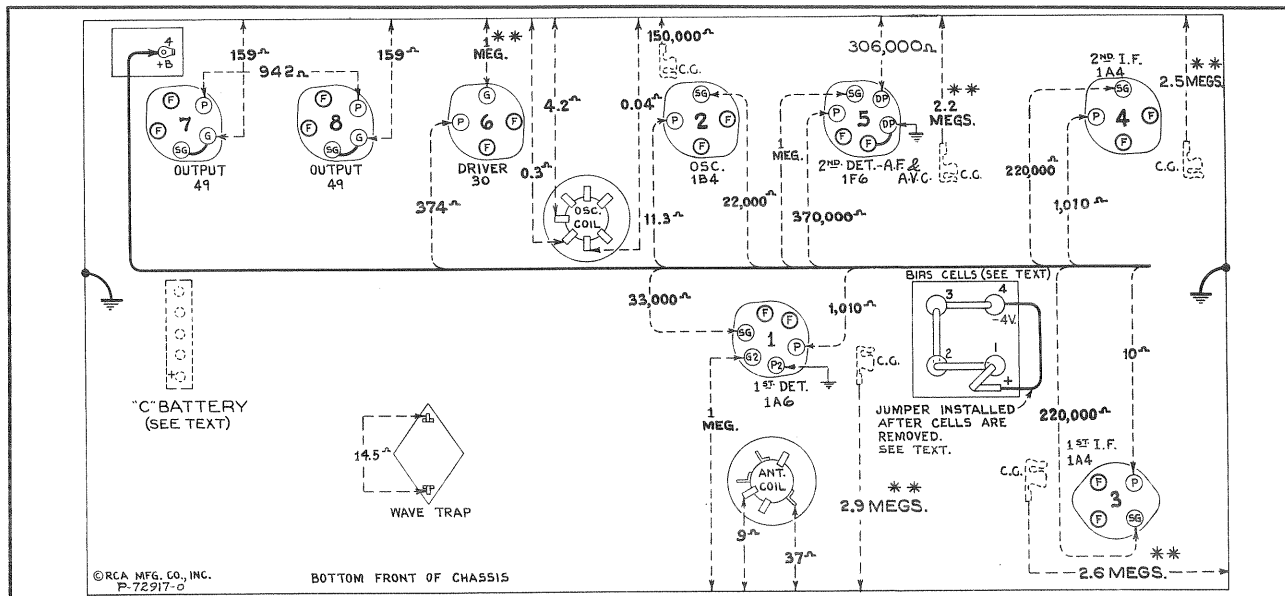


Figure 6—Resistance Diagram

Power-supply cable disconnected—Radiotrons in sockets—Tuning condenser in full-mesh—Bias cells and "C" battery removed—Volume setting optional

Resistance Measurements

****Before making any resistance measurements, remove the four bias cells and connect jumpers on bias-cell board as shown. Also, remove the "C" battery and connect the two leads ($-7\frac{1}{2}$ v. and -3 v.) to chassis ground. After measurements are completed, remove jumpers from bias-cell board and then carefully insert bias cells. Next, insert "C" battery and restore leads to their respective positions.**

The resistance values shown between Radiotron socket contacts, grid caps, resistors, terminals, and receiver chassis ground, on figure 6, have been carefully selected so as to facilitate a rapid continuity check of the circuits. The

use of this diagram in conjunction with the Schematic Circuit Diagram, figure 1, and Chassis Wiring Diagram, figure 2, will permit the location of certain troubles which might otherwise be difficult to ascertain. Each value as specified should hold within $\pm 20\%$. Variations in excess of this limit will usually be indicative of trouble in circuit under test. In all cases of measuring the resistance between points of the circuit and ground, it will be necessary to connect the negative terminal of the resistance meter to chassis-ground. If the polarity of the resistance meter is not known, it may be readily ascertained by connecting a d-c voltmeter of indicated polarity across the terminals of the device.

resistor. Remove the plug of the frequency-modulator cable from test-oscillator jack. Turn test-oscillator modulation switch to "On." Shift the oscillograph "Timing" switch to "Int."

- (j) Set receiver range selector to its "Short wave" position and dial pointer to 20,000 kc. Adjust the test oscillator to 20,000 kc. Adjust oscillator air trimmer C44 until maximum (peak) amplitude of output is reached. Two peaks may be found. The peak with minimum capacity (plunger near out) should be used. Tighten lock nut. Adjust antenna air trimmer C3 until maximum (peak) amplitude of output is reached while slightly rocking the gang tuning condenser back and forth through the signal. Two peaks may be found with this circuit. The peak with maximum capacity (plunger near in) should be used. Tighten lock nut. Check the image frequency by changing the receiver dial setting to 19,080 kc. The test oscillator signal should be faintly received at this position indicating that the adjustment of C44 has been correctly made. No adjustments should be made while checking for this image signal.

"Medium Wave" Band

- (k) Place receiver range selector to its "Medium wave" position with the receiver dial pointer set to 6,000 kc. Tune the test oscillator to 6,000 kc.

Radiotron Plate Current Readings Measured with Milliammeter Connected at Tube Socket Plate Terminals under Conditions Similar to Those of Voltage Measurements

(1) RCA-1A6—1st Det.	1.2 ma.
(2) RCA-1B4—Osc.	3.8 ma.
(3) RCA-1A4—1st I.F.	0.9 ma.
(4) RCA-1A4—2nd I.F.	0.9 ma.
(5) RCA-1F6—2nd Det.—A.F.—A.V.C.	0.25 ma.
(6) RCA-30 —Driver	3.2 ma.
(7) RCA-49 —Output	1.5 ma.
(8) RCA-49 —Output	1.5 ma.

Adjust the oscillator air trimmer C46 for maximum (peak) amplitude of output as shown by the waves on the oscillograph screen. Two peaks may be found. The peak obtained with minimum capacity (plunger near out) should be used. Tighten lock nut. Adjust antenna air trimmer C4 for maximum (peak) output. Tighten lock nut.

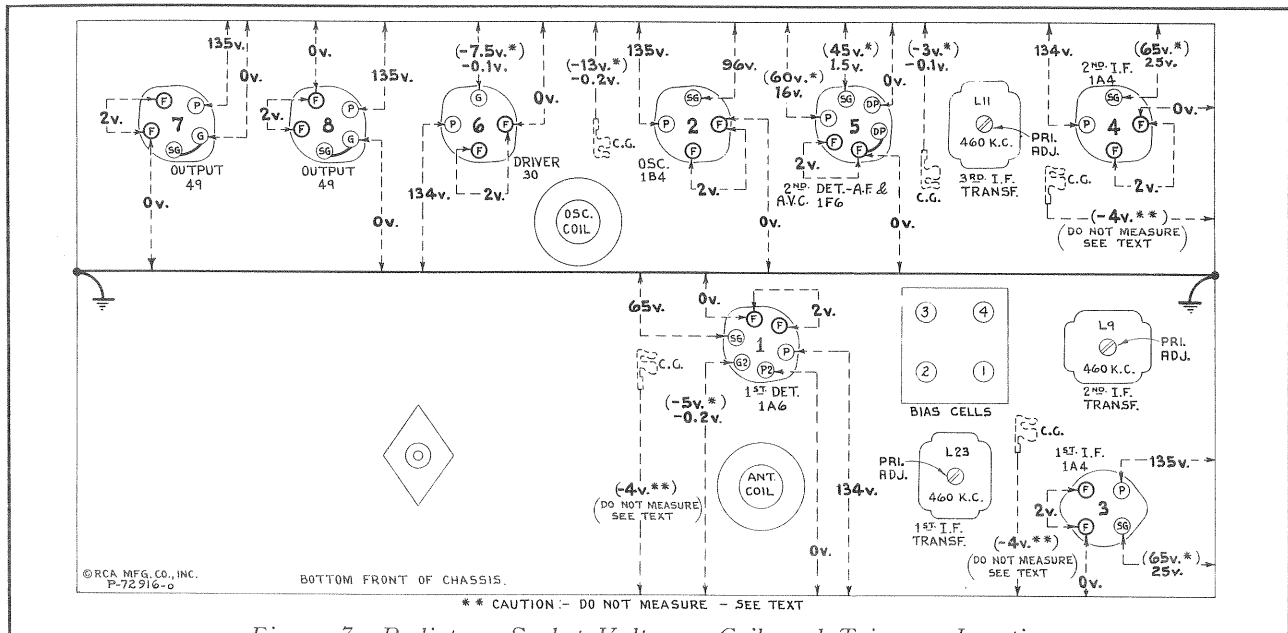


Figure 7—Radiotron Socket Voltages, Coil, and Trimmer Locations

Measured with all batteries at normal voltage—Tuned to approximately 1,000 kc ("Standard broadcast")—No signal being received—Volume control optional

Radiotron Socket Voltages

CAUTION: Do not attempt to measure voltages on control grids of RCA-1C6 or RCA-1A4, with any conventional voltmeter, due to presence of bias cells. See "Caution" under "Service data" for method of measuring these cells.

Note: Two voltage values are shown for some readings. The higher value shown in parenthesis with asterisk (*) indicates operating conditions without voltmeter loading. The lower value is the actual measured voltage and differs from the higher value because of the additional loading of the voltmeter through the high series circuit resistance.

The voltage values indicated from the Radiotron socket contacts, grid caps, resistors, and terminals to receiver chassis ground on figure 7 will assist in locating cause for faulty operation. Each value as specified should hold within $\pm 20\%$ when the receiver is normally operative at its rated line voltage. Variations in excess of this limit will usually be indicative of trouble in the basic circuits. To duplicate the conditions under which the voltages were measured requires a 1,000-ohm-per-volt d-c meter, having ranges of 10, 50, and 250 volts. Use the nearest range above the voltage to be measured.

"Wave-Trap" Adjustment

- (1) Connect the output of the test oscillator to the antenna terminal "A1" through a 200-mmfd. (important) capacitor. Place receiver range selector in "Standard broadcast" position. Set the receiver dial to a position of no extraneous signals near 600 kc. Tune the test oscillator to 460 kc. Adjust the wave-trap magnetite core screw to the point which causes minimum amplitude of output (maximum suppression of signal) as shown by the waves on the oscillograph.

"Standard Broadcast" Band

- (m) Reduce output of test oscillator to minimum. Set receiver dial pointer to 600 kc. Tune the test oscillator to 600 kc and increase its output until a deflection is noticeable on the oscillograph screen.
- (n) Adjust oscillator magnetite core screw L20 (top of oscillator coil) so that maximum (peak) amplitude of output is shown on the oscillograph screen.
- (o) Set receiver dial pointer to 1,500 kc. Tune test oscillator to 1,500 kc. Adjust the oscillator and antenna air trimmers C47 and C5 for maximum (peak) output.
- (p) Set test oscillator to 600 kc and tune receiver to pick up this signal near 600 kc. Re-adjust the oscillator magnetite core screw L20 for maximum (peak) output while rocking the receiver gang tuning condenser back and forth through this signal.
- (q) Repeat adjustments in (o) above to correct for any changes in the oscillator tuning caused by the adjustment of L20. Tighten lock nuts on C47 and C5 after each is adjusted.

Antenna and Ground Terminals

These receivers are equipped with an antenna-ground terminal board having three terminals. These terminals are marked "A2," "A1," and "G," the latter being the ground terminal and should always be connected to a good external ground. The transmission line leads of the RCA RK-40A antenna system should be connected to terminals "A2" and "A1." The receiver coupling units of the RCA RK-40 and the RCA Spider-Web antenna systems should be connected to terminals "A1" and "G." Connect a single-wire antenna to terminal "A1."

Phonograph Attachment

A terminal board is provided for connecting a phonograph into the audio amplifying circuit. Typical methods of connecting a low-impedance pickup, or the RCA Victor Models R-93, R-93-2, and R-93-S Record Players are shown on the schematic diagram (figure 1).

Loudspeaker

Centering of the loudspeaker voice coil is made in the usual manner with three narrow paper feelers after first removing the front paper dust cover. This may be removed by softening its cement with a very

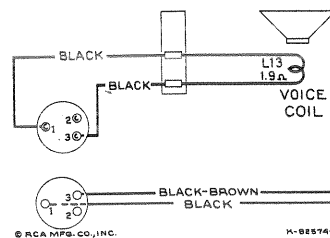


Figure 8—Loudspeaker Wiring

light application of acetone using care not to allow the acetone to flow down into the air gap. The dust cover should be cemented back in place with ambroid upon completion of adjustment.

Power Supply (Models 8BT and 8BK)

Filament voltage for these receivers is obtained from either a 2½-volt Air-cell or a 2-volt storage battery. When the Air-cell is used, the 0.36 ohm resistor R25 must be connected in series with the A-battery lead as shown on figure 9. When operating on a 2-volt storage battery, this resistor R25 should

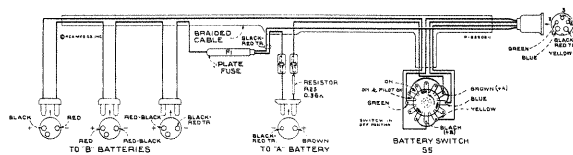


Figure 9—Battery Cable (8BT and 8BK)
(Stock No. 12938)

be removed. Plugs are provided on the battery cable (see figure 9) for plugging in the Air-cell and B batteries. The A-battery plug should be removed when operating on a 2-volt storage battery. The 7½-volt C battery is located on the top-side of the chassis and securely held in place by a metal cover (see figure 3). The four bias cells are located underneath the chassis (see figures 2 and 6).

Power Supply (Models 8BT6 and 8BK6)

The vibrator power unit supplies the necessary plate, grid, and cathode voltages for proper operation of these receivers. It contains a plug-in type vibrator, step-up transformer, and an efficient filter system. Rectification of the high voltage is accomplished by means of the synchronous vibrator. The complete unit is acoustically shielded to prevent noise. The

vibrator power unit chassis should be insulated from the receiver chassis, when removed for service, to avoid vibrator buzz. The vibrator unit has been carefully adjusted by means of special equipment to insure quiet operation over an extensive period of life. No adjustments should be attempted on a vibrator suspected of being in a defective condition, but a renewal installed. The plug-in arrangement affords easy removal or replacement.

A 6-volt storage battery supplies power for the vibrator and for the tube filaments. Four connections are required to the 6-volt battery. The +6-volt

(black) lead and the +4-volt (blue) lead supply filament voltage to the receiver, while the +4-volt (red) lead and -volt (yellow) lead supply voltage to the vibrator power unit. The two 4-volt leads (blue and red) should make separate connections to the same battery strap to avoid against vibrator buzz which might otherwise result if these two leads are joined together or touch each other. The 7½-volt C battery is located on the top-side of the receiver chassis and securely held in place by a metal cover (see figure 3). The four bias cells are located underneath the receiver chassis (see figures 2 and 6).

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
RECEIVER ASSEMBLIES					
12806	Board—3-contact antenna and ground terminal board and bracket assembly.....	.25	12681	Cell—Bias cell.....	.30
12717	Board—3-contact phonograph terminal board.....	.22	12940	Dial—Station selector dial.....	.85
5237	Bushing—Variable condenser mounting bushing assembly—Package of 3.....	.43	12702	Drive—Vernier drive complete for variable tuning condenser.....	.68
12118	Cap—Grid contact cap—Package of 5....	.15	12808	Holder—Bias cell holder.....	.35
12714	Capacitor—Adjustable trimmer (C3, C4, C5, C44, C46, C47).....	.38	12712	Indicator—Station selector indicator pointer.....	.22
12814	Capacitor—5.6 Mmfd. (C51).....	.20	4348	Lamp—Dial lamp, 2-volt.....	.38
12896	Capacitor—15 Mmfd. (C59).....	.20	12941	Mask—Dial light diffuser.....	.15
12948	Capacitor—33 Mmfd. (C52).....	.20	5112	Resistor—1,000 ohm—carbon type—¼ watt—Package of 5 (R15, R20).....	1.00
12723	Capacitor—56 Mmfd. (C2).....	.20	11305	Resistor—22,000 ohm—carbon type—¼ watt—Package of 5 (R24).....	1.00
12950	Capacitor—120 Mmfd. (C50).....	.25	11364	Resistor—33,000 ohm—carbon type—¼ watt—Package of 5 (R22).....	1.00
12404	Capacitor—120 Mmfd. (C18, C19, C20)...	.26	12454	Resistor—33,000 ohm—insulated type—¼ watt—Package of 5 (R14).....	1.00
12724	Capacitor—120 Mmfd. (C24).....	.28	11282	Resistor—56,000 ohm—carbon type—1/10 watt—Package of 5 (R4).....	.75
12946	Capacitor—130 Mmfd. (C11, C12, C15, C16).....	.20	5029	Resistor—56,000 ohm—carbon type—¼ watt—Package of 5 (R26).....	1.00
12725	Capacitor—150 Mmfd. (C1).....	.28	5145	Resistor—100,000 ohm—carbon type—¼ watt—Package of 5 (R16, R18).....	1.00
12952	Capacitor—330 Mmfd. (C49).....	.25	12478	Resistor—150,000 ohm—carbon type—1/10 watt—Package of 5 (R23).....	.75
12727	Capacitor—555 Mmfd. (C48).....	.20	5158	Resistor—220,000 ohm—carbon type—¼ watt—Package of 5 (R17, R19).....	1.00
12537	Capacitor—560 Mmfd. (C6).....	.20	11323	Resistor—270,000 ohm—carbon type—¼ watt—Package of 5 (R9).....	1.00
12947	Capacitor—1,800 Mmfd. (C45).....	.40	11452	Resistor—470,000 ohm—carbon type—1/10 watt—Package of 5 (R1).....	.75
12951	Capacitor—2,200 Mmfd. (C42).....	.40	3033	Resistor—1 meg.—carbon type—¼ watt—Package of 5 (R2, R6).....	1.00
5107	Capacitor—.0025 Mfd. (C21, C27, C28)	.16	12200	Resistor—1 meg.—insulated type—¼ watt—Package of 5 (R10).....	1.00
5005	Capacitor—.0035 Mfd. (C25).....	.16	11626	Resistor—2.2 meg.—carbon type—¼ watt—Package of 5 (R3, R8).....	1.00
4868	Capacitor—.005 Mfd. (C30).....	.20	12651	Shield—Coil shield for Stock No. 12708..	.22
4858	Capacitor—.01 Mfd. (C9, C10, C13, C14, C40, C41, C55, C56).....	.25	12710	Shield—Coil shield for Stock No. 12943..	.28
5196	Capacitor—.035 Mfd. (C29).....	.18	12008	Shield—I.F. transformer shield for Stock No. 12945 and 12949.....	.28
4841	Capacitor—0.1 Mfd. (C17, C57).....	.22	12581	Shield—I.F. transformer shield top for Stock No. 12949.....	.36
4840	Capacitor—0.25 Mfd. (C8, C23, C39, C58).....	.30	12607	Shield—I.F. transformer shield top for Stock No. 12945.....	.30
12804	Capacitor—Pack, comprising 2 sections 8 Mfd. each (C43, C54).....	1.70	4236	Shield—Front 1A4 Radiotron shield....	.22
12179	Coil—Choke coil (L25).....	.45	3682	Shield—1A4, 1B4, 1A6 or 1F6 Radiotron shield.....	.22
12708	Coil—Antenna coil and shield complete (L1, L2, L3, L4).....	2.04	4794	Socket—4-contact 1A4, 1B4 or 30 Radiotron socket.....	.15
12943	Coil—Oscillator coil and shield complete (L5, L6, L7, L8, L19, L20, L21).....	2.30	4814	Socket—5-contact 49 Radiotron socket...	.15
12701	Condenser—2-gang variable tuning condenser (C7, C53).....	4.00	4786	Socket—6-contact 1A6 or 1F6 Radiotron socket.....	.15
5119	Connector—3-contact female connector for speaker cable.....	.25	11199	Socket—Dial lamp socket.....	.14
12805	Connector—5-contact male receptacle located on rear of receiver chassis for power cable.....	.20			
12800	Core—Adjustable core and stud for Stock No. 12943.....	.20			
12006	Core—Adjustable core and stud for Stock No. 12945 and 12949.....	.22			
12664	Core—Adjustable core and stud for Stock No. 12654.....	.22			

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REPLACEMENT PARTS—Continued

Stock No.	DESCRIPTION	LIST PRICE	Stock No.	DESCRIPTION	LIST PRICE
12007	Spring—Retaining spring for core Stock Nos. 12800, 12006 and 12664—Package of 10.....	.36	12824	Switch—Power switch (S3, S4).....	1.00
12942	Switch—Range switch (S1, S2).....	1.60	12816	Transformer—Vibrator transformer (T3)	3.00
11219	Tone Control—(R21).....	1.00	12817	Vibrator—Complete (L16).....	4.85
12944	Transformer—Audio transformer pack (T1, T2).....	5.20	4285	Washer—Fuse connector insulating washer—Package of 10.....	.22
12945	Transformer—First I.F. transformer complete (L23, L24, C11, C12).....	1.85	MISCELLANEOUS ASSEMBLIES		
12945	Transformer—Second I.F. transformer complete (L9, L10, C15, C16).....	1.85	4289	Body—Fuse connector female body—Package of 10 (8BT—8BK).....	.35
12949	Transformer—Third I.F. transformer complete (L11, L12, C18, C19, C20, R4).....	2.10	12938	Cable—Power cable (set end) approximately 60-in. long complete with four 2-contact male connectors and one 5-contact female connector—less power switch (8BT—8BK).....	4.40
12654	Trap—Wave trap (L22).....	.75	12786	Cable—Power cable (battery section) complete with battery connectors and female section of 4-contact connector (8BT6—8BK6).....	2.00
11589	Volume Control—(R5).....	.85	4288	Cap—Fuse connector male cap—Package of 10 (8BT—8BK).....	.36
REPRODUCER ASSEMBLIES			12827	Connector—2-contact and guide pin male connector and cover for power cable Stock No. 12938 (8BT—8BK).....	.30
Console Model 8BK—8BK6			12828	Connector—2-contact male connector for power cable Stock No. 12938 (8BT—8BK).....	.20
12667	Cone—Reproducer cone and dust cap (L13).....	1.00	12788	Connector—4-volt battery connector for Stock No. 12786—Package of 2 (8BT6—8BK6).....	.20
5118	Plug—3-contact male connector for reproducer.....	.25	12790	Connector—4-contact female connector for cable Stock No. 12786 (8BT6—8BK6)	.45
9713	Reproducer—Complete.....	14.85	12791	Connector—5-contact female connector and cover for power cable for Stock No. 12938 (8BT—8BK).....	.30
REPRODUCER ASSEMBLIES			12787	Connector—6-volt battery connector for Stock No. 12786—Package of 2 (8BT6—8BK6).....	.20
Table Model 8BT—8BT6			12698	Crystal—Station selector dial escutcheon and crystal.....	1.02
12642	Cone—Reproducer cone and dust cap (L13).....	.94	4286	Ferrule—Fuse connector ferrule and bushing—Package of 10 (8BT—8BK).....	.38
5118	Plug—3-contact male connector for reproducer.....	.25	3748	Fuse—1/2 ampere—Package of 5 (F1) (8BT—8BK).....	.40
9712	Reproducer—Complete.....	6.60	4290	Insulator—Fuse connector body insulator—Package of 10 (8BT—8BK).....	.35
VIBRATOR ASSEMBLIES			12699	Knob—Station selector knob (large)—Package of 5.....	.68
8BT6—8BK6			12700	Knob—Station selector vernier knob (small)—Package of 5.....	.58
4289	Body—Fuse connector female body—Package of 10.....	.35	11347	Knob—Volume control, range switch, tone switch or power switch knob—Package of 5.....	.75
12822	Cable—Power cable (set end) approximately 63-in. long complete with one 5-contact female connector and one 4-contact male connector—less power switch—used in 8BT6 Model only....	4.50	12939	Resistor—0.36 ohm—flexible type—Package of 5 (R25) (8BT—8BK).....	.55
12823	Cable—Power cable (set end) approximately 44-in. long complete with one 5-contact female connector and one 4-contact male connector—less power switch—used in 8BK6 Model only....	4.00	11377	Screw—Chassis mounting screw assembly for table model only—Package of 4 (8BT—8BT6).....	.12
4288	Cap—Fuse connector male cap—Package of 10.....	.36	11210	Screw—Chassis mounting screw assembly for console model only—Package of 4 (8BK—8BK6).....	.28
4937	Capacitor—.01 Mfd. (2 used in parallel) (C31, C32).....	.25	12789	Screw—Cone point set screw for connector Stock No. 12788—Package of 10 (8BT6—8BK6).....	.20
4836	Capacitor—.05 Mfd. (C36).....	.30	4284	Spring—Fuse connector spring—Package of 10 (8BT—8BK).....	.30
4841	Capacitor—.01 Mfd. (C35).....	.22	11349	Spring—Retaining spring for knob Stock No. 11347 and 12700—Package of 5..	.25
12821	Capacitor—.01 Mfd. (C38).....	.40	4982	Spring—Retaining spring for knob Stock No. 12699—Package of 10.....	.50
12820	Capacitor—.025 Mfd. (C34).....	.45	12829	Switch—Power switch (S3) (8BT—8BK)	1.05
4840	Capacitor—.025 Mfd. (C33).....	.30	4285	Washer—Fuse connector insulating washer—Package of 10 (8BT—8BK).....	.22
11387	Capacitor—10 Mfd. (C37).....	.86			
12819	Coil—Vibrator choke coil and terminal board assembly (L17).....	.40			
12179	Coil—Vibrator choke coil (L15).....	.45			
12793	Connector—4-contact male connector for power cable.....	.25			
12791	Connector—5-contact female connector and cover for power cable.....	.30			
4286	Ferrule—Fuse connector ferrule and bushing—Package of 10.....	.38			
10907	Fuse—3-ampere—Package of 5 (F1).....	.40			
4290	Insulator—Fuse connector body insulator—Package of 10.....	.35			
12815	Reactor—Air core reactor (L14).....	.80			
12818	Reactor—Iron core (L18).....	.95			
12825	Resistor—4 ohm—flexible type—(R13).....	.25			
5034	Resistor—56 ohm—carbon type—1/2 watt—Package of 5 (R11, R12).....	1.00			
4814	Socket—5-contact vibrator socket.....	.15			
4284	Spring—Fuse connector spring—Package of 10.....	.30			

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