

# RCA VICTOR MODELS T8-18, C8-19, and C8-20

## Eight-Tube, Three-Band, A-C, Superheterodyne Receivers

### SERVICE NOTES

#### Electrical Specifications

##### FREQUENCY RANGES

Band A .....	540- 1,625 kc.
Band B .....	1,625- 5,700 kc.
Band C .....	5,700-18,000 kc.

##### ALIGNMENT FREQUENCIES

Band A...	600 kc. (osc.), 1,400 kc. (osc., det., ant.)
Band B.....	None required
Band C.....	18,000 kc. (osc., det., ant.)

Intermediate Frequency .....460 kc.

##### RADIOTRON COMPLEMENT

(1) RCA-6K7.....	Radio-Frequency Amplifier	(5) RCA-6F5.....	Audio Voltage Amplifier
(2) RCA-6A8.....	First Detector-Oscillator	(6) RCA-6F6.....	Audio Power Amplifier
(3) RCA-6K7.....	Intermediate Amplifier	(7) RCA-5Z4.....	Full-Wave Rectifier
(4) RCA-6H6.....	Second Detector-A.V.C.	(8) RCA-6E5.....	Tuning Indicator

##### POWER SUPPLY RATINGS

Rating A .....	105-125 Volts, 50-60 Cycles, 100 Watts
Rating B .....	105-125 Volts, 25-60 Cycles, 105 Watts
Rating C .....	100-130/140-160/195-250 Volts, 40-60 Cycles, 100 Watts

##### POWER OUTPUT

Undistorted .....	2.25 Watts
Maximum .....	5.0 Watts

##### LOUDSPEAKER

Type .....	Electrodynamic
Voice Coil Impedance.....	2.25 ohms at 400 cycles

#### Mechanical Specifications

Tuning Drive Ratios .....	10-to-1 and 50-to-1
Chassis Base Dimensions .....	13 <sup>7</sup> / <sub>8</sub> inches x 7 <sup>5</sup> / <sub>8</sub> inches x 2 <sup>1</sup> / <sub>2</sub> inches

	Model T8-18	Model C8-19	Model C8-20
Height .....	21 <sup>1</sup> / <sub>4</sub> inches	39 inches	39 inches
Width .....	15 <sup>3</sup> / <sub>4</sub> inches	25 <sup>1</sup> / <sub>4</sub> inches	26 inches
Depth .....	9 <sup>1</sup> / <sub>8</sub> inches	12 <sup>1</sup> / <sub>4</sub> inches	12 <sup>3</sup> / <sub>4</sub> inches
Weight (Net) .....	27 <sup>1</sup> / <sub>2</sub> pounds	48 pounds	47 pounds
Weight (Shipping) .....	33 <sup>1</sup> / <sub>2</sub> pounds	63 pounds	62 pounds
Operating Controls .....	(1) Volume, (2) Tuning, (3) Range Selector, (4) Power Switch-Tone		

#### General Description

These three models are similar to RCA Victor Models T7-5 and C7-6, except for the addition of an RCA-6E5 Tuning Indicator; and an RCA-5Z4 All-Metal Rectifier used in place of the RCA-80. An 8-inch dynamic speaker is used in the Table Model (T8-18), while the two Console Models (C8-19 and C8-20) each use a 12-inch dynamic speaker. The two Console Models differ only in cabinet design.

##### Service Data

All information contained in the Service Notes for

RCA Victor Models T7-5 and C7-6 is directly applicable to these instruments except the Schematic Diagram, Wiring Diagram, and Replacement Parts. Other differences are as follows:

Secondary resistance of universal transformer, 265 ohms total.

Tuning tube cable voltages:

Yellow	Brown	Red	Green
0 v.	6.3 v. a-c	258 v.	0 v.

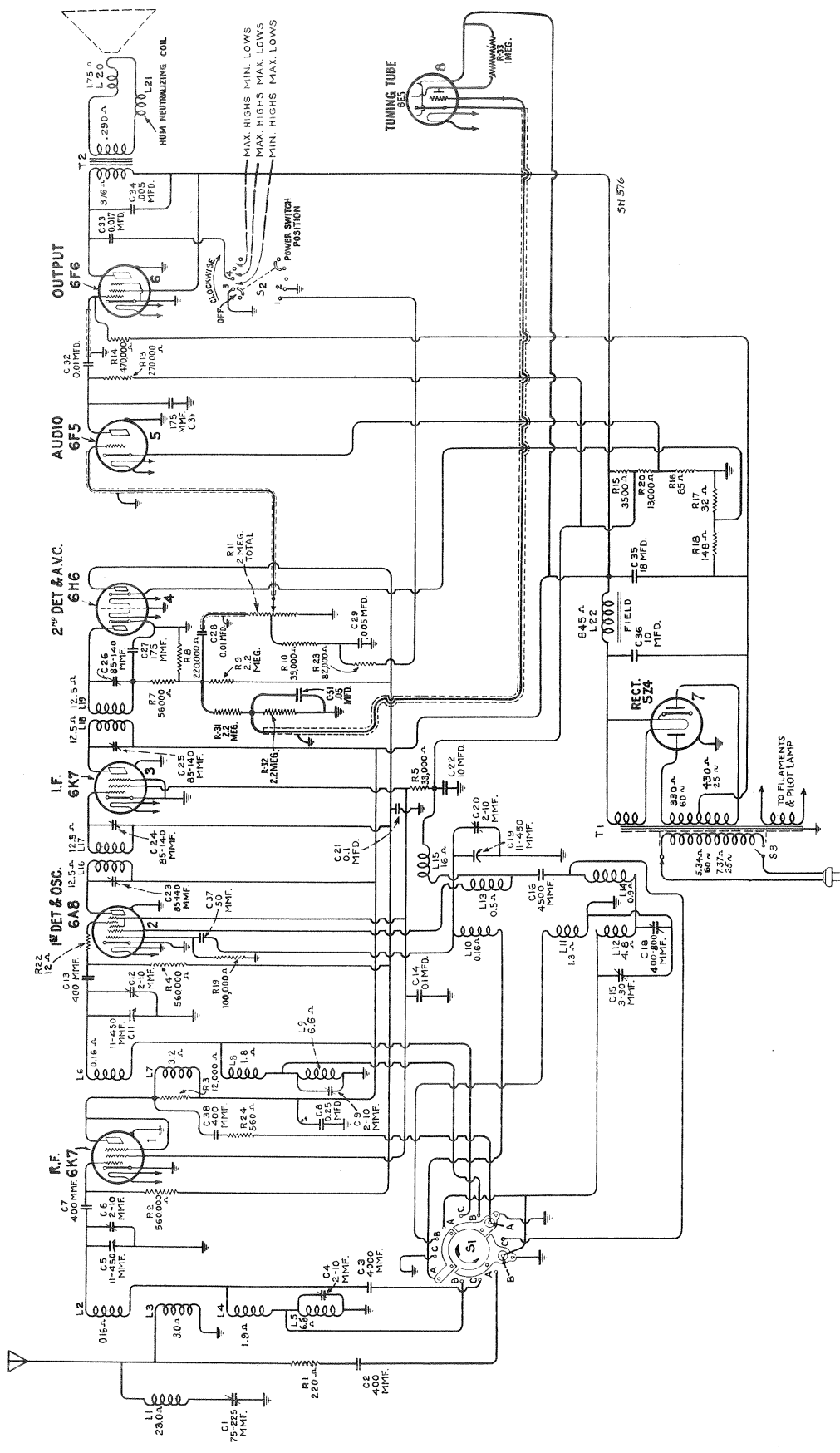


Figure 1—Schematic Circuit Diagram

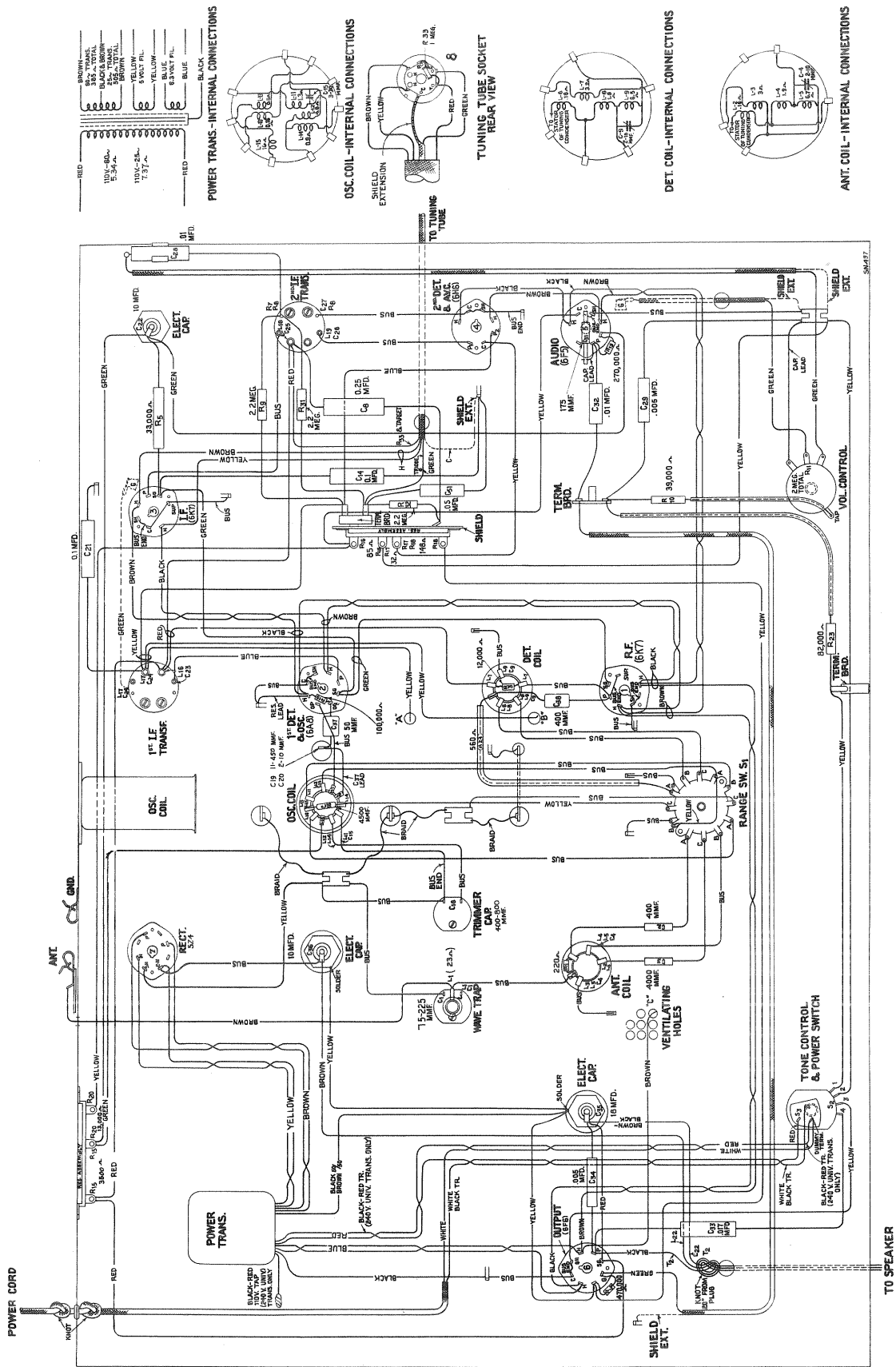


Figure 2—Chassis Wiring Diagram

# 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>					
5237	Bushing—Variable tuning condenser mounting bushing assembly—Package of 3	\$0.43	11172	Resistor—470,000 ohms—Carbon type— $\frac{1}{4}$ watt—(R14)—Package of 5	1.00
11625	Cable—Radiotron tuning tube cable complete with socket		1.26	11397	Resistor—560,000 ohms—Carbon type— $\frac{1}{10}$ watt—(R2, R4)—Package of 5
11350	Cap—Contact cap—Package of 5	.20	11626	Resistor—2.2 megohms—Carbon type— $\frac{1}{4}$ watt—(R9, R31, R32)—Package of 5	1.00
11465	Capacitor—Adjustable capacitor—(C18)	.48	11603	Shield—Antenna or detector coil shield	.26
11289	Capacitor—50 MMfd.—(C37)	.26	11604	Shield—Oscillator coil shield	.24
5116	Capacitor—175 MMfd.—(C31)	.18	11390	Shield—Intermediate frequency transformer shield	.25
11623	Capacitor—175 MMfd.—(C27)	.18	11199	Socket—Dial lamp socket	.14
11290	Capacitor—400 MMfd.—(C2, C7, C13, C38)	.25	11195	Socket—5-contact rectifier Radiotron socket	.15
11401	Capacitor—4000 MMfd.—(C3)	.38	11198	Socket—7-contact 6K7—6F5—or 6H6 Radiotron socket	.15
4868	Capacitor—.005 Mfd.—(C29, C34)	.20	11196	Socket—8-contact 6A8 or 6F6 Radiotron socket	.15
4906	Capacitor—.017 Mfd.—(C33)	.25	11386	Switch—Range switch—(S1)	1.16
11395	Capacitor—.01 Mfd.—(C28)	.18	11392	Switch—Tone control and power switch assembly—(S2, S3)	1.14
4858	Capacitor—.01 Mfd.—(C32)	.25	11388	Transformer—First intermediate frequency transformer—(L16, L17, C23, C24)	1.90
4839	Capacitor—.01 Mfd.—(C14)	.28	11389	Transformer—Second intermediate frequency transformer—(L18, L19, C25, C26, C27, R7, R8)	3.02
4841	Capacitor—.01 Mfd.—(C21)	.22	11803	Transformer—Power transformer—105-125 volts—50-60 cycles—(T1)	4.38
5170	Capacitor—.025 Mfd.—(C8)	.25	11804	Transformer—Power transformer—105-125 volts—25-50 cycles	6.02
4886	Capacitor—.05 Mfd.—(C51)	.20	11805	Transformer—Power transformer—105-130, 140-160, 195-250 volts—40-60 cycles	7.95
11240	Capacitor—10 Mfd.—(C36)	1.08	11391	Trap—Wave trap—(L1, C1)	1.22
11387	Capacitor—10 Mfd.—(C22)	.86	11237	Volume control—(R11)	1.20
5212	Capacitor—18 Mfd.—(C35)	1.16	<b>MISCELLANEOUS ASSEMBLIES</b>		
5238	Clip—Antenna terminal board with clip, insulating strip and rivets	.14	11996	Bracket—Tuning tube mounting bracket and clamp assembly	.22
11600	Coil—Antenna coil—(L2, L3, L4, L5, C4, R1)	1.78	11276	Escutcheon—Tuning tube escutcheon	.40
11601	Coil—Detector coil—(L6, L7, L8, L9, C9, R3)	1.78	11376	Escutcheon—Station selector escutcheon and crystal	.70
11602	Coil—Oscillator coil—(L10, L11, L12, L13, L14, L15, C15, C16)	2.15	11582	Knob—Range switch knob—Package of 5	.50
11385	Condenser—Three-gang variable tuning condenser—(C5, C6, C11, C12, C19, C20)	5.02	11610	Knob—Station selector knob assembly—comprising one small and one large knob—Package of 5	1.00
11892	Dial—Station selector dial scale	.78	11347	Knob—Volume control or tone control knob—Package of 5	.75
11613	Drive—Variable tuning condenser drive.	1.00	11382	Resistor—1 megohm—Carbon type— $\frac{1}{10}$ watt—(R33)—Package of 5	.75
11394	Foot—Chassis foot assembly—Package of 2	.70	11210	Screw—Chassis mounting screw assembly—Console Model—Package of 4	.28
11893	Indicator—Station selector indicator pointer	.28	11377	Screw—Chassis mounting screw assembly—Table Model—Package of 4	.12
5226	Lamp—Dial lamp—Package of 5	.70	11381	Socket—Tuning tube socket and cover	.45
11393	Resistor—Voltage divider resistor—comprising one 3,500 ohm and one 13,000 ohm sections—(R15, R20)	.74	11349	Spring—Retaining spring for knobs, Stock No. 11347, No. 11582 and small knob in Stock No. 11610—Package of 5	.15
11329	Resistor—Voltage divider resistor—comprising one 148 ohm, one 32 ohm and one 85 ohm sections—(R16, R17, R18)	.52	4982	Spring—Retaining spring for large knob in Stock No. 11610—Package of 10	.26
11369	Resistor—12 ohms—Flexible type complete with contact cap—(R22)	.22			
11324	Resistor—560 ohms—Carbon type— $\frac{1}{4}$ watt—(R24)—Package of 5	1.00			
8072	Resistor—33,000 ohms—Carbon type— $\frac{1}{2}$ watt—(R5)—Package of 5	1.00			
11322	Resistor—39,000 ohms—Carbon type— $\frac{1}{4}$ watt—(R10)—Package of 5	1.00			
11365	Resistor—82,000 ohms—Carbon type— $\frac{1}{4}$ watt—(R23)—Package of 5	1.00			
3118	Resistor—100,000 ohms—Carbon type— $\frac{1}{4}$ watt—(R19)—Package of 5	1.00			
11323	Resistor—270,000 ohms—Carbon type— $\frac{1}{4}$ watt—(R13)—Package of 5	1.00			

The prices quoted above are subject to change without notice.

## REPLACEMENT PARTS — Continued

Stock No.	DESCRIPTION	List Price	Stock No.	DESCRIPTION	List Price
	<b>REPRODUCER ASSEMBLIES</b> Table Model			<b>REPRODUCER ASSEMBLIES</b> Console Models	
11232	Board—Terminal board with two lead wire clips .....	.18	11232	Board—Terminal board assembly with two lead wire clips .....	.18
11231	Bolt—Yoke and core assembly bolt and nut .....	.16	11231	Bolt—Yoke and core assembly bolt and nut .....	.16
8060	Bracket—Output transformer mounting bracket .....	.14	8060	Bracket—Output transformer mounting bracket .....	.14
11257	Clamp—Cone center suspension clamping nut and screw assembly—Package of 5 .....	.25	11257	Clamp—Cone center suspension clamping nut and screw assembly—Package of 5 .....	.25
11254	Coil—Field coil—(L20) .....	2.00	11254	Coil—Field coil—(L20) .....	2.00
11233	Coil—Neutralizing coil—(L21) .....	.30	11233	Coil—Hum neutralizing coil—(L21) .....	.30
11235	Cone—Reproducer cone—(L22)—Package of 5 .....	3.50	11258	Cone—Reproducer cone—(L22)—Package of 5 .....	3.85
5119	Connector—3-contact female connector for reproducer cable .....	.25	5118	Connector—3-contact male connector for reproducer .....	.25
5118	Connector—3-contact male connector for reproducer .....	.25	5119	Connector—3-contact female connector plug for reproducer cable .....	.25
9618	Reproducer—Complete .....	6.40	9619	Reproducer—Complete .....	6.05
11253	Transformer—Output transformer—(T2) .....	1.56	11253	Transformer—Output transformer—(T2) .....	1.56
11886	Washer—Spring washer used to hold field coil securely—Package of 5 .....	.20	11886	Washer—Spring washer used to hold field coil securely—Package of 5 .....	.20

The prices quoted above are subject to change without notice.

### SERVICE HINTS

- (1) Excessive heating of the 6E5 tube may be due to high cathode current—in excess of 7 ma. The tube should be replaced and the condition of the 5Z4 rectifier checked.