RCA Victor

MODEL 94T

Four-Tube, Single-Band, A-C, Superheterodyne Receiver

TECHNICAL INFORMATION AND SERVICE DATA

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL

Electrical Specifications

Frequency Range ..... 530—1,720 kc

R-F Alignment Frequency ..... 600 kc (osc), 1500 kc (osc., ant.)

Intermediate Frequency ..... 460 kc

RADIOTRON COMPLEMENT

(1) Type 6A8-G .....First Detector-Oscillator
(2) Type 6B8-G .....I.F. Amplifier, Second Detector, A.F. Amplifier and A.V.C.
(3) Type 6K6-G .....Audio Power Amplifier
(4) Type 5Y4-G .....Rectifier

POWER SUPPLY RATINGS

Rating A ..... 105-125 volts, 50-60 cycles
Rating B ..... 105-125 volts, 25-60 cycles

POWER OUTPUT RATING

Undistorted ..... 1.0 watts
Maximum ..... 2.5 watts

LOUDSPEAKER

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

Mechanical Specifications

Height ..... 9 inches
Width ..... 11¾ inches
Depth ..... 7½ inches
Weight (Net) .....14 pounds
Weight (Shipping) .....15 pounds
Chassis Base Dimensions.....10 inches x 5¾ inches x 2¼ inches
Over-all Chassis Height ..... 7½ inches
Operating Controls .....(1) Power Switch (2) Volume (3) Tuning

General Description

This receiver employs a superheterodyne circuit, the arrangement of which is shown on figure 2. Its design includes magnetite-core adjusted i-f transformers; automatic volume control; resistance-coupled audio system; and a 5-inch, electrodynamic loudspeaker.

Service Data

The various diagrams of 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 adjacent to the symbols signifying these parts on the diagrams. Identification titles such as R1, L1, C1, etc., provide reference between the illustrations and Replacement Parts List.

LOUDSPEAKER—Centering of the loudspeaker voice coil is made in the usual manner with three narrow paper feelers.

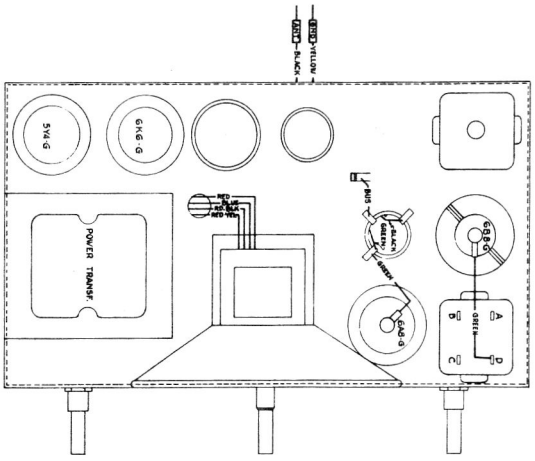
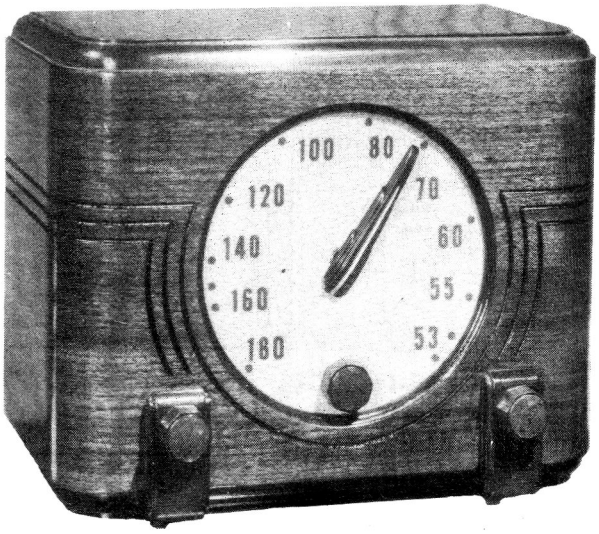


Figure 1—Radiotron and Coil Locations



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Alignment Procedure

Calibrate the tuning dial by adjusting dial pointer to the center horizontal line with the gang tuning-condenser plates in full-mesh position. This is a screw-driver adjustment.

Perform alignment in proper order, tabulated below, starting with No. 1 and following all operations across, then No. 2, etc. Adjustment locations are shown on figures 1 and 4.

Cathode-ray alignment is preferable; the connections to the chassis are shown on figure 3. If an output indicator is used, connect it across the loudspeaker voice-coil and advance the receiver volume control to full-volume position.

Connect the "low" output terminal of the test oscillator to the receiver chassis for all alignment operations. Regulate the output of the test oscillator so that minimum signal is applied to the receiver to obtain an observable output indication. This will avoid a-v-c action.

The term "Dummy antenna" means the device which must be connected between the "high" test-oscillator output and the point of connection to the receiver in order to obtain ideal alignment. "No signal, 550-750 kc" means that the receiver should be tuned to a point between 550 and 750 kc where no signal or interference is received from a station or local (heterodyne) oscillator.

Order of Alignment	Test Oscillator			Receiver Dial Setting	Circuit to Adjust	Adjustment Symbols	Adjust to Obtain
	Connection to Receiver	Dummy Antenna	Frequency Setting				
1	6B8-G Grid Cap	.001 Mfd.	460 kc	No Signal 550-750 kc	2nd I-F Trans.	L8	Max. (peak)
2	6A8-G Grid Cap	.001 Mfd.	460 kc	No Signal 550-750 kc	1st I-F Trans.	L5 and L6	Max. (peak)
3	Ant. Lead	200 Mmfd.	1,500 kc	1,500 kc	"A" Osc.	C4	Max. (peak)
4	Ant. Lead	200 Mmfd.	1,500 kc	1,500 kc	"A" Ant.	C3	Max. (peak)

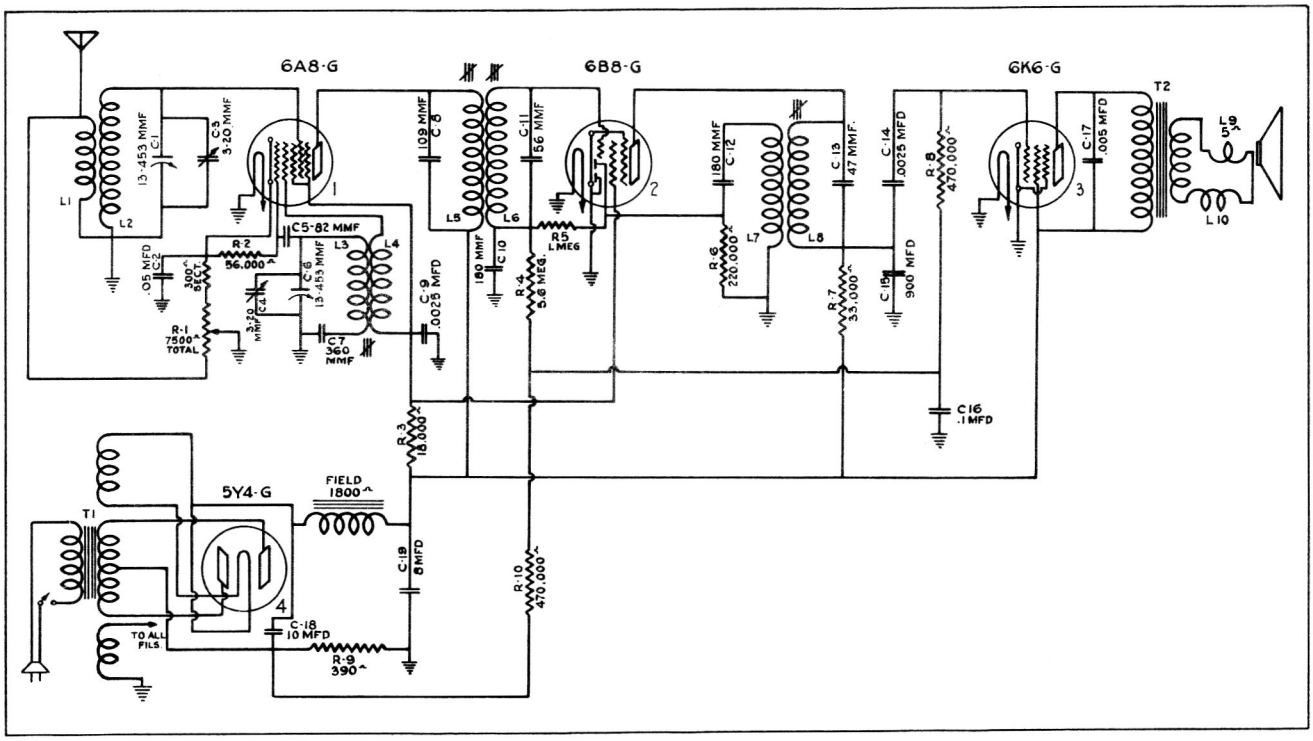

Figure 2—Schematic Circuit Diagram

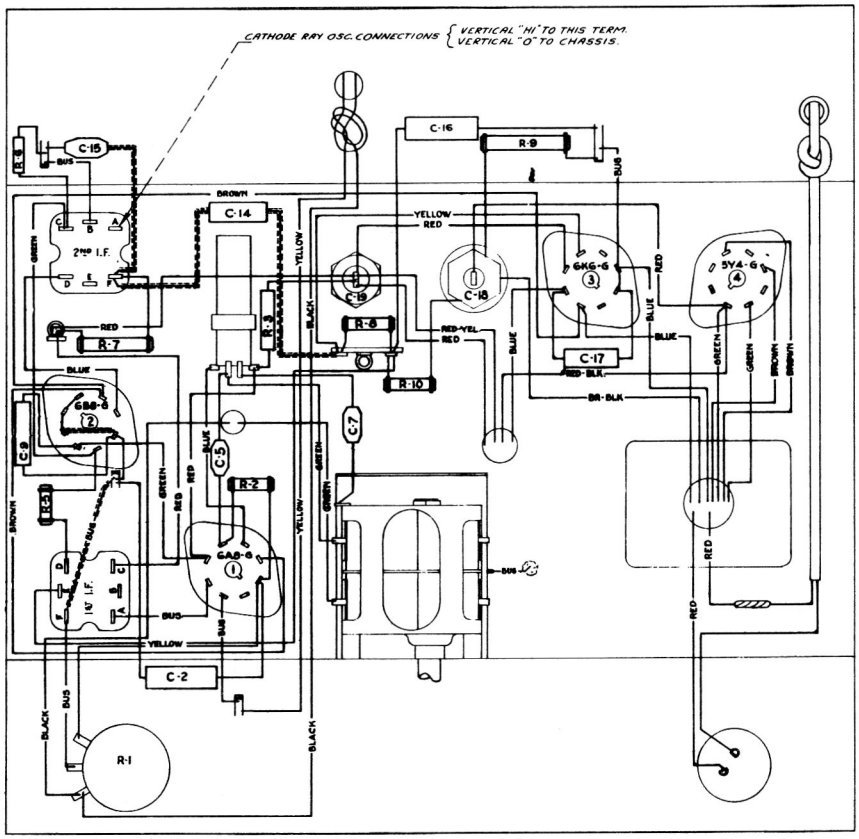

Figure 3—Chassis Wiring Diagram

RADIOTRON VOLTAGES:—A.C. LINE VOLTAGE AT 120 VOLTS						
	Radiotron	Plate	Screen Grid	Cathode	Grid	Filament
(1) 6A8G	Converter Oscillator	218V 82V	82V	3.0V		6.9V
(2) 6B8G	Detector i.f. and audio	-.5V 85V	82V		-2.77V	6.9V
(3) 6K6G	Output	205V	220V		-15.5	6.9V
(4) 5Y4G	Rectifier			300V		5.2V

REPLACEMENT PARTS MODEL 94T

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

STOCK NO.	DESCRIPTION	LIST PRICE
	RECEIVER ASSEMBLIES	
11350	Cap-Grid contact cap - Pkg. of 5	$ .35
S-1734	Capacitor-47 Mmfd. (C13)	.28
11307	Capacitor-56 Mmfd. (C11)	.42
12813	Capacitor-82 Mmfd. (C5)	.49
14262	Capacitor-109 Mmfd. (C8)	.42
12406	Capacitor-180 Mmfd. (C10,C12)	.36
13894	Capacitor-390 Mmfd. (C7)	.35
S-2053	Capacitor-900 Mmfd. (C15)	.63
5107	Capacitor-.0025 Mfd. (C9,C14)	.22
4793	Capacitor-.005 Mfd. (C17)	.28
4836	Capacitor-.05 Mfd. (C2)	.42
4839	Capacitor-.1 Mfd. (C16)	.42
S-1765	Capacitor- 8 Mfd. (C19)	1.22
11240	Capacitor-10 Mfd. (C18)	1.61
S-2064	Clip-Radiotron shield grounding clip-Pkg.10	.21
S-2054	Coil-Antenna coil (L1,L2)	.95
S-2030	Coil-Oscillator coil (L-3,L-4)	1.05
S-2056	Condenser-Two gang variable tuning condenser (C1,C3,C4,C6)	4.85
12006	Core-Adjustable core and stud for 1st, 2nd I.F. transformers and oscillator coil	.21
S-2169	Cord-Tuning condenser drive cord	.20
S-2057	Dial-Station selector dial scale	.75
S-2170	Felt-Reproducer felt pad	.22
S-1862	Knob-Station selector,volume control or power switch knob Pkg. of 2	.32
S-2058	Indicator-Station selector indicator pointer	.28
S-2171	Pulley-Small size condenser drive pulley	.35
S-2172	Pulley-Medium size condenser drive pulley	.40
S-2173	Pulley-Large size condenser drive pulley	.50
S-2059	Resistor-390 ohms, insulated type, 1 watt(R9)	.22
S-2060	Resistor-18,000 ohms,insulated type, 1 watt(R3)	.22
S-2061	Resistor-33,000 ohms,insulated type, 1 watt(R7)	.22
12286	Resistor-56,000 ohms,insulated type, ½ watt(R2)	.20
12264	Resistor-220,000 ohms,insulated type, ½ watt(R6)	.20
12285	Resistor-470,000 ohms,insulated type, ½ watt(R8,R10)	.20
S-2062	Resistor-1 Megohm,insulated type,½ watt,R5	.20
S-1768	Resistor-5.6 Megohm,carbon type,1/10 watt (R4)	.15

STOCK NO.	DESCRIPTION	LIST PRICE
S-2082	Retainer-Small size condenser drive pulley spring "C" Washer-Pkg.10	$ .20
2917	Retainer-Medium size condenser drive pulley spring "C" Washer-Pkg.5	.20
3903	Screws-Main drive pulley set screws-Package of 20	.49
S-2174	Shaft-Tuning drive shaft	.30
S-2063	Shield-First detector,6B8G radiotron shield	.28
12008	Shield-1st I.F. transformer shield	.39
12581	Shield-Top for first I.F.transformer shield	.35
11196	Socket-8 contact radiotron socket	.35
S-2081	Spring-Tuning drive cord spring-Package of 5	.49
S-2069	Switch-Power switch	.85
S-2090	Tuning condenser mounting assembly	.73
S-2065	Transformer-First I.F. transformer (L5,L6,C8,C10,C11,R4)	2.40
S-1770	Transformer-Second I.F.transformer (L7,L8,C12,C13)	1.68
S-2066	Transformer-Power transformer 105-125 volt-60-cycle (T1)	6.00
S-2067	Transformer-Power transformer,105-125 volt-25-cycle (T1)	9.00
S-2068	Volume control (R1)	1.40
	REPRODUCER ASSEMBLIES	
S-2084	Coil Assembly-Comprising field magnet and cone support, less output transformer	2.18
S-1677	Cone-Reproducer cone	.85
S-2085	Reproducer-Complete	5.58
S-1676	Transformer-Output transformer (T2).	1.80

All prices are subject to change or withdrawal without notice.