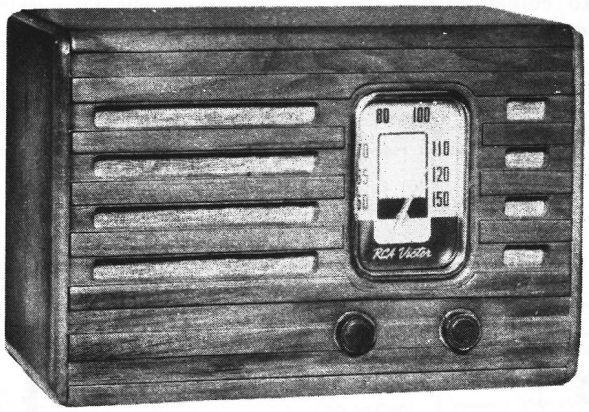
RCA Victor

MASCOT

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

TECHNICAL INFORMATION AND SERVICE DATA

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL



Electrical Specifications

Frequency Range ..... 540 to 1,600 k.c.
R.F. Alignment Frequency....1,500 k.c. (osc., ant.)
Intermediate Frequency ..... 455 k.c.

LOUDSPEAKER
Type ..... 5 inch Electrodynamic
Voice-coil Impedance .....3 ohms at 400 cycles

Tube Complement

(1) Type 6SA7 ..... First-Det., Osc.
(2) Type 6SK7.....Intermediate Frequency AMP.
(3) Type 6SQ7.....Second-Det., A.V.C., A.F.
(4) Type 6K6-G ..... Power Output
(5) Type 5Y4G ..... Full Wave Rectifier

POWER SUPPLY RATING
Rating A ..... 105-125 volts, 50-60 cycle 50 watts
Rating B ..... 105-125 volts, 25-60 cycle 50 watts

POWER OUTPUT
Undistorted ..... 1 watt
Maximum ..... 2 watts

Mechanical Specifications

	Height	Width	Depth
Cabinet Dimensions	8 15/16 inches	13 1/4 inches	7 3/16 inches
Chassis Base Dimensions	1 7/8 inches	9 3/4 inches	5 7/8 inches
Weight (net)			10 1/2 pounds
Weight (shipping)			12 3/4 pounds
Operating Controls			(1) Power Switch—Volume, (2) Tuning

General Description

This receiver employs a five tube, single band chassis incorporating a Loop Antenna as the first tuned circuit. Details of the electrical design are shown in the Schematic circuit diagram. Features of design include:— Single ended, metal tubes; full A.V.C. circuit; Phono attachment socket; Loop antenna for ease of installation; stabilized oscillator circuit; sensitive, five inch electrodynamic loudspeaker; and a full vision dial housed in a modern styled cabinet.

Alignment Procedure

Cathode-ray Alignment is the preferable method. Connections for the oscillograph are shown in the schematic diagram.

Output meter alignment. If this method is used, connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test-oscillator. For all alignment operations, connect the low side of the test-oscillator to the receiver chassis, and keep the output as low as possible to avoid a-v-c action.

Pre-setting Dial. With gang condenser in full mesh position, move pointer to coincide with calibration mark at the low frequency end of dial.

Steps	Connect the high side of test-oscillator to—	Tune test-osc. to—	Tune radio dial to—	Adjust the following for max. peak output
No. 1	6SK7 I-F grid, in series with .01 mfd.	455 kc	Quiet point between 550-750 kc	C9 and C10 (2nd I-F Transformer)
No. 2	6SA7 1st-det. grid in series with .01 mfd.	455 kc		C7 and C8 (1st I-F Transformer)
No. 3	Antenna lead, in series with 300 ohms	1,500 kc	1,500 kc	C5 (oscillator)* C2 (antenna)

*See note on Fig. No. 1.

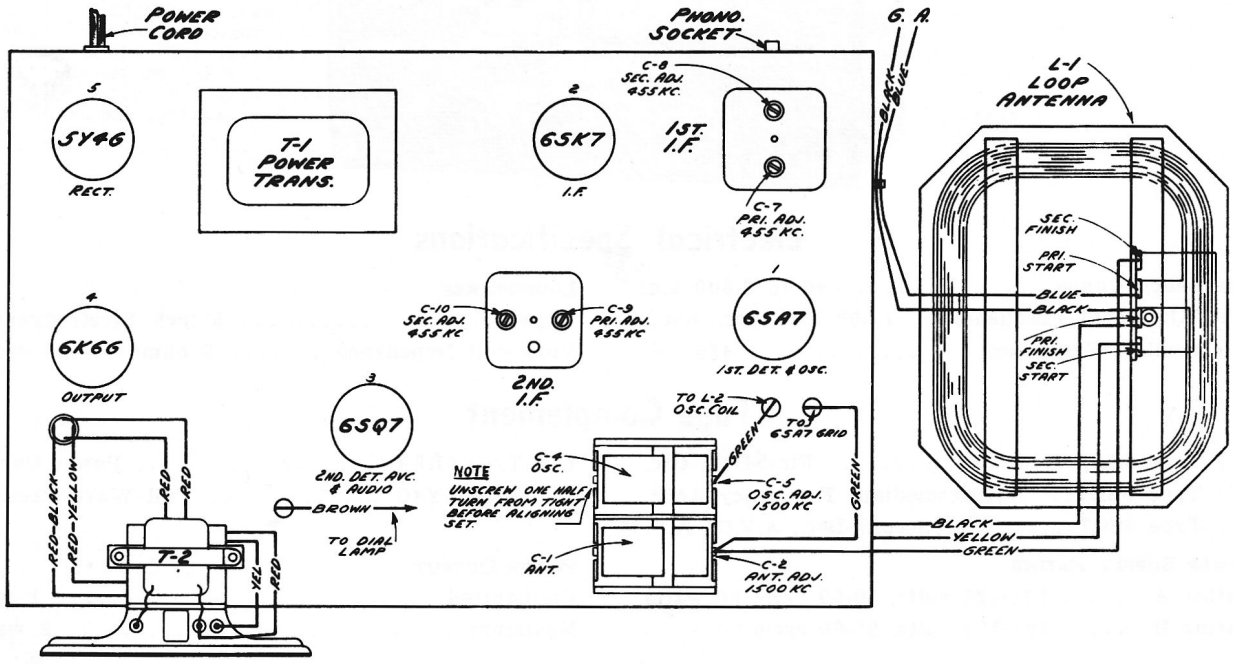


Fig. No. 1 Tube & Trimmer Locations

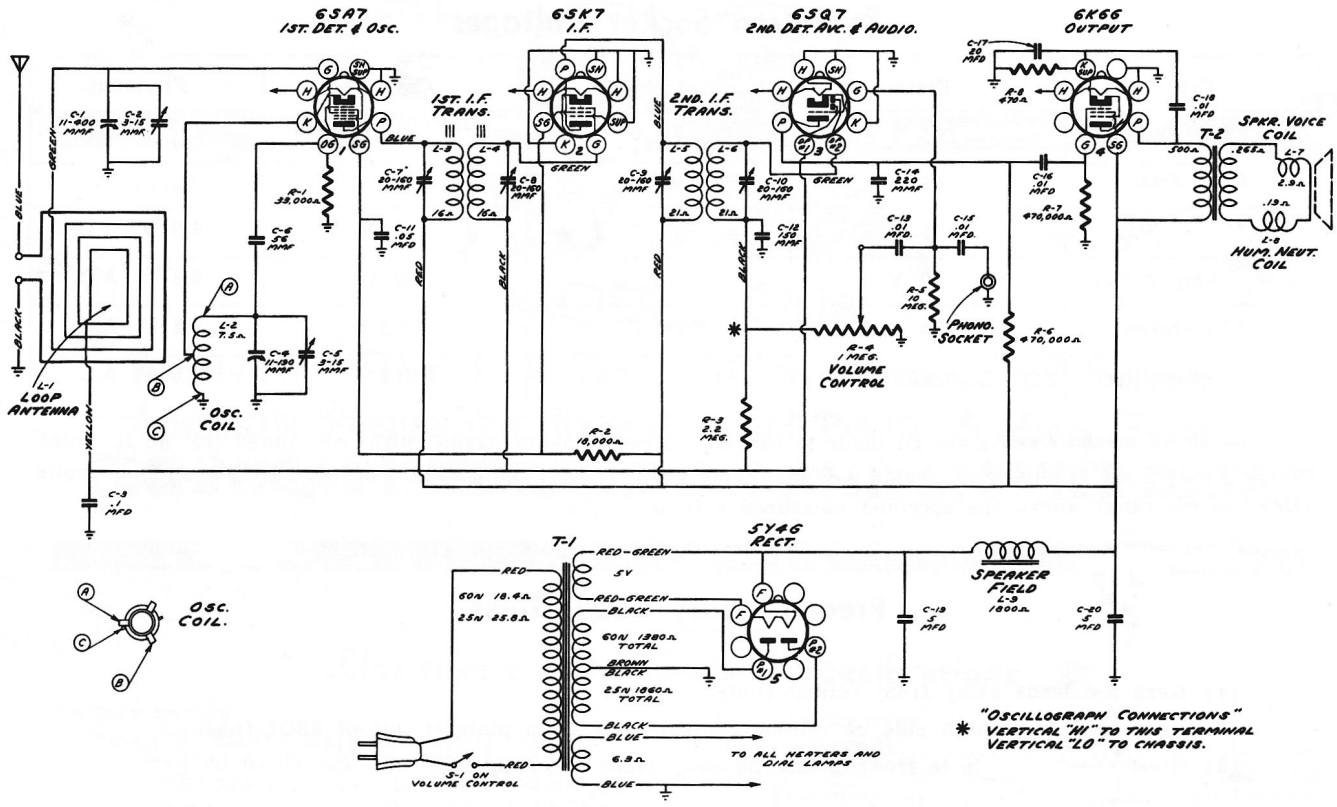


Fig No. 2 Schematic Circuit Diagram

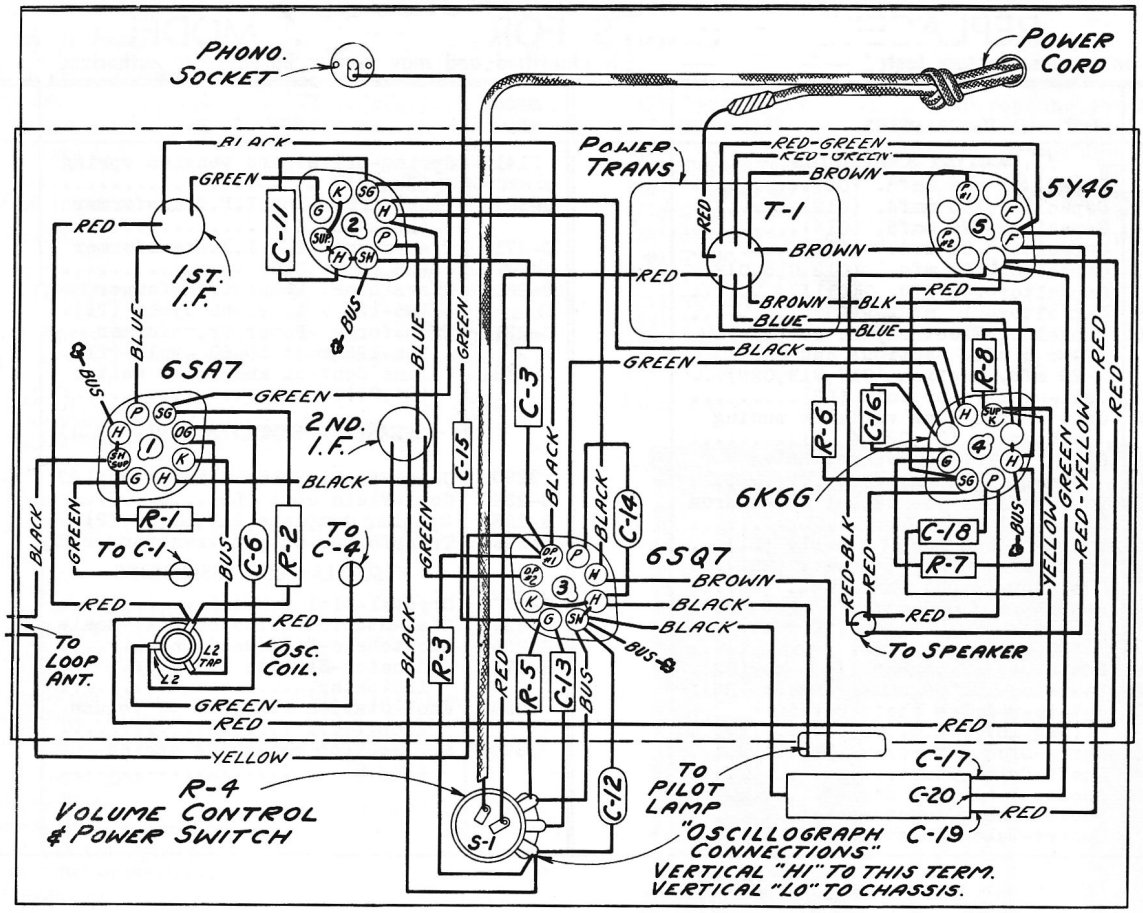


Figure 3—Chassis Wiring Diagram

Radiotron Socket Voltages

Type	Plate	Screen Grid	Cathode	Filament
6SA7 Det.	195 V	65 V	O V	6.3 V. A.C.
6SA7 Osc.	65 V	...	...	.....
6SK7 I.F.	195 V	65 V	O V	6.3 V. A.C.
6SQ7 Amp. & Det.	62 V	...	O V	6.3 V. A.C.
6K6G Output	185 V	195 V	12.5 V	6.3 V. A.C.
5Y4G Rectifier	290/290 V	...	295 V	5 V. A.C.

The above measurements are all made to chassis. Measurements made with set tuned to quiet point, volume control set at minimum, using 1,000-ohm-per-volt meter, having ranges of 10, 50, 250, and 500 volts. (Use nearest range above the specified measured voltage.)

All the above values should hold within approximately ± 20% for 115 volt, 25-60 cycle supply.

Precautionary Lead Dress

(1) Keep a-c leads away from volume-control wiring.

(2) Keep lead from high side of volume control away from plate circuit of 6SQ7 tube.

(3) Dress speaker leads to front of chassis away from 6K6G tube.

REPLACEMENT PARTS FOR MASCOT MODEL

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

STOCK NO.	DESCRIPTION		STOCK NO.	DESCRIPTION	
	RECEIVER ASSEMBLIES		31418	Spring-Drive cord tension spring (Pkg.2).....	
12723	Capacitor- 56 mmfd. (C6).....		S-3272	Transformer-1st I.F.Transformer (L3,L4,C7,C8).....	
12725	Capacitor-150 mmfd. (C12).....		S-2716	Transformer-2nd I.F.Transformer (L5,L6,C9,C10).....	
12694	Capacitor-220 mmfd. (C14).....		S-2316	Transformer-Power Transformer 105-125 volt 25-60 cycle (T1).	
4858	Capacitor-.01 mfd. (C16).....		S-2317	Transformer-Power Transformer 105-125 volt 50-60 cycle (T1).	
14393	Capacitor-.01 mfd. (C13,C15,C18).		33631	Volume Control and Power switch (R4,S1).....	
30847	Capacitor-.05 mfd. (C11).....			**SPEAKER ASSEMBLIES (CRL-503-1)**	
4839	Capacitor-.1 mfd. (C3).....		32904	Cone-Speaker cone & voice coil(L7)	
S-2615	Capacitor-Electrolytic comprising two 5 mfd. sections and one 20 mfd. section (C17,C19,C20)...		S-2387	Coil-Field coil (L9).....	
S-2707	Coil-Oscillator coil (L2).....		S-2388	Speaker Complete (L7,L8,L9,T2)..	
S-2708	Condenser-2 gang variable tuning condenser (C1,C2,C4,C5).....		S-2389	Transformer-Output transformer(T2)	
S-2709	Cord-Variable condenser drive cord (12" long).....			**MISCELLANEOUS ASSEMBLIES**	
S-2309	Drum-Variable condenser drive drum		S-2706	Crystal-Dial Crystal.....	
11765	Lamp-Dial lamp.....		S-3397	Dial-Station selector dial scale	
S-3273	Loop-Antenna Loop Assembly (L1)...		S-2368	Escutcheon-Dial escutcheon.....	
30499	Resistor-470 ohm-1/2 watt (R8)....		S-2712	Indicator-Station selector indicator.....	
30151	Resistor-18,000 ohm 1 watt (R2)...		30863	Knob-Station selector or volume knob.....	
12454	Resistor-33,000 ohm 1/4 watt (R1).		30900	Spring-Knob retaining spring (Pkg.5).....	
30648	Resistor-470,000 ohm 1/4 watt (R6,R7).....				
12679	Resistor-2.2 megohm 1/4 watt (R3).				
30992	Resistor-10. megohm 1/4 watt (R5).				
14887	Retainer-Drive shaft retainer (Pkg.10).....				
3903	Screw-Drum set screw (Pkg.6).....				
S-2714	Shaft-Drive shaft.....				
S-2719	Socket-Dial lamp socket.....				
14278	Socket-Phono input socket.....				
31251	Socket-Tube socket.....				