RCA Victor

LITTLE MASTER AND LITTLE MASTER II

Five-Tube, Single-Band, AC-DC Superheterodyne Receiver

TECHNICAL INFORMATION AND SERVICE DATA

— 1946 No. 12 —

SERVICE DIVISION • RCA VICTOR COMPANY LIMITED • MONTREAL

General Description

The RCA Victor "Little Master" is a five-tube, single band, AC/DC Superheterodyne chassis housed in a plastic cabinet of pleasing design. Features include a stable oscillator circuit, efficient I.F. transformers, built-in loop antenna with provision for the addition of an external antenna; Beam power output tube; a well-filtered power supply and a 4 inch by 6 inch elliptical speaker capable of handling the undistorted output of the receiver.

Electrical and Mechanical Specifications

FREQUENCY RANGE .....535-1630 kc
Intermediate Frequency .....455 kc

TUBE COMPLEMENT

(1) Type 12SA7 .....1st-Detector-Oscillator
(2) Type 12SK7 .....I-F Amplifier
(3) Type 12SQ7 .....2nd-Detector, 1st A-F, and A.V.C.
(4) Type 50L6GT .....Power Output
(5) Type 35Z5GT .....Rectifier
Dial Lamp (1) .....Mazda 51, 7.5 volts, .2 amp.

POWER SUPPLY RATINGS

A-C Rating.....105-125 volts, 25-60 cycles, 30 watts
D-C Rating.....105-125 volts, direct current, 30 watts

POWER OUTPUT (125 volt, 60 cycle supply)

Undistorted .....75 watts
Maximum .....1.5 watts

LOUDSPEAKER

Type .....4" x 6" Elliptical P.M.
Impedance (V.C.) ..... 3.4 ohms at 400 cycles

REPLACEMENT PARTS FOR LITTLE MASTER

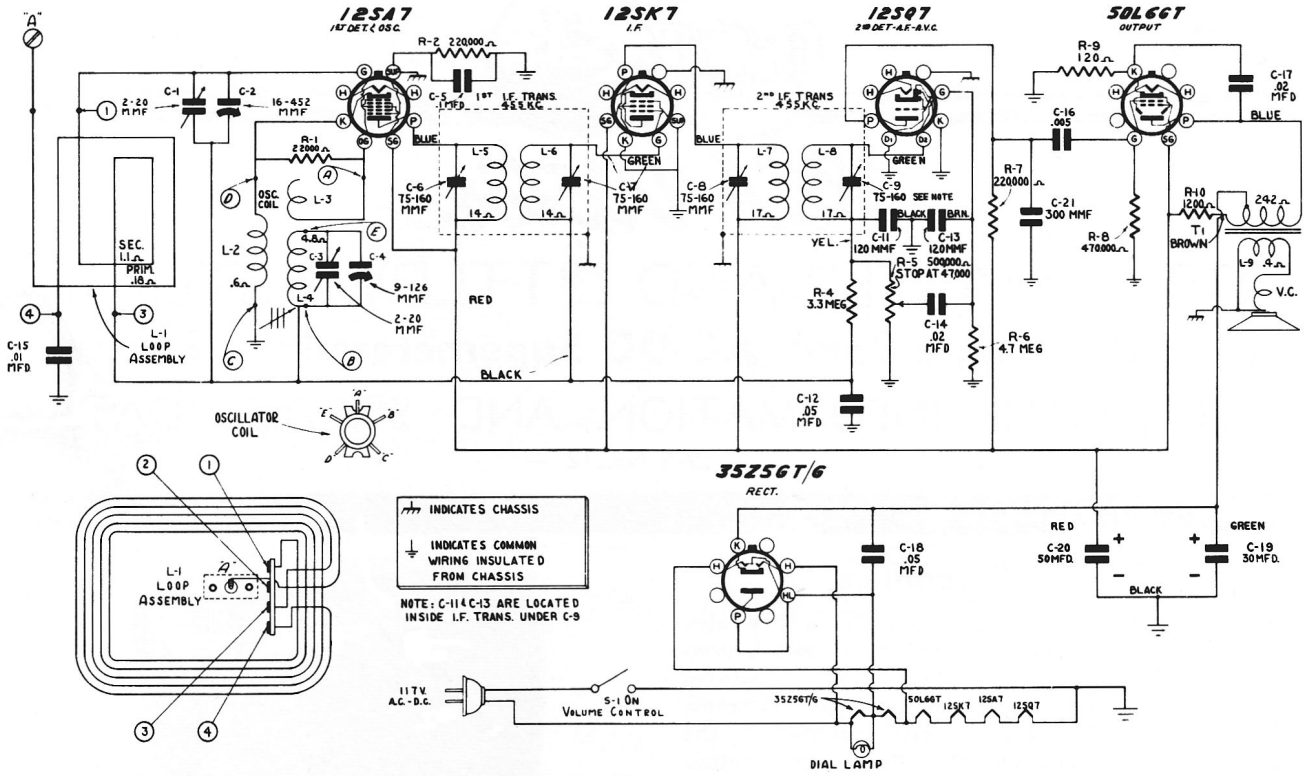
Insist on genuine factory tested parts, which are readily identified and may be purchased from authorized dealers.

STOCK NO.	DESCRIPTION
	RECEIVER ASSEMBLIES
12952	Capacitor-330 Mmfd.(C21).....
33640	Capacitor-.005 Mfd.(C16).....
4937	Capacitor-.01 Mfd. (C15).....
36248	Capacitor-.02 Mfd. (C14,C17).....
43898	Capacitor-.05 Mfd. (C12,C18).....
4839	Capacitor-.1 Mfd. (C5).....
70408	Capacitor-Electrolytic-30 Mfd.-50 Mfd. (C19,C20).....
S-3480	Coil-Oscillator Coil (L2,L3,L4).....
70463	Condenser-Variable & Drum(C1,C2,C3,C4)
11765	Lamp-Pilot Lamp.....
30936	Resistor-120 Ohm-1 watt (R9).....
6134	Resistor-1200 Ohm-1 watt (R10).....
30492	Resistor-22,000 Ohm-1/4 watt (R1).....
14583	Resistor-220,000 Ohm-1/2 watt(R2,R7)..
30648	Resistor-470,000 Ohm-1/4 watt (R8)....
12928	Resistor-3.3 Megohm -1/4 watt (R4)....
30271	Resistor-4.7 Megohm- 1/4 watt (R6)....
70467	Shaft-Drive Shaft.....
37605	Socket-Tube Socket.....
34449	Socket-Lamp Socket .....
70390	Spring-Drive Cord Spring (Pkg.2).....
S-3478	Transformer-1st I.F.(L5,L6,C6,C7)... .
S-3479	Transformer-2nd I.F.(L7,L8,C8,C9,C11, C13).
70322	Volume Control (R5,S1).....
33726	Washer-"C" washer for drive shaft(Pkg.5)

STOCK NO.	DESCRIPTION
	SPEAKER ASSEMBLIES
35849	Cap-Dust Cap (Pkg.3).....
S-3516	Cone-Cone & Voice Coil Assy (L9)....
S-3476	Speaker-P.M. Speaker Complete.....
S-3477	Transformer-Output (T1).....
	MISCELLANEOUS ASSEMBLIES
S-3586	Cabinet-Ivory Little Master I.....
S-3472	Cabinet-Walnut Little Master I.....
S-3868	Cabinet-Ivory-Little Master II.....
S-3869	Cabinet-Brown-Little Master II.....
32634	Cord-Station selector drive cord (38").....
70476	Dial-Dial Scale.....
70469	Indicator-Station Selector pointer..
70473	Knob-Brown-Little Master I.....
70474	Knob-Ivory-Little Master I.....
S-3870	Knob-Brown-Little Master II.....
S-3871	Knob-Ivory-Little Master II.....
S-3699	Knob-Maple-Little Master I.....
S-3483	Loop-Loop Antenna Assy. (L1)..... (Little Master I)
S-3872	Loop-Loop Antenna (L1)..... (Little Master II)
30900	Spring-Knob retainer spring (Pkg.5).

All prices and parts are subject to change or withdrawal without notice.

Little Master



Schematic Circuit Diagram

CAUTION

Remove Power plug from outlet before servicing this receiver. Avoid contact of chassis or component parts to external ground.

Alignment Procedure

Output Meter Alignment.—Connect the meter across the voice coil, and turn the receiver volume control to maximum.

Test Oscillator.—Connect the low side of the test oscillator to the receiver chassis, through a .01 mfd. and keep the output as low as possible to avoid a-v-c action.

Pre-Setting Dial.—With the gang condenser in full mesh, the pointer should be adjusted so that it lines up with the first marker on the left of the dial plate.

Antenna.—The set is equipped with a built-in loop antenna. If an outdoor antenna is used, it may be connected to the "ANT" terminal on rear of cabinet. It should not be longer than 100 ft., including lead-in. If it is longer, connect a 100 - 200 mmfd. capacitor in series with the lead-in.

Power Supply Polarity.—For operation on DC, the power plug must be inserted in the outlet for correct polarity. If the set does not operate, reverse the plug. On AC, reversal of the plug may reduce hum.

Steps	Connect high side of test osc.	Tune test osc. to	Turn radio dial to	Adjust the following for max. peak output
1	12SK7 Grid in series with .01 Mfd. capacitor	455 kc	Quiet point at 600 kc end of the dial	C8 (2nd IF) C9
2	12SA7 Grid in series with .01 capacitor			C6 (1st IF) C7
3	Use 220 mmf Dummy Antenna	1,630 kc	Full clockwise (out of mesh)	C3 (Osc.) Trimmer
4		1,500 kc	Resonance on 1,500 kc signal	C1 (Ant) Trimmer
5		600 kc	600 kc	Rock Osc. Core L2 For Maximum Output
6				Repeat 3—4—5

Radiotron Socket Voltages

Type	Plate	Screen Grid	Cathode	Fil.
12SA7	95V	95V	—	12V
12SK7	95V	95V	—	12V
12SQ7	55V	—	—	12V
50L6GT	118V	90V	5.8V	50V
3525GT	117V	—	130V	35V

Note:—All voltages are measured to common wiring insulated from chassis with a line voltage of 117 volts.

Precautionary Lead Dress

(1) Oscillator coil leads must be dressed down to chassis away from other circuit wiring.

(2) Audio coupling condenser to volume control must be dressed away from the AC line cord to the power switch.