



RCA VICTOR

LITTLE MASTER III
LITTLE MASTER IIIA



LITTLE MASTER III & LITTLE MASTER IIIA

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

TECHNICAL INFORMATION AND SERVICE DATA

1948 No. 19

GENERAL SERVICE DIVISION

RCA VICTOR COMPANY LTD.

Electrical and Mechanical Specifications

FREQUENCY RANGE

Standard Broadcast S.B. 540—1600 k.c.

Intermediate Frequency 455 k.c.

RADIOTRON COMPLEMENT

(1) Type 12SA7 Converter

(2) Type 12SK7 I.F. Amplifier

(3) Type 12SQ7 Det. A.V.C. & 1st A.F.

(4) Type 50L6GT Power Output

(5) Type 35Z5GT Rectifier

POWER OUTPUT

Undistorted75 Watts

Maximum 1.5 Watts

LOUDSPEAKER

Type 4 inch Round P.M.

Voice coil impedance 3.2 ohms at 400 cycles

POWER SUPPLY RATINGS

Rating A 105—125 volts, 25-60 cycles or D.C., 30 watts

CABINET DIMENSIONS

Height 7 $\frac{3}{4}$ "

Width 10 $\frac{7}{8}$ "

Depth 5 $\frac{7}{8}$ "



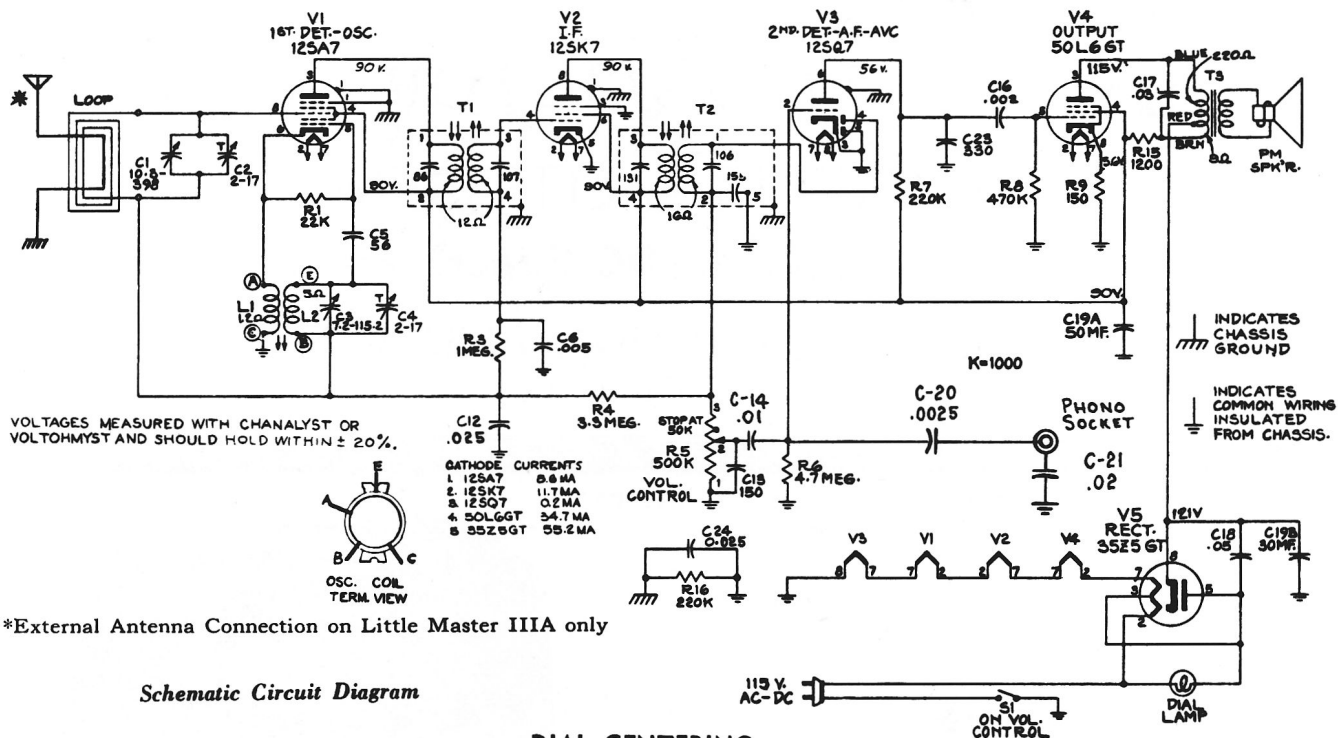
POWER SUPPLY POLARITY:—For operation on D.C., the power plug must be inserted in the outlet for correct polarity. If the set does not function, reverse the plug. On A.C., reversal of the plug may reduce hum.

REPLACEMENT PARTS FOR LITTLE MASTER III & LITTLE MASTER IIIA

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

STOCK NO.	DESCRIPTION	STOCK NO.	DESCRIPTION
CHASSIS ASSEMBLY			
71924	Capacitor-56 MMF. mica 20% (C5).....	S-4487	Transformer-1st I.F. (T1).....
48125	Capacitor-150 MMF.20% ceramic(C13)..	S-4835	Transformer-2nd I.F. (T2).....
12952	Capacitor-330 MMF.mica 20% (C23)....	S-4836	Volume Control (R5,S1).....
70613	Capacitor-.03 Mfd.(C17).....	SPEAKER ASSEMBLY	
S-3644	Capacitor-.0025 mfd.(C16,C20).....	35849	Dust Cap (Pkg.3).....
S-3646	Capacitor-.005 mfd.(C6).....	S-4330	Cone-Cone & voice coil assembly..
S-3648	Capacitor-.010 mfd.(C14).....	S-4325	Speaker.....
S-3650	Capacitor-.020 mfd. (C21).....	S-4839	Output Transformer.....
S-3651	Capacitor-.025 mfd.(C12,C24).....	MISCELLANEOUS ASSEMBLY	
70615	Capacitor-.05 mfd.(C18).....	S-4840	Back-Dial backing.....
S-4830	Capacitor-Electrolytic(C19A,C19B)...	S-4850	Clip-Back cover clip (Pkg.2).....
S-4831	Condenser-Variable(C1,C2,C3,C4).....	S-3467	Cord-Power cord.....
S-4351	Coil-Oscillator coil (L1,L2).....	S-3841	Cabinet-(brown).....
S-4832	Indicator-Station selector pointer..	S-4842	Cabinet-(ivory).....
S-4833	Loop-Loop antenna & back cover (brown)	S-4843	Cabinet-(rose).....
S-4837	Loop-Loop antenna " " " (ivory)	S-4844	Cabinet-(green).....
S-4838	Loop-Loop antenna " " " (green)	S-4845	Dial-Dial scale.....
S-4848	Loop-Loop antenna " " " (rose)	S-4846	Knob-(brown).....
30880	Resistor-150 ohms-1/2 watt (R9).....	S-4847	Knob-(ivory).....
30731	Resistor-1200 ohms- 1 " (R15)....	11891	Lamp-Dial lamp (Mazda #44).....
30492	Resistor-22,000 ohms-1/2 watt (R1)..	14270	Spring-Knob retaining spring
14583	Resistor-220,000 ohms-1/2 watt(R7,R16)	(Pkg.2).....	
30648	Resistor-470,000 ohms-1/2 watt(R8)...	S-4202	Socket-Phono socket.....
30652	Resistor-1 Megohm-1/2 watt (R3).....	38458	Spring-Spring clip to hold pointer
31417	Resistor-3.3 Megohm-1/2 watt (R4)....	(Pkg.3).....	
30931	Resistor-4.7 Megohm-1/2 watt (R6)....	S-4851	Spring-Dial knob (Pkg.3).....
S-4834	Socket-Tube socket.....		

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



Schematic Circuit Diagram

DIAL CENTERING

If the mounting of the tuning condenser has been disturbed, it may be necessary to adjust its position after replacing the chassis in the cabinet. This may be done in the following manner:

1. Install chassis and tighten the three mounting screws.
2. Replace tuning knob.
3. Loosen the two screws which hold the tuning condenser mounting bracket to the chassis.
4. Adjust the position of the tuning condenser mounting bracket so that the tuning knob may be rotated without binding on the cabinet. With tuning condenser plates fully meshed the dial should be in the position indicated below.

CRITICAL LEAD DRESS

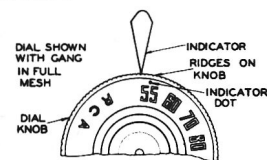
(Make lead dress before alignment)

1. Dress all heater leads close to chassis.
2. Dress pilot light leads away from speaker cone.
3. Dress lead to low side of loop between the two gang condenser leads.
4. Dress C5 (AVC by-pass) close to the bend in the base and clear of the 2nd I.F. transformer.

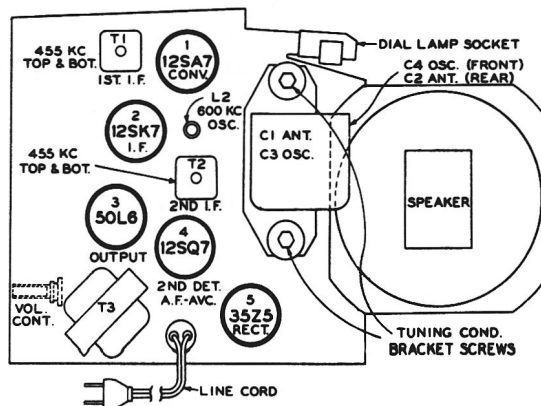
ALIGNMENT PROCEDURE

For all alignment operations keep the test oscillator output as low as possible to avoid A.V.C. action. On AC operation isolation transformer (115 V/115V) may be necessary for the receiver if the test oscillator is also AC operated.

5. The two screws should then be tightened to maintain this position.



Dial and Indicator



Tube and Trimmer Locations

Order of Alignment		TEST OSCILLATOR				Range Selector	Receiver Dial Setting	Circuit To Adjust	Adjustment Symbols	Notes
		Connect "H" Side To	Connect "L" Side To	Dummy Antenna	Frequency Setting					
A.M. ALIGNMENT	1	12SK7 1st I.F. Grid	Ground thru .01 mfd.	.01 mfd.	455 K.C. 30% mod. 400 Cy. A.M.		High freq. end of dial	2nd I.F. Trans.	T2 (Top & Bottom)	Adjust for max. A.C. voltage across voice coil.
	2	12SA7 Converter Grid	Same	Same	Same		Same	1st I.F. Trans.	T1 (Top & Bottom)	Same
S.B. ALIGNMENT		NOTE:- When adjusting C2 (ant. trimmer) it is necessary to have the as it will have when assembled in the cabinet. This spacing					loop in the same position and spacing is 3 1/4" from chassis to loop.			
	3	Short wire placed near loop to radiate signal			1630 K.C. 30% mod. 400 Cy. A.M.		1630 K.C. on dial	Oscillator	C4	Adjust for max. A.C. voltage across voice coil.
	4	Same			1500 K.C. 30% mod. 400 Cy. A.M.		1500 K.C. on dial	Ant.	C2	Same
	5	Same			600 K.C. 30% mod. 400 Cy. A.M.		600 K.C. on dial	Oscillator	L2 *	Same
		* NOTE:- Rock Oscillator in to loop at 600 K.C.								
	6	Repeat steps 3 to 5 for maximum output								