Model L-301

RCA VICTOR

PORTABLE RADIO – PHONO-COMBINATION

MODEL L-301

SERVICE DATA

— 1958 No. 5 —

ISSUED BY
SERVICE DIVISION
RCA VICTOR COMPANY, LTD.
MONTREAL, CANADA

ELECTRICAL AND MECHANICAL SPECIFICATIONS

TUNING RANGE ..... 540-1,600 kc

INTERMEDIATE FREQUENCY ..... 455 kc

TUBE COMPLEMENT:

(1) RCA 12BE6 ..... Converter
(2) RCA 12BA6 ..... I.F. Amplifier
(3) RCA 12AV6 ..... Det.-ACV-A.F. Amp.
(4) RCA 50C5 ..... Output
(5) RCA 35W4 ..... Rectifier

LOUD SPEAKER:

Size and type ..... 6" x 4" P.M.
Voice coil impedance ..... 3.2 ohms at 400 cycles

POWER OUTPUT:

Undistorted ..... 1.0 watts
Maximum ..... 1.3 watts

RECORD CHANGER ..... Collaro Challenger

POWER SUPPLY RATING:

115 volts, 60 cycles a.c. ..... 3.5 watts

REPLACEMENT PARTS LIST

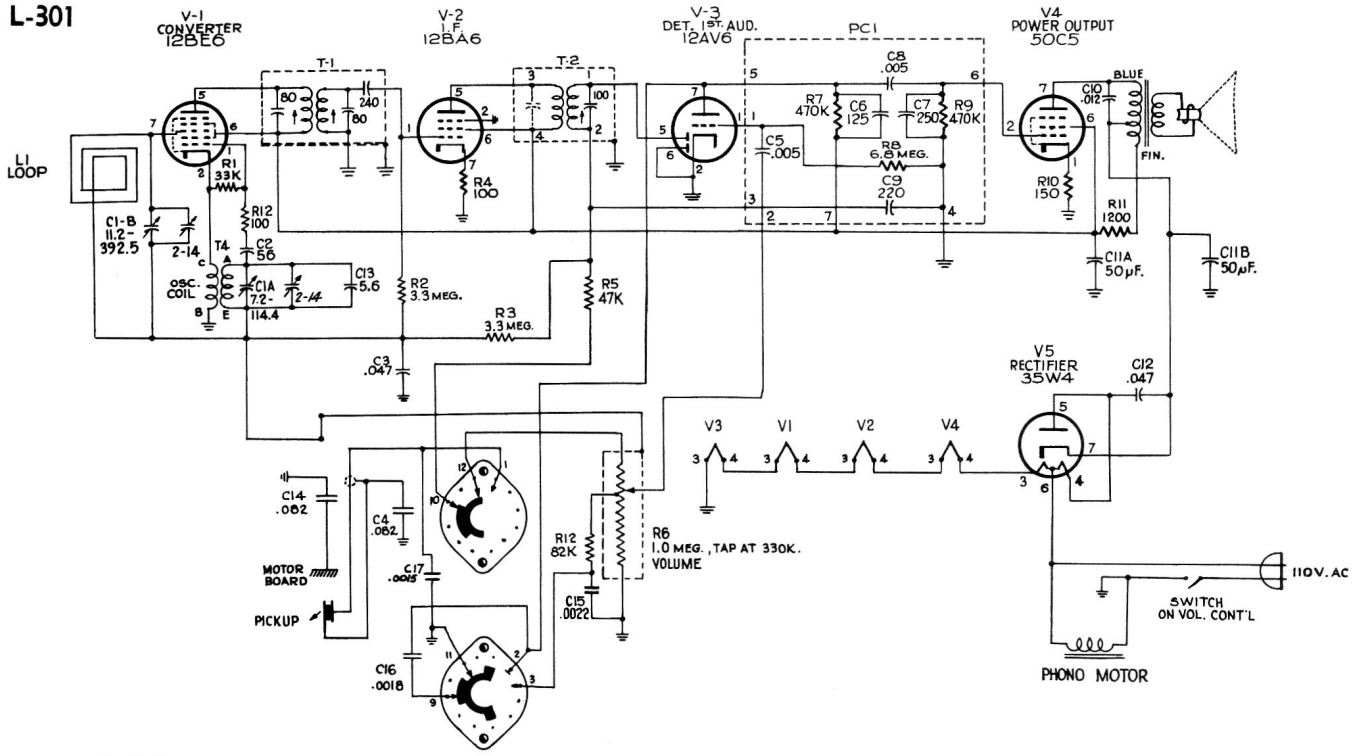
Insist on Genuine Factory Tested Parts, which are readily identified and may be purchased from Authorized Dealers.

SYMBOL	STOCK NO.	DESCRIPTION
C1A, C1B	S-21912	Capacitor-Variable tuning capacitor
C2		Capacitor-Fixed, ceramic, 56 mmf ± 10%, 500V.
C3		Capacitor-Fixed, paper, 0.047 mf ± 20%, 400V.
C4		Capacitor-Fixed, paper, 0.082 mf ± 10%, 400V.
C5 to C9		Part of PC1
C10	103195	Capacitor-Fixed, ceramic, 0.012 mf ± 10%, 600V.
C11A C11B	103197	Capacitor-Electrolytic, 50/50 mf, 150V.
C12		Capacitor-Fixed, paper, 0.047 mf. ± 20%, 400V.
C13		Capacitor-Fixed, ceramic, 5.6 mmf ± 0.5 mmf, 500V.
C15		Capacitor-.0027 mfd, 600V.
C16		Capacitor-.0018 mfd, 600V.
C17		Capacitor-.0015 mfd, 600V.
L1	*S-22028	Antenna-Ferrite Antenna
PC1	S-21927	Circuit-Printed circuit consisting of R7, R8, R9, C5, C7, C8 & C9
R1		Resistor-Fixed, composition, 33,000 ohm ± 20%, 1/2 W
R2, R3		Resistor-Fixed, composition, 3.3 megohm + 20%, 1/2 W.
R4		Resistor - Fixed, composition, 100 ohm ± 20%, 1/2 W.
R5		Resistor - Fixed, composition, 47,000 ohm ± 20%, 1/2 W.
R6	*S-22030	Control - Volume control
R7, R7, R9		Part of PC1
R10		Resistor - Fixed, composition, 150 ohm ± 10%, 1/2 W.
R11	512212	Resistor - Fixed, composition, 1200 ohm ± 10%, 1W
R12		Resistor - 82,000 ohms, 1/2 W.
R13		Resistor - 82,000 ohms, ± 10%, 1/2 W.
T1	S-21913	Transformer - First I.F. transformer
T2	S-21914	Transformer - Second I.F. transformer
T3	S-22023	Output Transformer
T4	S-21915	Coil - Oscillator coil
SW1	S-22029	Switch - Function switch
	*S-22403	Circuit Board - Board complete
		SPEAKER ASSEMBLY
	S-22025	Speaker - 6" x 4" PM, complete with cone and voice coil
		MISCELLANEOUS ASSEMBLY
	*S-22399	Cabinet Ass'y. - Green Cabinet Ass'y.
	*S-22400	Cabinet Ass'y. - Grey Cabinet Ass'y.
	S-4313	Cord - Dial Cord (32" long)
	74273	Decal - Dog Decal
	*S-22402	Dial - Dial Scale
	S-22387	Emblem - Dog Emblem
	S-21307	Knob Ass'y.
	S-21263	Knob Ass'y.
	S-22033	Pointer - Dial Pointer
	S-22032	Shaft - Drive Shaft
	S-21890	Socket - Tube Socket for V1, V2, V3
	S-21891	Socket - Tube Socket for V4, V5
	*S-22401	Trim - Cabinet Trim
	*S-22404	Instructions - Instruction Booklet

* Indicates New Stock Items.

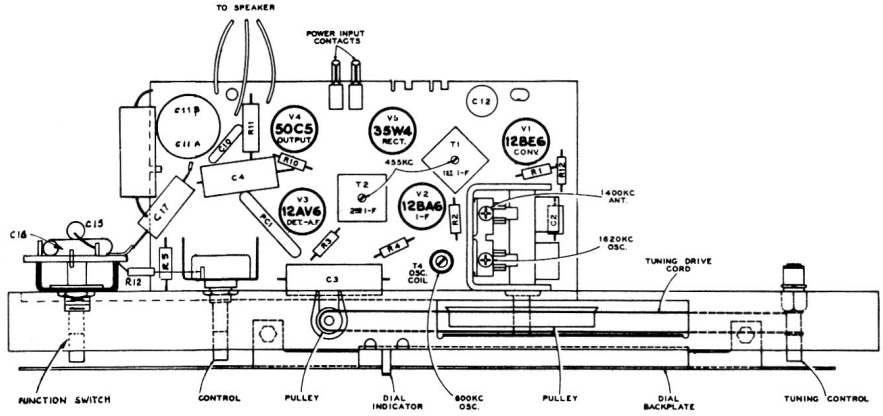
Only items listed under stock numbers are available as Replacement Parts.

All parts subject to change or withdrawal without notice.



K=1000
ALL RESISTANCE VALUES IN OHMS.
ALL CAPACITANCE VALUES LESS THAN 1.0 IN μF. AND 1.0 & ABOVE IN μμF. EXCEPT THOSE INDICATED.

Schematic Diagram



Chassis Layout

Alignment Procedure

Before aligning the receiver, set the gang condenser for maximum capacity and then set the dial knob opposite 55 on left hand end of the dial.

When only a portion of the circuit is to be aligned select the required portion and perform all the remaining steps.

In order to obtain best results, it is advisable to align the 455 KC I.F.'s with the help of a cathode ray oscilloscope. The scope should be connected across the volume control. If this equipment is not available, use the method outlined below in the alignment chart.

NOTE: If the test-oscillator is ac/dc operated, it may be necessary to use an isolation transformer (117 v./117 v. for the receiver during alignment.)

Alignment Chart

TEST OSCILLATOR						RECEIVER				
Order of Alignment		Connect "HI" Side To	Connect "LO" Side To	Dummy Antenna	Frequency Setting	Range Selector	Receiver Dial-Setting	Circuit To Adjust	Adjust Adjustment Symbols	Notes
	1	12BA6 Pin #1	Gnd.	.01 Mfd	455 KC		"HI" End	2nd I.F. Trans.	Top Cores	Max.Out.
	2	12BE6 Pin #7	Same	Same	Same	Same	Same	1st I.F. Trans.	Top & Bottom Cores	Same
	3	Radiate signal			1600 KC		1600 KC	Osc.	C1B-T – C-1B	Same
	4	Same			1500 KC		1500 KC	Osc.	C1A-T	Same
	5	Repeat Steps 3 and 4.								