

MODEL 9W501



RCA VICTOR



RADIO-PHONOGRAPH COMBINATION

MODEL 9W501  
SERVICE DATA

—1949 NO. 18—

GENERAL SERVICE DIVISION  
RCA VICTOR COMPANY LIMITED  
MONTREAL, QUE.

## Electrical and Mechanical Specifications

## TUNING RANGE

Standard Broadcast .....540-1600 KC  
Intermediate Frequency .....455 KC

## TUBE COMPLEMENT

(1) Type 12SA7 ..... Converter  
(2) Type 12SF7 ..... I.F. Amplifier Det. & A.V.C.  
(3) Type 12SC7 ..... Audio Phase Inverter  
(4) Type 35L6GT ..... Output  
(5) Type 35L6GT ..... Output

A Selenium rectifier is used.

Dial Lamps (2) ..... Mazda 47  
Tuning Drive Ratio .....11:1 (5½ turns of knob)

## POWER SUPPLY RATING

Rating A.....105-125 Volts, 60 cycles, .40 amps. 46 watts  
Rating B.....105-125 Volts, 25 cycles, .40 amps. 46 watts

## LOUDSPEAKER

Size and type .....8 in. P.M.  
Voice coil impedance.....2.2 ohms at 400 cycles

## POWER OUTPUT

Undistorted .....2.5 watts  
Maximum .....3.5 watts

## RECORD CHANGER (RP-168-A-1)

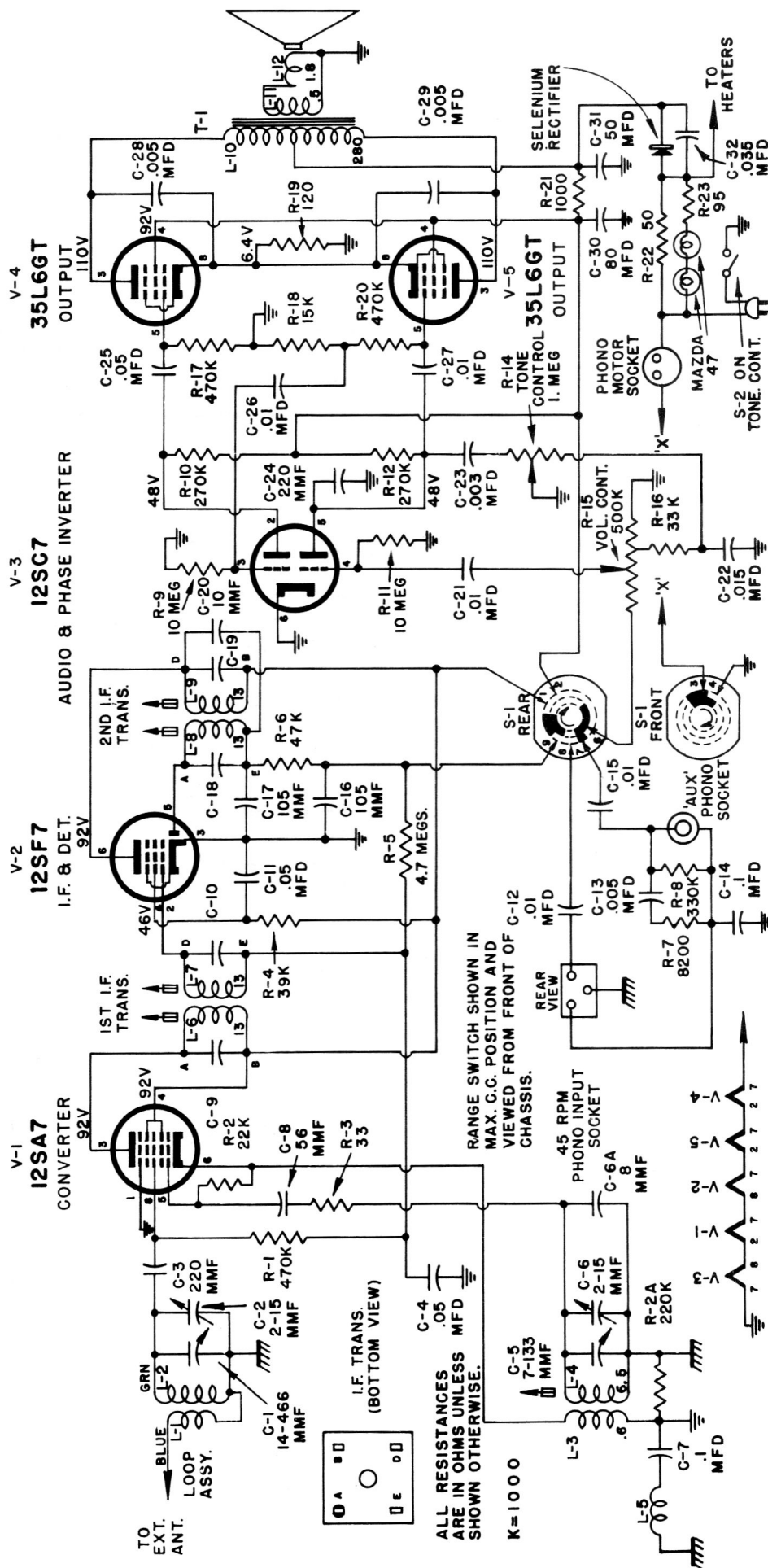
Turntable speed .....45 r.p.m.  
Record capacity .....ten 7 in.  
Pickup .....Crystal (Medium output)

## CABINET DIMENSIONS

Height .....30<sup>9</sup>/<sub>16</sub> in.  
Width .....21<sup>3</sup>/<sub>4</sub> in.  
Depth .....14<sup>1</sup>/<sub>4</sub> in.

*The Dial Scale drawing shown is a full size reproduction. It can be used as a reference in alignment procedure.*

Fig. 1—Dial Scale



Since L-5 and C-7 form a tuned circuit which is resonant to the I.F. frequency, it should be noted that whenever C-7 is replaced, the winding on the outside of the old capacitor or a similar winding consisting of 10 turns of #23 wire, should be wound on the new capacitor and connected in series as shown on the schematic diagram. If this procedure is not followed, the set may be subject to I.F. regeneration.

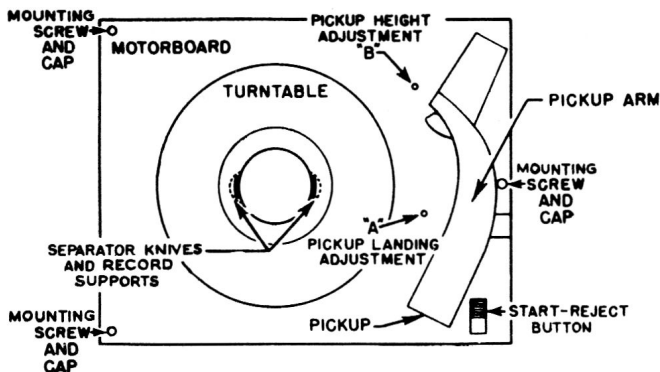


Fig. 3—Top View RP1681A-1 Record Changer

### Pickup Landing Adjustment "A"

The pickup point should land half-way between the outer edge of the record and the first music groove.

If the pickup lands inside the starting grooves—turn screw "A" slightly clockwise. If pickup lands outside the starting grooves—turn screw "A" slightly counterclockwise.

### Pickup Height Adjustment "B"

During cycle the pickup arm must rise high enough to clear a stack of ten records on the turntable, but not high enough to cause the top of the arm to touch records resting on the record supports.

If pickup does not clear a stack of ten records—turn screw "B" slightly clockwise. If pickup arm touches records on record supports—turn screw "B" slightly counterclockwise.

### Record Separators

In the out of cycle position the record separator knives or discs are normally concealed inside the center post. During service, the position of the star wheel on the underside of the record changer may be accidentally shifted; this may cause the separator knives to be extended when they should be concealed.

If the separator knives are thus extended—turn the power on so that the turntable is revolving, gently press fingers against the extended knives until they disappear inside the center post — DO THIS ONLY WHILE MECHANISM IS OUT OF CYCLE.

### Care of Sapphire

The record changer sapphire is protected by a permanent metal guard. LINT MAY COLLECT TO CLOG THE OPENING IN THE GUARD AT THE SAPPHIRE POINT AND CAUSE POOR RECORD REPRODUCTION. This may require occasional cleaning of the guard opening—clean by carefully brushing with a small soft brush.

## ALIGNMENT PROCEDURE

Before aligning the receiver, set the gang condenser for maximum capacity and then set the dial cursor on the calibration point at the extreme 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.

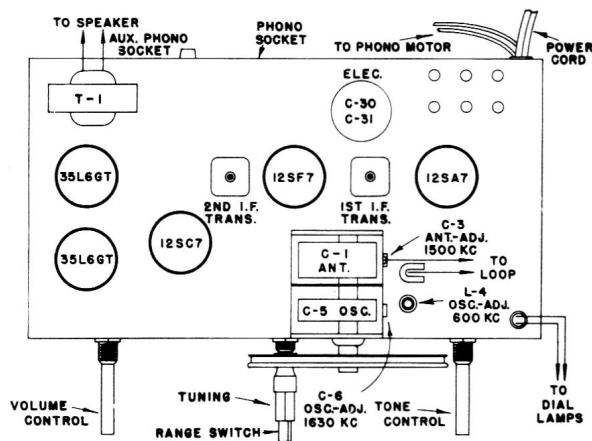


Fig. 4—Chassis Layout & Alignment Adj.

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.

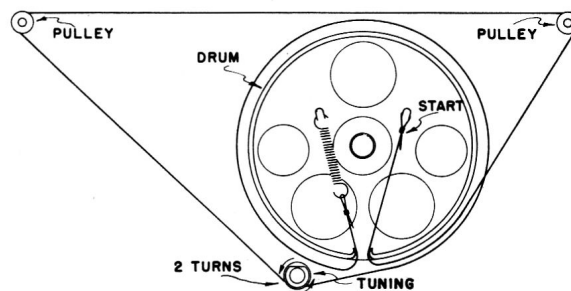


Fig. 5—Dial Cord Stringing

## ALIGNMENT CHART

Order of Alignment		TEST OSCILLATOR				RECIEVER				
		Connect "HI" Side To	Connect "LO" Side To	Dummy Antenna	Frequency Setting	Range Selector	Receiver Dial Setting	Circuit To Adjust	Adjustment Symbols	Notes
I.F. Alignment	1	V-2, 12SF7 Pin #2	GND	IMFD	455KC	Radio	"HI" End	2nd I.F. Trans.	L-8, L-9	Max. Out.
	2	V-1, 12SA7 Pin #8	Same	Same	Same	Same	Same	1st I.F. Trans.	L-6, L-7	Same
	3	Repeat steps 1 and 2.								
S.B. Alignment	4	"Ant" Lead	GND	220 MMF	600 KC	Radio	600 KC	S.B.-Osc.	(Rock L-4 in to Loop)	Same
	5	Same	Same	Same	1630 KC	Same	1630 KC	S.B.-Osc.	C-6	Same
	6	Same	Same	Same	1500 KC	Same	1500 KC	S.B.-R.F.	C-2	Same
	7	Repeat Steps 4, 5 & 6.								

## REPLACEMENT PARTS FOR MODEL 9W501

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

Stock No.	Description	List Price	Stock No.	Description	List Price
<b>CHASSIS ASSEMBLY</b>			<b>CHASSIS ASSEMBLY (Cont'd)</b>		
S-5384	Capacitor - 8 MMF. +- 5 % (C-6A)			Resistor - 470,000 ohms +- 10% watt (R-1)	
S-5385	" - 10 MMF. +- 10 % 500 V. (C-20)			" - 470,000 ohms +- 20% " (R-17,R-20)	
S-4523	Capristor - 56 MMF. & 33 ohms (C-8, R-3)			" - 4.7 Megohm +- 20% watt (R-5)	
S-4614	" - 2 - 105 MMF. & 47,000 ohm (C-16, C-17, R-6)			" - 10.0 " +- 20% " (R-9,R-11)	
S-4221	Capacitor - 220 MMF. +- 20% 350 V.(C-3,C-24)		S-5381	Switch - Radio - Phono switch (S-1)	
"	" - .003 Mfd. +- 10% 200 V. (C-23)		S-5382	Selenium rectifier	
"	" - .005 Mfd. +- 10% 200 V. (C-13)		S-4487	Transformer - 1st I.F. Trans. (L-6,L-7,C-9,C-10)	
"	" - .005 Mfd. +- 10% 600 V. (C-28,C-29)		S-4662	" - 2nd I.F. " (L-8,L-9,C-18,C-19)	
"	" - .01 Mfd. +- 20% 200 V. (C-12,C-15, C-21)		S-5285	" - Output trans. (T-1,L-10,L-11)	
"	" - .01 Mfd. +- 20% 400 V. (C-26,C-27)		<b>SPEAKER ASSEMBLY</b>		
"	" - .015 Mfd. +- 10% 200 V. (C-22)		S-4748	Cone & voice coil assy (L-12)	
"	" - .035 Mfd. +- 10% 400 V. (C-32)		<b>MISCELLANEOUS ASSEMBLY</b>		
"	" - .05 Mfd. +- 20% 200 V. (C-4,C-11,C-25)		S-4313	Cord - dial cord (Standard)	
"	" - .1 Mfd. +- 10% 400 V. (C-14)		S-5281	Dial - dial scale	
"	" - .1 Mfd. +- 10% 400 V. (C-7)		S-4390	Knob - (walnut)	
S-5383	Condenser - Gang condenser (C-1,C-2,C-5,C-6)		S-5275	" - (mahogany)	
S-5284	Control - volume control (R-15)		S-5276	" - (blonde)	
S-5269	Control - tone control & power switch (R-14,S-2)		S-4387	" - (walnut)	
S-5286	Capacitor - electrolytic (C-30,C-31)(50-80 Mfd.)		S-5277	" - (mahogany)	
S-5283	Coil - Oscillator coil (L-3,L-4)		S-5278	" - (blonde)	
	Resistor - 13.5 ohms at 104° C to 95 ohms at 38° C. +- 20% (R-23)		S-3870	" - (walnut)	
	" - 50 ohms (R-22)		S-5279	" - (mahogany)	
	" - 120 " +- 10% 1 watt (R-19)		S-5280	" - (blonde)	
	" - 1000 " +- 10% " (R-21)		S-5282	Loop - loop assembly (L-1,L-2)	
	" - 8200 " +- 10% $\frac{1}{2}$ " (R-7)		S-5272	Pointer - dial pointer	
	" - 15,000 ohms +- 10% $\frac{1}{2}$ watt (R-18)		S-5377	Decalcomania - (on front door)	
	" - 22,000 " +- 20% " (R-2)		"	" - (range)	
	" - 33,000 " +- 10% " (R-16)		"	" - (below grille)	
	" - 39,000 " +- 10% " (R-4)		S-5380	Grille cloth	
	" - 220,000 " +- 20% " (R-2A)				
	" - 270,000 " +- 10% " (R-10,R-12)				
	" - 330,000 " +- 10% " (R-8)				

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

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