



MODEL VRA 85



RCA VICTOR



RADIO-PHONOGRAPH COMBINATION

MODEL VRA 85 SERVICE DATA

— 1949 No. 12 —

GENERAL SERVICE DIVISION
RCA VICTOR COMPANY LIMITED
MONTREAL, QUE.

Electrical and Mechanical Specifications

FREQUENCY RANGE

Standard Broadcast S.B. 540-1600 K.C.
Short Wave 49-31 M 5.7-13.0 M.C.
25-19 M 11.6-16.0 M.C.
Intermediate Frequency 455 K.C.
Tuning Drive Ratio 12 to 1

RADIATRON COMPLEMENT

(1) Type 6BA6 R.F. Amplifier
(2) Type 6BE6 Converter
(3) Type 6BA6 I.F. Amplifier
(4) Type 6AV6 Det., A.V.C. & 1st A.F.
(5) Type 6AV6 Phase Inverter
(6) Type 6V6GT Output
(7) Type 6V6GT Output
(8) Type 5Y3GT Rectifier

POWER OUTPUT

Undistorted 4.5 watts
Maximum 6 watts

LOUDSPEAKER

Type 12 inch round P.M.
Voice Coil Impedance 2.2 ohms at 400 cycles

POWER SUPPLY RATINGS

Rating A 105-125 volts, 50-60 cycles, 95 watts
Rating B 105-125 volts, 25 cycle, 95 watts

CABINET DIMENSIONS

Height 32 $\frac{1}{4}$ "
Width 33"
Depth 17 $\frac{3}{4}$ "

PHONOGRAPH

Type RP-178 Automatic
Record Capacity Twelve 10 inch or ten 12 inch
Turntable Speed 78 R.P.M.

PICKUP

Type Crystal
Impedance 100,000 ohms at 1,000 cycles
Average Output 1.4 volts at 400 cycles across
500,000 ohm load

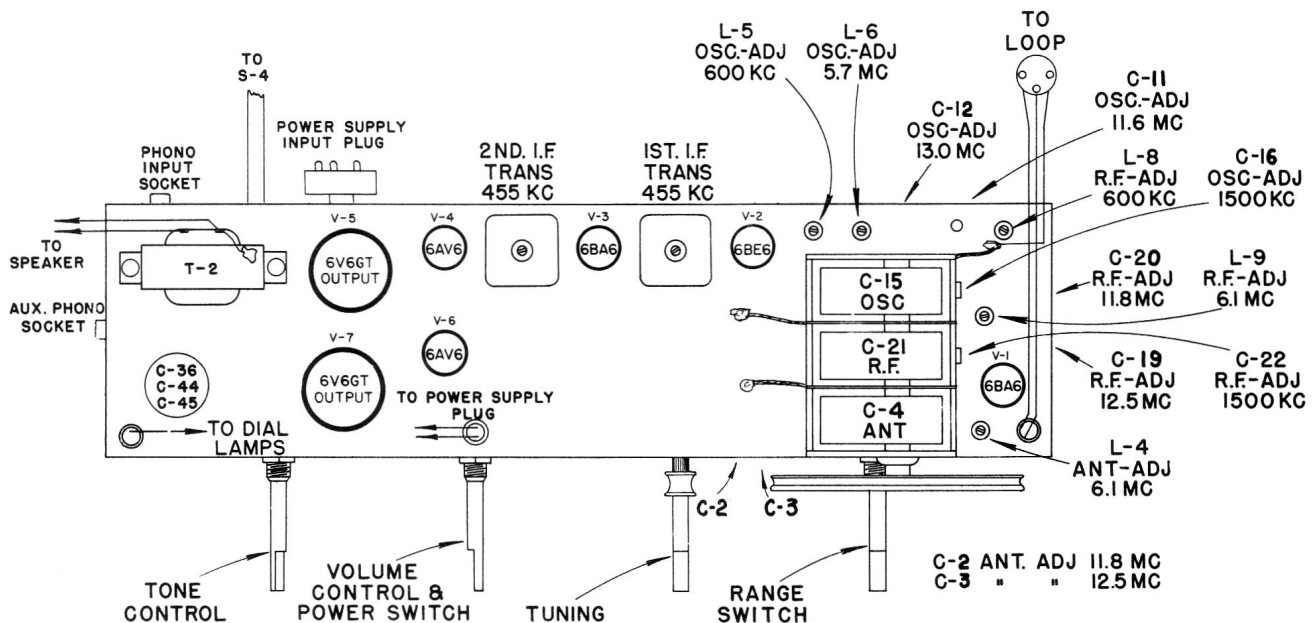


FIG. 1—CHASSIS LAYOUT AND ALIGNMENT ADJUSTMENTS

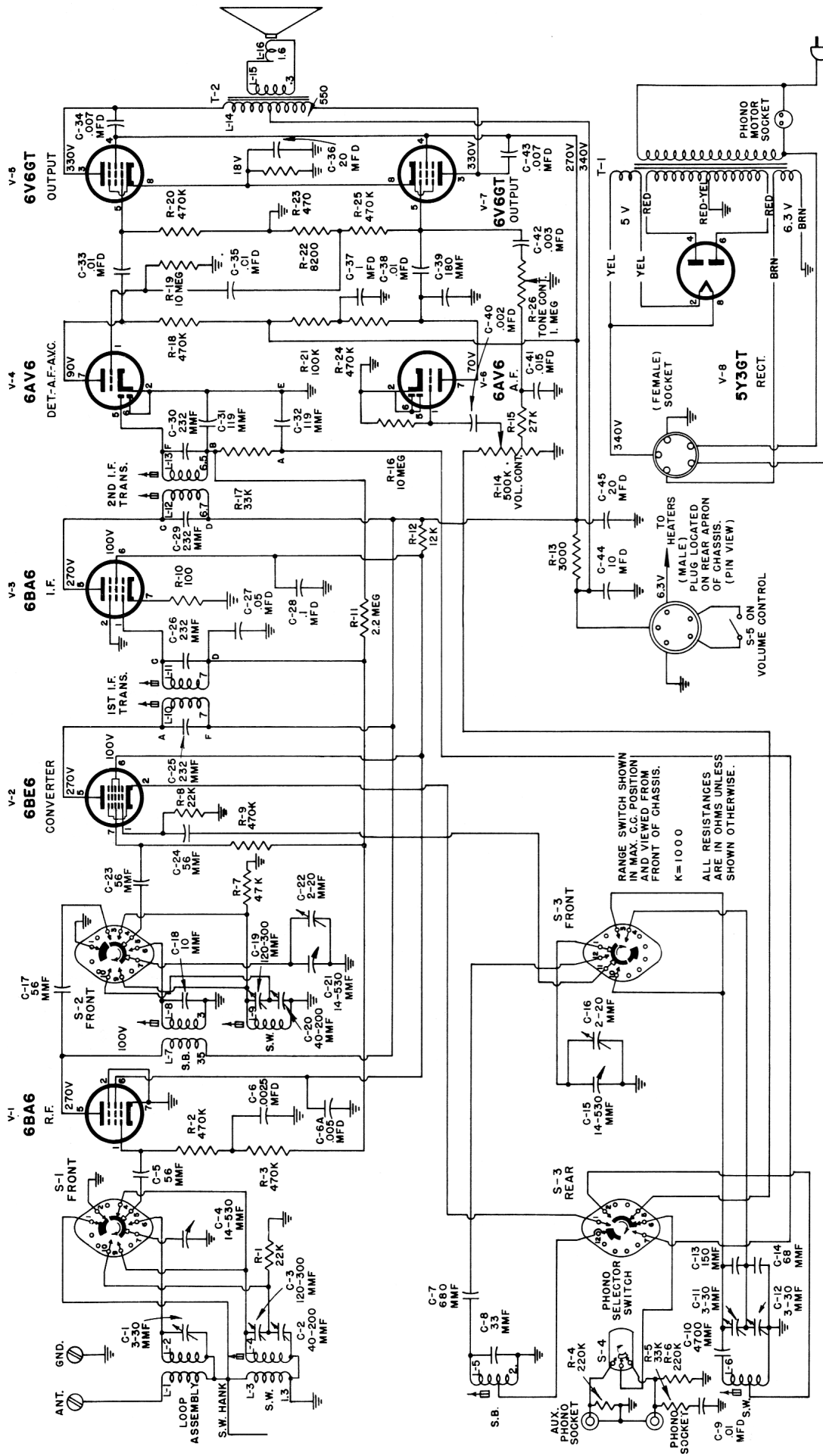


FIG. 2—SCHEMATIC DIAGRAM

ALIGNMENT PROCEDURE

Before aligning set, completely mesh the gang and set the dial pointer on the calibration point at the extreme left hand end of the dial.

When making a complete alignment follow in proper sequence the tabulated form below.

If only a portion of the circuit is to be aligned select the portion required, followed by the remaining steps in the chart.

For "S.B.", 49-31M and 25-19M band alignment use output meter across voice coil keeping Test Oscillator output as low as possible to prevent AVC action.

Cathode-ray oscilloscope and sweep signal generator alignment of the 455 kc. A.M. I.F. transformers is the preferable method. Connect oscilloscope across the volume control. If the required equipment is not available use the method outlined below.

[illegible]

REPLACEMENT PARTS FOR MODEL VRA 85

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
CHASSIS ASSEMBLY			CHASSIS ASSEMBLY (Cont'd)		
S-3717	Capacitor - Trimmer (C-11, C-12).....		S-4913	Switch (Phono selector switch) (S-4).....	
S-3718	" - " (C-19, C-20).....		S-3667	Transformer - 1st I.F. (C-25, C-26,.....	
S-3719	" - " (C-2, C-3).....			L-10, L-11).....	
39604	" - 10 MMF. 10%, 400 V. Mica (C-18)		S-3668	" - 2nd I.F. (C-29, C-30, C-31	
39616	" - 33 MMF. 5% 400 V. Mica (C-8)..			C-32, L-12, L-13).....	
39622	" - 56 MMF. 20% 400 V. Mica		S-3708	Volume Control & Power Switch 500,00	
	(C-5, C-17, C-23, C-24).....			Ohms (R-14, S-5).....	
39624	" - 68 MMF. 5%, 400 V. Mica (C-14)		S-4359	Tone Control - 1 Megohm (R-26).....	
12725	" -150 MMF. 5%, 400 V. Mica (C-13)		SPEAKER ASSEMBLY (12" P.M.)		
39634	" -180 MMF. 20%, 400 V. Mica (C-39)		13867	Dust Cap (Pkg. 5).....	
14498	" -680 MMF. 5%, 400 V. Mica (C-7)..		S-3568	Cone - cone & voice coil Assy. (L-16).....	
---	" - .007 Mfd. 500 V. (C-34, C-43)....		S-4912	Output transformer (L-14, L-15).....	
---	" - .005 Mfd. 600 V. (C-6A).....		POWER SUPPLY CHASSIS		
---	" - .003 Mfd. 1600 V. (C-43).....		12493	Socket - power supply socket (F).....	
---	" - .0025 " 400 V. (C-6, C-40).....		30868	Socket - phono motor socket (F).....	
---	" - .05 " 400 V. (C-27).....		S-4381	Transformer - power transformer 25 Cy.) _{T-1}	
---	" - .015 " 400 V. (C-41).....		S-4379	" - " " 60 Cy.)	
---	" - .01 " 800 V. (C-33,		MISCELLANEOUS ASSEMBLIES		
---	C-35, C-38).....		S-5289	Clamp - back cover (Pkg. 2).....	
---	" - .01 Mfd. 200 V. (C-9).....		S-4313	Cord - dial cord.....	
---	" - .1 " 400 V. (C-28, C-37).....		S-5290	Cloth - Grille cloth.....	
S-3706	Condenser - Variable (C-4, C-15, C-21).....		S-4357	Dial Scale.....	
S-3720	" - Electrolytic (C-36, C-44, C-45)		S-5291	Decal.....	
	(20-10-20 Mfd.).....		13103	Jewel - lamp cap.....	
S-3712	Coil - antenna coil S.W. (L-3, L-4).....		S-4272	Knob - Walnut (tuning - volume).....	
S-3713	" - R.F. coil B.C. (L-7, L-8).....		S-5287	" - Blonde - (tuning - volume).....	
S-3714	" - R.F. coil S.W. (L-9).....		S-4273	" - Walnut - (range switch).....	
S-3716	" - Osc. coil B.C. (L-5).....		S-5288	" - Blonde - (range switch).....	
S-3715	" - " " S.W. (L-6).....		32844	Knob block - for phono changeover switch	
S-4786	Indicator - station selector pointer.....		---	Lamp - Pilot lamp (Mazda 47).....	
S-4358	Loop - Loop assembly (L-1, L-2).....		---	Lamp - Pilot indicator lamp (Mazda 51).....	
32641	Plug - Loop antenna connecting plug.....		S-4672	Monogram - RCA Victor.....	
12567	Power Supply Plug.....		31418	Spring - dial cord tension (Pkg. 2).....	
---	Resistor 470 ohms $\frac{1}{4}$ watt (R-23).....		S-5292	Support - lid support	
S-3521	" 3000 " W.W. 5 watt (R-13).....		30900	Spring - knob retaining spring (Pkg. 5).....	
---	" 8200 " $\frac{1}{4}$ watt (R-22).....		14270	Spring - " " (for phono	
---	" 12,000 " 2 " 10% (R-13).....			knob) (Pkg. 2).....	
---	" 22,000 " $\frac{1}{4}$ " (R-1, R-8).....		AUTOMATIC RECORD CHANGER ASSEMBLY		
---	" 27,000 " $\frac{1}{4}$ " (R-15).....		Refer to RP-178 service notes for Replacement		
---	" 33,000 " $\frac{1}{4}$ " (R-5, R-17).....		Parts and Service Data.		
---	" 47,000 " $\frac{1}{4}$ " (R-7).....				
---	" 100,000 " $\frac{1}{4}$ " (R-21).....				
---	" 470,000 " $\frac{1}{4}$ " (R-2, R-3, R-18,				
---	R-20, R-24, R-25).....				
---	" 2.2 Megohms $\frac{1}{4}$ watt (R-11).....				
---	" 10 " $\frac{1}{4}$ " (R-16, R-19).....				
S-4787	Shaft - drive shaft.....				
S-3709	Switch - range switch (S-1, S-2, S-3).....				
14278	Socket - phono socket.....				

All parts and prices subject to change or withdrawal without notice.
Only items listed under stock numbers are available as Replacement Parts.