



MODEL V406



RCA VICTOR



RADIO & DUAL PHONOGRAPH COMBINATION

Models V-406 & V-416

SERVICE DATA

— 1951 No. 11 —

GENERAL SERVICE DIVISION
RCA VICTOR COMPANY LIMITED
MONTREAL, QUE.

ELECTRICAL & MECHANICAL SPECIFICATIONS

TUNING RANGE

Standard Broadcast 540-1600 KC.
 Short Wave 5.8-19.6 MC.
 Intermediate Frequency 455 KC.

TUBE COMPLEMENT

(1) Type 6BJ6 R.F.
 (2) Type 12BE6 Converter
 (3) Type 12SF7 I.F. Amplifier, Det. & A.V.C.
 (4) Type 12SC7 Audio Phase Inverter
 (5) Type 35L6GT Output
 (6) Type 35L6GT Output
 Rectifier A selenium rectifier is used.
 Dial lamps (3) Mazda 1813
 Tuning drive ratio 11:1 (5½ turns of knob)

POWER SUPPLY RATING

Rating A ---- 105-125 volts, 25 cycles, .55 amps. 63 watts
 Rating B ---- 105-125 volts, 60 cycles, .55 amps. 63 watts

LOUDSPEAKER

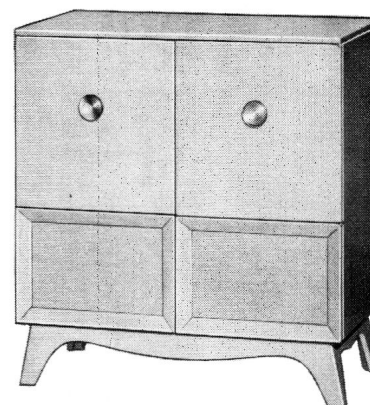
Size and Type 10 in. P.M.
 Voice coil impedance 3.4 ohms at 400 cycles

POWER OUTPUT

Undistorted 2.5 watts
 Maximum 3.5 watts

RECORD CHANGER (RP168C) ON V406 & V416

Turntable speed 45 r.p.m.
 Record capacity eight 7 in.
 Pickup Crystal (med. Out)



MODEL V416

RECORD CHANGER (RP200) ON V406

Turntable speed 33-78 r.p.m.
 Record capacity ten twelve or twelve ten
 Pickup Crystal (med. Out)

RECORD CHANGER (RP201) ON V416

Turntable speed 33-78 r.p.m.
 Record capacity ten twelve or twelve ten
 Pickup Crystal (med. Out)

CABINET DIMENSIONS

	V406	V416
Height	30¾"	31¾"
Width	30¼"	30"
Depth	16"	16½"

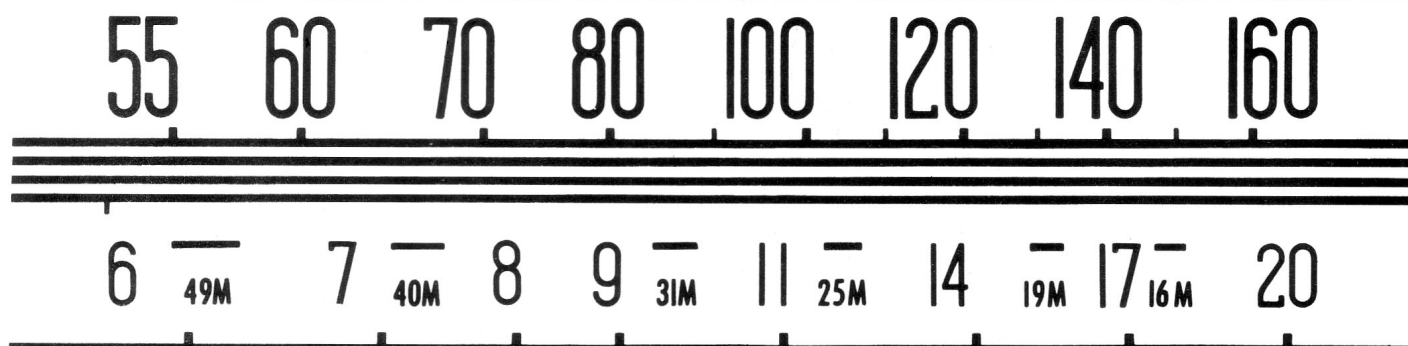


FIG. 1 DIAL SCALE (V406 & V416)

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

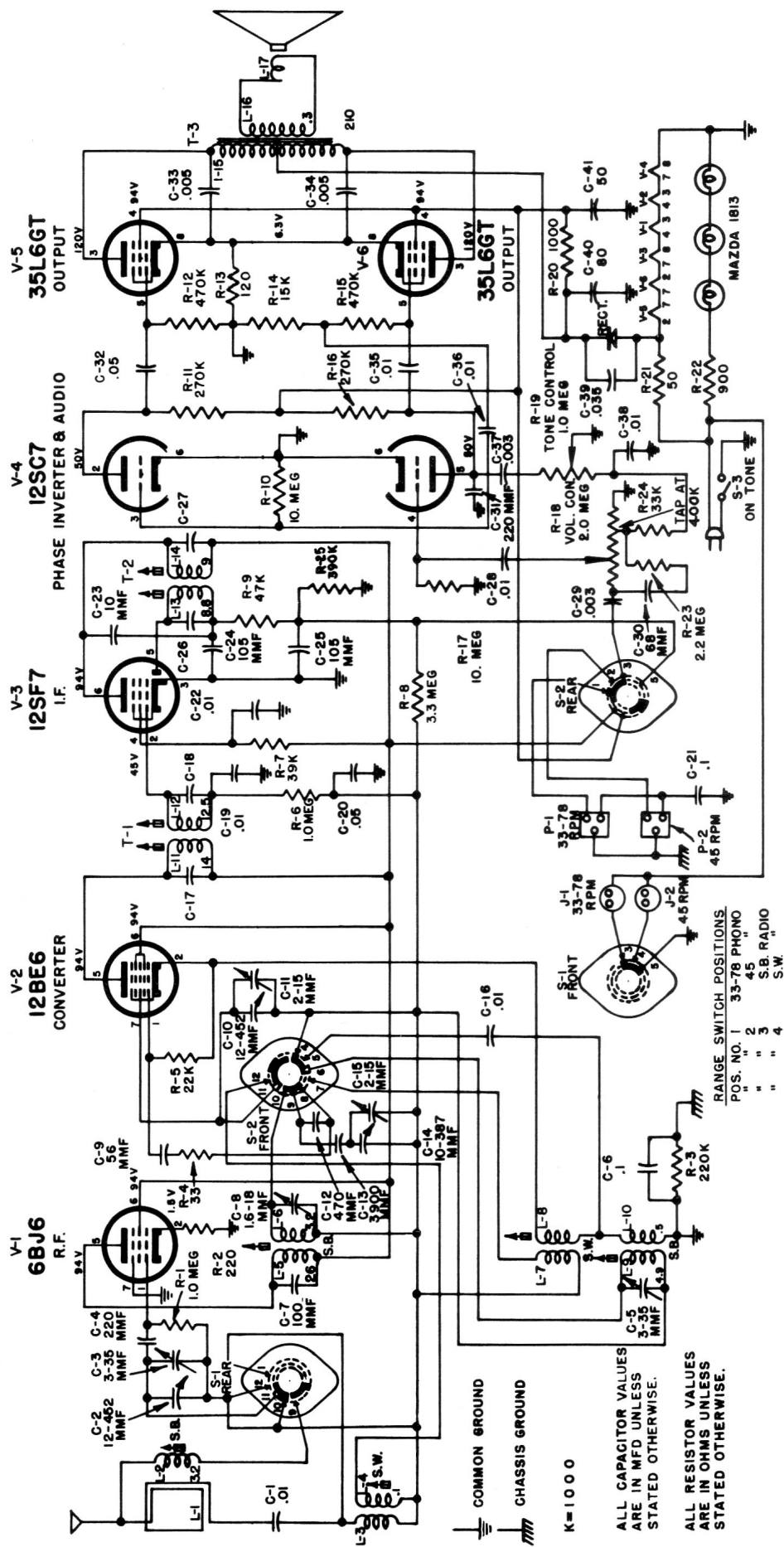
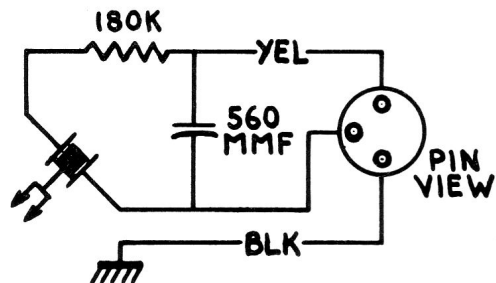
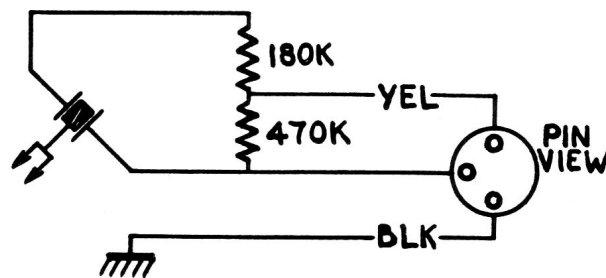


FIG. 2 SCHEMATIC DIAGRAM (V406 & V416)

PHONO COMPENSATION



MODEL V406



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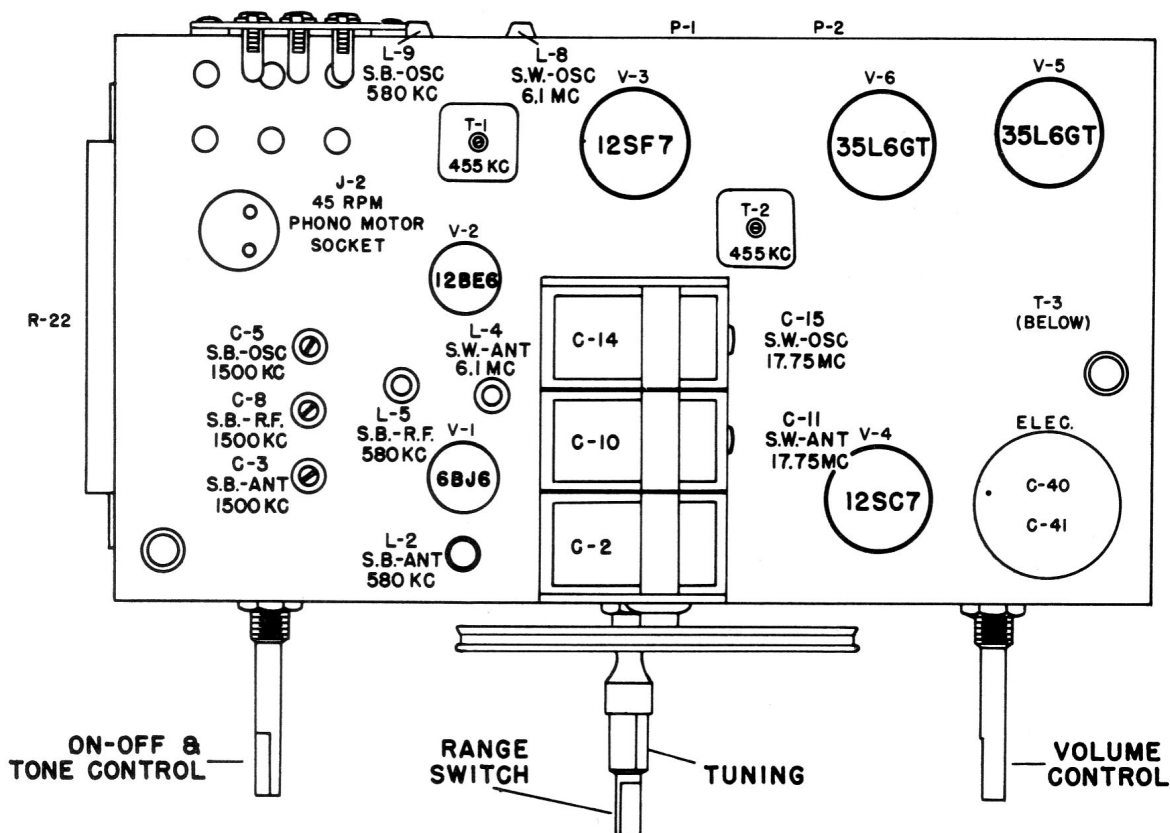


FIG. 3 CHASSIS LAYOUT AND ALIGNMENT ADJUSTMENT.

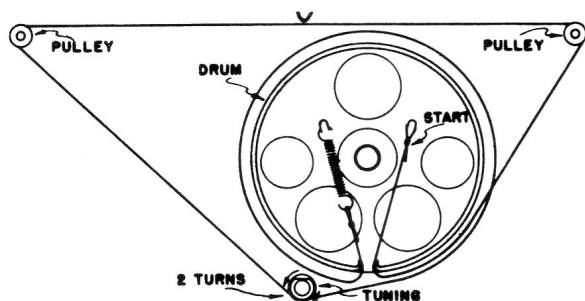


Fig. 4—Dial Cord Stringing

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.

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.

ALIGNMENT CHART

ORDER OF ALIGNMENT	TEST OSCILLATOR					RECEIVER				
		CONNECT "HI" SIDE TO	CONNECT "LO" SIDE TO	DUMMY ANTENNA	FREQUENCY SETTING	RANGE SELECTOR	DIAL SETTING	CIRCUIT TO ADJUST	ADJUSTMENT SYMBOLS	NOTES
I.F. ALIGNMENT	1	Pin #2 12SF7	Gnd.	.1 mfd	455 KC	S.B.	"HI" END	T-2 2nd I.F. Trans.	Top & Bottom Slugs	Max. Out.
	2	Pin #7 12BE6	Same	Same	Same	Same	Same	T-1 1st I.F. Trans.	Top & Bottom Slugs	Same
	3	Repeat steps 1 & 2.								
S.W. ALIGNMENT	4	Ant. Ter. BRD #1	Gnd.	300 ohms	17.75 Mc	S.W.	17.75 Mc.	Osc.	C-15	Same
	5	Same	Same	Same	17.75 Mc	Same	17.75 Mc	Ant.	C-11	Same
	6	Same	Same	Same	6.1 Mc	Same	6.1 Mc	Osc.	L-8	Same
	7	Same	Same	Same	6.1 Mc	Same	6.1 Mc	Ant.	L-4	Same
	8	Repeat steps 4 to 7.								
S.B. ALIGNMENT	9	"HI" Side of Loop	Same	10 mmf	1500 Kc	S.B.	1500 Kc	C-5 C-8 C-3	Osc. R.F. Ant.	Same
	10	Same	Same	Same	580 Kc	Same	580 Kc	L-9 L-5 L-2	Osc. R.F. Ant.	Same
	11	Repeat steps 9 to 10.								

REPLACEMENT PARTS FOR MODELS V-406 & V-416

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

STOCK NO.	DESCRIPTION	STOCK NO.	DESCRIPTION
CHASSIS ASSEMBLIES		Chassis Assembly (Cont'd)	
S-5966	Capacitor, trimmer 3-35 MMF (C-3)	"	- 33,000" 10% $\frac{1}{2}$ W. (R-24)
S-5965	" " dual (3-55, 1.618 MME)	"	- 39,000" 10% $\frac{1}{2}$ W. (R-7)
* S-6188	Capacitor, Ceramic, 10 MMF., 10% 500 V. (C-23)	"	- 220,000 ohms 20% $\frac{1}{2}$ W. (R-3)
S-4523	Capristor, 56 MMF., 33 ohms (C-9, R-4) (C-30)	"	- 270,000 " 10% $\frac{1}{2}$ W. (R-11, R-16)
* S-6215	Capacitor, ceramic, 68 MMF. 10%, 500V. (C-7)	"	- 390,000 " 10% $\frac{1}{2}$ W. (R-25)
73152	" " 100 MMF, 20%, 500V. (C-24, C-25, R-9)	"	- 470,000 " 10% $\frac{1}{2}$ W. (R-15)
S-4614	Capacitor, 2-105 MMF., 47000 ohms	"	- 470,000 " 20% $\frac{1}{2}$ W. (R-12)
S-5940	Capacitor, ceramic 220 MMF. 20%. 350 V. (C-4, C-31)(C-12)	"	- 1.0 Megohm 20% $\frac{1}{2}$ W. (R-1, R-6)
* S-6190	Capacitor, Mica 470 MMF., 5%, 500 V. (C-13)	"	- 2.2 " 10% $\frac{1}{2}$ W. (R-23)
* S-6216	" " 3900 MMF., 5%, 500 V. (C-37)	"	- 3.3 " 20% $\frac{1}{2}$ W. (R-8)
"	.003 Mfd. 10%, 400V. (C-37)	"	- 10 " 20% $\frac{1}{2}$ W. (R-10, R-17)
"	.003 Mfd. 20%, 200V. (C-29)	* S-6185	Switch - Range switch (S-1)
"	.005 Mfd. 10%, 600 V. (C-33, C-34) (C-19, C-28)(C-36, C-38)	S-4487	Transformer - 1st I.F. transformer (T-1)
"	.01 Mfd. 10%, 200 V. (C-1, C-16)	* S-6192	" - 2nd I.F. " (T-2)
"	.01 Mfd. 20%, 200 V. (C-1, C-16)	* S-6187	" - Output " (T-3)
"	.01 Mfd. 20%, 400 V. (C-22, C-35)	SPEAKER ASSEMBLY	
"	.035 Mfd. 10%, 400V. (C-39)	S-5813	Speaker 10"
"	.05 Mfd. 20%, 200 V. (C-20)	S-5929	Cone - Cone & voice coil assy (L-17)
"	.05 Mfd. 20%, 400 V. (C-32)	MISCELLANEOUS ASSEMBLIES	
"	.1 Mfd. 10%, 400 V. (C-6, C-21)	* S-6194	Back - cabinet back (wal-mah.)(V406)
S-5703	" - Electrolytic 50 - 80 Mfd. 150 V. (C-40, C-41)	* S-6195	" " " (blonde) (V-406)
* S-6235	Coil - S.B. Ant. coil (L-1, L-2)	* S-6249	" " " " (V-416)
* S-6182	" - S.B. R.F. coil (L-5, L-6)	S-5935	Decalcommenias
* S-6181	" - S.B. Osc. coil (L-9, L-10)	S-4313	Dial Cord
* S-6183	" - S.W. Ant. coil (L-3, L-4)	* S-6193	Dial Scale
* S-6184	" - S.W. Oac. coil (L-7, L-8)	* S-6180	Dial Plate Assy
* S-6186	Condenser - Gang condenser (C-2, C-10, C-11, C-14, C-15)	* S-6248	Dore Pulls (V416)
38403	Control - Volume Control (R-18)	* S-6239	Door Pulls V406
S-5920	" - Tone control (R-19)(S-3)	* S-6237	Grille Cloth (Wal.-Mah.) V406
* S-6217	Rectifier - Selenium	* S-6250	" " " V416
Resistor - 50 ohms + 10% & 5%		* S-6238	" " (Blonde) V406
Resistor - 120 ohms 10% $\frac{1}{2}$ W. (R-13)		* S-6251	" " " V416
" - 220 " 20% $\frac{1}{2}$ W. (R-2)		S-5275	Knob Assy. (Mah.) (Tuning)
* S-6236	" - 900 " 10 W. (R-22)	S-4390	" " (Wal.) "
" - 1,000 " 10% $\frac{1}{2}$ W. (R-20)		S-5276	" " (Blonde) "
" - 15,000" 10% $\frac{1}{2}$ W. (R-14)		S-5277	" " (Mah.) (Range)
" - 22,000" 20% $\frac{1}{2}$ W. (R-5)		S-4387	" " (Wal.) "
		S-5278	" " (Blonde) "
		S-5279	" " (Mah.) Vol. & Tone
		S-3870	" " (Wal.) "
		S-5280	" " (Blonde) "
		Lamps - dial & pilot lamps (3)	
		S-5272 Pointer - dial pointer	

* INDICATES NEW STOCK ITEMS

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