

Emerson Radio

MODEL - 746B

CHASSIS - 120177-B

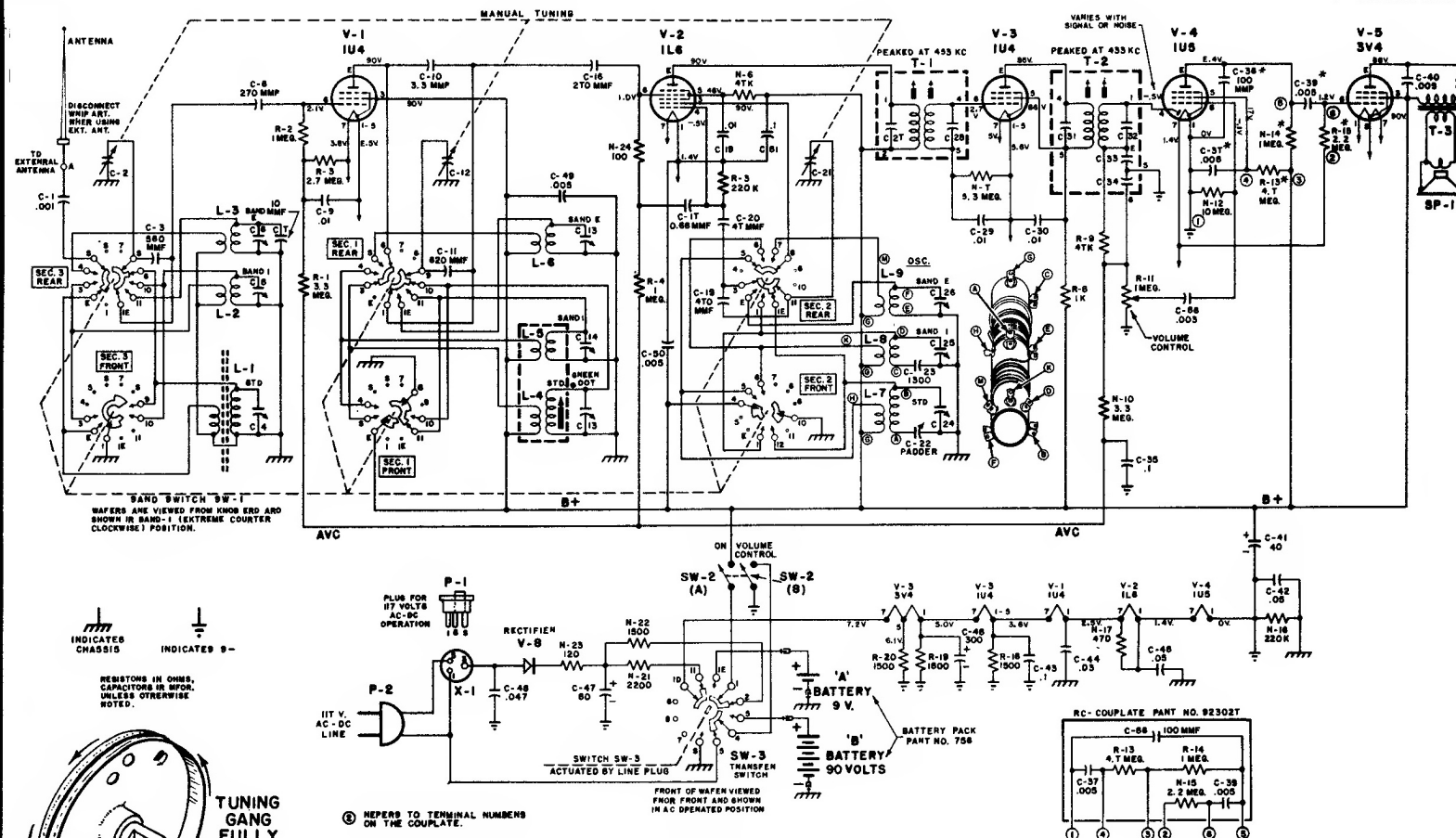


Figure 1. Schematic Diagram, Chassis 120177-B

CONDITIONS FOR VOLTAGE AND RESISTANCE ANALYSIS

1. Voltage readings are d.c. volts, resistance readings are ohms, with values measured from socket pin to B neutral.
2. Voltage readings measured for 117 volt a.c. line operation. All measurements made with voltohmmyst, or equivalent.
3. No signal applied and band switch in BC position, for voltage and resistance measurements.
4. Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in readings.
5. Resistance measurements taken with set turned "On" and line plug removed from wall socket (do not insert in chassis transfer switch SW-3). K = Kilohms, Meg. = Megohms.

EMERSON RADIO AND PHONOGRAPH CORPORATION

Model 746B, Chassis 120177-B

ALIGNMENT PROCEDURE

1. Volume control should be set at maximum position. The output of the signal generator should be no higher than necessary to obtain an output reading. Attenuate the signal input as alignment proceeds.
2. Use isolation transformer if available; otherwise when connecting low side directly to B neutral use a .1 mfd. condenser in series with low side of signal generator.
3. Refer to figure 3 for location of alignment trimmers.
4. For SW alignment of the receiver, maintain the telescoping antenna closed.

Step	SIGNAL GENERATOR		Band Switch Position	Dial Setting	Adjust	Procedure
	Coupling	Frequency				
1	High side thru 0.1 mfd. to grid (Pin No.6) V-2, 1L6. Low side to B neutral (See note 2 above).	455 KC	BC	Tuning Cond Fully open	T-2, T-1 Top and Bottom	Peak for maximum output.
2	Form loop of several turns and radiate signal into receiver.	1640 KC	BC	"	C-24 (BC OSC.)	* "
3	"	1420 KC	BC	Tune for maximum output	C-4 (BC Ant.) C-13 BC (RF)	* "
4	"	530 KC	BC	Tuning Cond. Fully Closed	C-22 (BC pad-der L-4 (BC. RF)	* "
Recheck steps 2 to 4 and retune if necessary						
5	High side thru a 200 MMF to external antenna terminal, low side to chassis.	6.5 MC.	SW-1	Tuning Cond Fully open	C-25 OSC.	Peak for maximum output *
6	"	5.5 MC	SW-1	Tune for max. output	C-5 (Antenna) C-14,(RF)	* "
7	"	22.0 MC	SW-2	Tuning Cond Fully open	C-26 OSC.	* "
8	"	21.5 MC	SW-2	Tune for max. output	C-6 (Antenna) C-15,(RF)	Rock dial each side of 21.5 MC. while adjusting C-6 and then C-15 for maximum response *

* Note underside chassis cover must be secured in place when performing steps 2 to 8, otherwise tuner tracking will shift.

RESISTANCE READINGS FOR CHASSIS 120177-B

SYMBOL	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7
V-1	1U4	25 ~	4 K	4 K	2 MEG.	N.C.	3 MEG.	40 ~
V-2	1L6	14 ~	4 K	4 K	210 K	50 K	3.5 MEG.	25 ~
V-3	1U4	40 ~	5 K	5 K	N.C.	40 ~	3 MEG.	55 ~
V-4	1U5	0 ~	900 K	4.2 MEG.	900 K	4 K	10 MEG.	14 ~
V-5	3V4	55 ~	4 K	4 K	0	65 ~	2.2 MEG.	75 ~
V-6	Selenium Rectifier							

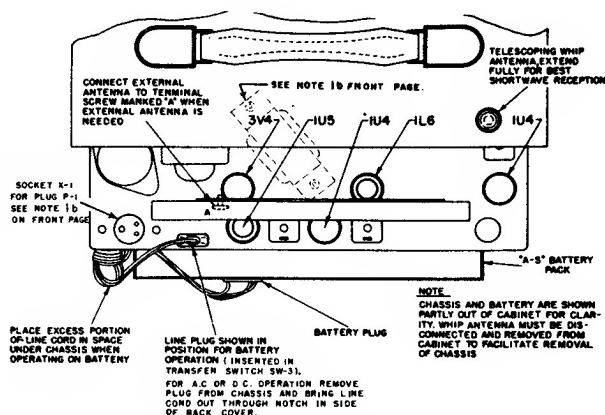


Figure 2. Tube and Battery Location Diagram

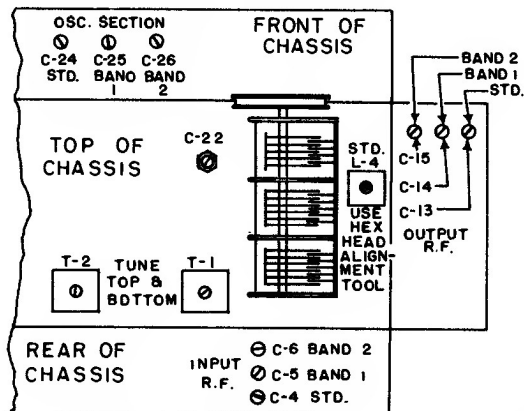


Figure 3. Alignment Point Drawing