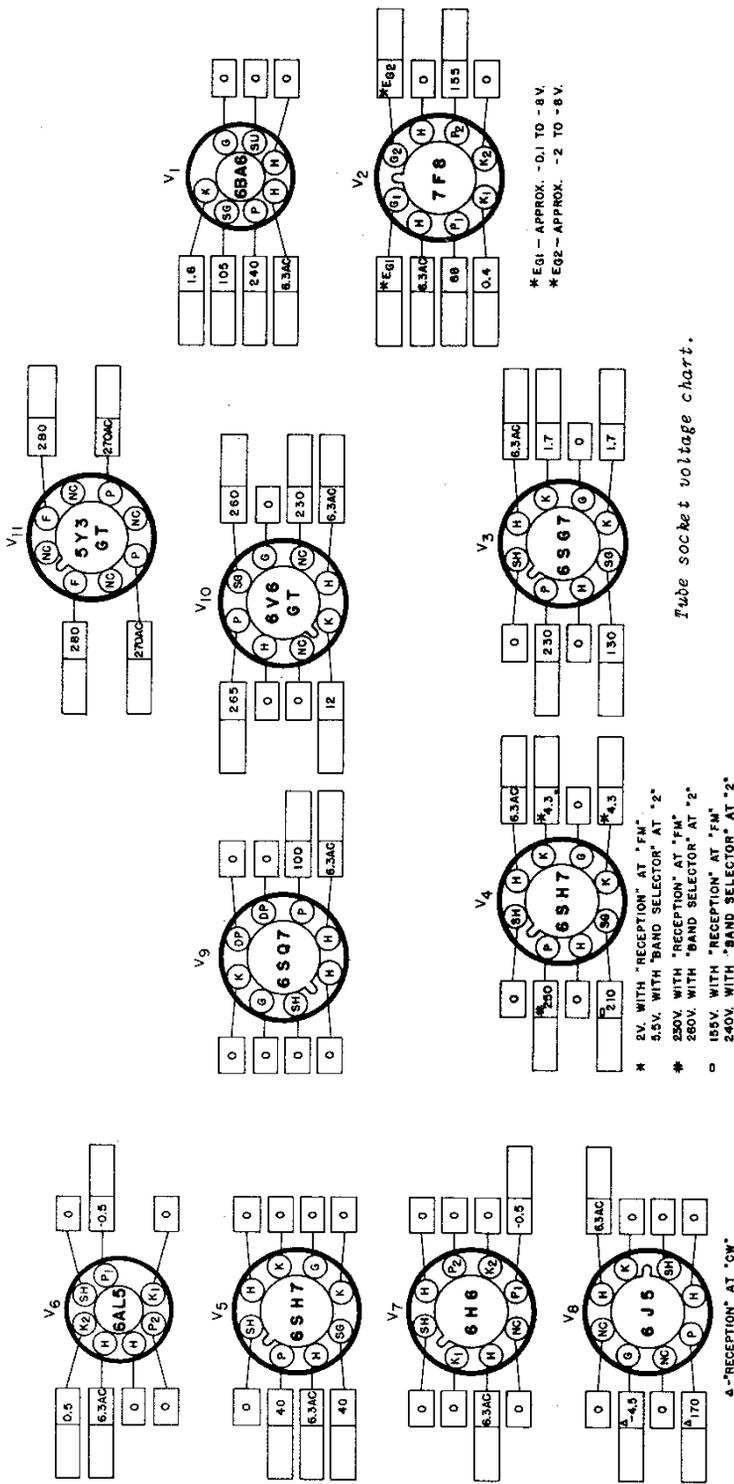


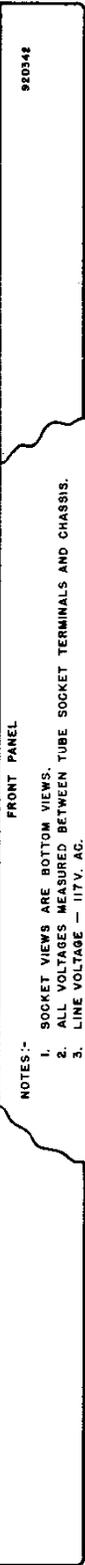
MODEL SX-43

THE HALLICRAFTERS CO.

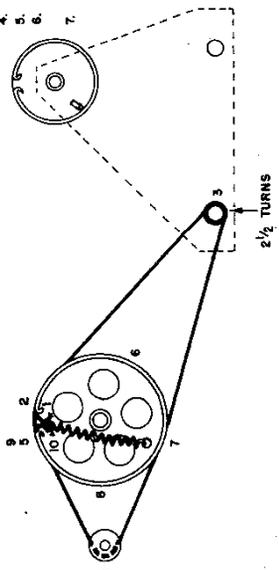


*Eg1 - APPROX. -0.1 TO -8V.
 *Eg2 - APPROX. -2 TO -8V.

Tube socket voltage chart.

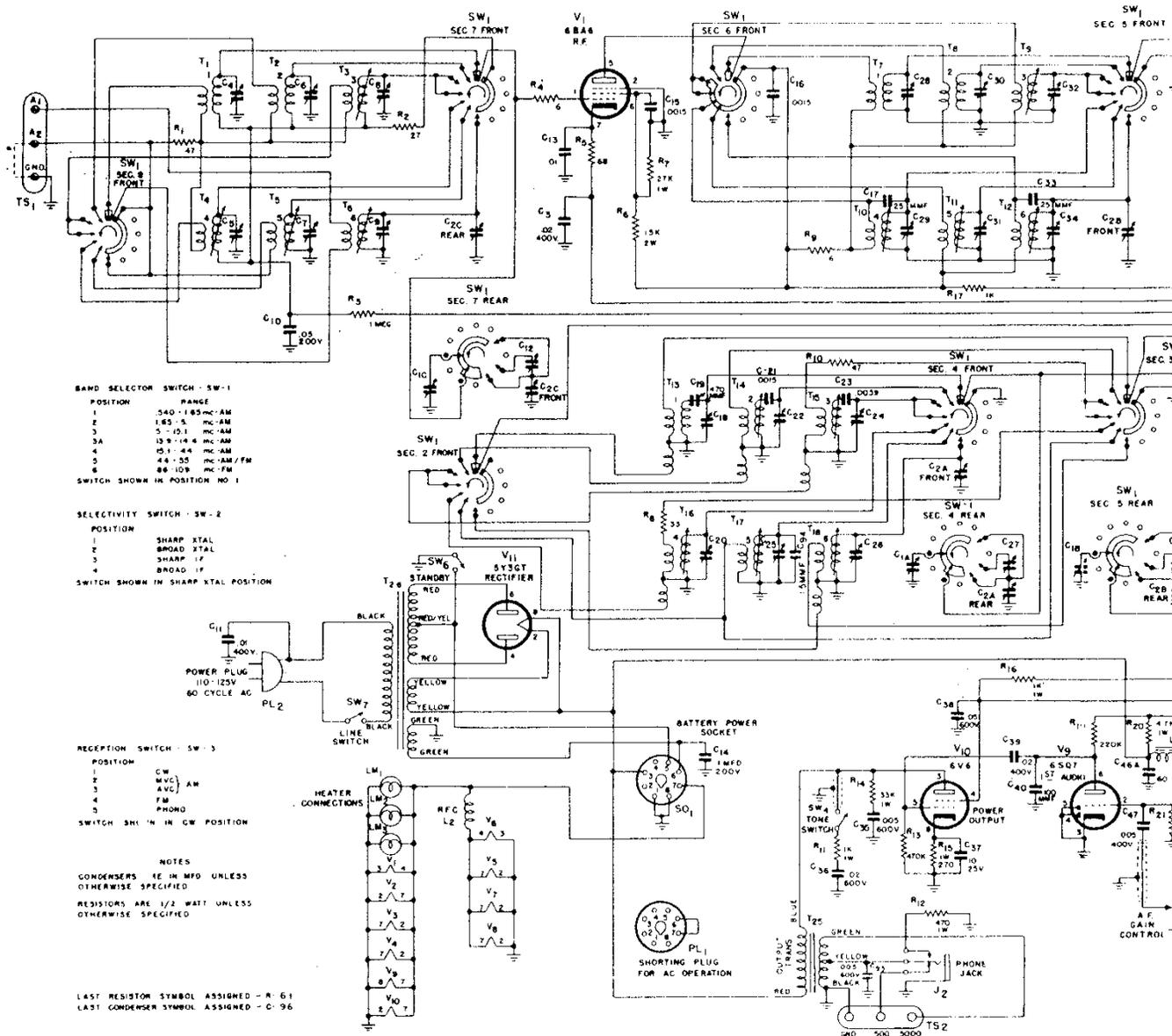


- NOTES:-
1. SOCKET VIEWS ARE BOTTOM VIEWS.
 2. ALL VOLTAGES MEASURED BETWEEN TUBE SOCKET TERMINALS AND CHASSIS.
 3. LINE VOLTAGE - 117V. AC.
 4. ALL VOLTAGES SHOWN ARE DC UNLESS OTHERWISE SPECIFIED.
 5. VOLTAGES SHOWN WERE MEASURED WITH A 20,000 OHM / VOLT METER.
 6. "NC" - NO CONNECTION (VOLTAGE SHOWN FOR THIS TERMINAL ONLY WHEN TERMINAL IS USED AS A TIE LUG.)
 7. CONTROL SETTING.



Dial cable stringing, band spread dial.

Dial cable stringing, general coverage dial



BAND SELECTOR SWITCH - SW-1

POSITION	RANGE
1	540-1830 KC-AM
2	183-5 MC-AM
3	5-10.1 MC-AM
3A	13.9-14.4 MC-AM
4	15.1-24 MC-AM
5	44-55 MC-AM/FM
6	88-109 MC-FM

SWITCH SHOWN IN POSITION NO. 1

SELECTIVITY SWITCH - SW-2

POSITION	
1	SHARP XTAL
2	BROAD XTAL
3	SHARP IF
4	BROAD IF

SWITCH SHOWN IN SHARP XTAL POSITION

RECEPTION SWITCH - SW-3

POSITION	
1	CW
2	MVC AM
3	AVC AM
4	FM
5	PHONO

SWITCH SHOWN IN CW POSITION

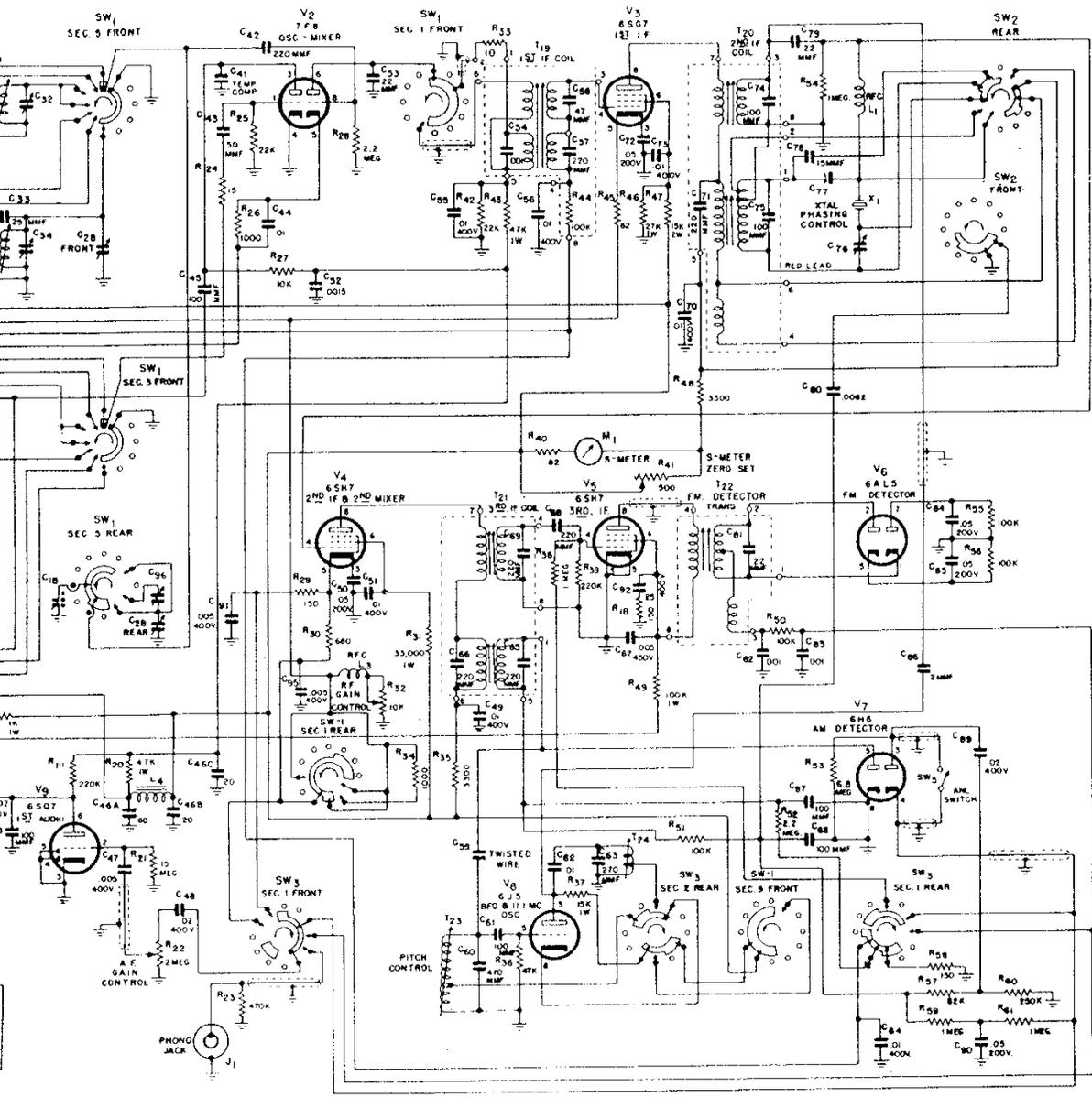
NOTES

CONDENSERS 4E IN MFD UNLESS OTHERWISE SPECIFIED

RESISTORS ARE 1/2 WATT UNLESS OTHERWISE SPECIFIED

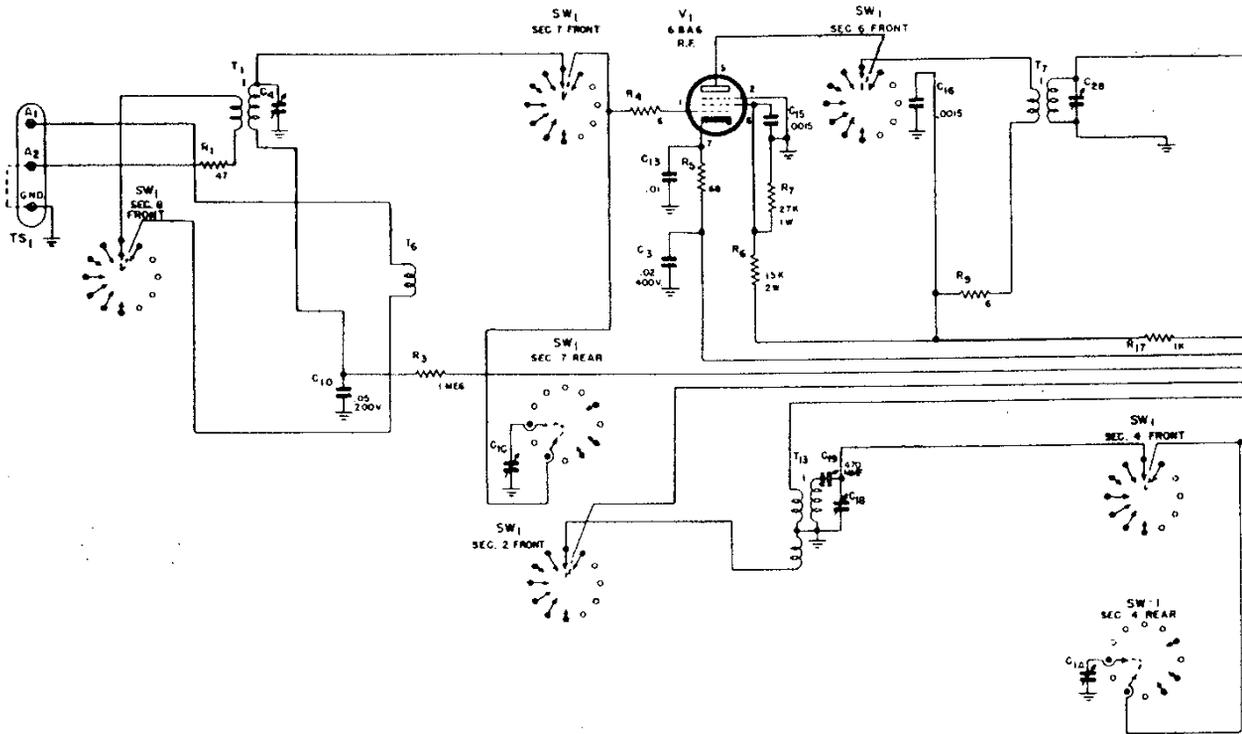
LAST RESISTOR SYMBOL ASSIGNED - R: 61
 LAST CONDENSER SYMBOL ASSIGNED - C: 96

- Tubes Eleven
- Speaker Output 500/5000 Ohms.
- Headset Output High Impedance.
- Antenna Input For 72 to 600-ohm line or single wire lead-in.
- Phono Input High Impedance.
- External Power Connector. Std. Octal Socket.



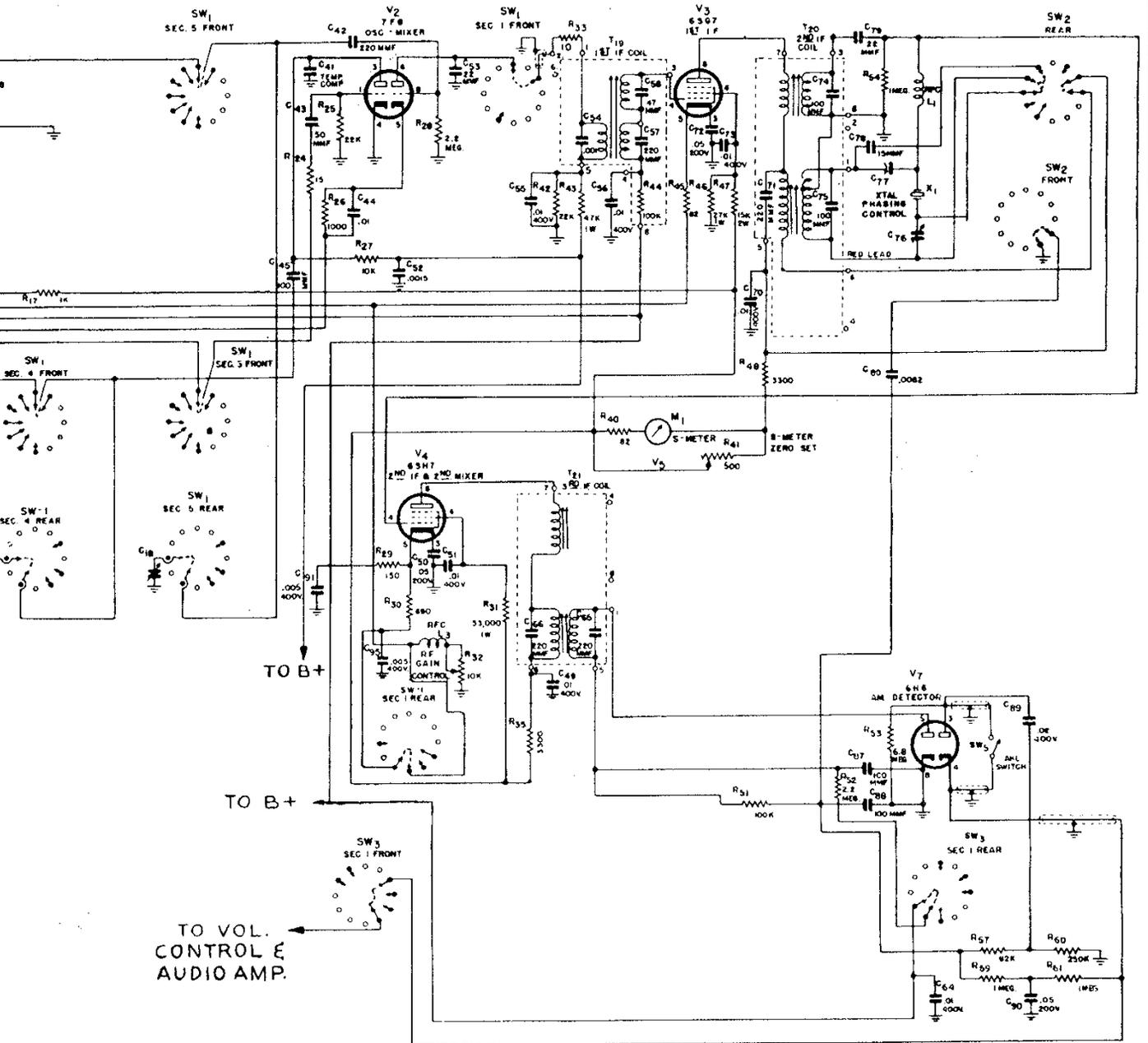
Tuning Range. Band 1. 540 kc - 1700 kc. AM.
 2. 1.7 mc - 5 mc. AM.
 3. 5 mc - 16 mc. AM.
 3A. 14 mc - 14.4 mc. AM.
 4. 15.5 mc - 44 mc. AM.
 5. 44 mc - 55 mc. AM/FM
 6. 86 mc - 109 mc. FM

Intermediate Frequency. 455 kc/10.7 mc.
 Power Supply. 105-125 V. 50/60 cycles AC.
 Power Consumption 90 Watts.

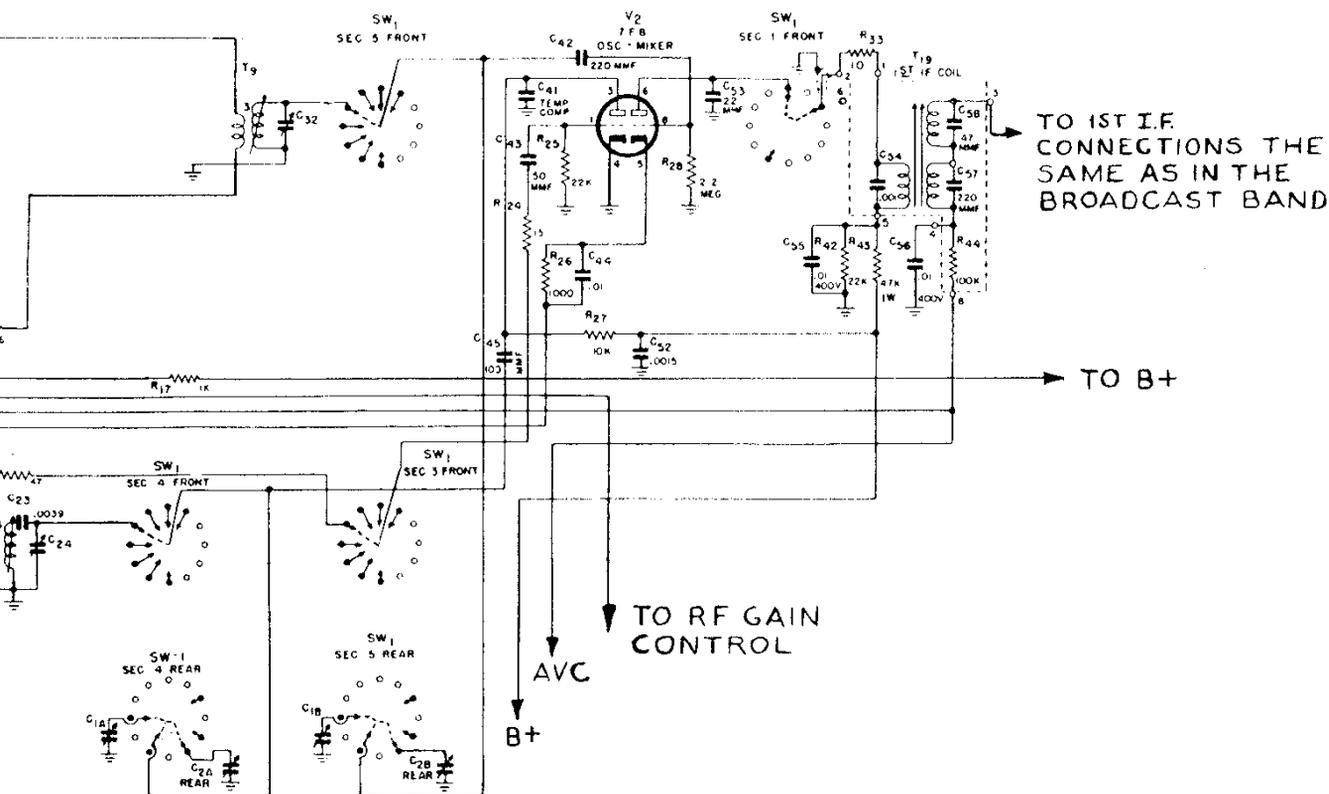
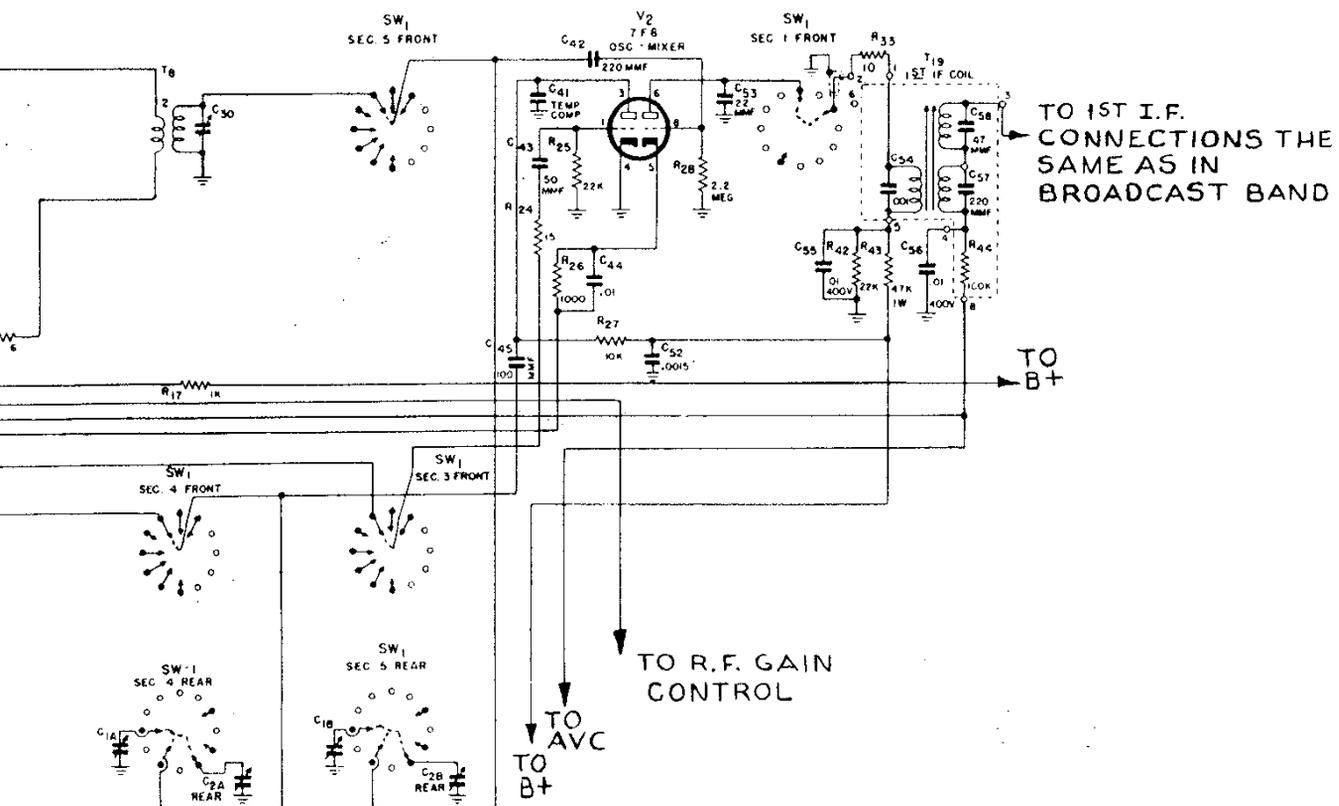


BAND-SWITCH SHOWN
AT 1ST POSITION.
BROADCAST BAND
540-1650 KC

THE HALLICRAFTERS CO.

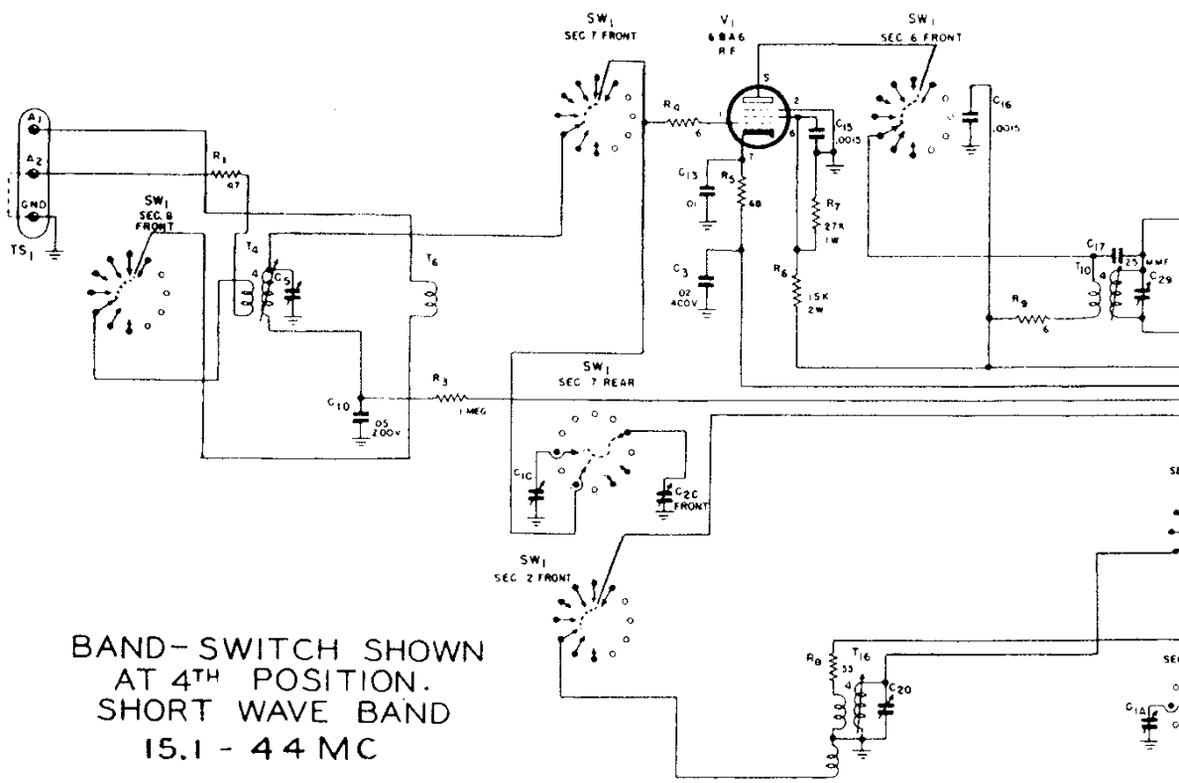
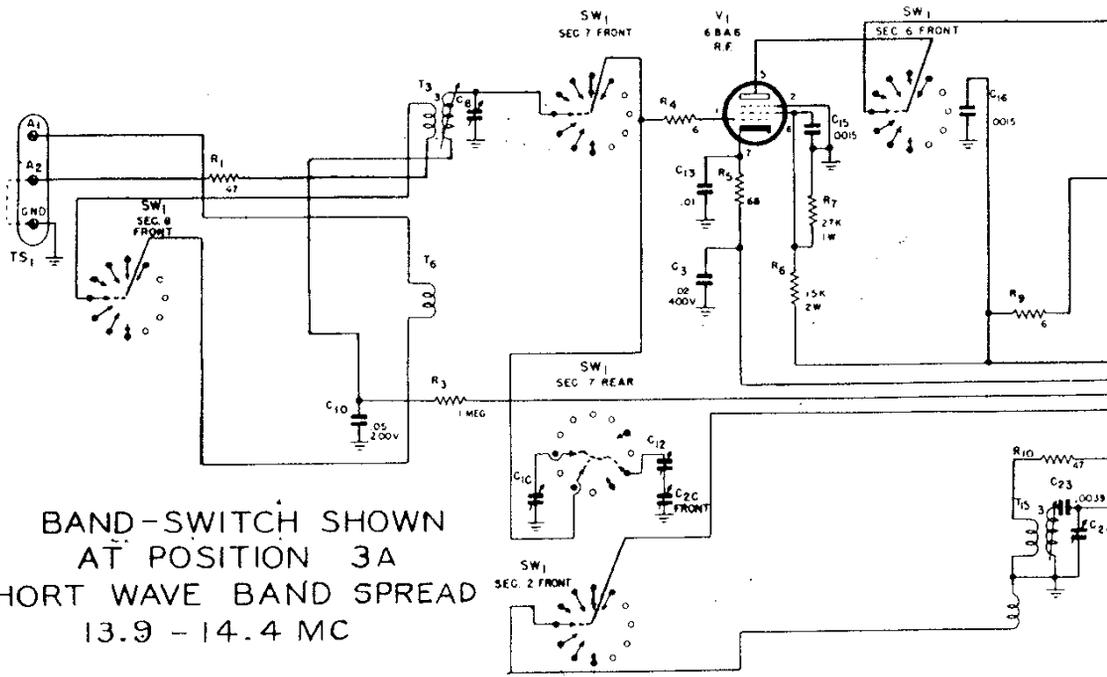


TO VOL. CONTROL & AUDIO AMP.

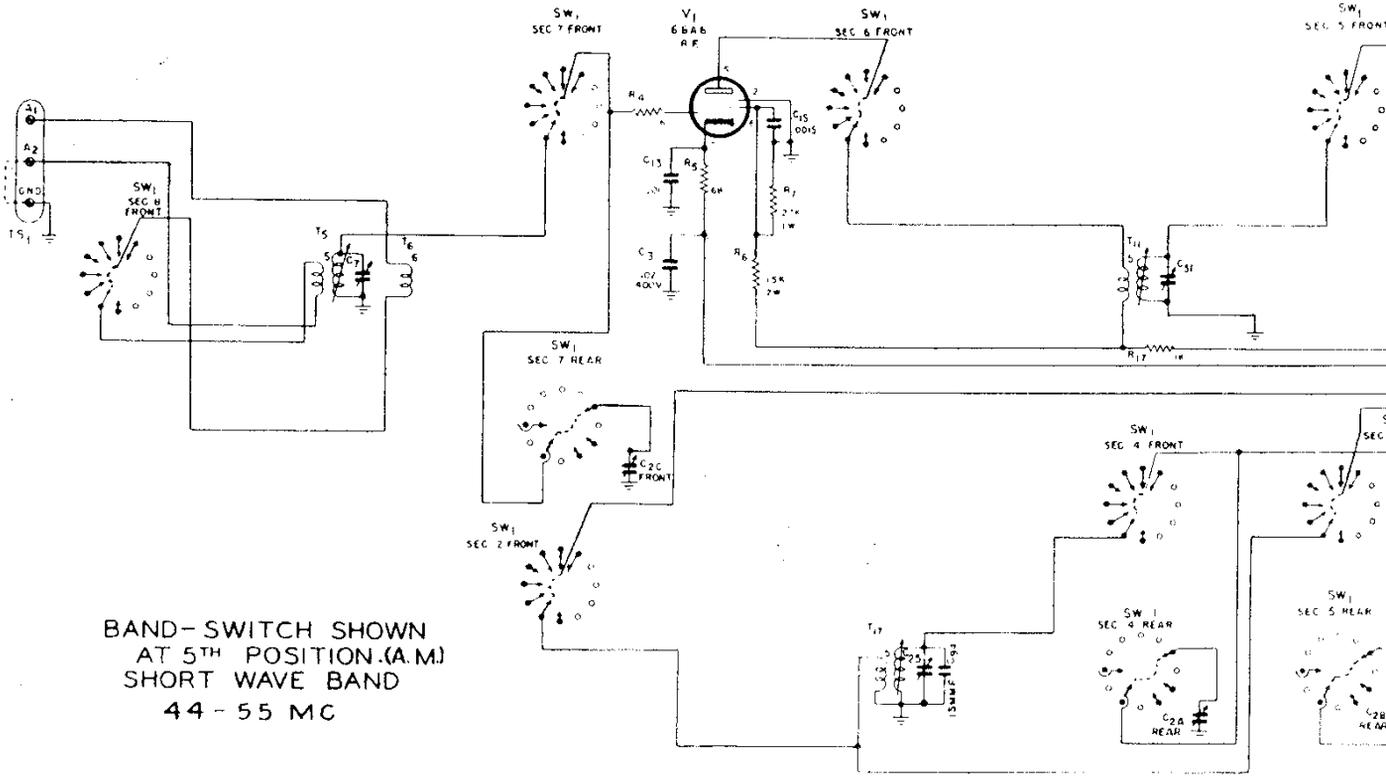


MODEL SX-43

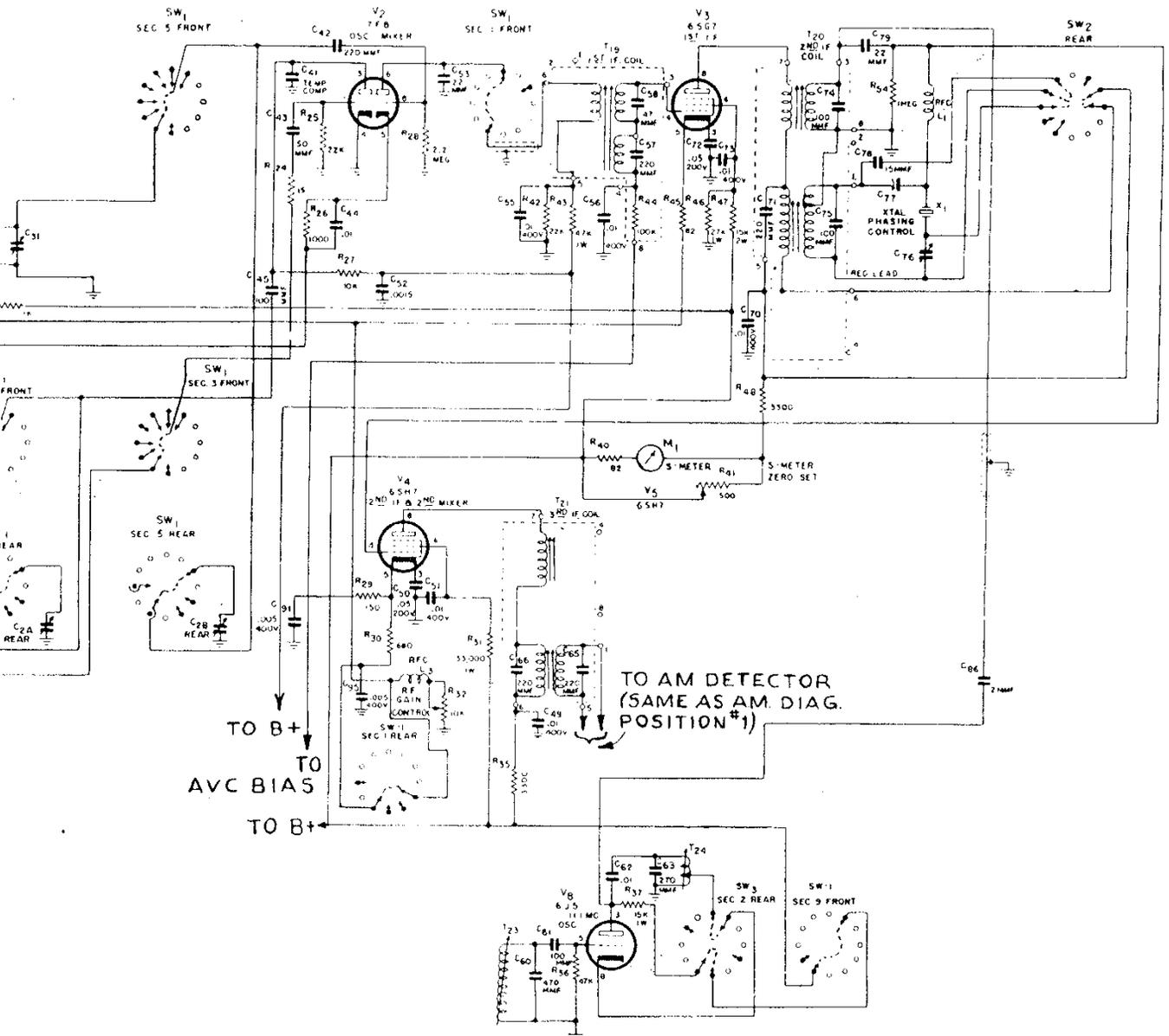
THE HALLICRAFTERS



18-1920



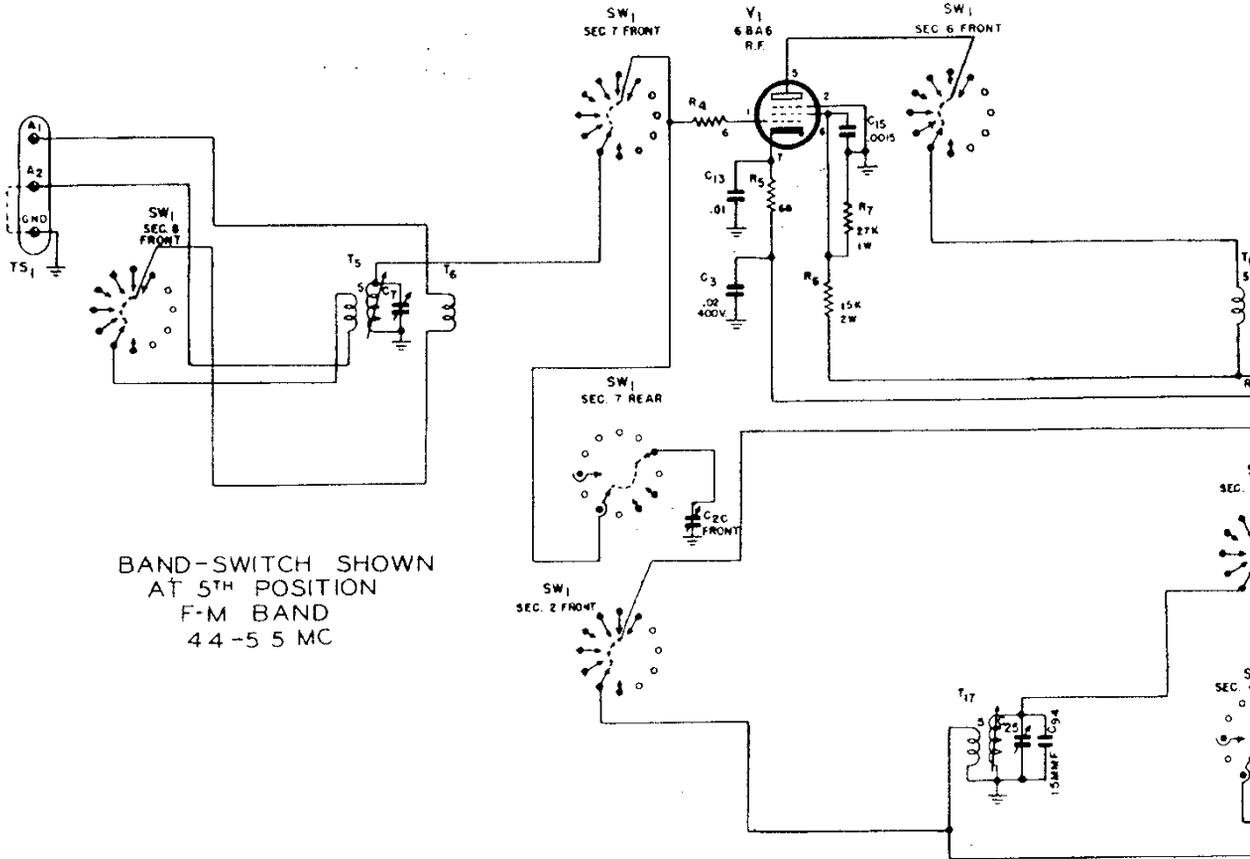
BAND-SWITCH SHOWN
AT 5TH POSITION (A.M.)
SHORT WAVE BAND
44 - 55 MC



TO B+
TO AVC BIAS
TO B+

TO AM DETECTOR
(SAME AS AM DIAG.
POSITION #1)

MODEL SX-43



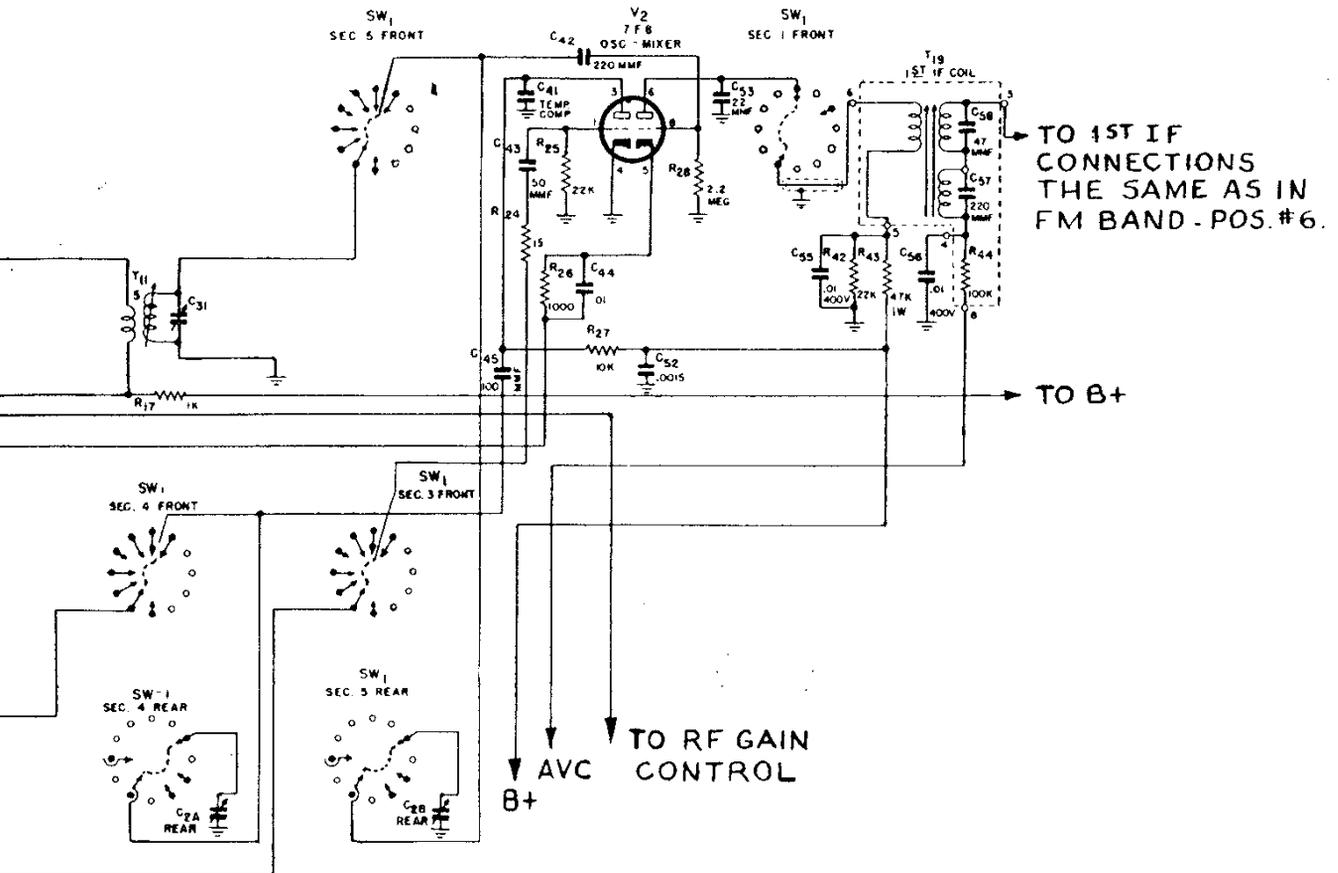
BAND-SWITCH SHOWN
AT 5TH POSITION
F-M BAND
44-55 MC



CARRIER LEVEL METER ADJUSTMENT

1. Connect a jumper between the terminals and ground.
2. Set front panel controls as follows:
 - SENSITIVITY - Maximum.
 - RECEPTION - AM/AVC.
 - SELECTIVITY - NORMAL/SHARP.
 - BAND SELECTOR - 4.
 - VOLUME - Maximum. (N.B. be heard.)
3. Set "S" METER ADJ. (See Fig. 3.) to zero on the carrier level meter.

HALLICRAFTERS CO.



FRONT ADJUSTMENT:

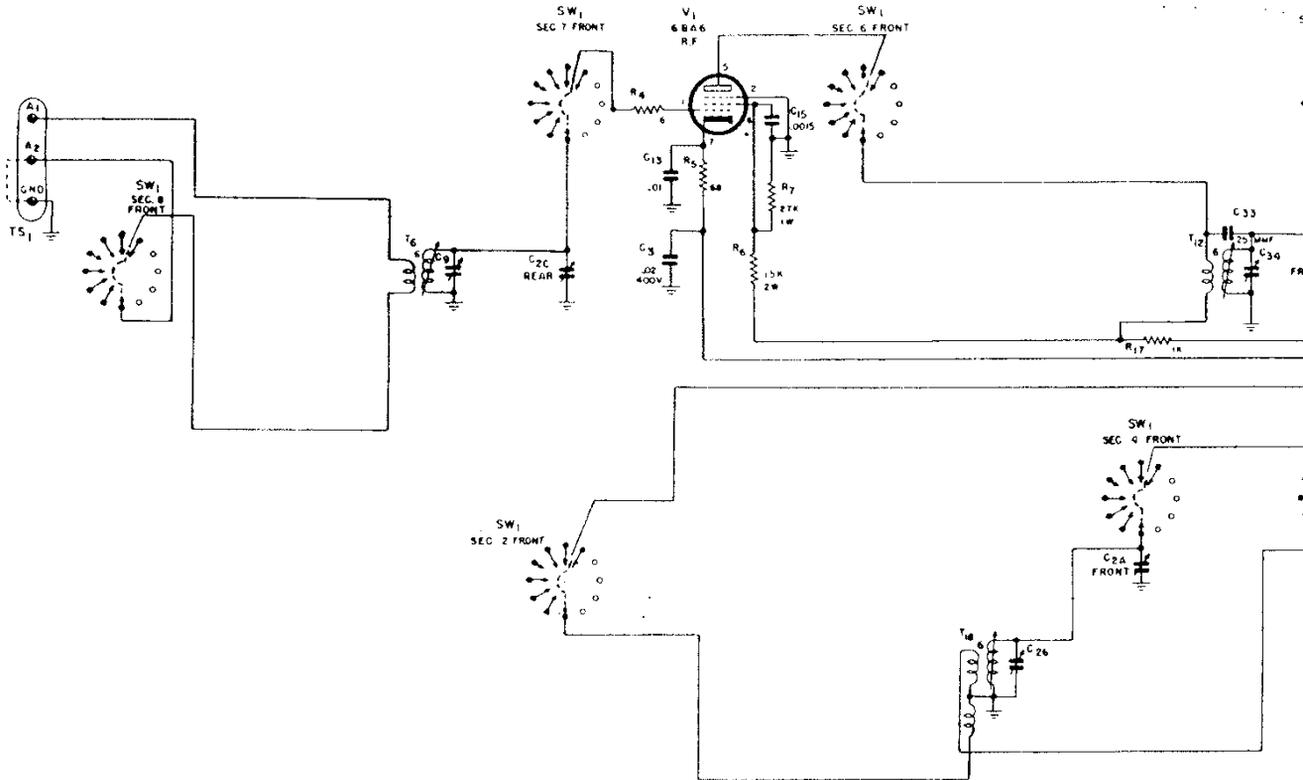
When the two antenna terminals are adjusted, controls as follows:

- Maximum.
- AM/AVC.
- NORMAL/SHARP.
- 4.
- Maximum. (No signal should be heard.)
- See Fig. 3.) on rear chassis on the CARRIER LEVEL meter.

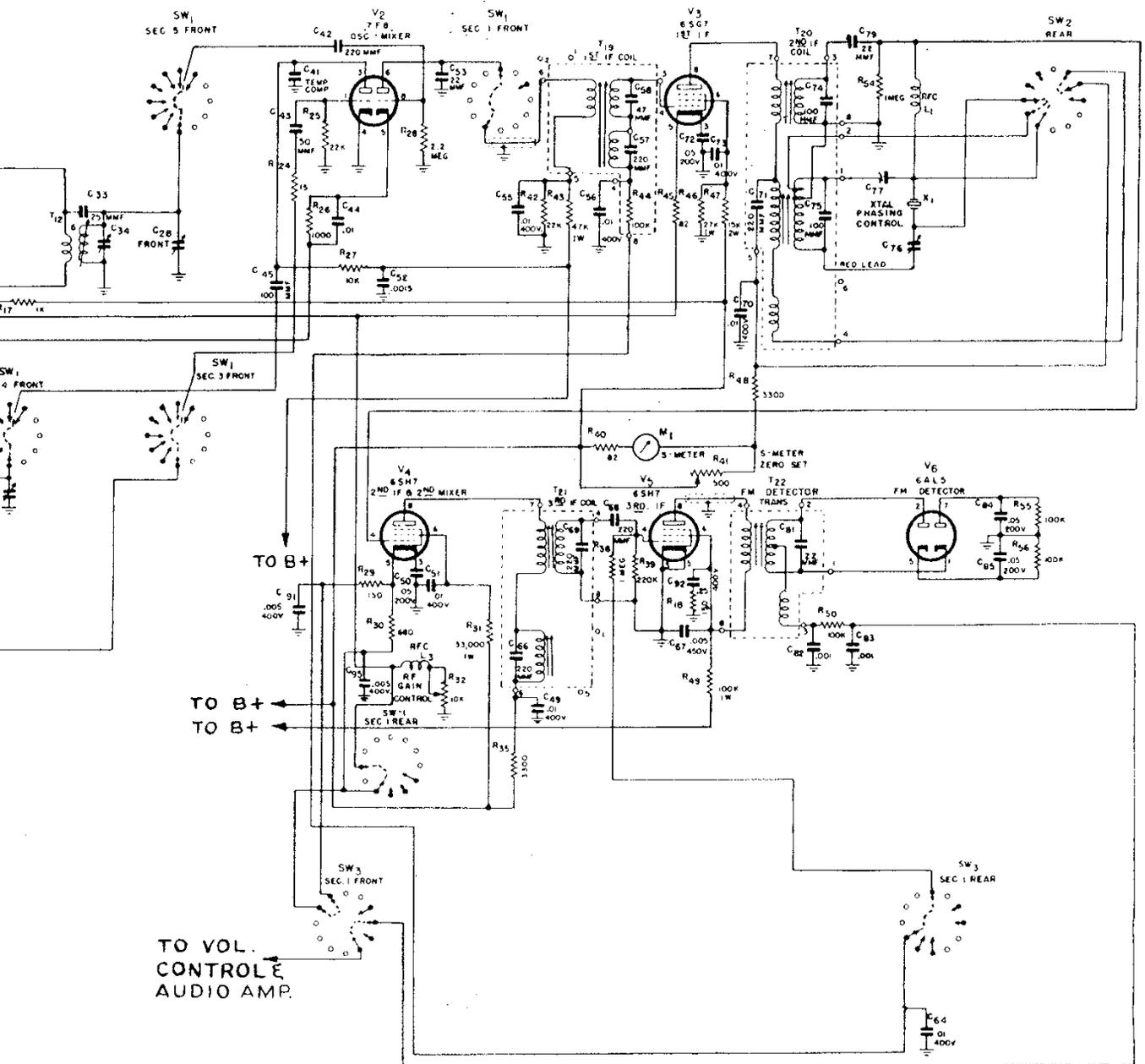
POSITIONING CONTROL KNOBS:

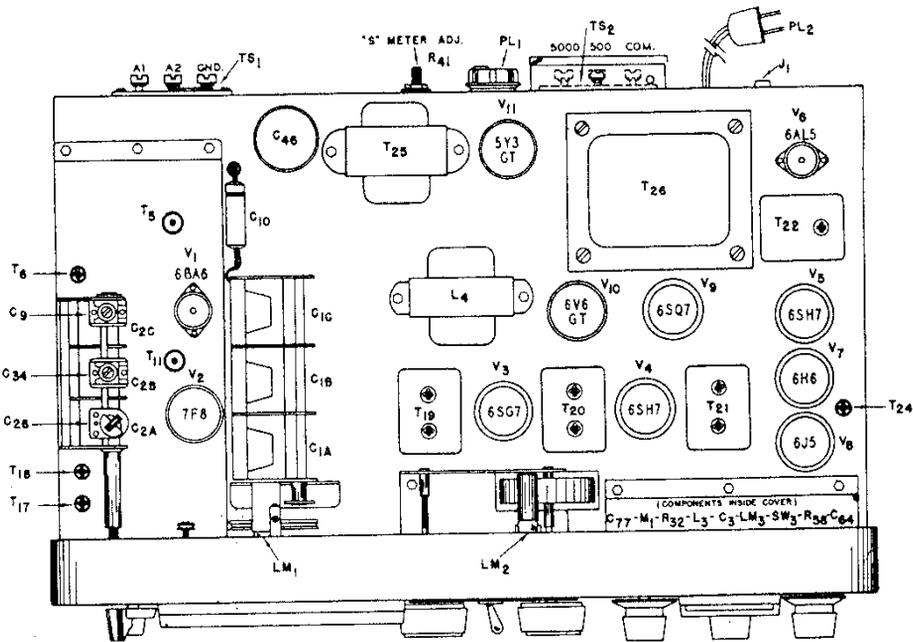
- BAND SELECTOR - As required by markings.
- RECEPTION - As required by markings.
- SELECTIVITY - As required by markings.
- SENSITIVITY - Zero at full counter clockwise rotation.
- VOLUME - Zero at full counter clockwise rotation.
- CW PITCH - See alignment chart.
- CRYSTAL PHASING - Zero with plates half meshed.

18-23,24

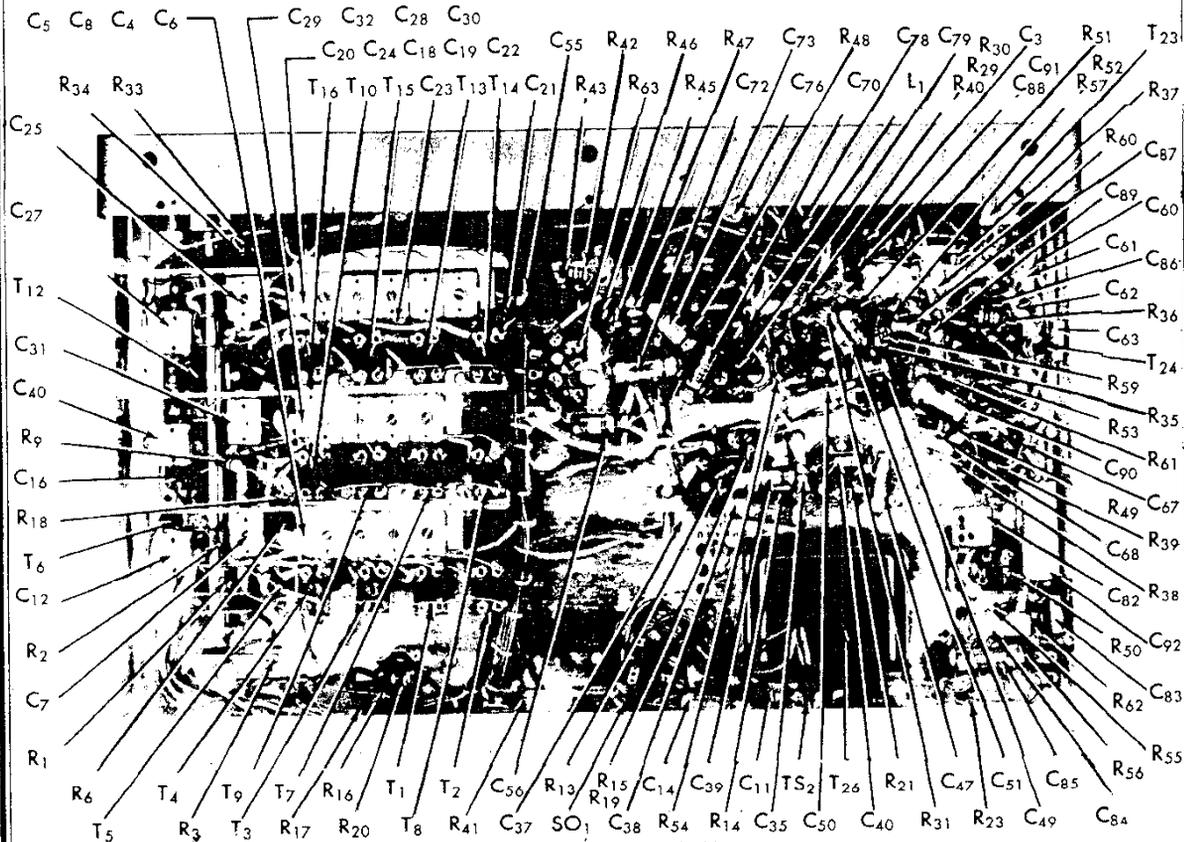


BAND-SWITCH SHOWN
AT 6TH POSITION
F-M BAND
86-109 MC





Component location, top view.



Component location, bottom view.

MODEL SX-13

THE HALLICRAFTERS CO.

ALIGNMENT PROCEDURE:

It will be necessary to remove the receiver chassis from the cabinet to make alignment adjustments on the i-f stages. The r-f stages receive final alignment through the holes in the bottom of the cabinet to compensate for the close proximity of the cabinet to the r-f coils. The chassis is held in the cabinet by seven screws along the edge of the flange of the front panel and by three screws through the bottom of the cabinet along the rear edge.

The standard RMA dummy antenna mentioned in the alignment chart consists of a 200 mmf condenser in

series with a 20 uh r-f choke which is shunted by a 400 mmf condenser in series with a 400 ohm carbon resistor.

The following control settings are to be set before alignment:

TONE Switch - HIGH
 STANDBY-RECEIVE - RECEIVE
 NOISE LIMITER - OFF
 VOLUME - Max. gain
 SENSITIVITY - Max. sensitivity
 Band Spread Dial - High frequency stop

ALIGNMENT CHART

Step	Dummy Antenna	Signal Generator Coupling	Signal Generator Frequency	Receiver Control Settings	Receiver Dial Setting	Adjust	Remarks
1	None	Connect to center section (rear stator plates) of low capacity gang.	10.7 mc (No modulation)	BAND SEL.-5 REC. sw.-PM	General coverage dial at mid-scale	S1, S2, S3, S4, S5, S6, S7	Adjust for max. D.C. voltage as measured between pin #7 of the 6AL5 and ground with a V.T. voltmeter.
2	None	See step 1.	10.7 mc (No modulation)	See Step 1	See step 1.	S8	Adjust for zero D.C. voltage as measured between junction of R-50 and C-83 and ground with a V.T. voltmeter.
3	None	See step 1.	455 kc **	BAND SEL.-4 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	See step 1.	S9, S10, S12, S13, S14	Adjust for max. audio output.
4	None	See step 1.	455 kc **	BAND SEL.-4 REC. sw.-AM-MVC SEL. sw.-CRYSTAL-BROAD	See step 1.	S11	Adjust for max. audio output.
5	None	See step 1.	455 kc **	BAND SEL.-4 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	See step 1.	A	Adjust for max. audio output.
6	None	See step 1.	455 kc ** (No modulation)	BAND SEL.-4 REC. sw.-CW SEL. sw.-NORMAL-SHARP	See step 1.	CW PITCH control.	Remove CW PITCH control knob and set shaft for zero beat. Replace knob with zero at index line.
7	Repeat steps 1 & 2 for possible detuning during adjustments in steps 3, 4, and 5.						
8E	None	See step 1.	10.7 mc	BAND SEL.-5 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	See step 1.	S15*	Tune slug S15 to high freq. side of 10.7 mc (11.155 mc). Tune for max. audio output.
9	Std. RMA dummy	To terminals A1 and A2 with jumper between A2 and GND.	1500 kc	BAND SEL.-1 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	1500 kc	B*, C, D	Adjust for max. audio output.
10	Std. RMA dummy	See step 9.	4.5 mc	BAND SEL.-2 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	4.5 mc	F*, G, H	Adjust for max. audio output.
			2 mc			2 mc	S16*
11	330-ohm carbon res.	See step 9.	14 mc ***	BAND SEL.-3 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	14 mc	I*, J, K	Adjust for max. audio output.
			6 mc ***			6 mc	S17*, S18, S19
12	330-ohm carbon res.	See step 9.	14 mc	BAND SEL.-3A REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	M.T. dial at 20M. band line. B.S. dial at 14 mc	L*	Adjust for calibration. Check band spread calibration and reset trimmer L if necessary. Increase trimmer cap. to decrease bandspread etc.

** Note - Calibration adjustment.
 Note - Set generator frequency to exact crystal freq. as follows: Turn on BFO and set CW PITCH for approx. 1000 cycles with signal generator set at approx. 455 kc. Set SELECTIVITY control at CRYSTAL-SHARP and tune signal generator for weakest of two response frequencies on either side of zero beat; adjust CRYSTAL PHASING control for complete null, retune signal generator for maximum output on opposite side of zero beat for the exact IF alignment frequency.

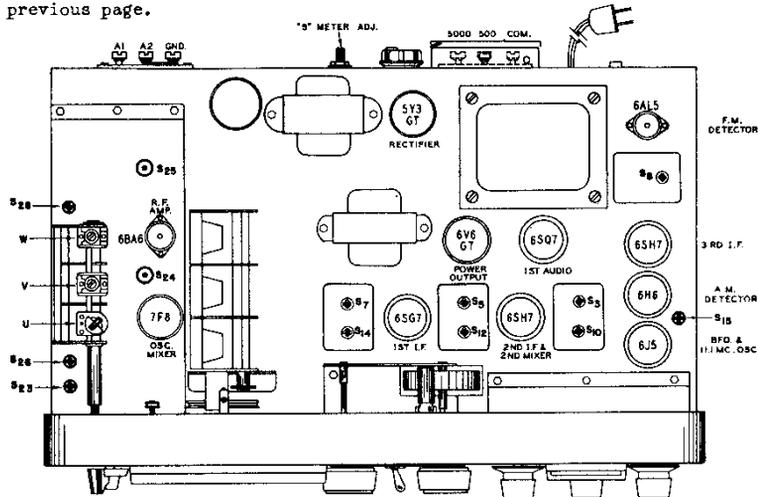
*** Note - Rock signal generator when making adjustments.

E Note - Step 8. adjusts the 11.155 mc oscillator for the dual conversion char. required for AM reception on band 5. After aligning band 5 in step 15, tune to approx. 44.6 mc and pick up fourth harmonic of the oscillator. If the oscillator harmonic falls at approx. 51.3 mc, the oscillator is oscillating at the low frequency side or image frequency and must be readjusted.

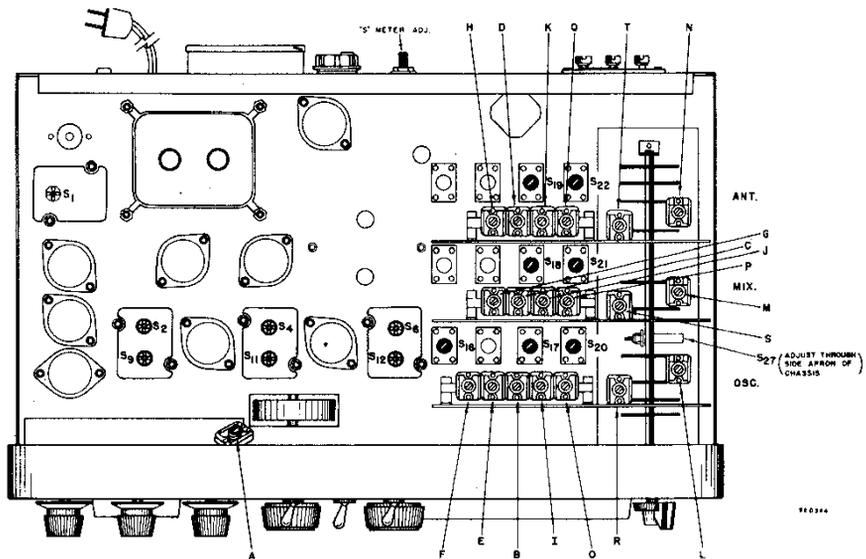
ALIGNMENT CHART - Continued

Step	Dummy Antenna	Signal Generator Coupling	Signal Generator Frequency	Receiver Control Settings	Receiver Dial Setting	Adjust	Remarks
13	330-ohm carbon res.	See step 9.	14.2 mc ***	BAND SEL.-3A REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	M.T. dial at 20 M. band index line. B.S. dial at 14.2 mc.	M, N	Adjust for max. audio output.
14	330-ohm carbon res.	See step 9	36 mc***	BAND SEL.-4 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	36 mc	O*, P, Q	Adjust for max. audio output. Osc. falls on low freq. side of signal.
			18 mc***		18 mc	S20*, S21, S22	
15	330-ohm carbon res.	See step 9	54 mc ***	BAND SEL.-5 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	54 mc	R*, S, T	Adjust for max. audio output
			46 mc ***		46 mc	S23*, S24 S25	
16	330-ohm carbon res.	See step 9	106 mc ***	BAND SEL.-6 REC. sw.-AM-MVC SEL. sw.-NORMAL-SHARP	106 mc	U*, V, W,	See step 1.
			89 mc ***		89 mc		

For footnotes - see previous page.



Alignment adjustments, top view.



Alignment adjustments, bottom view.

