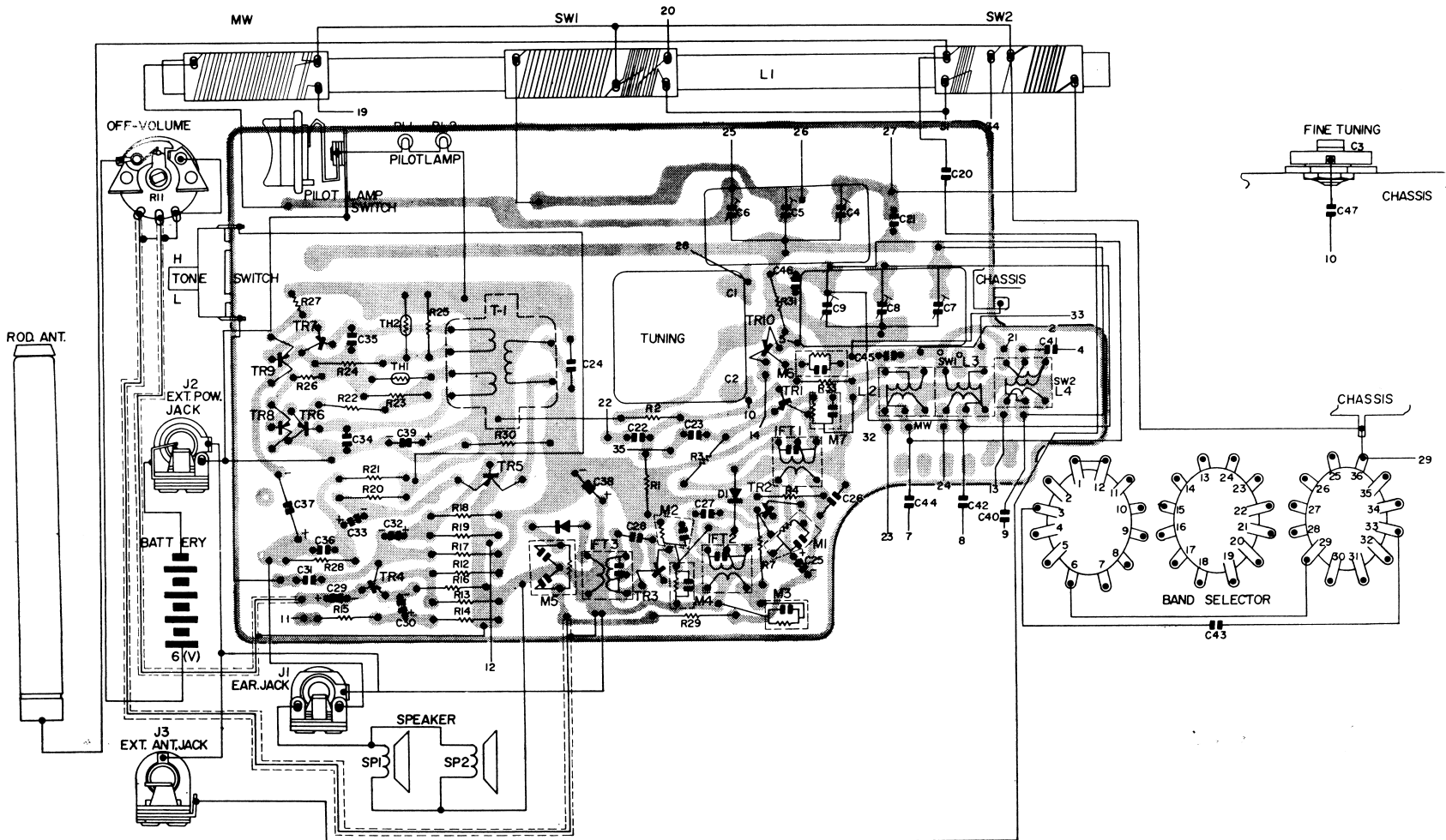
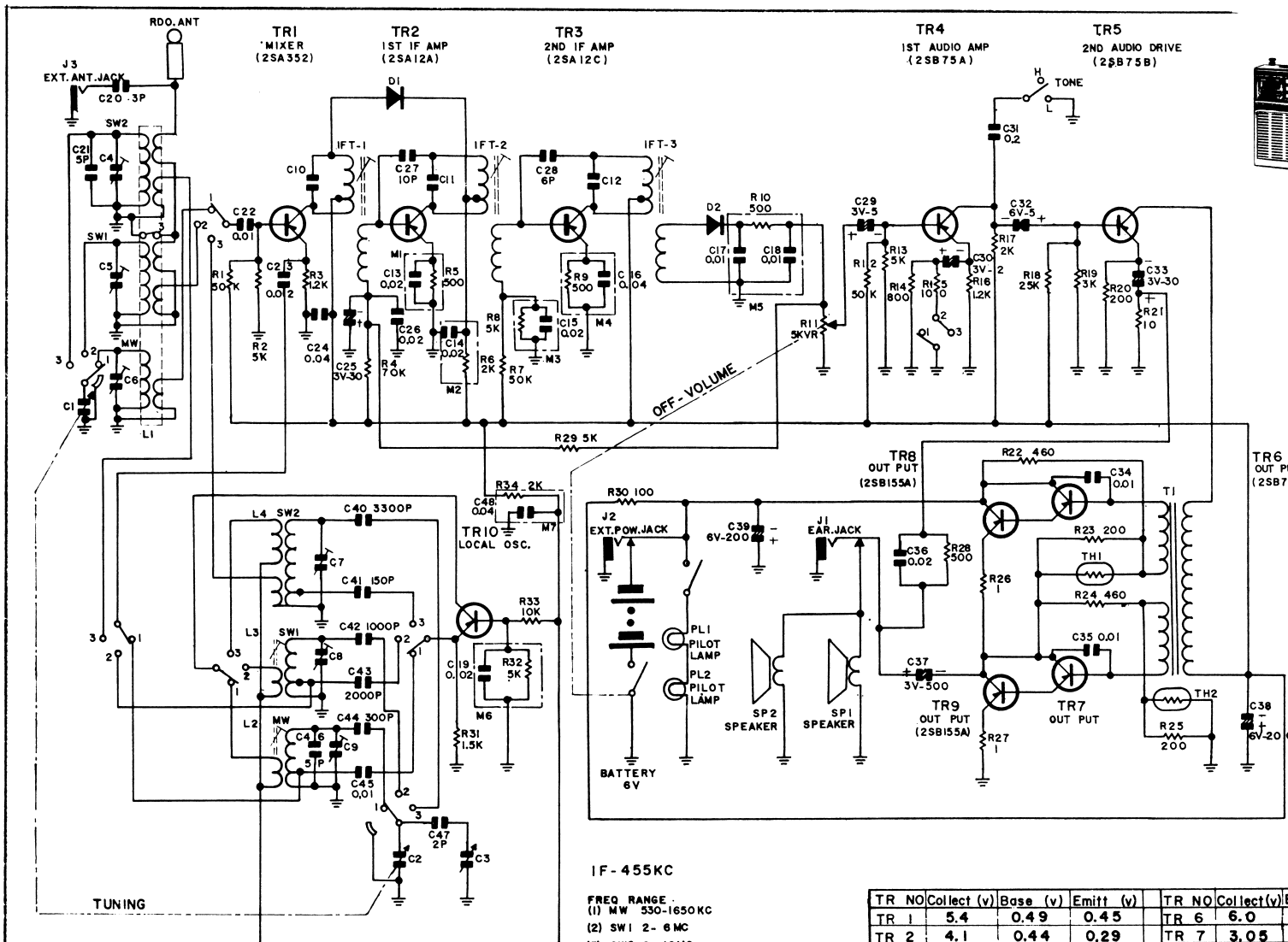
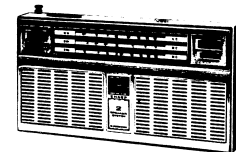


BOTTOM VIEW OF PRINTED CIRCUIT BOARD

SHARP BY-410



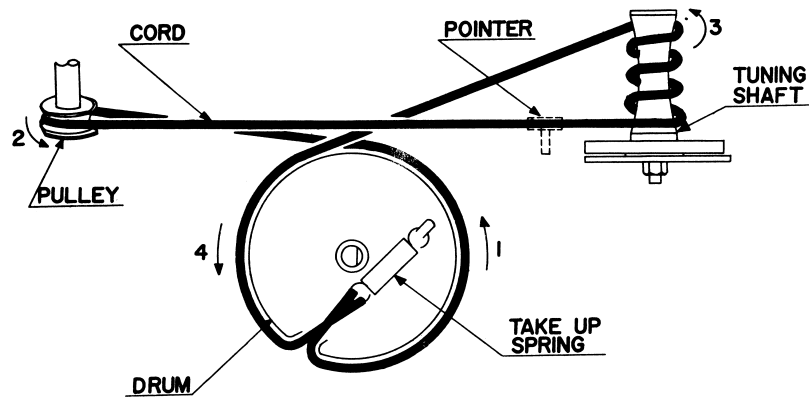


IF - 455KC

FREQ. RANGE:
 (1) MW 530-1650KC
 (2) SW1 2- 6MC
 (3) SW2 6- 18MC

TR NO	Collect (v)	Base (v)	Emit (v)	TR NO	Collect(v)	Base (v)	Emit (v)
TR 1	5.4	0.49	0.45	TR 6	6.0	3.40	3.30
TR 2	4.1	0.44	0.29	TR 7	3.05	0.37	0.27
TR 3	5.4	0.48	0.33	TR 8	6.0	3.30	3.05
TR 4	4.9	0.46	0.36	TR 9	3.05	0.27	0.01
TR 5	4.9	0.53	0.37	TR10	3.5	1.20	1.10

DIAL CORD STRINGING



ALIGNMENT INSTRUCTION

Should it become necessary at any time to check the alignment of this receiver, proceed as follows:

- 1) Connect an output meter across the speaker voice coil lugs.
- 2) Set volume control at its maximum.
- 3) Use the lowest setting of signal generator capable of producing adequate indication on the lowest scale of output meter.
- 4) Use a non-metallic alignment tool.
- 5) Repeat adjustments to insure good results.

ALIGNMENT CHART

AM Alignment		Signal generator		Receiver		Adjust
Step	Band	Connection to receiver	Input signal frequency	Dial setting	Remarks	
1	M.W.	Connect signal generator through a 10KΩ dummy to the antenna tuning condenser. Ground lead to the receiver chassis.	Exactly 455KC. (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Adjust for maximum output on speaker voice coil lugs.	3rd-IF Trans. core 2nd-IF Trans. core 1st-IF Trans. core
2	M.W.	Use radiating loop. Loop of several turns of wire, or place generator lead close to receiver for adequate signal pickup. Connect generator output to one end of this wire.	Exactly 520KC. (400%, 30%, AM modulated.)	Tuning gang fully closed. (maximum capacity)	Same as step 1.	MW Oscillator core (L ₂)

AM Alignment		Signal generator		Receiver		Adjust
Step	Band	Connection to receiver	Input signal frequency	Dial setting	Remarks	
3	M.W.	Same as step 2.	Exactly 1680KC. (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Same as step 1.	MW Oscillator trimmer (C ₉)
4	M.W.	Same as step 2.	Exactly 600KC. (400%, 30%, AM modulated.)	600 KC	See NOTE.	MW Antenna coil
5	M.W.	Same as step 2.	Exactly 1400KC. (400%, 30%, AM modulated.)	1400 KC	See NOTE.	MW Antenna trimmer (C ₈)
6	M.W.	Repeat steps 2, 3, 4 and 5 until no further improvement is obtained.				
7	S.W1.	Same as step 2.	Exactly 1.9MC (400%, 30%, AM modulated.)	Tuning gang fully closed. (maximum capacity)	Same as step 1.	SW1 Oscillator core (L ₃)
8	S.W1.	Same as step 2.	Exactly 6.2MC (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Same as step 1.	SW1 Oscillator trimmer (C ₆)
9	S.W1.	Same as step 2.	Exactly 2.3MC (400%, 30%, AM modulated.)	2.3MC	See NOTE.	SW1 Antenna coil
10	S.W1.	Same as step 2.	Exactly 5MC (400%, 30%, AM modulated.)	5MC	See NOTE.	SW1 Antenna trimmer (C ₅)
11	S.W1.	Repeat steps 7, 8, 9 and 10 until no further improvement is obtained.				
12	S.W2.	Connect signal generator through a 10KΩ dummy to the external antenna coil lug. Ground lead to the receiver chassis.	Exactly 5.85KC (400%, 30%, AM modulated.)	Tuning gang fully closed. (maximum capacity)	Same as step 1.	SW2 Oscillator core (L ₄)
13	S.W2.	Same as step 12.	Exactly 18.5MC (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Same as step 1.	SW2 Oscillator trimmer (C ₇)
14	S.W2.	Same as step 12.	Exactly 6.5MC (400%, 30%, AM modulated.)	6.5MC	See NOTE.	SW2 Antenna coil
15	S.W2.	Same as step 12.	Exactly 16MC (400%, 30%, AM modulated.)	16MC	See NOTE.	SW2 Antenna trimmer (C ₄)
16	S.W2.	Repeat steps 12, 13, 14 and 15 until no further improvement is obtained.				

NOTE

Check alignment of receiver antenna coil by bringing a piece of powdered iron (such as a coil slug) near the antenna loop stick, then a piece of brass. If powdered iron increases output, loop requires more inductance. If brass increases output, loop requires less inductance. Change loop inductance by sliding the bobbin toward the center of ferrite core to increase inductance, or away to decrease inductance.