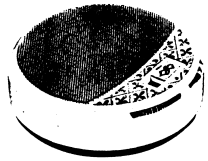
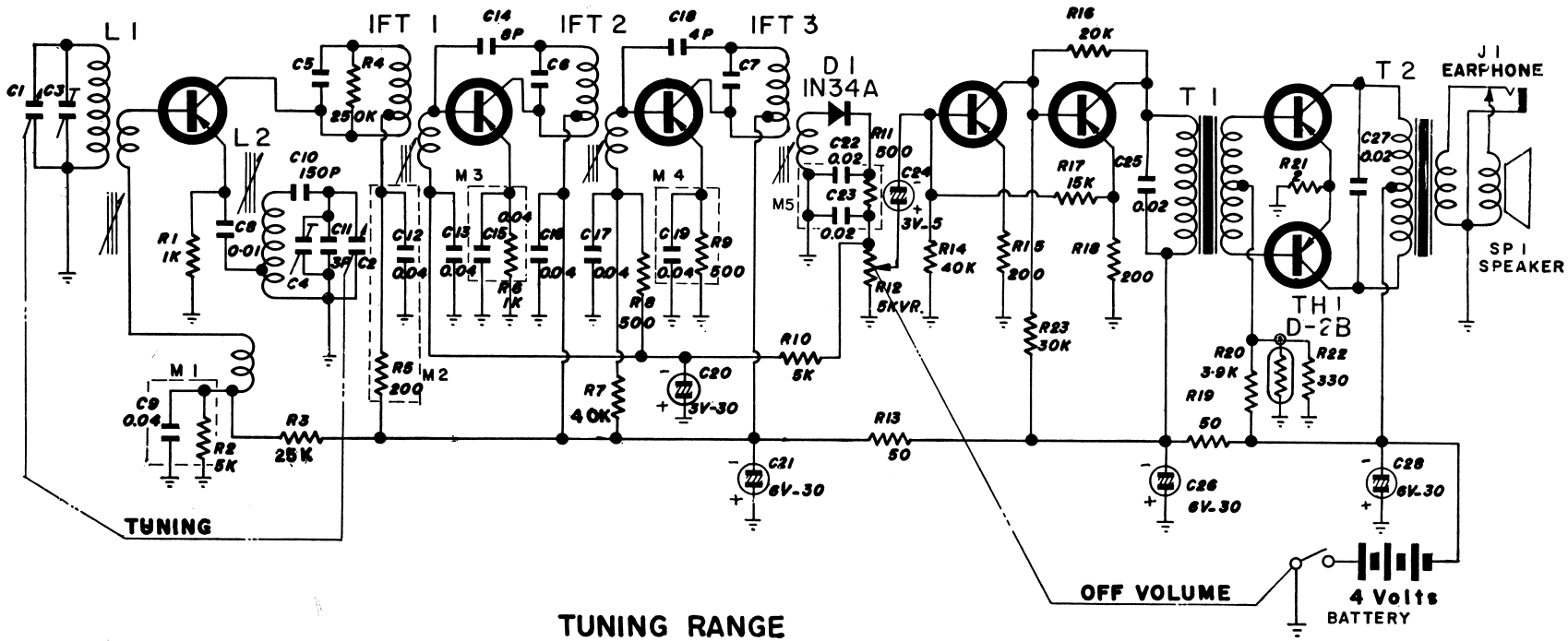
SHARP BP-322



TR.1 2SA 234 **TR.2** 2SA 151A **TR.3** 2SA 151A **TR.4** 2SB 75 **TR.5** 2SB 75 **TR.6** 2SB 77 **TR.7** 2SB 77

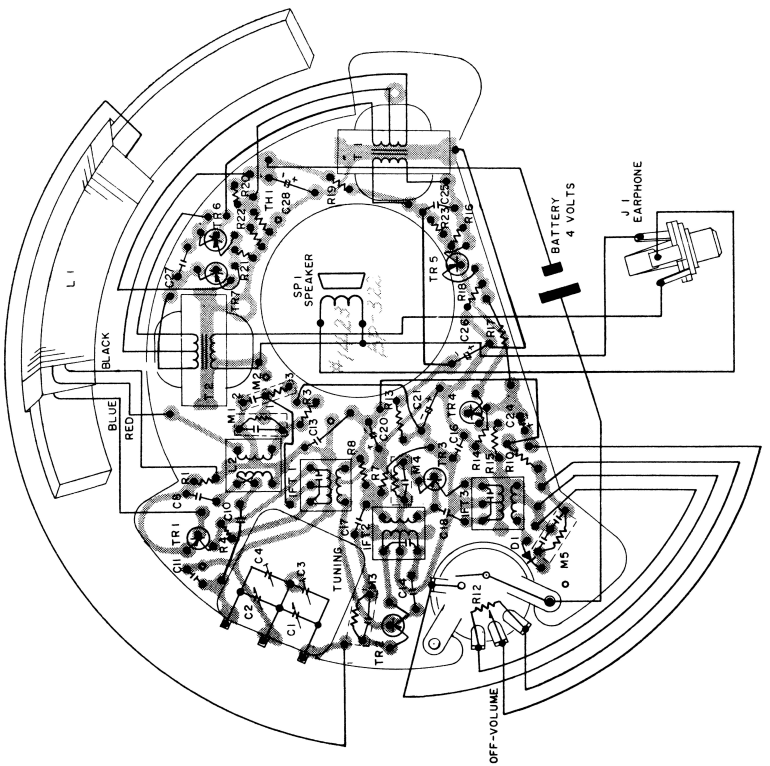


TUNING RANGE
535KC - 1605KC
I.F. · · · 455KC

TRANSISTORS	VOLTAGE		
	COLLECT.	BASE	EMITT.
TR-1	3.8	0.7	0.9
TR-2	4.0	0.24	0.18
TR-3	3.8	0.27	0.15
TR-4	0.3	0.12	0.04
TR-5	3.8	0.32	0.2
TR-6	4.0	0.12	0.02
TR-7	4.0	0.12	0.02

SPECIFICATIONS

Circuit :	7-transistor, 1-band superheterodyne with automatic gain control
Tuning Range :	MW band 535–1605 KC
Sensitivity :	a) MW band, as measured with a standard test loop
	Test Freq. Sensitivity in micro volts per meter
	600KC 1000 micro volts per meter Maximum
	1400KC 1000 micro volts per meter Maximum
Power Output :	90mW
Battery Drain :	The total current drain of the receiver, under no signal condition, will vary from 6 mA to a maximum of 40 mA
Speaker :	2″ Round P.D.S voice coil 10 ohms
Battery :	4V mercury battery × 1pc.
	or 4.5V dry battery × 1pc.
Dimensions :	3½″ (diameter) × 1⅛″ (height)



SHARP BP-322

ALIGNMENT INSTRUCTIONS

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 for maximum.
3) Use lowest setting of signal generator capable of producing adequate indication on 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 455 KC. (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Adjust for maximum output on speaker voice coil lugs.	3rd-IF Trans. core (black) 2nd-IF Trans. core (white) 1st-IF Trans. core (yellow)
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 525 KC. (400%, 30%, AM modulated.)	Tuning gang fully closed. (maximum capacity)	Same as step 1.	MW Oscillator core (L2)
3	M.W.	Same as step 2.	Exatly 1650 KC. (400%, 30%, AM modulated.)	Tuning gang fully open. (minimum capacity)	Same as step 1.	MW Oscillator trimmer (C4)
4	M.W.	Same as step 2.	Exactly 600 KC. (400%, 30%, AM modulated.)	600 KC	See Note	MW Antenna coil (L1)
5	M.W.	Same as step 2.	Exactly 1400 KC. (400%, 30%, AM modulated.)	1400 KC	Same as step 4.	MW Antenna trimmer (L3)
6	M.W.	Repeat steps 2, 3, 4 and 5 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. In 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.