



SANYO All-transistor Radio

MODEL 7S-23

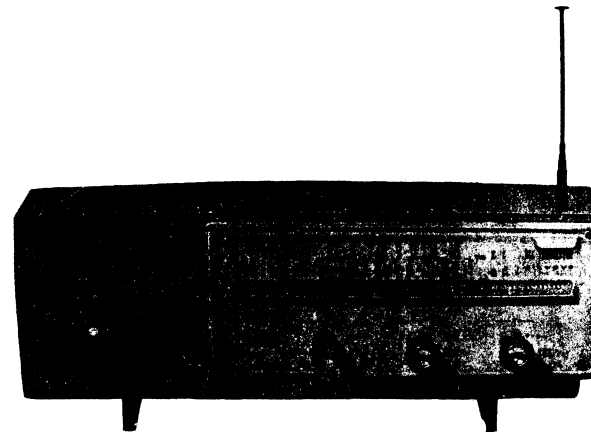
## Service Manual

## ALIGNMENT PROCEDURE

**Output Meter Alignment:** Connect the volt-meter with the both ends of the voice-coil, and turn the volume control to maximum.

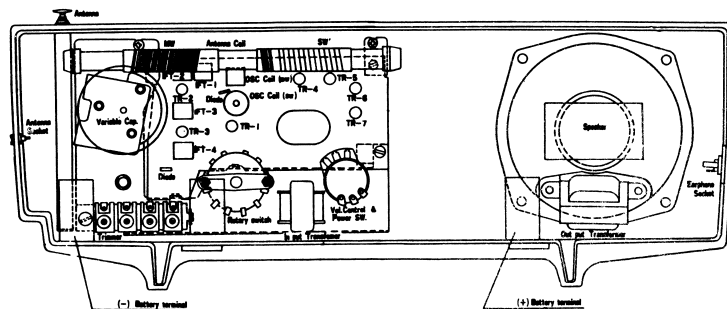
**Test Oscillator:** For all alignment operation, connect the low side of the test oscillator with the circuit board and keep the oscillator output as low as possible to avoid AGC.

Step	Connect High Side of Sig. Gen. to:	Sig. Gen. Output	Dial Pointer Setting	Adjust for max. Output
1	Connection lug of CV1 ANT. side section of VC in series with 0.1 $\mu$ f	455 kc	Quiet point near 530 kc	IF Transformer T 4 T 3 T 2 T 1
2	Short wire Placed near antenna for radiated signal	530 kc	Gang fully closed.	OSC Coil L 7
3		1650 kc	Gang fully open	OSC Trimmer CT4
4		Repeat Step 2 and 3.		
5		600 kc	600 kc Signal	ANT Coil L 3
6		1400 kc	1400 kc Signal	ANT Trimmer CT2
7	Repeat Step 5 and 6.			
8	Set Band Selector Switch to Short Wave Band.			
9	Short wire placed near antenna for radiated signal.	12.1 mc	Gang fully open	OSC Trimmer CT3
10		3.8 mc	Gang fully closed	OSC Coil L 5
11		Repeat Step 9 and 10.		
12		11 mc	11 mc Signal	ANT Trimmer CT1
13		4 mc	4 mc Signal	ANT Coil L 1
14	Repeat Step 12 and 13.			

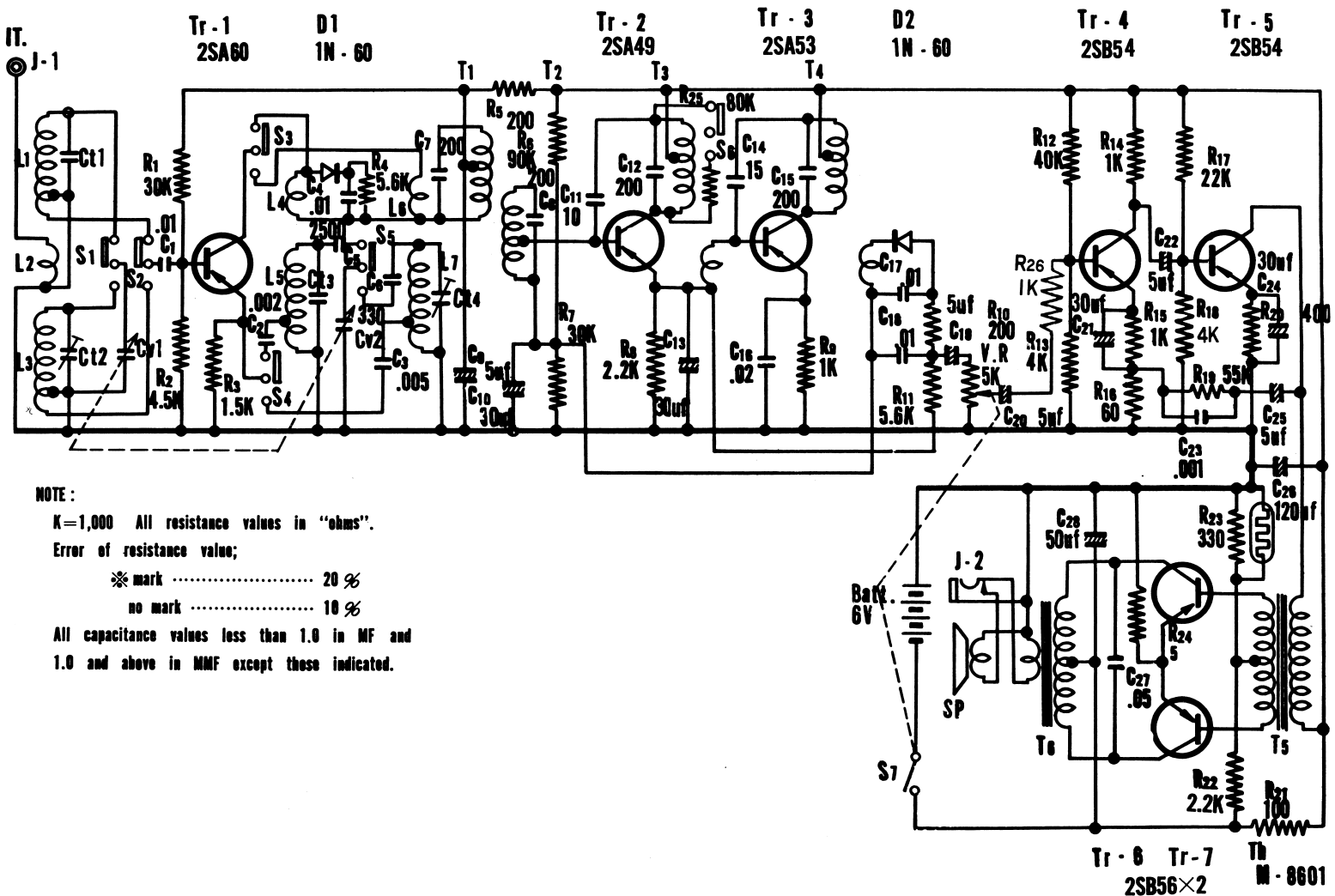


## SPECIFICATION

WAVE RANGE	540 - 1,605 kc (MW) 3.9 - 12 mc (SW)
INTERMEDIATE FREQUENCY	455 kc
TRANSISTOR COMPLEMENT	1 x 2SA60 Frequency Converter 1 x 2SA49 1st IF Amplifier 1 x 2SA53 2nd IF Amplifier 1 x 2SB54 1st AF Amplifier 1 x 2SB54 2nd AF Amplifier 2 x 2SB56 Power Amplifier
GERMANIUM DIODE & THERMISTOR	1 x 1N60 Detector & AGC 1 x 1N60 OSC Voltage Limiter 1 x M8601 Temperature Compensation
POWER OUTPUT	Undistorted 150 mW Maximum 220 mW
RADIATION SENSITIVITY	Lower Limit for 10 mW MW Band 564 $\mu$ V/m SW Band 178 $\mu$ V/m
BATTERY USED	4 1½-volt size D Flashlight Batteries (6 volts)
CURRENT DRAIN	12~70 mA
LOUDSPEAKER	4-inch Permanent Dynamic Voice Coil Impedance 3.3 ohms at 1,000 cycles
CABINET DIMENSION	Length 370 mm (14½") Height 130 mm (5½") Thickness 140 mm (5½")
NET WEIGHT	1,600 grs (4½ pounds) incl. batteries



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NOTE:  
 K=1,000 All resistance values in "ohms".  
 Error of resistance value;  
 \* mark ..... 20 %  
 no mark ..... 10 %  
 All capacitance values less than 1.0 in MF and  
 1.0 and above in MMF except these indicated.

Tr - 6 Tr - 7  
 2SB56x2 Th  
 M - 8601