SANYO

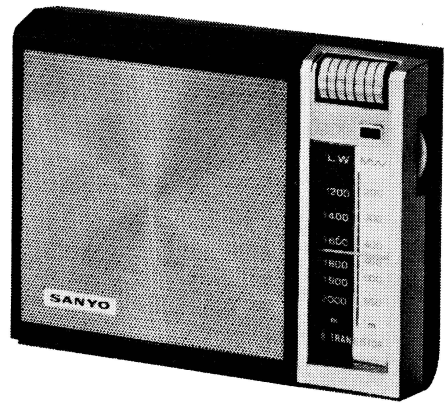
8-transistor Portable Radio

MODEL 8L-088

SERVICE MANUAL

SANYO ELECTRIC CO., LTD.

INTERNATIONAL DIVISION. : SANYO ELECTRIC TRADING CO., LTD.
OSAKA, JAPAN



SPECIFICATIONS

FREQUENCY RANGE ..... MW 585 - 187 m
LW 2000 - 1200 m

INTERMEDIATE FREQUENCY ..... 470 kc

TRANSISTORS
2SA202 ..... Frequency converter
2SA202 ..... 1st IF. amplifier
2SA203 ..... 2nd IF. amplifier
2SB185×2 ..... AF. amplifier
2SB185 ..... Driver
2SB187×2 ..... Power amplifier

DIODE 1S188 ..... Detector & AGC

SENSITIVITY 10mW output ..... MW 100 μV/m
LW 230 μV/m

OUTPUT POWER Undistorted ..... 200 mW
Maximum ..... 300 mW

LOUDSPEAKER ..... 2½″ permanent dynamic speaker
Voice coil impedance 8 ohm

CURRENT DRAIN No signal ..... 13 mA
Maximum ..... 130 mA

POWER SOURCE ..... 4.5V : UM-3×3

DIMENSIONS ..... 5⅛″ Width×3$\frac{13}{16}$″ Hight×1⅜″ Depth

WEIGHT ..... ¾oz

ALIGNMENT PROCEDURES

IF and RF alignment

Apply volt-meter across the voice coil.
Volume control should be at maximum position.
Output of signal generator should be no higher than necessary to obtain proper output reading in order to avoid AGC function.

STEP	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	ADJUST FOR MAXIMUM OUTPUT
✳ *IF ALIGNMENT*				
1	Radiate signal through the loop antenna, which connected with signal generator output cable.	470 Kc	Lower end	IF. trans. T-3 T-2 T-1
✳ *MIDDLE WAVE RF ALIGNMENT*				
2	Radiate signal through the loop antenna, which connected with signal generator output cable.	585 m	Lower end	L-3
3		187 m	Upper end	MW osc. trim. Ct-2
4		Repeate steps 2 and 3		
5		500 m	500 m	L-2
6		233 m	233 m	MW ant. trim. Ct-1
7		Repeate steps 5 and 6		
✳ *LONG WAVE RF ALIGNMENT*				
8	Radiate signal through the loop antenna, which connected with signal generator output cable.	2000 m	Lower end	.....
9		1200 m	Upper end	LW os. trim. Ct-3
10		.....	.....	.....
11		1875 m	1875 m	L-1
12		1250 m	1250 m	LW osc. trim. Ct-3
13		Repeat steps 11 and 12		

PERTS LIST

SYMBOLNO.	PARTS NO.	DESCRIPTION	Q'TY
TRANSISTORS			
Tr-1, 2	2SA202	Transistor	2
TR-3	2SA203	〃	1
Tr-4, 5, 6	2SB185	〃	3
Tr-7, 8	2SB187	〃	2
DIODE & THERMISTOR			
D-1	1S188	Diode	1
Th-1	SDT-20	Thermistor	1
COILS			
L-1, 2	R-W2634	Antenna coil	1
L-3	R-W8520	OSC coil	1
TRANSFORMERS			
T-1	R-W5T584	IF transformer	1
T-2	R-W5T585	〃	1
T-3	R-W5T586	〃	1
T-5	R-W6598	Output transformer	1
T-4	R-W6533	Input transformer	1
CONTROLS			
Cv-1, 2 Ct-1, 2	R-C1031	Variable capacitor	1
VR-1	R-R110506	Variable resistor	1
Ct-3	R-C0507	Trimmer	1
LOUDSPEAKER			
	R-S6614	Speaker	1
ELECTROLYTIC CAPACITORS			
C24. 25	R-C9086	Electrolytic capacitor (6V/120μf)	2
C9	R-C9081b	〃 (9V/50μf)	1
C20, 22	R-C9561	〃 (3V/30μf)	2
C18, 19, 21, 14	R-C9556	〃 (6V/5μf)	4

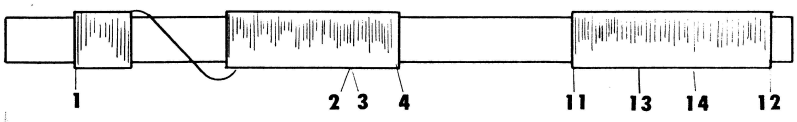
SYMBOL NO.	DESCRIPTION	Q'TY
CAPACITORS		
R1, 17	6.8 k Ohm ±10% ¼W Carbon or Solid	2
R2	18 k ohm 〃 〃 〃	1
R3	3.3 k ohm 〃 〃 〃	1
R4	100 ohm 〃 〃 〃	1
R5, 8, 15	820 ohm 〃 〃 〃	3
R6	4.7 k ohm 〃 〃 〃	1
R7	47 k ohm ±5% 〃 〃	1
R9	5.6 k ohm 〃 〃 〃	1
R10	1 k ohm ±10% 〃 〃	1
R11	190 ohm 〃 〃 〃	1
R12	8.2 k ohm 〃 〃 〃	1
R13	19 k ohm 〃 〃 〃	1
R14	1.2 k ohm 〃 〃 〃	1
R16	1.8 k ohm 〃 〃 〃	1
R18	33 k ohm 〃 〃 〃	1

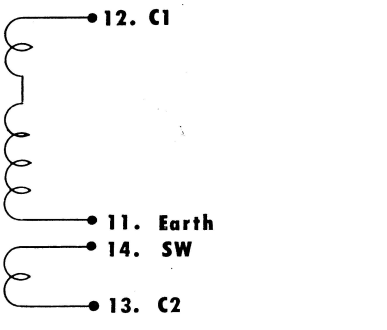
SYMBOL NO.	DESCRIPTION	Q'TY
CAPACITORS		
R19	270 ohm ±10% ¼W Carbon or Solid	1
R20	220 ohm 〃 〃 〃	1
R21	2.2 k ohm 〃 〃 〃	1
R22, 23	82 ohm 〃 〃 〃	2
R24	56 k ohm 〃 〃 〃	1
R25	4.7 k ohm 〃 〃 〃	1
PESISTORS		
C-4	0.0068 μF ±20% 50WV Mylar	1
C-2	0.0047 μF 〃 〃 〃	1
C16	0.0033 μF 〃 〃 〃	1
C23	0.001 μF 〃 〃 〃	1
C17	0.022 μF 〃 35WV 〃	1
C26, 27	0.01 μF 〃 50WV 〃	2
C1	40 pf ±10% 〃 Ceramic	1
C11	12 Pf 〃 〃 〃	1
C13	5 Pf 〃 〃 〃	1
C10, 12, 15	0.04 uf +80% −20 50-25WV 〃	3
C5	110 Pf ±5% 50WV Styrol	1

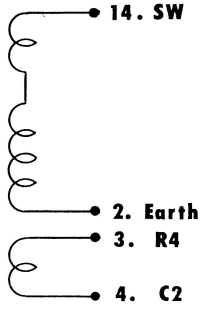
PARTS NO.	DESCRIPTION	Q'TY
MISCELLANEOUS		
R-355060	Antenna holder	1
R-365040	Cover for slide SW	1
	Dial rope (0.3∅ L=300)	1
R-415291	Stand for earphone socket	1
R-15042a	Coil spring	2
R-S6560	Earphone complete	1
R-S2132	Earphone jack	1
R-S4544	Slide switch	1
R-315187a	Cabinet	1
R-395170	Front decoration metal	1
R-315210	Back cover	1
R-325293	Battery compartment cover	1
R-325237	Dial cover	1
R-325239-1	Front plastic panel	1
R-265713	Speaker grille	1
R-355069	Plastic ring for earphone (Back cover)	1
R-426748	Sheet (Between the SP grille & Plastic Plate)	1
R-475544	Specification sheet	1
R-265684	Name plate (LW-MW)	1
R-265251	Badge	1
R-265736	Dial	1
R-115368	Rail	1
R-S85202	Pointer complete	1
R-115202	Speaker clip metal	2
R-245320	Stud nut	1
R-395171	Volume knob	1
R-245287	Tuning knob	1
R-245288	Tuning shaft	1
R-325075a	Drum	1
R-255103	Rope guide	1
R-245319	Guide shaft	1
R-115524	Fixing metal for guide shaft	1
R-S85233	Battery case complete	1

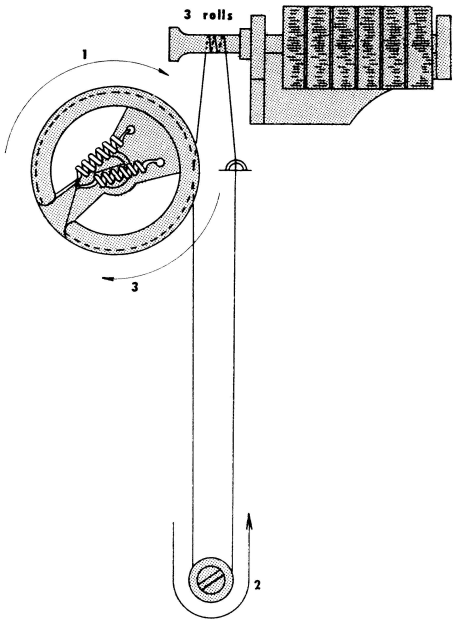
7-20103 Printed in Japan

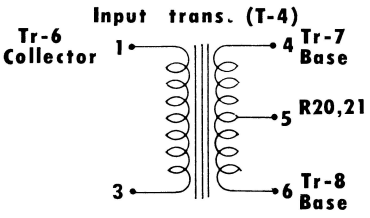
MAIN PARTS CONNECTION

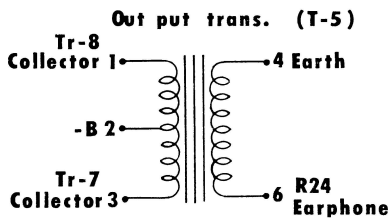




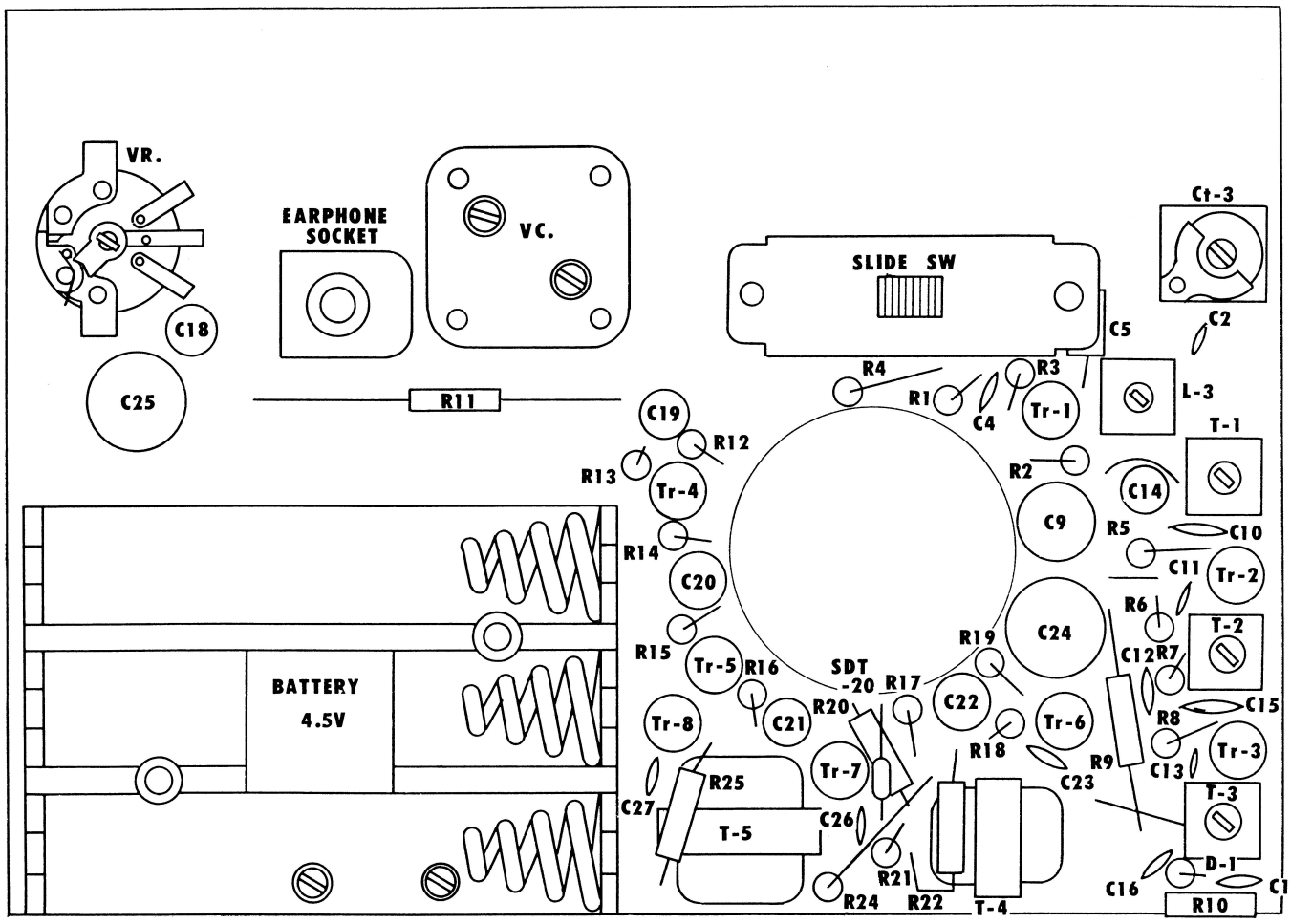




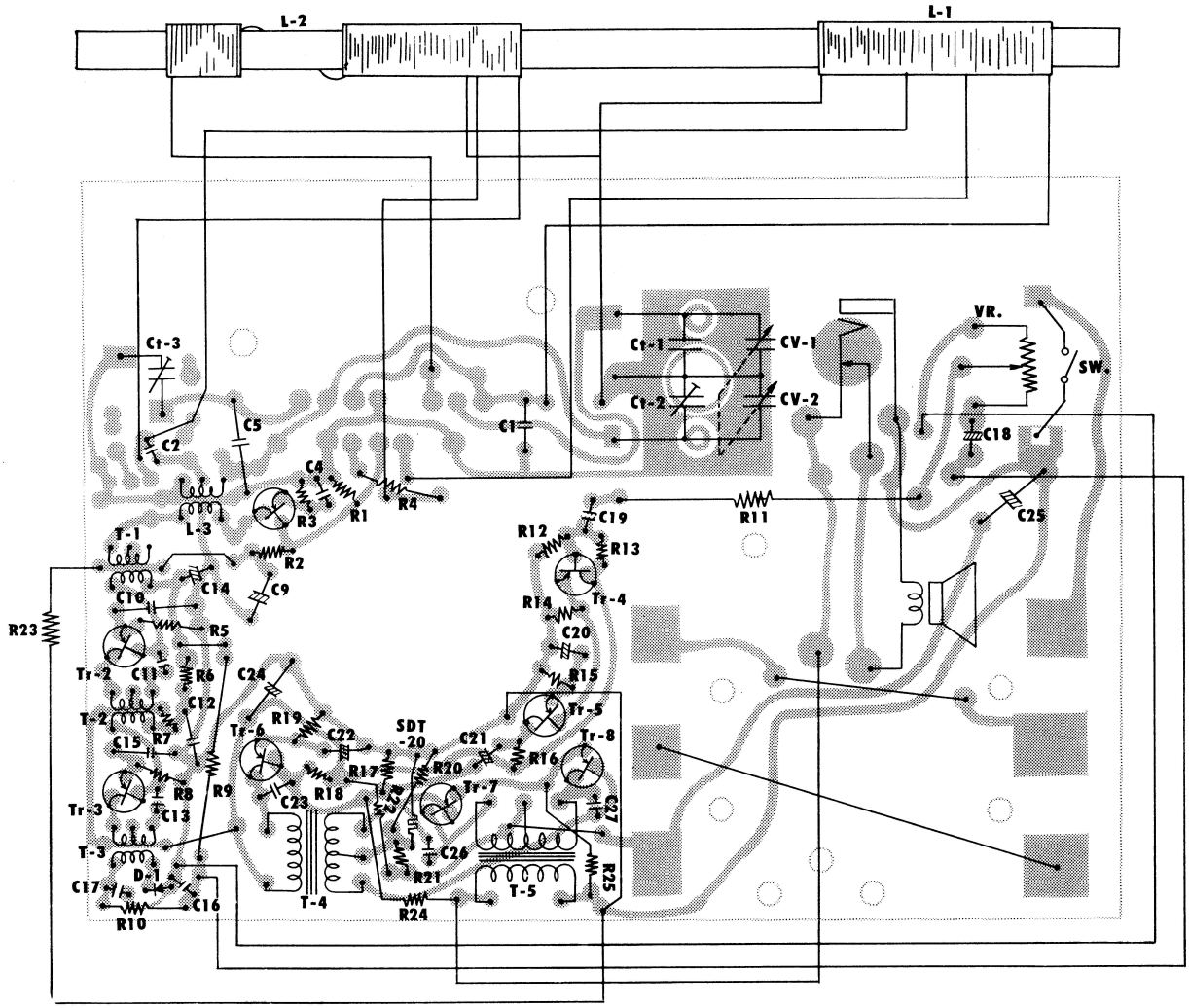




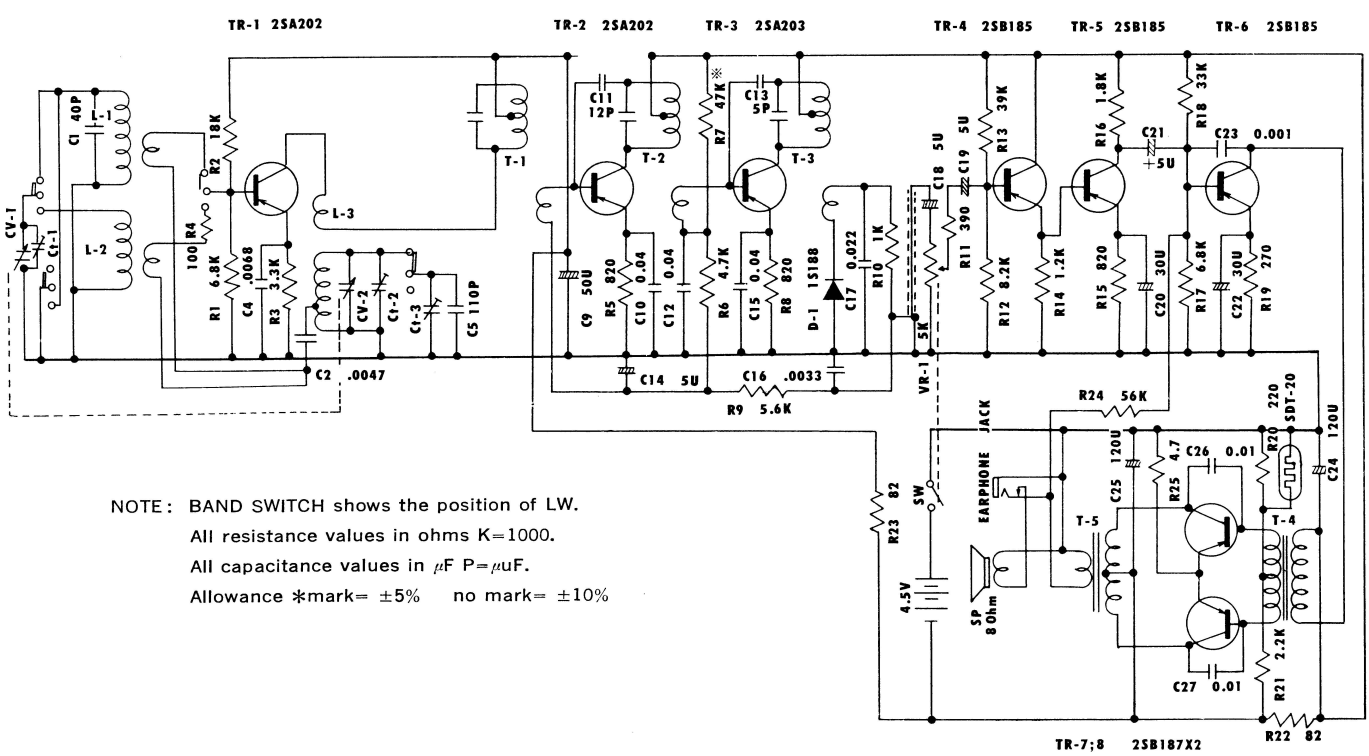
PARTS LOCATION



INTER-PARTS WIRING ILLUSTRATION



CIRCUIT DIAGRAM



NOTE: BAND SWITCH shows the position of LW.
All resistance values in ohms K=1000.
All capacitance values in μF P=μuF.
Allowance *mark= ±5% no mark= ±10%