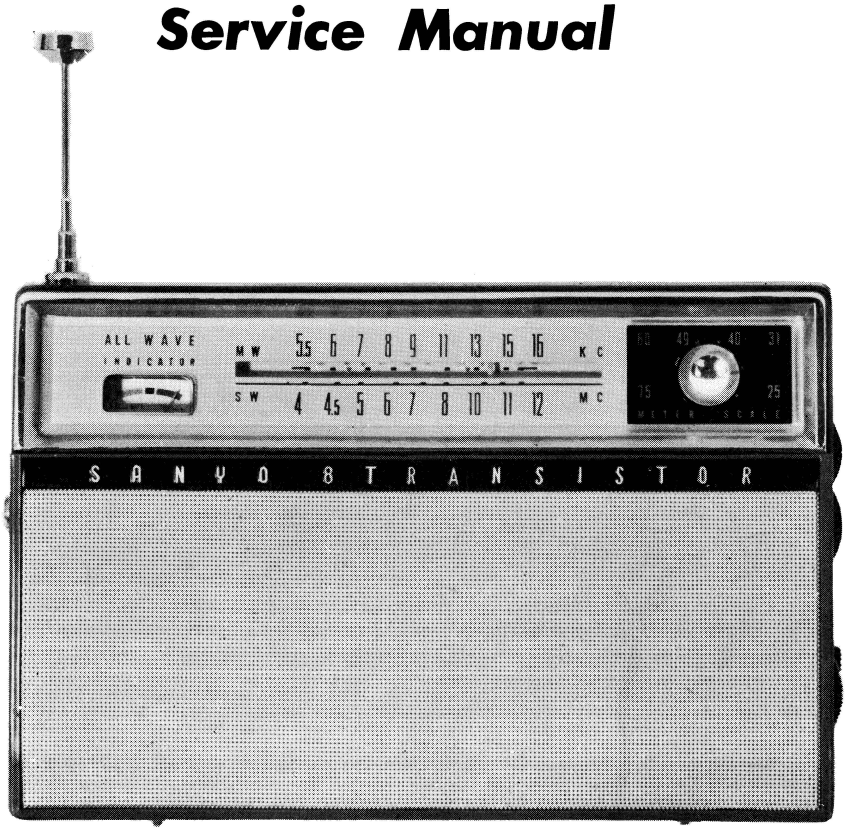
SANYO

MODEL
8S-P14

All-transistor Radio

Service Manual



SPECIFICATIONS

FREQUENCY RANGE

Standard Broadcast	535 to 1,605 Kc
Shortwave Range	3.85 to 12.5 Mc

INTERMEDIATE FREQUENCY 455 Kc

TRANSISTOR COMPLEMENT

1×2SA92	Local Oscillator
1×2SA93	Mixer
1×2SA202	1st IF Amplifier
1×2SA203	2nd IF Amplifier
1×2SB185	AF Amplifier
1×2SB186	Driver
2×2SB187	Power Amplifier (B class pushpull)

THERMISTOR

1×SDT-20	Temperature Compensator

POWER OUTPUT

Undistorted	150 mW
Maximum	250 mW

RADIATION SENSITIVITY

Lower limit for 10 mW output

Broadcast	316 μV/m
Shortwave	220 μV/m

BATTERY USED

6 volts (4 penlight batteries)

Current drain :	No signal	11 mA
	Maximum	70 mA

LOUDSPEAKER

$2\frac{1}{2}$ inches permanent dynamic type
7 ohms voice coil impedance

CABINET DIMENSIONS

Width	168 mm ($6\frac{1}{2}''$)
Height	106 mm ($4\frac{1}{4}''$)
Depth	32 mm ($1\frac{1}{4}''$)

NET WEIGHT

560 grams ($19\frac{3}{4}$ ozs) without battery

SANYO ELECTRIC CO., LTD.

PART NO.	STOCK NO.	DESCRIPTION

CABINET

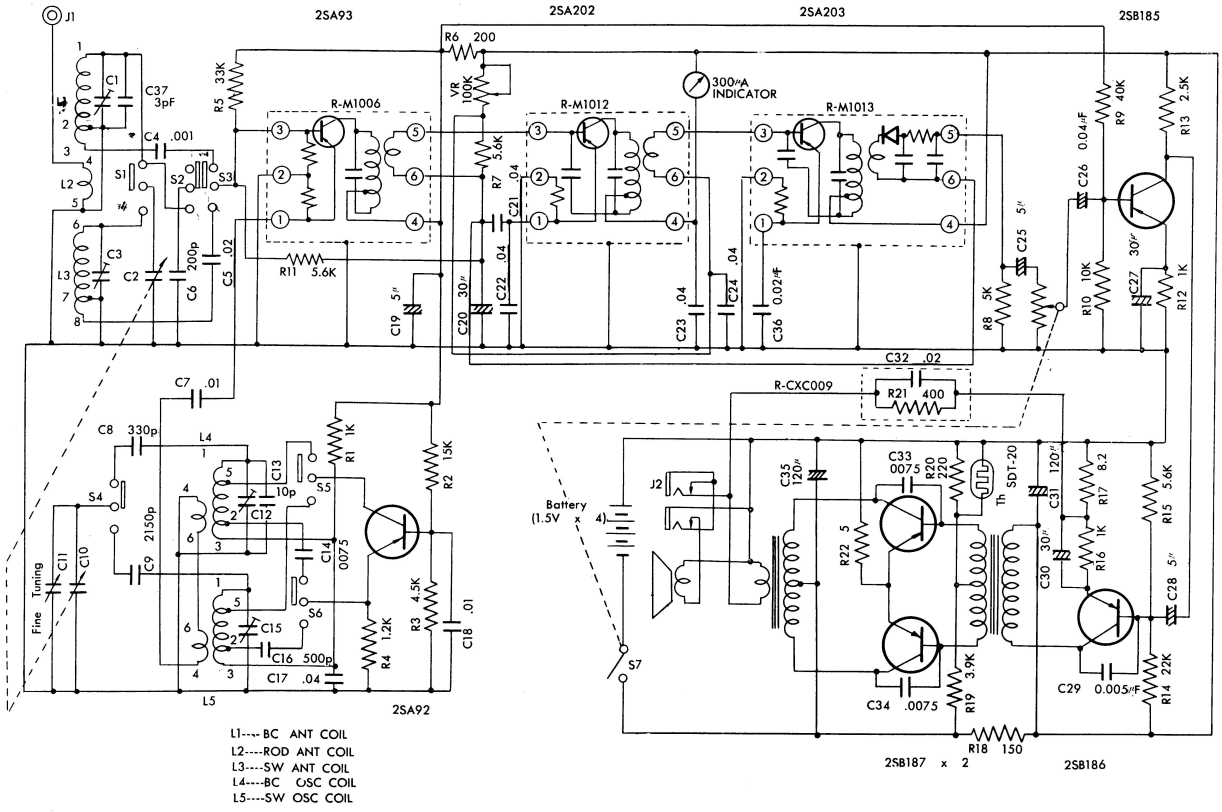
	R-31398	Cabinet
	R-31399a	Back Cover
	R-32198b	Dial Panel
	R-23486	Trade Mark Strap
	R-26367	Decoration Panel
	R-39016a	Speaker Net
	R-26368	Meter Scale
	R-26372 L	Back Screen
	R-26456	Decoration Metal
	R-26370	Specification Sheet

MISCELLANEOUS

	R-48063	Leather Case
	R-33266	Tuning Knob
	R-33265a	On-off & Volume Control Knob
	R-33261	Fine Tuning Knob
	R-33124b	Drum
	R-23492	Pointer
	R-S1111	Telescoping Rod Antenna
	R-S8280	Battery Holder
J 1	R-S2025a L	Antenna Socket
J 2	R-S2081	Earphone Socket
	R-S5502 L	Indicator

Printed in Japan

CIRCUIT DIAGRAM



ALIGNMENT PROCEDURES

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 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	High side through 0.1 μf capacitor to antenna stator lug on tuning gang. Low side to chassis	455 Kc	Near 540 Kc	R-M1006 R-M1012 R-M1013
BROADCAST RF ALIGNMENT				
2	Fashion loop of several turns of wire and radiate signal into loop antenna.	600 Kc	600 Kc	L 4
3	〃	1400 Kc	1400 Kc	C 12
4	〃	Repeat steps 2 and 3.		
5	〃	600 Kc	600 Kc	L 1
6	〃	1400 Kc	1400 Kc	C 1
7	〃	Repeat steps 5 and 6.		

PART NO.	STOCK NO.	DESCRIPTION

TRANSISTORS

Tr	1	2SA92	Local Oscillator
Tr	2	2SA93	Mixer
Tr	3	2SA202	1st IF Amplifier
Tr	4	2SA203	2nd IF Amplifier
Tr	5	2SB185	AF Amplifier
Tr	6	2SB186	Driver
Tr	7	2SB187	Power Amplifier
Tr	8	2SB187	Power Amplifier

THERMISTOR

T	H	SDT-20	Temperature Compensator

COILS

L	1/3	R-W2096	Antenna Coil BC & SW
L	4	R-W8014	Oscillator Coil BC
L	5	R-W8045	Oscillator Coil SW

TRANSFORMERS

		R-M1006	Mixer Module (including Tr 2)
		R-M1012	IF Module (including Tr 3)
		R-M1013	IF Module (including Tr 4)
I	P T	R-W6132	Input Transformer
O	P T	R-W6133	Output Transformer

CONTROLS

S	1/6	R-S4160	Band Selector
V	C	R-C1058	Variable Capacitor with trimmer
C	11	R-C1070	Midget Variable Capacitor for fine tuning
		R-R11604	Variable Resistor
V	R	R-R11007	Semi-fixed Variable Resistor

LOUDSPEAKER

S	P	R-S6149	2½" PM Type, 7ohms voice coil impedance

PART NO.	STOCK NO.	DESCRIPTION

FIXED CAPACITORS

C	4	Mylar	0.001μF	±20%		MX
C	5	Mylar	0.02μF	+30-20%		MFL
C	6	Titacon	200pF			
C	7	Mylar	0.01μF	+30-20%		
C	8	Stycon	330pF	±10%		
C	9	Stycon	2150pF	±10%	125WV	
C	13	Titacon	10pF	±10%		
C	14	Mylar	0.0075μF	+30-20%		
C	16	Mylar	500pF	±20%		MX
C	17	Titacon	0.04μF	+80%	25WV	
C	18	Mylar	0.01μF	+30-20%		
C	19	Electrolytic	5μF		6WV	V-type
C	20	Electrolytic	30μF		3WV	V-type
C	21	Titacon	0.04μF	+80%	25WV	
C	22	Titacon	0.04μF	+80%	25WV	
C	23	Titacon	0.04μF	+80%	25WV	
C	24	Titacon	0.04μF	+80%	25WV	
C	25	Electrolytic	5μF		6WV	V-type
C	26	Titacon	0.04μF	+80%	25WV	
C	27	Electrolytic	30μF		3WV	V-type
C	28	Electrolytic	5μF		6WV	V-type
C	29	Mylar	0.005μF	+30-20%		MX
C	30	Electrolytic	30μF		3WV	V-type
C	31	Electrolytic	120μF		6WV	V-type
C	33	Mylar	0.0075μF	+30-20%		
C	34	Mylar	0.0075μF	+30-20%		
C	35	Electrolytic	120μF		6WV	V-type
C	36	Mylar	0.02μF	+30-20%		MFL
C	37	Titacon	3pF			

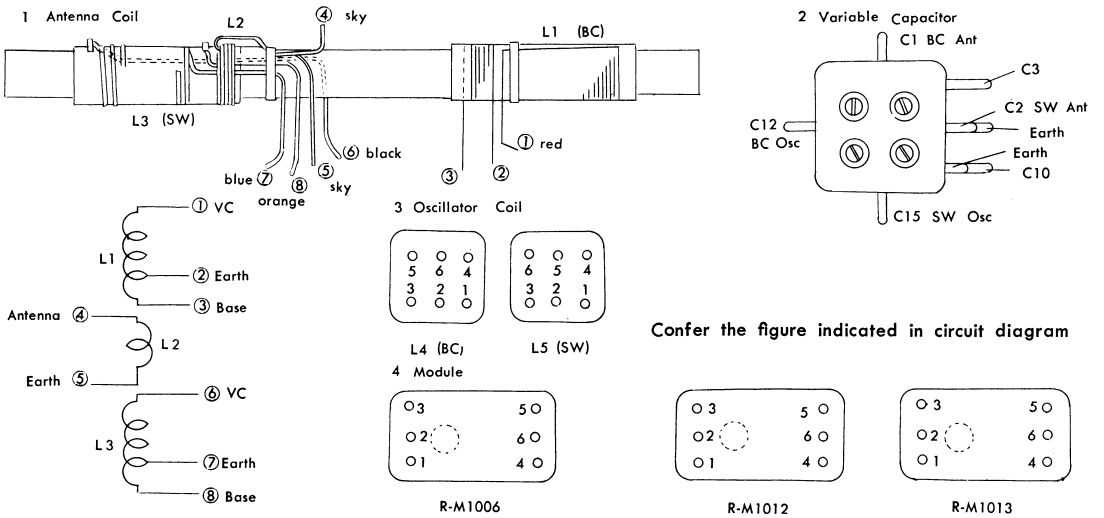
FIXED RESISTORS

R	1	Mold	1K ohms	±10%	¼W
R	2	Mold	15K ohms	±10%	¼W
R	3	Mold	4.5K ohms	±10%	¼W
R	4	Mold	1.2K ohms	±10%	¼W
R	5	Mold	33K ohms	± 5%	¼W
R	6	Mold	200 ohms	±10%	¼W
R	7	Mold	5.6K ohms	± 5%	¼W
R	8	Mold	5K ohms	±10%	¼W
R	9	Mold	40K ohms	±10%	¼W
R	10	Mold	10K ohms	±10%	¼W
R	12	Mold	1K ohms	±10%	¼W
R	13	Mold	2.5K ohms	±10%	¼W
R	14	Mold	22K ohms	±10%	¼W
R	15	Mold	5.6K ohms	±10%	¼W
R	16	Mold	1K ohms	±10%	¼W
R	17	Mold	8.2 ohms	±10%	¼W
R	18	Mold	100 ohms	±10%	¼W
R	19	Mold	3.9K ohms	±10%	¼W
R	20	Mold	220 ohms	±10%	¼W
R	22	Mold	5 ohms	±10%	¼W

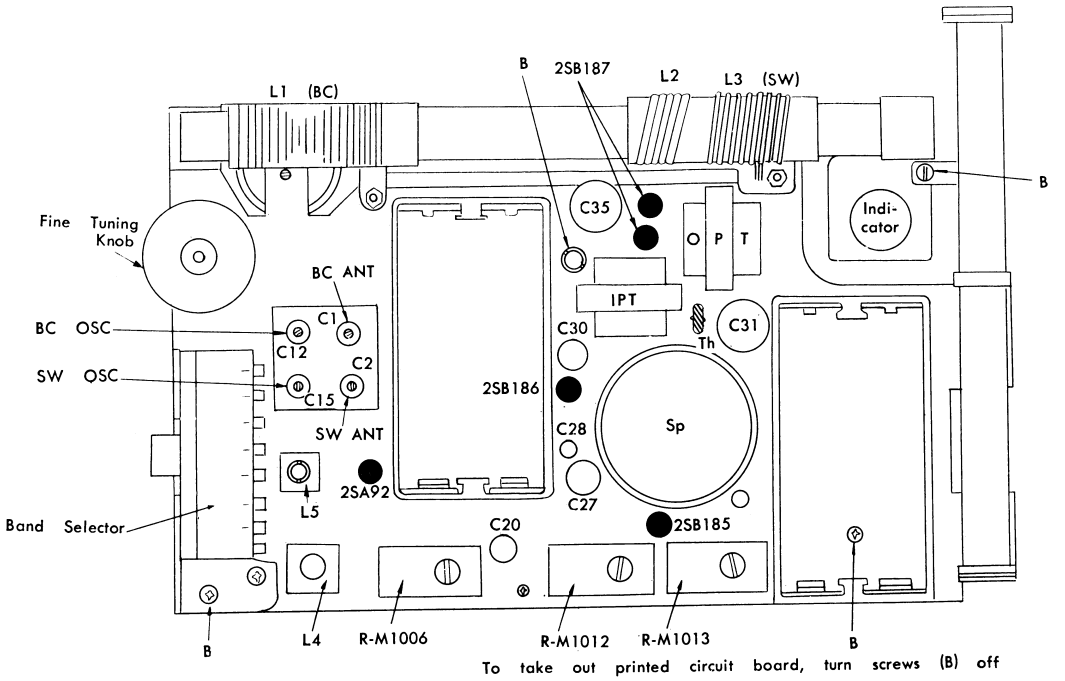
SHORTWAVE RF ALIGNMENT

8	Fashion loop of several turns of wire and radiate signal into loop antenna.	4 Mc	4 Mc	L 5
9	〃	11 Mc	11 Mc	C 15
10	〃	Repeat steps 8 & 9.		
11	〃	4 Mc	4 Mc	L 3
12	〃	11 Mc	11 Mc	C 2
13	〃	Repeat steps 11 & 12.		

MAIN PARTS CONNECTION



MAIN PARTS LOCATION

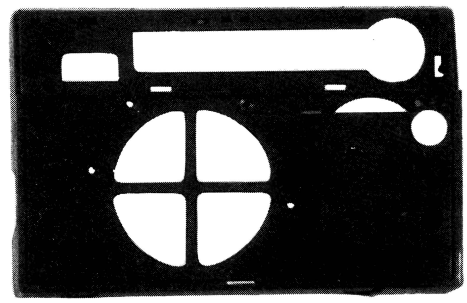


To take out printed circuit board, turn screws (B) off

(R-S1111)

(R-26456)

(R-31398)



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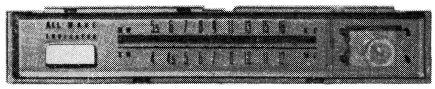
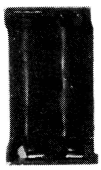


(R-26372L)

(R-S2081)

(R-S2025aL)

(R-S8280)



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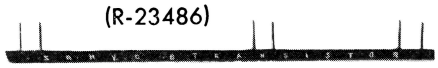

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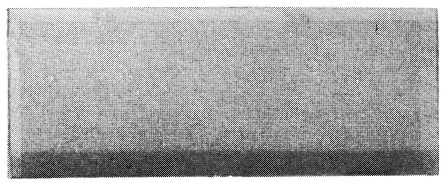
(R-26367)



(R-26368)

(R-33266)

(R-33265a)

(R-33261)

(R-S5502L)

(R-26370)