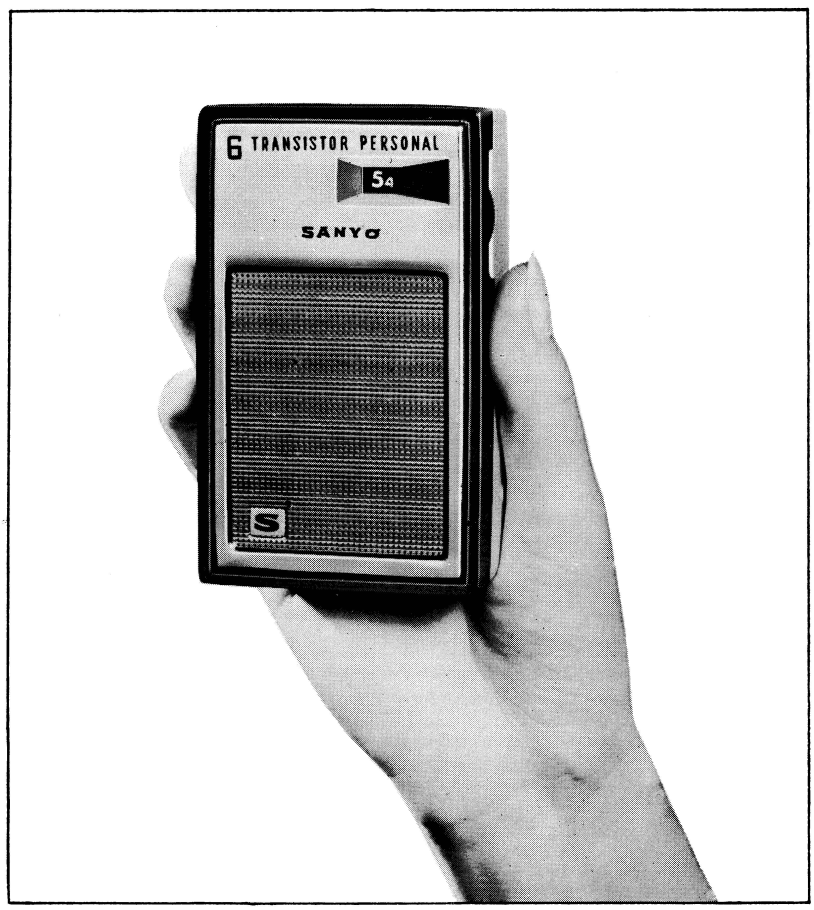
SANYO

MODEL
TH-600

All-transistor Radio

Service Manual



SPECIFICATIONS

FREQUENCY RANGE

standard broadcast band	540 to 1,605 kc
Intermediate Frequency :	455 kc

OUTPUT POWER

undistorted	90 mW
maximum	150 mW
Sensitivity :	170 μV/m
Signal-to-Noise Ratio :	20 db (for lmV/m input)

Operates on single 9-volt long-life radio battery

LOUDSPEAKER

$2\frac{1}{2}''$ permanent dynamic speaker
voice coil impedance 40 ohms

TRANSISTOR COMPLEMENT

frequency converter	1
IF amlifier	2
AF amplifier	1
power amplifier	2

DIODE USED

detector & AGC 1

CABINET DIMENSIONS

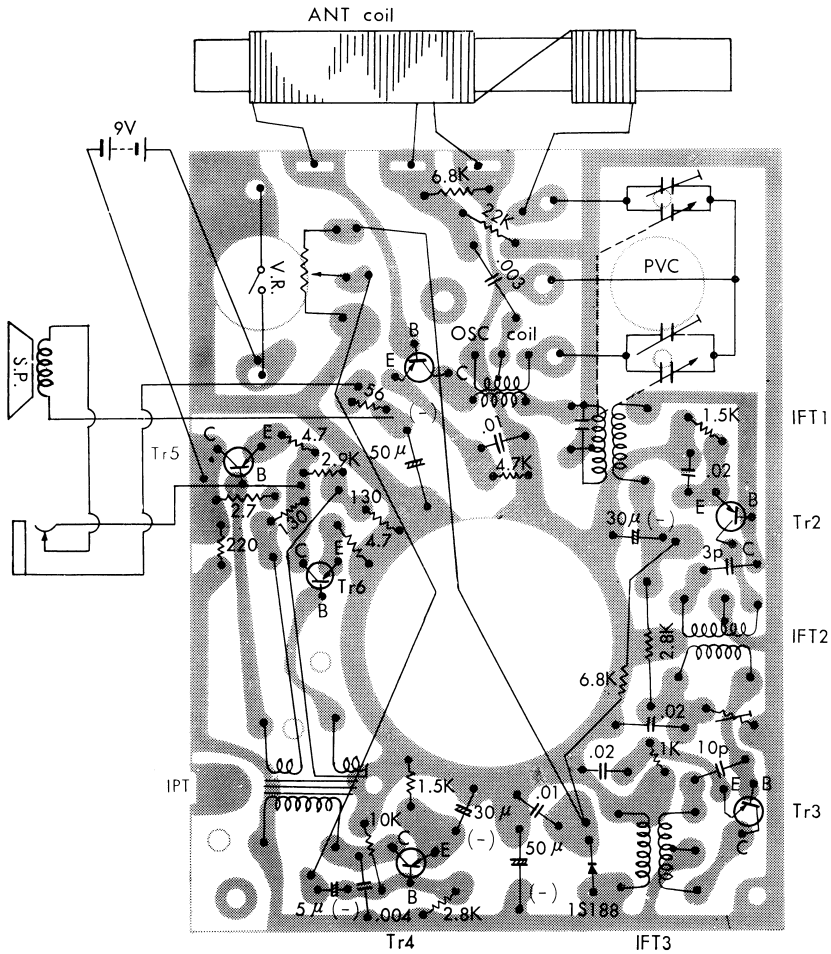
$2\frac{1}{2}''$ wide x $4\frac{1}{8}''$ high x $1\frac{1}{4}''$ thick

NET WEIGHT

7.6 ozs approx. (including battery)

SANYO ELECTRIC CO., LTD.

INTER PARTS CONNECTION



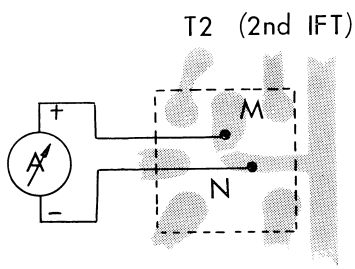
ADJUSTMENT OF SEMI FIXED RESISTOR (SVR 100 Kohm)

Set the value of SVR at maximum with the receiver avoiding signal.

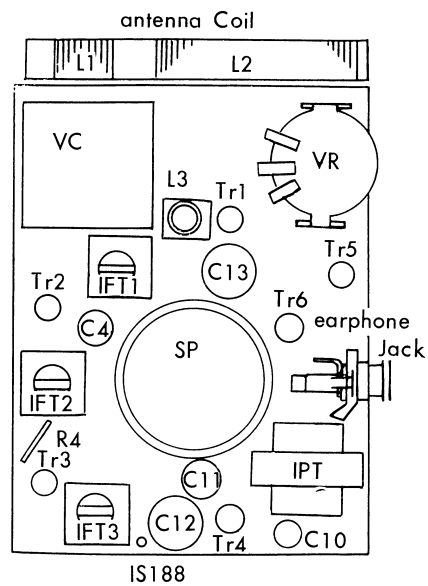
Apply 6 volt to the receiver as power source.

Connect an ammeter (range ; 1 mA) across points M and N as illustrated.

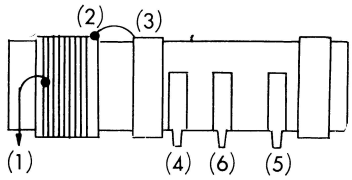
Adjust the value of SVR to read 400 μA in the ammeter. Short-circuit the points M and N by soldering after adjustment.



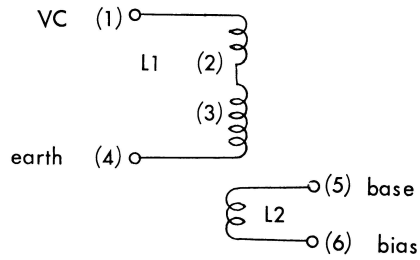
MAIN PARTS LOCATION



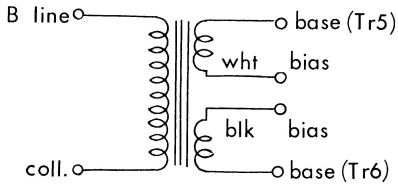
MAIN PARTS CONNECTION



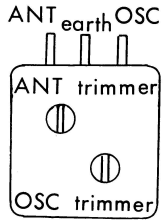
Antenna Coil



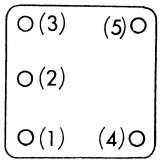
IPT

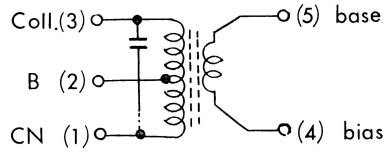


VC

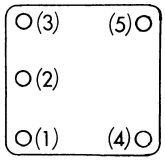


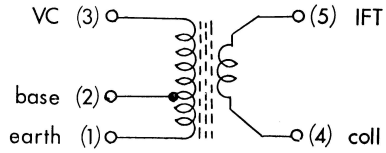
IFT

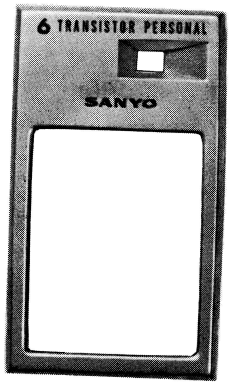




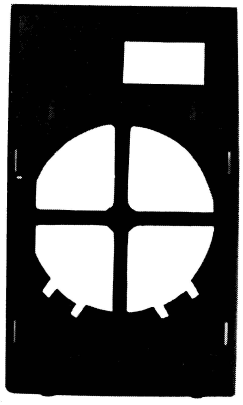
OSC Coil



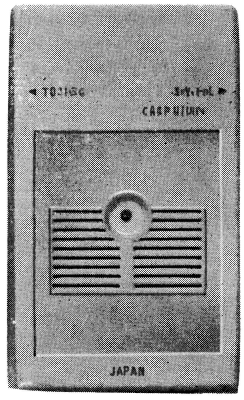




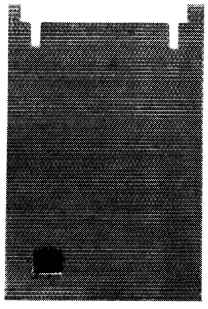
R-265041



R-315019



R-315020

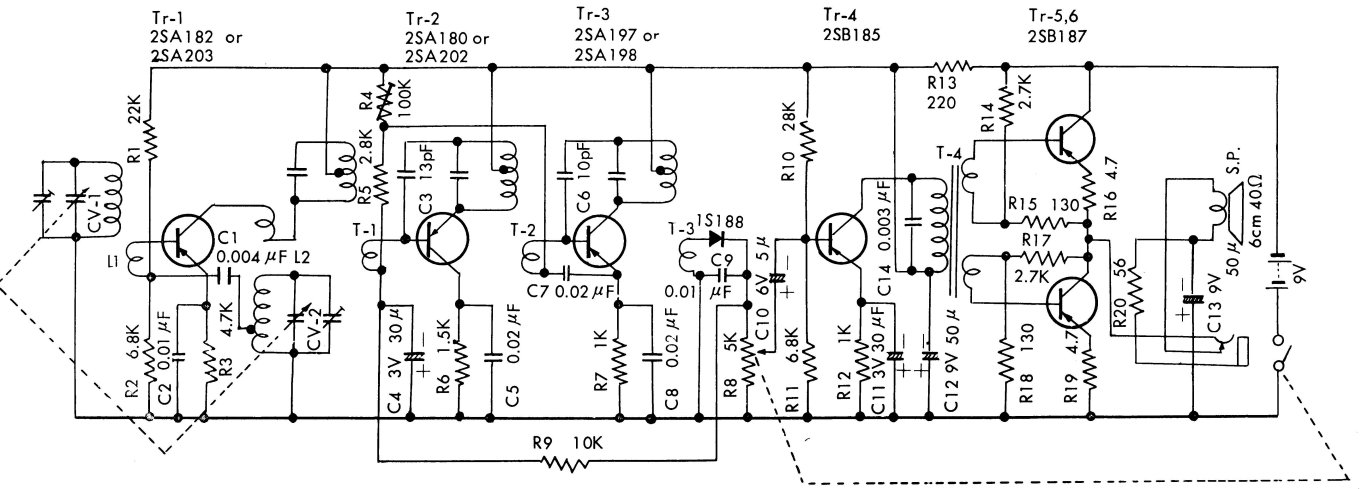


R-265042

R-32279

R-335034

CIRCUIT DIAGRAM



ALIGNMENT PROCEDURES

Apply volt-meter across the voice coil. The Volume control should be set to maximum.

Output of signal generator should be kept low only enough to obtain output indication.

STEP	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	ADJUST FOR MAXIMUM OUTPUT
IF ALIGNMENT				
1	radiate signal through the loop coil, which connected with signal generator output cable	455 kc	lower end	IF transformer T 3 T 2 T 1
BROADCAST RF ALIGNMENT				
2	radiate signal through the loop coil, which connected with signal generator output cable.	520 kc	lower end	Osc. coil
3		1650 kc	upper end	Osc. trimmer
4		Repeat steps 2 and 3.		
5		600 kc	600 kc	Ant. coil
6		1400 kc	1400 kc	Ant. trimmer
7		Repeat steps 5 and 6.		

PART NO.	STOCK NO.	DESCRIPTION
	R-315019	Cabinet-front enclosure
	R-315020	Back cover
	R-265041	Decoration panel
	R-265042	Metal panel
	R-415027	Battery cushion
	R-435016	Speaker grille net
	R-325009	Dial window cover
	R-475023	Battery instruction sheet
	R-265047	Badge
	R-24142a	Screw to fix back cover
	R-13027aL	C washer
	R-25026	Sp fixing metal
	R-245048	Envelop nut
	R-435017	Felt (6t × 6 × 6)
	R-415026	Printed circuit board
	R-335034	Tuning control knob
	R-32279	Volume control knob
	R-44065	Cushion
	R-423136	Inspect sheet
	R-475074	Construction sheet
	R-485012	Leather case
S P	R-S6517	$2\frac{1}{2}''$ permanent dynamic speaker
V R	R-116510	Volume control with switch
V C	R-C1503	Variable condenser
L_3	R-W8507	Oscillator coil complete
L_1 L_2	R-W2512	Antenna coil complete
I P T	R-W6513	Input transformer
I F T_1	R-W5507	1st IF transformer
I F T_2	R-W5508	2nd IF transformer
I F T_3	R-W5509	3rd IF transformer
	R-S6250	Earphone
	R-S2509	Earphone jack
	R-S107a	Battery snap terminal
	R-R11011	Semi-variable resistor

TRANSISTORS

Tr-1	2SA182 or 2SA203	Oscillator & Frequency converter
Tr-2	2SA180 or 2SA202	1st IF amplifier
Tr-3	2SA197 or 2SA198	2nd IF amplifier
Tr-4	2SB185	AF amplifier
Tr-5	2SB187	Power amplifier
Tr-0.4	2SB187	Power amplifier

DIODE

	1S188	Detector and AGC

PART NO.	STOCK NO.	DESCRIPTION

CAPACITORS

C 1		Mylar	0.004 μF	+30–20%	50WV
C 2		〃	0.01 μF	+30–20%	50WV
C 3		Ceramic	13 pF	±10%	25WV
C 4	R-C9080		30 μF		3V
C 5		Mylar	0.02 μF	+30–20%	50WV
C 6		Ceramic	10 pF	±10%	25WV
C 7		Mylar	0.02 μF	+30–20%	50WV
C 8		〃	0.02 μF	+30–20%	50WV
C 9		〃	0.01 μF	+30–20%	50WV
C 10	R-C9078		5 μF		6V
C 11	R-C9080		30 μF		3V
C 12	R-C9081		50 μF		9V
C 13	R-C9081		50 μF		9V
C 14		Mylar	0.003 μF	+30–20%	50WV

RESISTORS

R 1		22K	ohm	± 20%	$\frac{1}{4}$W
R 2		6.8K	ohm	± 20%	$\frac{1}{4}$W
R 3		4.7K	ohm	± 10%	$\frac{1}{4}$W
R 5		2.8K	ohm	± 20%	$\frac{1}{4}$W
R 6		1.5K	ohm	± 20%	$\frac{1}{4}$W
R 7		1K	ohm	± 20%	$\frac{1}{4}$W
R 9		10K	ohm	± 20%	$\frac{1}{4}$W
R 10		28K	ohm	± 20%	$\frac{1}{4}$W
R 11		6.8K	ohm	± 20%	$\frac{1}{4}$W
R 12		1K	ohm	± 20%	$\frac{1}{4}$W
R 13		220	ohm	± 20%	$\frac{1}{4}$W
R 14		2.7K	ohm	± 10%	$\frac{1}{4}$W
R 15		130	ohm	± 10%	$\frac{1}{4}$W
R 16		4.7	ohm	± 10%	$\frac{1}{4}$W
R 17		2.7K	ohm	± 10%	$\frac{1}{4}$W
R 18		130	ohm	± 10%	$\frac{1}{4}$W
R 19		4.7	ohm	± 10%	$\frac{1}{4}$W
R 20		56	ohm	± 10%	$\frac{1}{2}$W

Resistor of both solid type and carbon film type can be used.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.