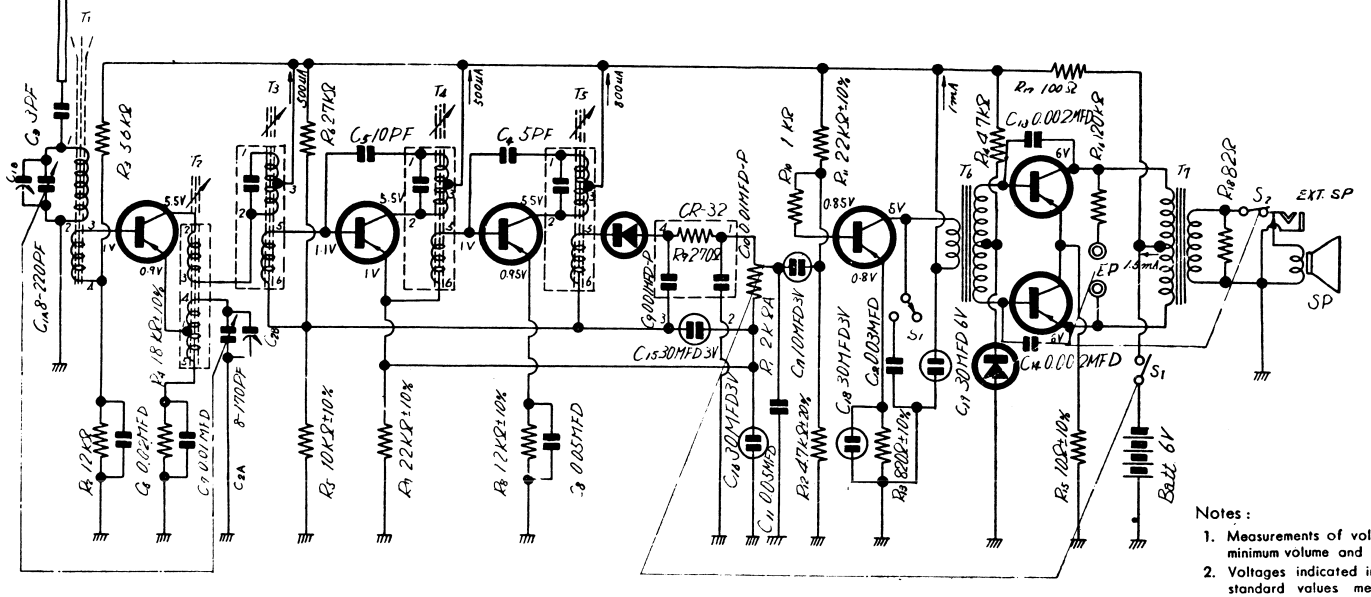
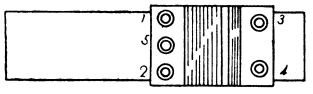
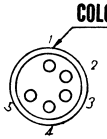
TR-1	TR-2	TR-3	D-1	TR-4	D-2	TR-5 & TR-6
MC101	OC45	OC45	OA70	OC71	MA23	2OC72
CONV	1ST IF AMP.	2ND IF AMP.	DET. & A.G.C.	AF AMP.	A.O.C	POWER OUTPUT

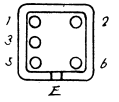




T2
FERRITE ROD ANTENNA COIL

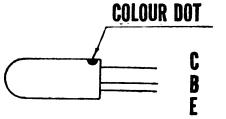


T2
OSC COIL
(BOTTOM VIEW)



T3 T4 & T5
IF TRANS

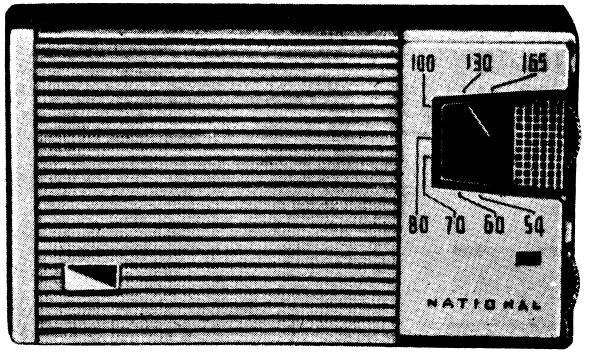
COUPLED CAPACITORS & RESISTOR



TRANSISTOR

Notes :

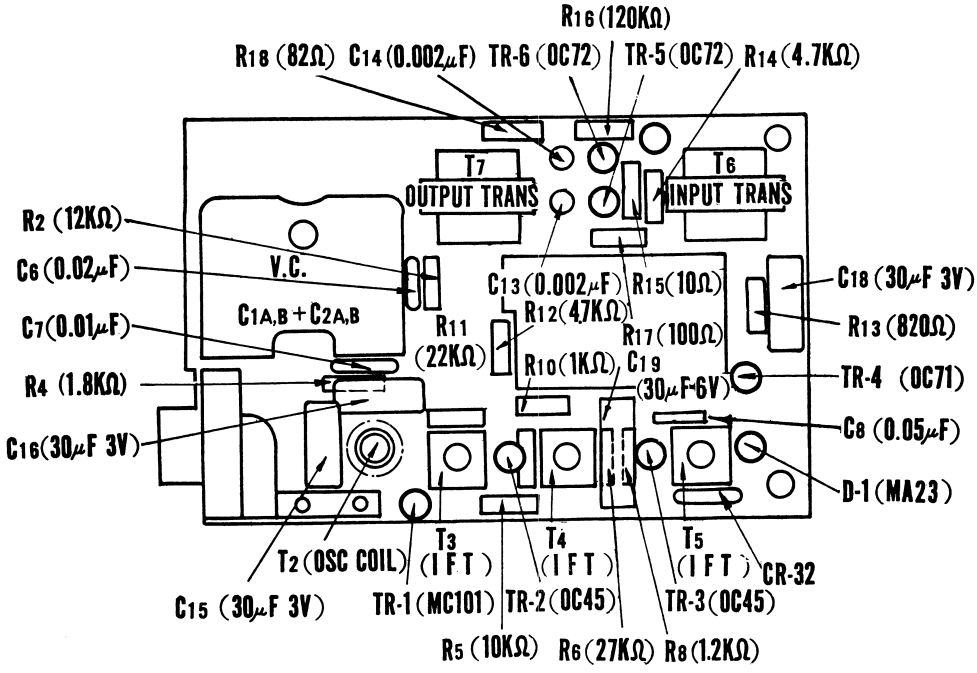
1. Measurements of voltage and current should be made at minimum volume and at no signal.
2. Voltages indicated in the schematic diagram are given as standard values measured by Vacuum-tube Volt Meter. When 1 KΩ / 1 V Tester is used for voltage measurement, please note that you will get lower values (−0.1 V on Collector, 0.2 V on Base and −0.1 V on Emitter respectively) than the abovementioned standard values obtained by Vacuum-tube Volt Meter.
3. Please make your current measurement within the range of 1 mA. Collector current of both transistors TR-1 (Ic1) and TR-2 (Ic2) are to be measured at the points, as illustrated on the printed circuit board removing solder on them.
   Those of other transistors can be measured by means of cutting the printed copper on the board.
4. Values of resistors R_{13} (56KΩ), R_{11} (27KΩ) and R_{14} (4.7KΩ) given in the schematic diagram may be variable according to radio receivers.

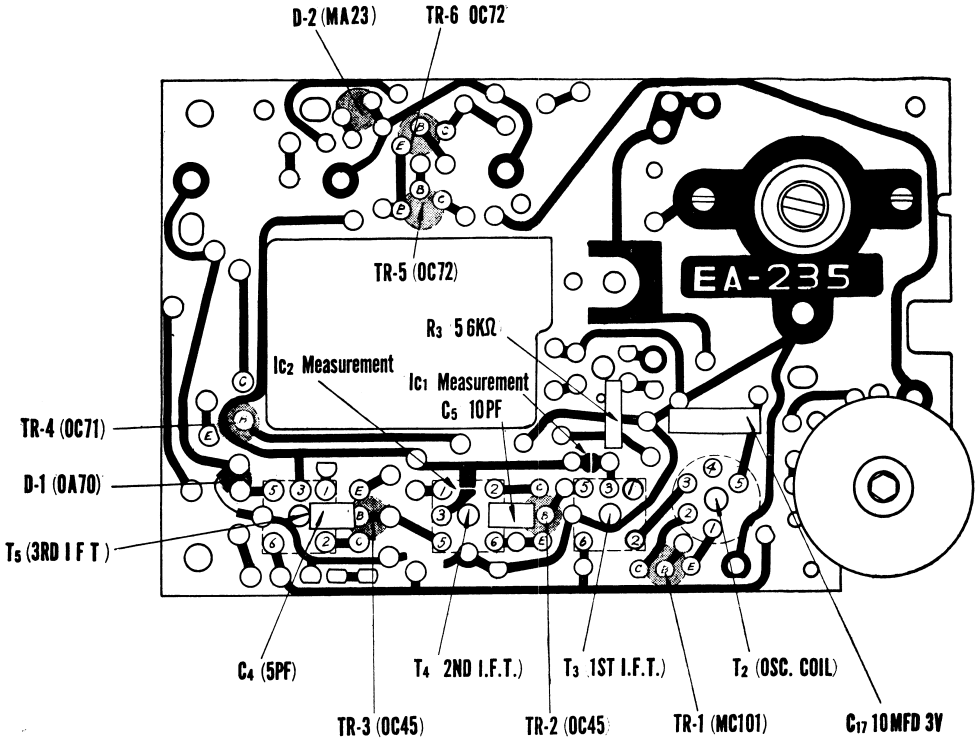


SPECIFICATIONS

Frequency Range :	540～1600Kc/s (556～187.5m)
Intermediate Frequency :	455Kc/s
Sensitivity :	300μV/m/10mW
Power Output :	150mW undistorted 200mW maximum
Battery :	6V (No. 3 Penlight Cells 1.5V×4)
Speaker :	2½" PM dynamic speaker Voice coil impedance 10Ω

MAIN PARTS LOCATION & PRINTED CIRCUIT BOARD





ALIGNMENT PROCEDURE

OUTPUT METER ..... Connect Output Meter across speaker voice coil.

OUTPUT LEVEL ..... Attenuate Test Oscillator output always maintain 0.4 volts on Output Meter to prevent overloading of the receiver.

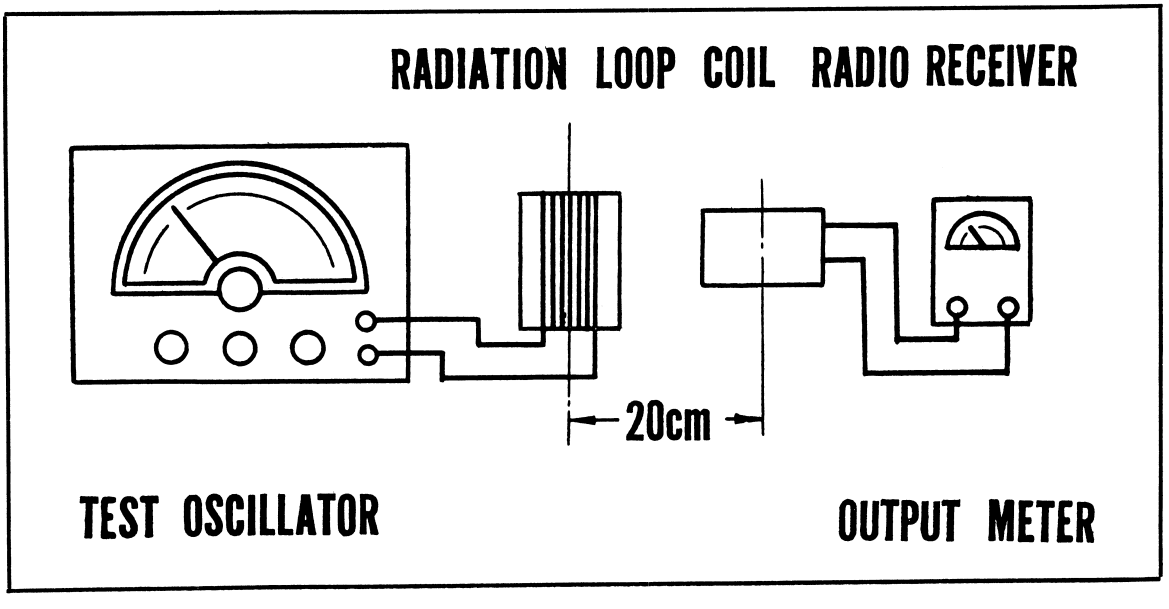
TEST OSCILLATOR ..... Modulate Test Oscillator at 1000c/s and connect the lead wires of Test Oscillator output to Radiation Loop Coil.

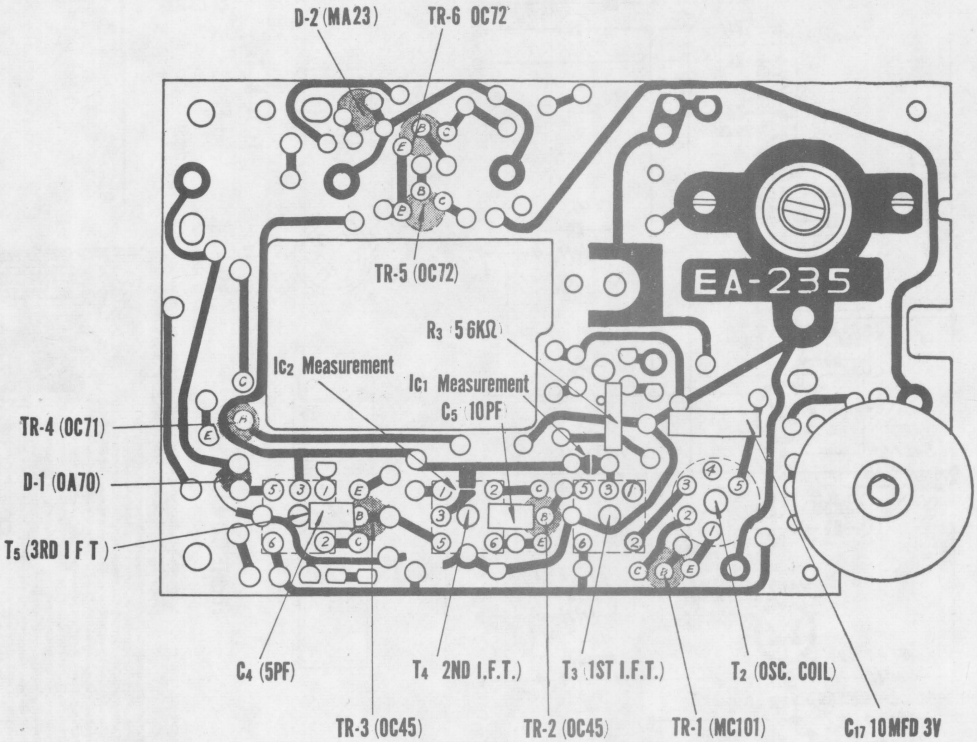
RADIO RECEIVER..... Place the radio receiver 20cm away from Radiation Loop Coil and set volume control to maximum.

RADIATION LOOP COIL... Make up a 20 turn, 15cm diameter bobbin, using 1mm copper wire.

Step	Test Oscillator output	Dial setting	Adjusting to maximum output
1	455 KC	Variable capacitor at maximum capacity	I F transformers (T_3, T_4, T_5)
2	455 KC		Repeat step ①.
3	530 KC		Oscillator coil (T_2)
4	1650 KC	Variable capacitor at minimum capacity	Oscillator trimmer (C_2B)
5	530 KC or 1650 KC	Variable capacitor at max. or min. capacity	Repeat steps ③ and ④.
6	600 KC	600 KC	Antenna coil (T_1)
7	1200 KC	1200 KC	Antenna trimmer (C_1B)
8	600 KC or 1200 KC	600 KC or 1200 KC	Repeat steps ⑥ and ⑦.

Connection of Test Oscillator, Radiation Loop Coil, Radio Receiver and Output Meter.




D-2 (MA23)
TR-6 OC72
TR-5 (OC72)
EA-235
R3 (5.6KΩ)
Ic2 Measurement
Ic1 Measurement
C5 (10PF)
TR-4 (OC71)
D-1 (OA70)
T5 (3RD I F T)
C4 (5PF)
T4 2ND I.F.T.)
T3 (1ST I.F.T.)
T2 (OSC. COIL)
TR-3 (OC45)
TR-2 (OC45)
TR-1 (MC101)
C17 10MFD 3V