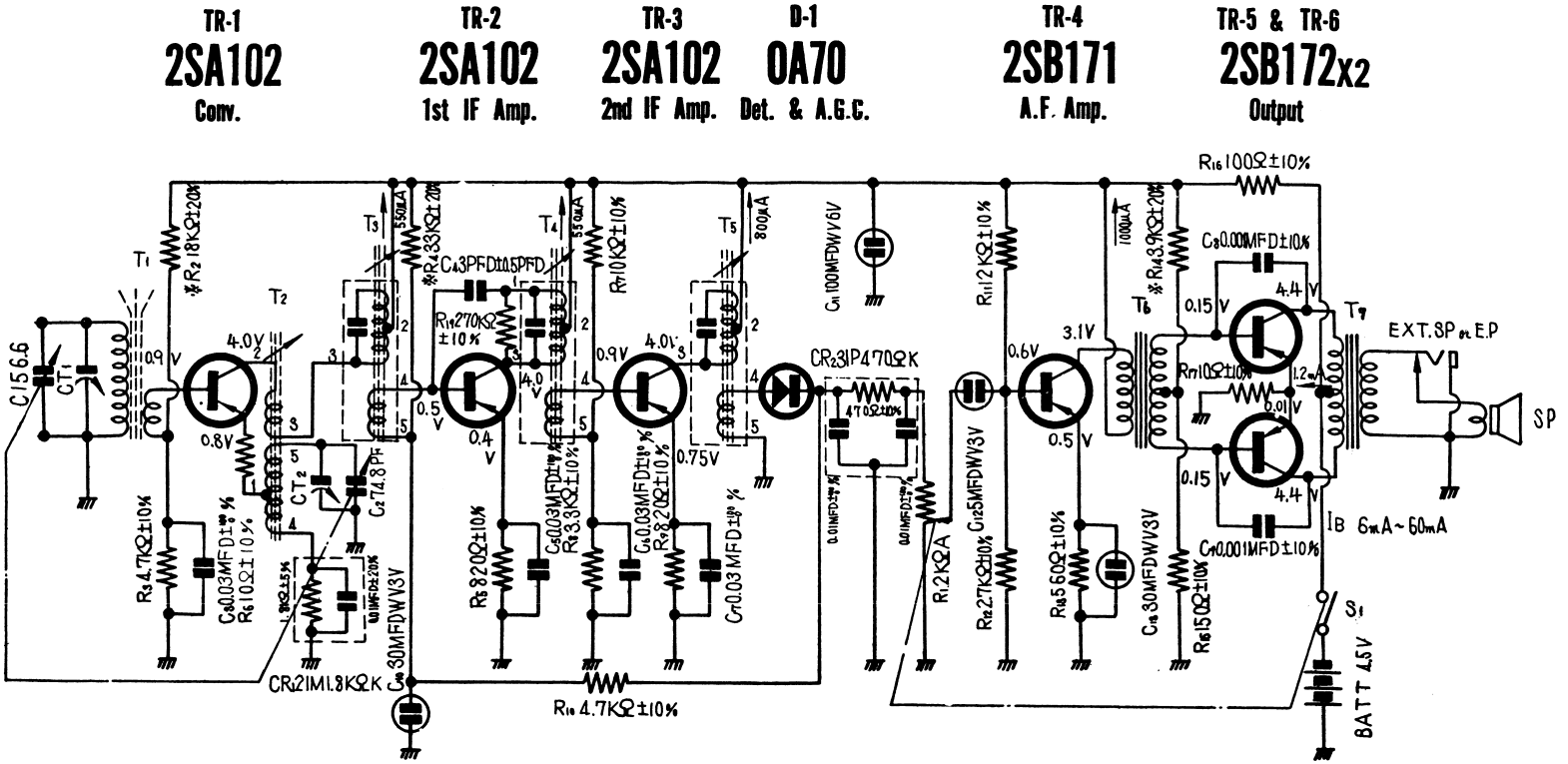
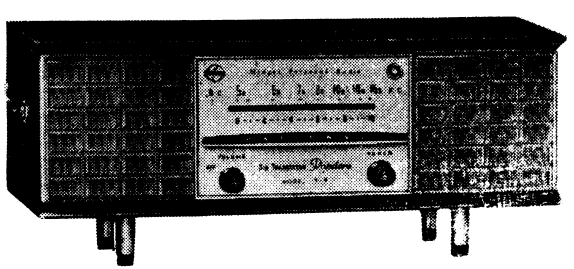


Notes:

1. S_1: Power switch is now at "OFF" position.
2. Voltages and current indicated are the standard values measured at no signal. They may be slightly variable on each set.
3. ※ mark (R_2, R_4, R_{14}) resistors are the standard values. They may be slightly variable on each set.

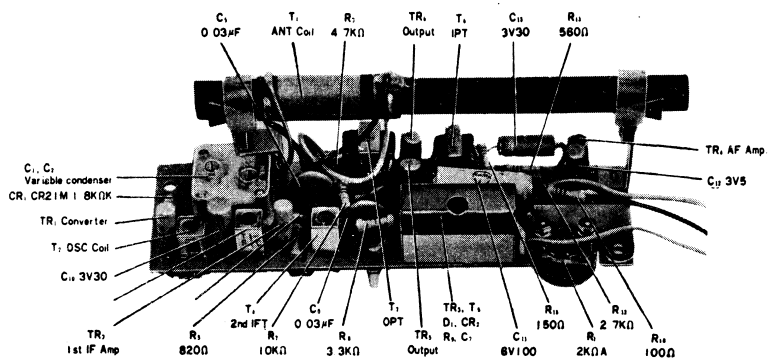
SPECIFICATIONS

Frequency Range :	540 ~ 1600 Kc/s (556 ~ 187.5 m)
Intermediate Frequency :	455 Kc/s
Sensitivity :	600 μV / m / 5 mW
Power Output :	60mW undistorted 80mW maximum
Batteries :	4.5V (Three No. 3 penlight dry cells 1.5V) (NATIONAL UM-3 or equivalents)
Speaker :	1¾″ PM dynamic speaker Voice coil impedance, 8Ω

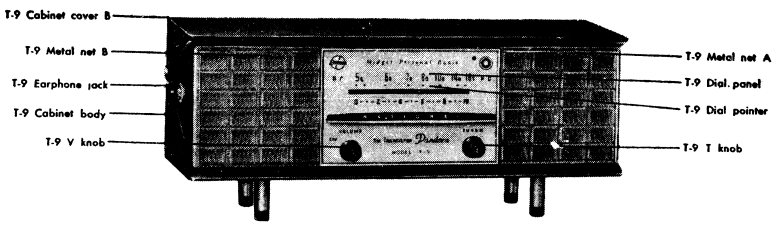


NATIONAL MODEL T-9

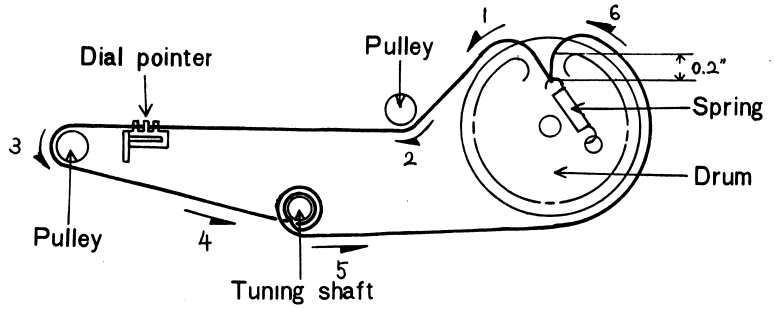
MAIN PARTS ON THE CHASSIS



CABINET MAIN PARTS



DIAL CORD STRINGING



Notes:

1. Arrow marks indicate the order of hanging the dial rope.
2. Tuning capacitor is at the position of maximum capacity (closed position).
3. The knot must be fixed with white lacquer.

ALIGNMENT PROCEDURE

OUTPUT METER ..... Connect Output meter across speaker voice coil terminals.

OUTPUT LEVEL ..... Attenuate Signal Generator output always to maintain 0.2 volt on Output Meter to prevent overloading of the receiver.

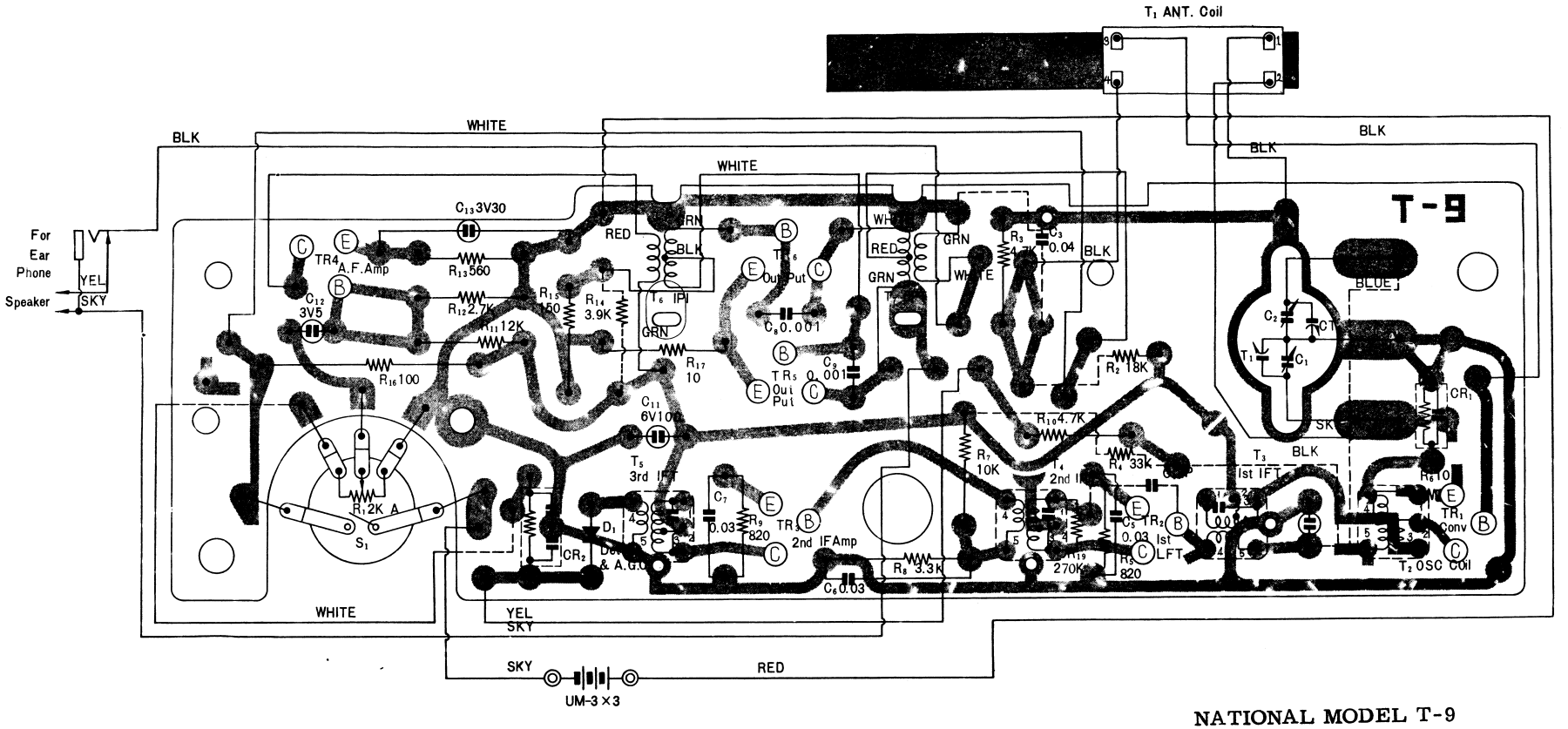
SIGNAL GENERATOR..... Modulate Signal Generator at 1000 c/s and connect the lead wires of Signal Generator output to Radiation Loop Coil.

RADIO RECEIVER..... Place the radio receiver 60cm (24″) away from Radiation Loop Coil and set volume control to maximum.

RADIATION LOOP COIL... Make up a 20 turn, 18″ diameter bobbin, using 0.04″ copper wire.

Circuit		Step	Signal Generator output	Dial setting	Adjusting for maximum Output
IF		1	455 KC	Variable capacitor at maximum capacity	IF Transformers T_5, T_4, T_3
		2	455 KC		Repeat step (1) two times.
MW	OSC	3	530 KC		OSC coil (T_2)
		4	1650 KC	Variable capacitor at minimum capacity	MW OSC trimmer (CT_2)
		5	530 KC or 1650 KC	Variable capacitor at max. or min. capacity	Repeat steps both (3) and (4) three times.
	ANT	6	600 KC	600 KC	ANT coil (T_1)
		7	1400 KC	1400 KC	MW ANT trimmer (CT_1)
		8	600 KC or 1400 KC	600 KC or 1400 KC	Repeat steps both (6) and (7) three times.

PRINTED CIRCUIT BOARD



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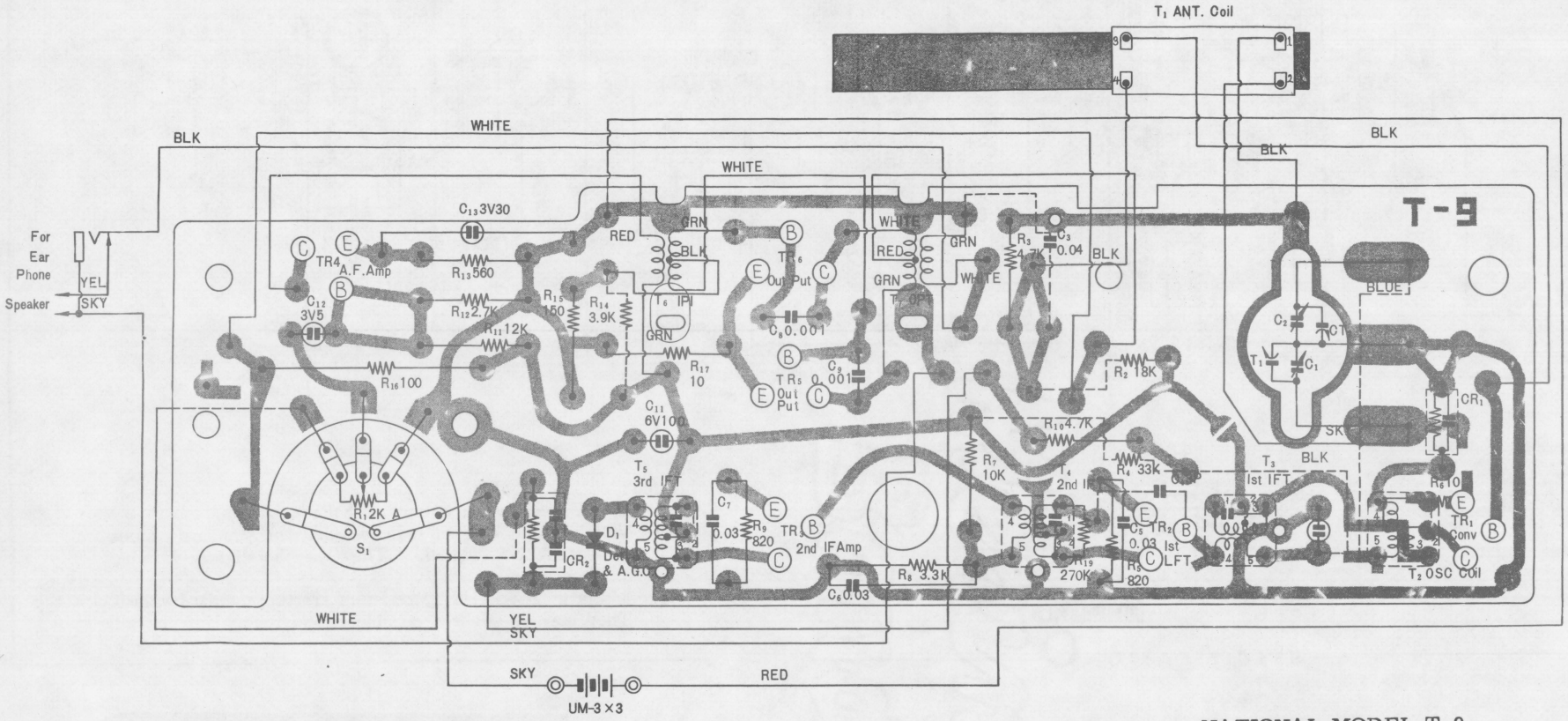
PRINTED CIRCUIT BOARD



NATIONAL MODEL T-9