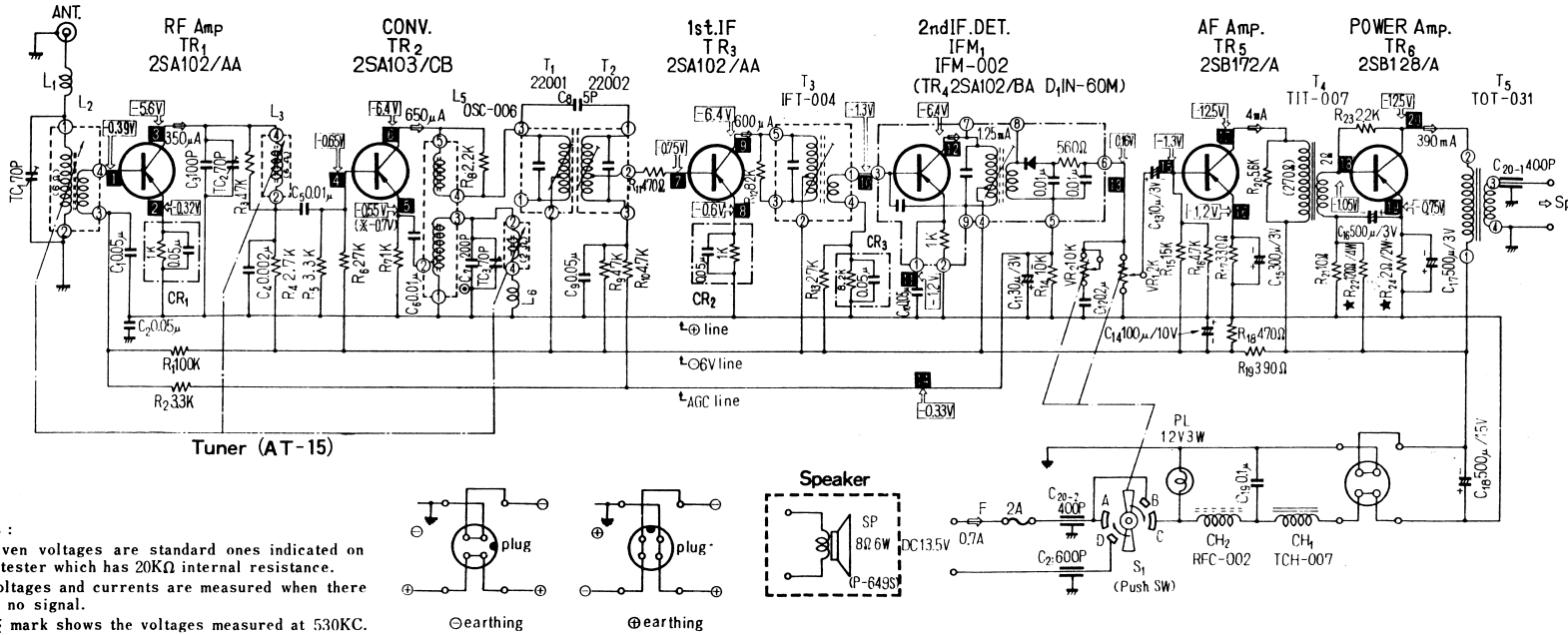
AT-351 CIRCUIT DIAGRAM

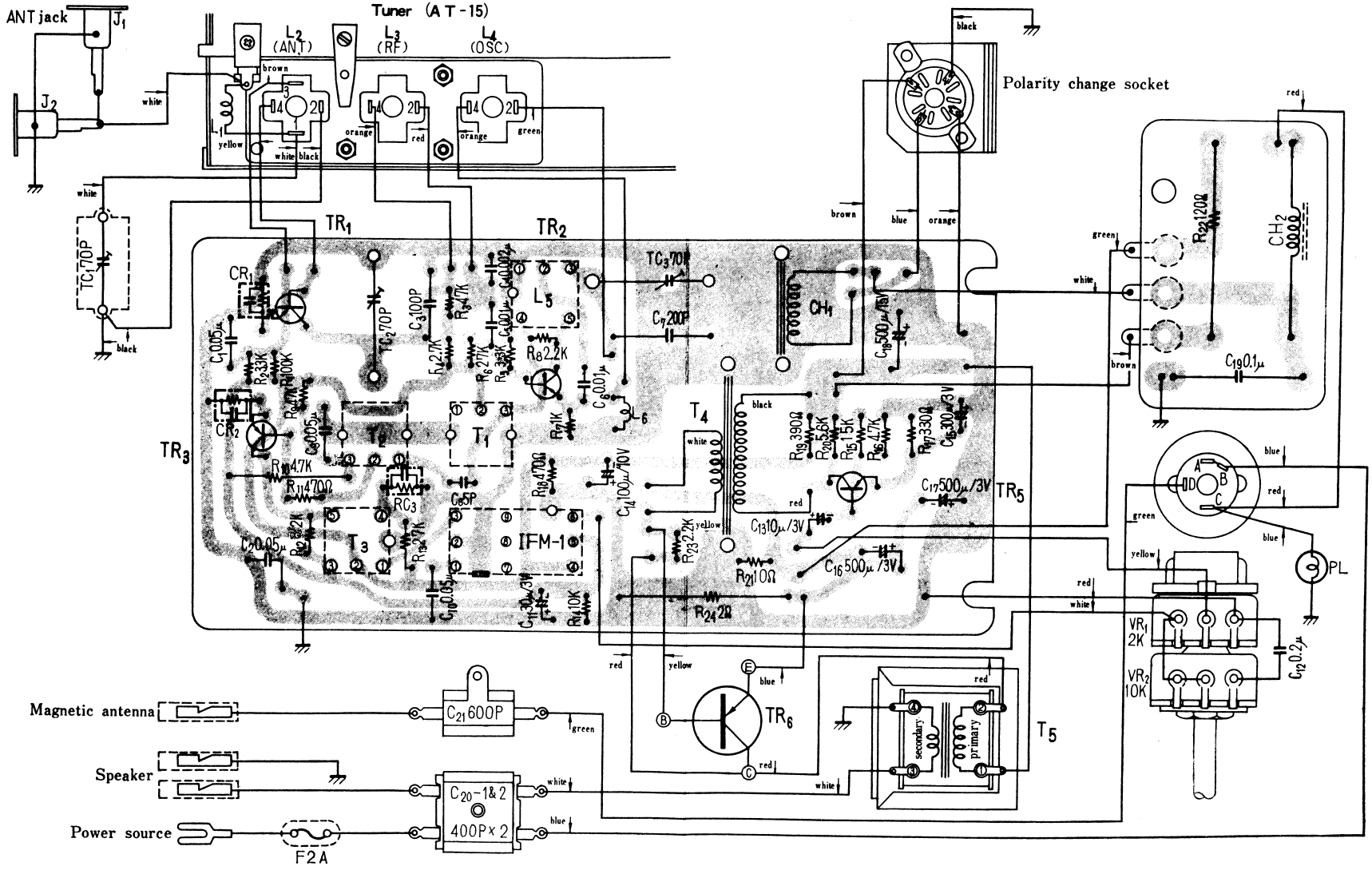


Notes :

1) Given voltages are standard ones indicated on a tester which has 20KΩ internal resistance.
2) Voltages and currents are measured when there is no signal.
3) ※ mark shows the voltages measured at 530KC.
4) ◉ marked titanium condenser is for temperature compensation.
5) ★ marked resistors are synthetic resin coated resistors.
6) If not specified otherwise, all resistors are 1/6W solid resistors.

NATIONAL AT-351. (CR-1351)

AT-351 PRINTED CIRCUIT BOARD



12-1 Preparations for Alignment

1) Regulate the power source voltage at the standard 13.5 V constant.
2) Set the volume control at its maximum position.
3) Turn the tone control knob to get the highest pitched tone.
4) Modulating frequency of the signal generator should be 400 c/s.
   Modulation degree should be 30 %. (The output of the signal generator should be as low as possible.)
5) Signals should be fed from the antenna jack.
6) Dummy antenna should be set as shown in Fig. 12-2.

12-2 Procedures for Alignment

Proce -dure	Component to be aligned	Signal Freq.	Signal Freq.	Dial pointer at:	Note:
1.	I F T	T4 (black)	455KC	around 1500KC where there is no station	Repeat the procedures No. 1 to 4 three or four times so as to get maximum output.
2.		T3 (white)	〃	〃	
3.		T2 (blue)	〃	〃	
4.		T1 (pink)	〃	〃	
5.	Oscillator	core of oscillation coil L5(red)	530KC	lowest receiving point (left end)	Repeat two or three times so as to get proper reception at the highest & lowest receiving points.
6.		oscillation trimmer TC3	1650KC	highest receiving point (right end)	
7.	RF ANT matching	RF trimmer TC2	1400KC	1400KC	Adjust to get the maximum output.
8.		ANT trimmer TC1	〃	〃	

Note) Align the antenna trimmer again so as to get the maximum output on receiving a radio program around 1400 KC, when the radio set is installed in a car or when the antenna is replaced.

12-3 Alignment Points & Signal Frequency

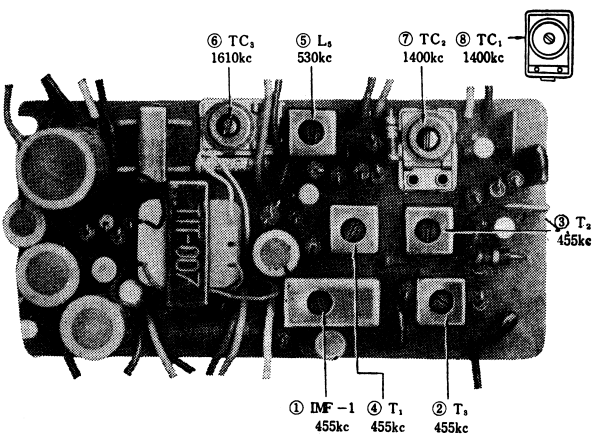


Fig. 12-1

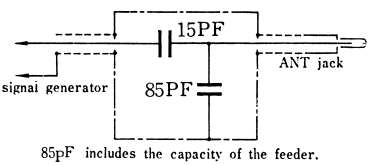


Fig. 12-2

12-1 Preparations for Alignment

1) Regulate the power source voltage at the standard 13.5 V constant.
2) Set the volume control at its maximum position.
3) Turn the tone control knob to get the highest pitched tone.
4) Modulating frequency of the signal generator should be 400 c/s.
   Modulation degree should be 30 %. (The output of the signal generator should be as low as possible.)
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6) Dummy antenna should be set as shown in Fig. 12-2.

12-2 Procedures for Alignment

Proce-dure	Component to be aligned	Signal Freq.	Signal Freq.	Dial pointer at:	Note:
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6.		oscillation trimmer TC3	1650KC	highest receiving point (right end)	
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8.		ANT trimmer TC1	〃	〃	

Note) Align the antenna trimmer again so as to get the maximum output on receiving a radio program around 1400 KC, when the radio set is installed in a car or when the antenna is replaced.

12-3 Alignment Points & Signal Frequency

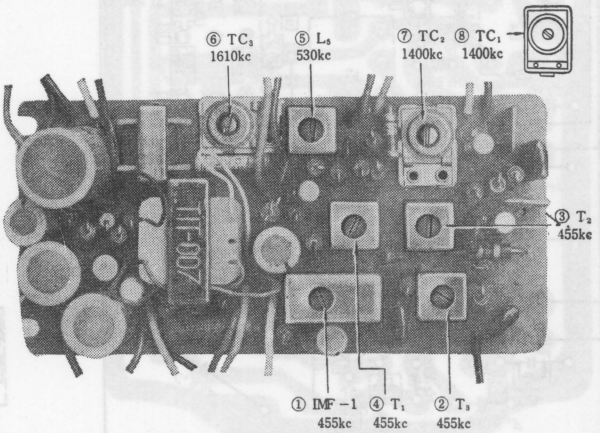

Fig. 12-1

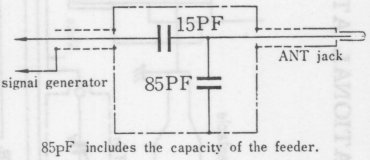

Fig. 12-2

AT-351 PRINTED CIRCUIT BOARD