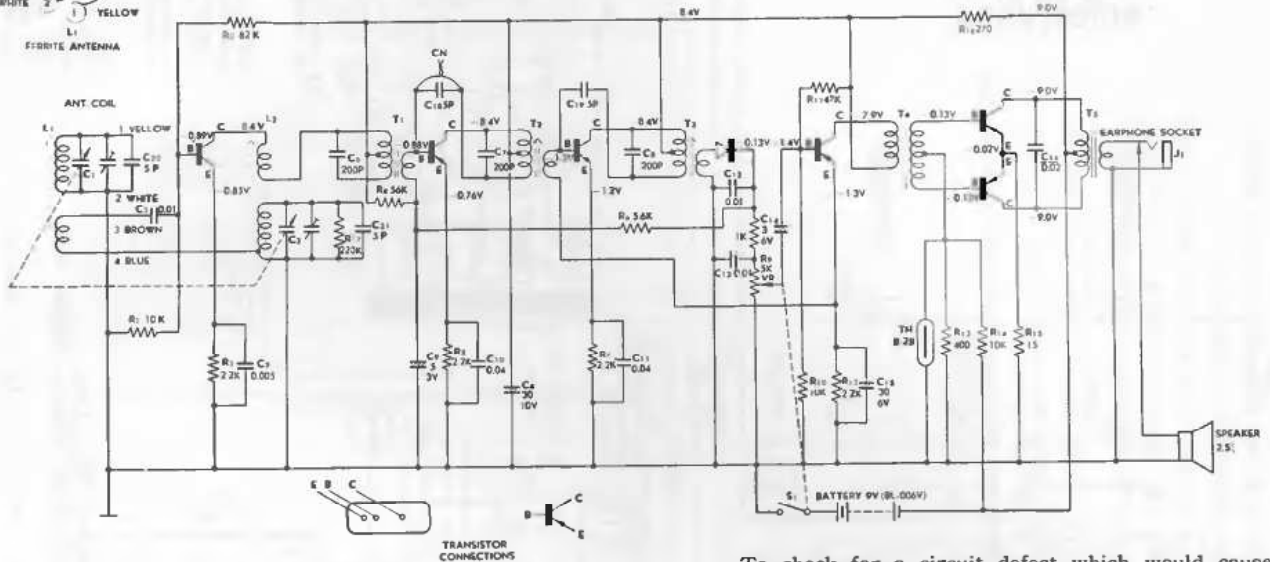
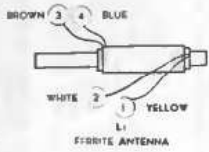




**Hitachi, Ltd.**  
Tokyo Japan

**model TH-621**

CONV. 1ST. I.F. 2ND. I.F. DETECTOR A.F. AMP. OUT PUT  
 TR<sub>1</sub> HJ 23 TR<sub>2</sub> HJ 22 TR<sub>3</sub> HJ 22 IN 34 A TR<sub>4</sub> HJ 15 TR<sub>5,6</sub> HJ 17x2



The output circuit used in this receiver is of the "Class B" type. It should be noted that in "Class B" output the battery current increases greatly with increased signal input.

With no signal input, the A.G.C. source as measured at the top of the volume control, will be 0.75 volts negative in respect to the ground. Rectified signal voltage will make this point less negative in respect to chassis ground.

Don't remove any transistor from its socket (or reinsert it) when the set is turned on.

To check for a circuit defect which would cause excessive battery drain, an overall current measurement and supplementary voltage measurement should be made.

Oscillator performance can not be judged by measurement of a D.C. voltage developed across a resistor.

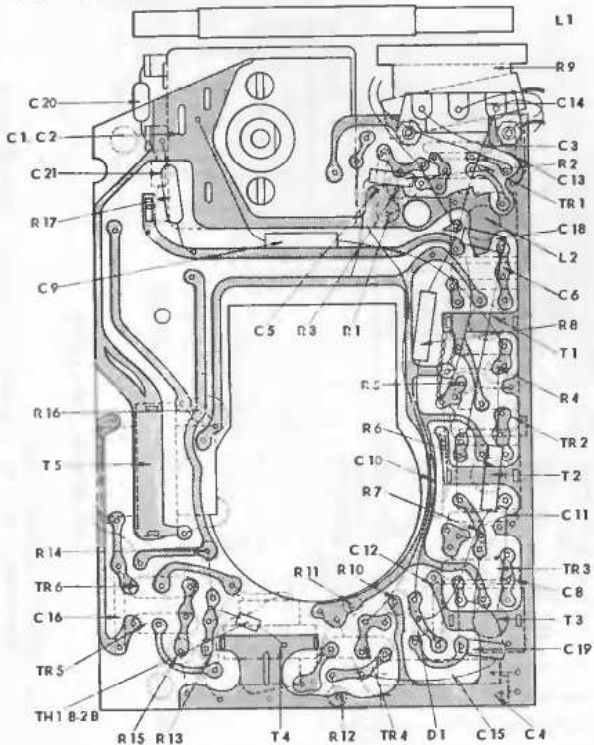
Measurement of oscillator signal strength with an A.C. voltmeter at the emitter terminal of TR<sub>1</sub> will give an indication of oscillator performance.

A transistor should always be removed from its socket before using a soldering iron on the socket terminals.

**ALIGNMENT PROCEDURE**

**Test oscillator**—For all alignment operation, connect the low side of the test oscillator to the receiver chassis and keep the oscillator output as low as possible to avoid A.G.C. action.

**Output meter alignment**—If this method is used, connect the meter across the voice coil of speaker and turn the receiver volume control to maximum.



Step	Connect high side of S.G. to	S.G. Output	Dial pointer setting	Adjust for max. output
1	Variable condenser terminal of oscillator	555 KC	Quiet point near 1600 KC	I FT <sub>3</sub> I FT <sub>2</sub> I FT <sub>1</sub>
2	Repeat step 1			
3	Short wire placed near antenna for radiated signal	525 KC	Lowest freq. of dial scale	Dust core of oscillator coil L <sub>s</sub>
4		1630 KC	Highest freq. of dial scale	Trimmer of oscillator variable condenser
5	Repeat 3 and 4			
6		650 KC	650 KC	Move antenna coil