

If a tone is heard from this point, the Output Cable is moved back, point by point to the converter, which is point 2. As the Output Cable is moved back, additional gain is picked up. Therefore the Output Atten. should be reduced to prevent overloading and so that a difference in gain can be noted. Any discontinuity or loss in gain would indicate a defective stage.

Test Point 1. Ant. Coil

The Test is set up as an RF generator at an unused frequency in the middle of the broadcast band. The Function Selector is adjusted to the 500-1600 KC OSC position. The tuning dial to the desired frequency. The MOD switch to ON. The Output Cable should be loosely coupled to the Ant. Coil instead of a direct connection. The radio is then tuned to the same frequency as the Tester. A tone should be heard from the radio speaker. If no tone is heard, the local oscillator is not functioning.

If the tone is weak and is not tunable with the variable condensers, then the Ant. Coil is open.

Test Point 2A

If it is suspected that the local oscillator is not functioning, a substitute RF signal can be substituted for the local oscillator and injected at this point.

The frequency injected must be properly chosen. The frequency used must be 455 KC above the incoming broadcast station. For example, if there is a broadcast station in the area at 1000 KC, the injection frequency should be 1455 KC. The variable condenser in the radio is then varied around 1000 KC for maximum volume.

RF AND IF ALIGNMENT

The Transistor Radio Tester can also be used for alignment.

It is suggested that the radio manufacturer's alignment instructions be used and followed very closely. Alignment procedure of a transistor radio is very similar to that of a vacuum tube radio. However, there are a few peculiarities due to interaction in transistors, therefore a definite sequence of alignment has to be followed. This is best accomplished by using the manufacturer's alignment instructions.

DEFECTIVE STAGE

If a defective stage is found, the stage should be given a good visual inspection first of all, with a magnifying glass, under a good light source. If no broken or unsoldered connections are found, then proceed to make voltage and resistance measurements.

These measurements should be compared with those in the manufacturer's wiring