

## RECEIVER ALIGNMENT

### GENERAL:

Transformer slugs must always be adjusted for the tuning peak with the slug towards the "outside" of the coil, near the top or bottom of the can.

After turning unit on, wait at least five minutes before starting alignment procedure. Place a .01 UF capacitor in series with the signal generator output and the signal injection point in the receiver.

All receiver alignment procedures are based on the negative AVC voltage developed by the detector. This voltage is measured with a VTVM connected to terminal B on IF transformer T8. While adjusting transformers, vary the signal generator output level to keep the VTVM reading at -3 volts or less (down to approximately -1/2 volt, where static diode bias is always present).

### RECEIVER ALIGNMENT STEPS:

1. Set signal generator to 455 kc. Inject signal on Pin 1 to V10. Adjust both slugs (top and bottom) of IF transformer T8 for maximum meter reading.
2. Leave signal generator at 455 kc. Inject signal on Pin 1 of V9. Adjust both slugs of IF transformers T6 and T7 for maximum meter indication.
3. Set signal generator to 2300 kc.,  $\pm 10$  kc. Calibration accuracy is important. If calibration is in doubt, check signal generator against a frequency standard or a good communications receiver. With signal generator set to 2300 kc., inject signal on Pin 2 of V8. Adjust slugs of T4, T5, and L12 for maximum meter reading. Readjust as necessary until no

further increase in meter reading can be obtained. Readjust slugs of T4, T5, T6, T7, T8, and L12 for maximum meter reading.

### NOTE

L12, which is not shown on the parts location photographs, is located adjacent to the V9 tube socket, toward the rear of the chassis.

4. Connect a 47 ohm composition resistor across the signal generator output line. Connect a 27 ohm resistor between the antenna terminal and the signal generator output.

### NOTE

A 47 ohm resistor is sometimes included in signal generator output cable.

5. Set the dial pointer on the RECEIVER TUNING dial to 50.0 mc. Set the signal generator output to 50.0 mc. Signal generator output should be 250 uv. or greater. Adjust the slug of the high frequency oscillator transformer, T10, for maximum meter indication. On factory pre-aligned units, this adjustment should not exceed 1/2 turn of the slug.

### CAUTION

Beware of setting oscillator on a spurious peak. Correct peak is of much greater amplitude than spurious peaks, and is much "broader".

To check oscillator coil settings, use a grid-dip meter in DIODE (absorption) position and check oscillating frequency. Meter