

C-165 inclusive, as shown in Photo. No. 7.5. A screw driver having a metal shaft may be used to make the adjustment but the shaft should not touch any part of the aluminum coil catacomb. If the dial reading of the receiver is too high, the capacity of the H.F. oscillator trimmer must be decreased to make correction. Conversely, low dial readings are corrected by increasing the capacity of the H.F. oscillator trimmer capacitor.

4.35 It is imperative that the high frequency oscillator circuits operate at a higher frequency than that of the R.F. amplifier circuits. This can be checked by tuning in the image signal, which should appear at a dial reading approximately 912 kilocycles below that of the real signal. The image signal should be considerably weaker (see Dwg. No. 9.4) if the R.F. amplifier is correctly aligned and a stronger test signal may be required before the image can be found. If the image does not appear at the lower frequency dial setting, the H.F. oscillator circuit is incorrectly adjusted and the capacity of the H.F. oscillator trimmer capacitor in question must be decreased until the real signal and image signal appear at the proper points on the dial.

4.4 First Detector and R.F. Amplifier Alignment

4.41 With the test signal from the signal generator adjusted to provide a modulated signal near the high frequency limit of the band to be checked, tune the receiver to give maximum output, as indicated by the output meter. The first detector and R.F. trimmer capacitors of the band in question may now be adjusted to give maximum output meter readings. On the highest frequency bands, adjustment of the first detector and R.F. trimmers may change the calibration of the high frequency oscillator, necessitating readjustment of the tuning dial to keep the receiver in tune with the test signal. If these trimmers should require considerable realignment, it may be necessary to readjust the high frequency oscillator trimmer in order to maintain correct calibration.

4.42 A very simple and quick method of first detector and R.F. trimmer alignment may be used if a signal generator is not available. This method consists of setting the trimmers at the adjustment which provides maximum circuit or background noise. It will be found that trimmer settings under this method are sufficiently sharp to provide good alignment, although the adjustment must be made with care to avoid alignment to the image frequency.

4.5 Tracking of High Frequency Circuits

4.51 After the H.F. oscillator and R.F. amplifier trimmers have been checked in accordance with Sections 4.3 and 4.4, near the high frequency limit of the band under