

tenna lead-in or transmission line must be disconnected. An output meter having a 600 ohm resistive load should be connected to the phone output jack J-101. In this case, the speaker remains connected to terminals E-102. Alternatively, an output meter having a 500 ohm resistive load may be connected to the speaker output terminals E-102 with the speaker disconnected. The R.F. GAIN control should be fully advanced and the POWER SUPPLY switch in the B+ ON position. The band selector knob must be set to connect one of the radio frequency bands: either the band upon which realignment is desired, or the band specified in any of the data in Sections 5 and 9. The TONE control should be set at "N" and the LIMITER at 0.

4.16 The complete alignment of the Radio Receiver may be divided into four steps:

- (1) Intermediate Frequency Amplifier Alignment.
- (2) H.F. Oscillator Alignment.
- (3) First Detector and R.F. Amplifier Alignment.
- (4) Tracking of H.F. Oscillator, First Detector and R.F. Amplifier circuits.

The circuits MUST be checked in the above order when complete alignment is necessary.

4.2 I.F. Amplifier Alignment

4.21 The intermediate frequency of the Radio Receiver is 456 kilocycles, plus or minus 2 kilocycles.

4.22 Tuning adjustments are provided on each I.F. transformer. These adjustments are designated by symbol numbers C-149 to C-154 inclusive on Photo No. 7.3 and Dwg. No. 8.1.

4.23 To align the I.F. amplifier, the high output lead of an accurately calibrated signal generator should be connected to the grid terminal of the first detector tube V-102, and the grounded lead to any convenient point on the chassis. The flexible grid lead must be disconnected from the grid of tube V-102. Connection is made directly from the output jack of the signal generator, the dummy antenna being omitted. Certain types of signal generators may not have a complete D.C. path between the two output leads; in such cases, a resistor having a value between 5,000 and 50,000 ohms should be connected between the grid of tube V-102 and chassis to provide a grid return path. The CONTROL SWITCH of the receiver should be in the MVC position and the modulation of the signal generator turned on to provide a test signal, modulated 30%, 400 cycles. The A.F. GAIN control should be fully advanced.