8. ALIGNMENT INSTRUCTIONS

WARNING
Any repairs or adjustment should be made under the supervision of a qualified radio-telephone technician.

TRANSMITTER

1. Power Supply Voltage

The power supply voltage should be set for 4.5 V DC measured at the radio during transmit.
Periodically check the supply voltage during the alignment procedure.

2. Frequency Setting

A. Connect a frequency counter or Communications Service Monitor to the antenna connector through an RF power attenuator (10 watt minimum rating, 20 dB minimum attenuation).
B. Depress the PTT switch.
C. Adjust the TCXO at CT300 such that output frequency is equal to the channel
Frequency with a maximum error of +/-300 Hz.
D. Release the PTT switch.

3. Output Power Alignment

A. Set the power supply voltage for 4.5 V Dc.
B. Connect a communications Service Monitor or a wattmeter and dummy load to the antenna connector
C. Depress the PTT switch.
D. To be convinced for 500/2000 mW output power with a maximum error of +/-200 mW
E. Release the PTT switch.

4. Deviation Adjustment

A. Connect an audio generator to the microphone jack JIG. The audio frequency should be set at 1 KHz
B. Connect an FM deviation meter or communication Service Monitor to the antenna connector

Through an RF power attenuator (10 watt minimum rating, 20 dB minimum attenuator). Set the monitor to read peak deviation.
C. Depress the PTT switch.
D. Adjust the audio generator level 10 mV rms.
E. Adjust RV102 for 2.3 KHz maximum deviation (with CTCSS tone)
F. To be convinced 2.0 KHz without CTCSS tone (1 KHz dev. 20 dB up)
G. Release the PTT switch.

RECEIVER

Note : Insure that the proper channel has been selected before proceduring with the alignment procedure.

1. Power Supply Voltage.

The proper voltage for testing is 4.5 V DC.

2. Receiver Alignment

A. Connect an RF signal generator or Communications Service Monitor to the antenna connect.
B. Connect a SINAD meter and oscilloscope across the speaker terminals.
C. Set the output level of the RF signal generator for - 47 dBm the generator should be set for
+/-1.5 KHz deviation of a 1 KHz tone.
D. Set the audio output level for 0.6 Vrms by adjusting volume.
E. Adjust T1 for maximum audio output.
F. Reduce the output level of the RF signal generator for produce a 12 dB SINAD indication.