

3.ALIGNMENT PROCEDURE

1.TRANSMITTING

1)TX VCO ADJUSTMENT

A.Connect the DC volt meter to the test point 1.

B.Press the PTT BUTTON.

C.Adjust L18.

LIMIT : 1.5VDC +/-0.3V at CH7

2) FREQUENCY ADJUSTMENT

A.Connect the frequency counter meter to ANT point.

B.Adjust CV1.

LIMIT : Tx Frequency +/-200Hz

3)FREQUENCY ADJUSTMENT

A.Connect the RF level meter to the ANT point (RF level meter impedance : 50hm)

B.Press the PTT button.

C.Check the Tx POWER

LIMIT : <500mW

4) MAX . DEVIATION ADJUSTMENT

A.Connect the deviation meter to ANT point

B.Apply the audio signal 1KHz – 20dBm to the test point 7 (MIC input)

C.Observe the clipped signal on the scope.

D.Adjust SVR 2.

LIMIT : 2.5KHz Dev. +/-0.4KHz

5) MODULATION SENSITIVITY ADJUSTMENT

A.Connect the deviation meter ANT point

B. Apply the audio signal 1Khz 8m Vrms to the test point 7 (MIC input)

C. Adjust SVR100

LIMIT : 1.8KHz Dev +/-0.15KHz

COLUMBIA TELECOMMUNICATIONS
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6) TONE DEVIATION CHECK

- A. Connect the deviation meter to ANT point
- B. Setting the CTCSS codes channel 19.
- C. Press the PTT BUTTON.

LIMIT : 0.5KHz Dev. +/-0.15KHz

7) CALL DATA MODULATION SENSITIVITY CHECK

- A. Press the call button and observe the deviation meter to check the deviation

LIMIT : 1.8KHz +/-0.5KHz

TO PRESS THE PTT BUTTON FOR THE TX MODE TESTING.

2. RECEIVING

1) RX VCO CHECK

- A. Connect the DC volt meter to the test point 1 .
- B. Check the DC voltage

LIMIT : 1.0Vdc +/-0.6V at CH7.

2) QUAD ,COIL ADJUSTMENT

- A. Connect the DC volt meter to the test point 3.
- B. Adjust the IFT1.

LIMIT : 1.6Vdc +/-0.2V

3) SENSITIVITY CHECK

- A. Connect the sinad meter to the test point 5 .
- B. Reduce the RF output level of signal generator to get the 7dB of sinad

LIMIT : <-114dBm

4) SEQUELCH ADJUSTMENT

- A. Connect the DC volt meter to the test point 16 .
- B. Same set up as the sensitivity check.
- C. Adjust the SVR1 to get the DC changing point .

LIMIT : 7dB +/-2dB