

LI-7000 Alignment Procedure

1. VCO and TX.

Set unit : CH 1, 8.4V DC Supply. 50ohm Dummy.

1) PLL VCO align : Read DC Voltage at VCO Test Point (C113) and align $1.0 \pm 0.2V$ with L10

Press PTT and check TX VCO Voltage (Spec : $1.2 \pm 0.2V$)

Change Channel to CH14 and read VCO voltage (Spec: $1.5V \pm 0.3V$)

Press PTT and check TX VCO Voltage (Spec : $1.5V \pm 0.3V$)

2) TX Frequency align : Press PTT at CH1 and read Frequency with Frequency counter

Align $462.5625MHz \pm 500Hz$ with CT300 10pF Trimmer

3) TX Max modulation align : Set Ch1, 100mV 1KHz Mic in put,

Press PTT and align Max modulation $\pm 2.0 \pm 0.1KHz$ with RV2 1Kohm Semi

4) CTCSS/DCS Align : Set Ch1, CTCSS 01

Press PTT and read CTCSS 01 modulation level

Align $\pm 0.6KHz$ with RV3 47Kohm Semi

Change CTCSS 38 and read modulation level (Spec: $\pm 0.6 \pm 0.2KHz$)

Change DCS 01 and read modulation level (Spec : $\pm 0.6 \pm 0.2KHz$)

Change DCS 83 and read modulation level (Spec : $\pm 0.6 \pm 0.2KHz$)

5) Check TX Power out put : Set Ch1, Power Low

Press PTT and read TX Power out put (Spec : 400 ~ 600 mW)

Change to Power Mid and read TX Power out put (Spec: $2.0W \pm 0.3W$)

Change to Power High and read TX Power out put (Spec : $5.0W \pm 0.3W$)

2. RX

Set unit : Ch1, 8.4V DC Supply, 8 ohm Load,

1) RX Audio Distortion : Set Ch1, SSG 1mV, Audio Level 5 (about 650mV)

Read distortion (Spec : < 5%)

2) RX sensitivity : Reduce SSG Level (Spec : < $-118dBm$)

3) Squelch align : Set to 10dB Sinad with SSG level align

Align squelch with RV1 220K Semi