

LI-4900 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 High and read TX Power out put (Spec: $2.0W \pm 0.3W$)

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