

5) Alignment Procedure

This radio is adjusted to meet all condition in production except special case.

Readjustment is not requirement.

5-1) The preparation before adjustment.

- 1) Set the Power Supply voltage to 7.2V and then connect to the radio.
- 2) Connect the connector to Radio Antenna terminal.
- 3) Connect the radio to test equipment.

5-2) PLL Synthesizer

- 1) Measure the voltage of TP1 with High impedance voltage meter.
- 2) Adjust TC3 at RX channel 1 to be 3.5V.
Confirm if it is below 12V at RX high channel.
Adjust TC2 at TX channel 1 to be 2V.
Confirm if it is below 12V at TX high channel.
- 3) Confirm if Channel 1 is in 2.0 ± 0.3 in TX.

5-3) Adjustment of Transmitter

- 1) Adjust TC1 to tune the set frequency.
- 2) Adjust PV5 to tune the set power.
- 3) Set Audio Generator to be 1kHz 120mVrms and connect to Radio External Jack.
- 4) Adjust RV4 to tune desired modulation.

- 5) If a channel is set with CTCSS,DCS the modulation of CTCSS,DCS varies based on the size of the modulation.

5-4) Adjustment of Receiver

- 1) Set SSG RF level to -47dBm @1kHz 60% Dev,
- 2) Adjust T1 to maximize Audio.
- 3) Adjust SSG RF Level and confirm if 12dB Sinad is below -119dBm .
- 4) Adjust RV2 to open Audio at 12dB Sinad.
- 5) Set tone frequency to SSG when there is channel set with CTCSS, DCS and then set deviation to 10% Peak Dev. Then check if green LED is on.
- 6) Repeat the above in other channels.