

## ALIGNMENT PROCEDURES

**Important:** The FCC requires that any frequency adjustment on a radiophone must be done by authorized person, who is the holder of a current first or second class radiotelephone license.

This unit has been fully aligned at the factory before shipment and does not normally require further adjustment. When necessary, however, the unit may be aligned as indicated below.

Do not adjust any circuit in this radiotelephone unless you understand the circuit operation and have experience adjusting radiotelephone. Tampering with the radiotelephone may upset the alignment and lower its performance.

### Test Equipment Required:

- Regulated DC power supply, 0~12V, 3A or higher; or 8.4V, 3A
- Audio signal generator, 10Hz~2 kHz
- Digital multimeter
- Deviation meter
- Frequency counter, 0~500 MHz high impedance
- Oscilloscope
- RF power meter, 10W
- High frequency standard generator, >500 MHz
- Tracking generator, >500 MHz
- Distortion analyzer
- Audio level meter
- T-coupler
- Alignment drivers, etc.

## TROUBLE SHOOTING

Before troubleshooting, prepare you unit as follows:

- Turn volume control fully clockwise so that it is all the way up.
- Install the batteries onto your unit.

Item.	Symptom	Cause/Remedy
1	LCD No Display	● Check batteries to see if the voltage is lower than 6.0V DC.
2	No sound	● Check to see if Q2, Q4, Q6, IC2 are defective.
3	No sound	● Check to see if the speaker is defective. ● Check to see if the external speaker jack is defective. ● Check to see if volume control is defective. ● Check to see if IC201, IC205 is defective.
4	No RX or audio distorted	● Check to see if the VCO and LPF circuits are defective. ● Check to see if Q2, Q4 or Q5 are defective.
5	No squelch control	● Check to see if VR1 is defective.
6	No LED back light	● Check to see if LED201, LED202 and Q209 are defective.
7	Transmit with low modulation	● Check to see if VR202 is defective.
8	No TX	● Check to see if Q4 is defective. ● Check to see if Q12, Q7 are defective. ● Check to see if IC1 is defective.
9	No function of PTT switch	● Check to see if Q207 is defective. ● Check to see if switch SW208 is defective.
10	No modulation when transmitting with CTCSS on	● Check to see if R207, R270, R271 and IC205 are defective.
11	No RX with CTCSS on	● Check to see if IC205 is defective. ● Check to see if IC2 is defective.

## DISASSEMBLY INSTRUCTIONS

To remove the front and rear panels from the main chassis:

1. Remove the two screws from the bottom of the unit.

