TK-860G
Tuning procedure

Before attempting to tune the transceiver, connect the unit to a suitable power supply. Whenever the transmitter tuned, unit must be connected to a suitable dummy load, unless the instruction specify otherwise. The speaker output connector must be terminated with a 4 Ohm dummy load at any time during the tuning and connected to an AC voltmeter and an audio distortion meter or a SINAD measurement at all the time during the tuning.

1.1 Enter into tuning mode

Press "SCN" key while turn on the transceiver. After about 1 second, the tuning mode starts.

1.2 Frequency version selection

The following operation frequency band can be chosen for the set under tuning.

Panel Display	Frequency
UHF F3	400 to 430MHz

Following keys on the panel can be used for frequency selection:

▲ key Next (Up) frequency selection
▼ key Next (Down) frequency selection
Channel down key Enter (or confirm)

Once, the channel down key is pressed the set tuning items will be started.

1.3 Transmitter tuning

Use "SCN", "▼" key to choose tuning item and "A", "▼", "D/A" key to adjust tuning requirement.

1.3.1 Connect a voltmeter to TP1
1.3.2 Be sure the voltage should be below 7.5V at the test channel 3 and more than 1.0V at the test channel 2 in the Transmission and Reception mode.
1.3.3 Select the test channel 1 and adjust the transmission frequency to 415.100MHz ±100Hz.
1.3.4 Select Tuning Item 2, RF power adjustment.
Adjust RF output power to 25W ±1W.
1.3.5 Select Tuning Item 4, DQT balance adjustment.
Adjust the DQT pulse shape to obtain neat demodulation wave-form.
1.3.6 Select Tuning Item 5, Max. deviation adjustment.
Apply a 1000Hz tone with a 50mV RMS level to the Microphone input.
Adjust the maximum deviation to 3.9kHz ±0.1kHz (for the Wide band), or 1.9kHz ±0.05kHz (for the Narrow band).
1.3.7 Reduce a 1000Hz tone voltage to 5mV.
Be sure the deviation should be in ±2.5kHz to ±3.5kHz.
1.3.8 Select Tuning Item 6, QT deviation adjustment.
Adjust the QT deviation to 0.75kHz ±50Hz (for the Wide band), or 0.35kHz ±25kHz (for the Narrow band).
1.3.9 Select Tuning Item 7, DQT deviation adjustment.
Adjust the DQT deviation to 0.75kHz ±50Hz (for the Wide band), or 0.35kHz ±25kHz (for the Narrow band).
1.3.10 Be sure the DTMF deviation should be in ±2.8kHz to ±3.2kHz (for the Wide band), or ±1.4kHz to ±1.6kHz (for the Narrow band).

DTMF SIGNALLING

Your dealer can program a group or channel with DTMF signalling. When you receive a call with a code that matches yours, a tone will sound. Squelch opens and you will hear the call.

Squelch will close when you receive a call with a code that matches your signalling reset code.

When making a call on a group or channel programmed with a DTMF signalling code, the indicator will light and the squelch will open.

If your dealer programmed Transpond for DTMF signalling, your transceiver will automatically send an acknowledgment signal to the station that called you with the correct DTMF code.

DBD (DEAD BEAT DISABLE)

Depending on how your dealer programs your transceiver, when you receive a call containing a DBD code, either transmit mode or receive and transmit modes will be disabled. When a DBD code is received, a tone will sound.

DBD is cancelled when you receive a call with a DBD cancel code.