

PRECAUTIONS:

- Government law prohibits the operation of unlicensed radio transmitters. Illegal operation is punishable by fine or imprisonment of both.
- To avoid problem caused by electromagnetic interference and electromagnetic compatibility, please turn off the transceiver at the site where you are required, such as hospital, airplane etc.
- In the vehicle equipped with air bag safety, do not put the transceiver within the scope of the air bag inflation.
- Turn OFF the transceiver before you enter inflammable and explosive area.
- Do not transmit with high output power for extended periods. The transceiver may overheat.
- Do not use the transceiver which antenna is damaged, or else when a exposed metal touches the skin, it may cause scald also.
- Do not expose the transceiver to long periods of direct sunlight nor place the transceiver close to heating appliances, avoiding personal injury or transceiver damage.
- If belt the transceiver on with belt clip, please notice that the distance between body and antenna should be more than 5cm while transmitting. If an abnormal odor or smoke is detected coming from the transceiver, switch OFF the power immediately and remove the optional battery pack from the transceiver. Contact your authorized dealer.

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Warranty Card

Unpacking and Checking Equipment

Welcome to use radio transceiver.

Carefully unpack the transceiver, we recommend you to identify the items listed in the following table before discarding the packing material. If you find any defective or missing parts during shipment, please contact your dealer immediately.

Supplied Accessories

ITEM	QUANTITY
Antenna	1
Li-ion Battery Pack	1
Battery Charger	1
Belt Clip	1
Instruction Manual	1

Battery Pack

Charging Notices

The new or stored battery pack, which can not reach its full capacity for the first charging. After two or three of charging and discharging, it can reach full charging. When the battery capacity is low, it needs charging.

Applicable Battery

Please use the battery specified by while being charged with charger. It may cause explosion and harm if other battery is used.

NOTE

- » Do not short-circuit the terminals of the battery or throw the battery into the fire. Do not disassemble the battery pack yourself.
- » The battery pack can not reach its full charge if it's charged outside the range of temperature.(0℃~40℃)
- » Do not use the transceiver while charging the battery pack. We suggest you turn the transceiver power off while charging is taking place.
- » While charging, better not take out the battery or shut off the electricity in case it will influence the charging.
- » When the operating time becomes short, even if it is fully charged, please replace the battery pack.
- » Do not recharge the battery pack if it is fully charged. It may shorten the life of the battery pack or damage the battery pack.
- » Do not charge while the battery or the transceiver is wet. Clean them with dry cloth before charging to avoid danger.

▲ WARNING

All batteries can cause property damage or bodily injury if a conductive material such as jewelry, key, or beaded chains touch exposed terminal. The conductive material may complete an electrical circuit (short-circuit) and become quite hot. Exercise care in handling any charged battery, particularly when placing it inside a pocket, purse, or other container with metal objects.

Charging Instructions

1. Plug the Charger into an electric socket.
2. Insert the battery or transceiver into the Drop-in Charging Tray.
3. Ensure that the battery's contacts connect with the Drop-in Charging Tray properly. While the charging is taking place, the light will glow red.
4. After about 8 hours of charging, the LED indicator lights green which means the full charge. Now remove the battery or the transceiver from the Drop-in Charging Tray. The transceiver and the battery can be used.

LED INDICATOR	CHARGING STATUS
Red	Charging
Green	Full Charge

Cleanness and Maintenance

1. Do not hold the antenna of the transceiver or the MIC directly;
2. Clean the dirt and the dust of the transceiver with cloth of nothing cottony so that it may get a good touch.
3. If the transceiver is left unused, please cover the MIC/SP hole with cap.
4. The keypad, the case and the knob will become dirty after a long time use. Clean the dirt with cloth bedewing neutral detergent.

BASIC OPERATION

Switch ON/OFF

1. Turn the power switch/volume control clockwise. You will hear a beep and speech to indicate the transceiver is ON.
2. Turn the power switch/volume control counterclockwise to shut off the transceiver.

Adjusting Volume

Hold monitor key down to listen to audio level while rotating the power switch /volume control. Rotate clockwise to increase and counterclockwise to decrease volume.

Selecting Channel

Turn the channel select to channel. While receiving a signal, the sound will be heard.

Transmitting

1. To transmit, press and hold [PTT] and speak into the MIC in your normal tone of voice.
 - The LED indicator lights continuously red when transmitting.
 - To maximize sound clarity at the receiving channel, hold the transceiver two or three inches from mouth and talk in normal tone of voice.
2. Release [PTT] to receive.

PROGRAMMABLE AUXILIARY FUNCTIONS

"Side Key 1" divide to Short-press and Long-press, each status can select corresponding functions as below, please refer to description from page 11.

- Turn OFF
- Monitor
- Transceiver Monitor
- Scan
- Alarm
- Sound control

PROGRAMMABLE KEY SETUP

Using programming software to define the keys. A voice prompt can be heard when activated.

- a. Null**
Undefined key , invalid.
- b. Monitor**
Press the key to enter monitor state, press once again to exit; Under the scan state, press the key to enter a scan suspended state.
- c. Transient Monitor**
Press the key to enter monitor state, release to quit.
- d. Scan**
Press this key enter scan monitor, press again to quit.
Note: as long as the channels number added is more than 2, this key can work. When it is under monitor or alert status, it can not be into scan status. When start scan, you can hear one 'beep' voice; when quit of scan status, there is 2 'beep' voice. When it is 'toot toot' voice, scan is forbid.
- e. Alert**
Press the key to turn ON or OFF the alert function. When trying on, an alert tone will sound, the recipient will beep as well when receive that alert sound.
- f. VOX**
VOX eliminates the necessity of manually pressing the [PTT] key to transmit. The transceiver automatically switches to Transmission Mode when the VOX circuitry senses that you have begun speaking

into the MIC Stop talking, then it returns to reception mode.

A, just the whisper function is turn on, the whisper works.

B,whisper gain level,when the voice level is higher than setted whisper gain level, vox works autoly.Gain levels is adjusted from 1 to 9 levels.

C,when it has been receiving, the vox is forbid. When the voice level is higher than setted gain level, the vox is not emission.

D,when the chanel is 7, press PTT key and 1 to turn on or turn off.

CHANNEL PARAMETERS

1.Frequency Receiving and transmitting

Define receving and transmitting frequency

2.QT/DQT Decoder and Encoder

Setting QT/DQT signals on channels through programming software.

When QT/DQT signals are set, the squelch voice would be open only if receive the same QT/DQT signals. If a same channel uses different QT/DQT to call, the squelch voice can not be open, only green LED lights.

3.Tail Tone Elimination and Ending Tone

When transmission is finished, the Tail Tone Elimination is to clear the "licks" caused by the end of a call.

It is allowed to turn ON or OFF when there is no DT, you can turn OFF under CTCSS, method 1 or method 2.

4.scan and add

Scan the chanel and decide if to add list or not.

5.Busy to Lock

Using the write frequency soft to turn on or shut each useful chanel's busy lock function.

A,if the current channel is not set as QT or DQT,it is forbid to shoot when it gets SQ signal.

B,if the current channel is set as QT or DQT, when get the SQ signal only, it is forbid;when get the SQ and QT or DQT,it works still.

ADVANCED OPERATION

Monitor

It's very helpful when you want to adjust the volume level and receive the weak signals.

Scan

Scan is useful for monitoring signals on the transceiver channels. When scanning, the transceiver checks for a signal on each channel and only stops if a signal is present.

The transceiver will remain on a busy channel until the signal is no longer present. Your dealer programs the delay time between signal drop-out and Scan resumption. If a signal is received during delay time, the transceiver will remain on the same channel.

Note: The Scan function can be used only if the dealer programmed at least two channels which is not lock outside the scan scope

To start scanning, momentarily press the key programmed as Scan.

- Scanning from the current channel and ascend through the channel numbers
- The LED flashes green.
- When a signal is received on a channel and signaling matches, the LED indicator lights green.

To end Scan, press the Scan again.

VOX

VOX eliminates the necessity of manual operation to the transceiver.

This function must be first activated by the dealer.

When operating the VOX function, be sure to set the VOX Gain level which allows the transceiver to recognize the sound level.

If the microphone is too sensitive, the transceiver will begin transmitting when there is noise in the background.

If the microphone is not sensitive enough, it will not pick up your voice when you begin speaking. Be sure to adjust the VOX Gain level to an appropriate sensitivity to allow smooth transmission.

Note: If a speaker/ microphone is connected to the transceiver while the VOX function is switched ON and the VOX Gain level is configured to a higher, more sensitive level, louder received signals may cause the transceiver to start transmission.

BACKGROUND OPERATION

Time -out Timer(TOT)

The purpose of the Time-out Timer is to prevent any caller from using a channel for an extended period of time.

If you continuously transmit for a period of time that exceeds the programmed time set by your dealer(preset to 1 minute), the transceiver will stop transmitting and an alert tone will sound. To stop the tone, release the [PTT] switch. The dealer can program the alerting function to prompt you before Time-out Timer. Alert tone will sound when the pre-programmed time keeps transmitting.

Busy Channel Lock (BCL)

When activated, BCL prevents you from interfering with other parties who may be using the same channel that you selected. Press the PPT switch while the channel is in use will cause your transceiver to emit an alert tone and transmission will be inhibited (you cannot transmit). Release the PPT switch to stop the tone and return to receive mode.

Note: When using QT、DQT or DTMF signals, please consult with your dealer for BCL function explains.

Battery Save

If activated by your dealer, the Battery Save Function will decrease the amount of power used when a signal is not being received and no operations are being performed (no keys are being pressed, and no switches are being

turned). While the channel is not busy and no operation is not performed for 5seconds, Battery Save turns ON. When a signal is received or an operation is performed, Battery Save turns OFF.

Battery Voltage Prompts

a. High Voltage

When transmission is prohibited in high power, High Voltage, pressing [PTT] or VOX or Alert are invaild and LED indicator flashes red until release [PTT] or VOX and Alert transmissions are finished.

b. Low Battery Flashlight

When the voltage falls below a certain level, the LED indicator keeps blinking red, transmission is effective.

c. Low Battery Warning.

When the voltage falls below a certain level, the LED indicator keeps blinking with beeps, transmission is effective.

d. Low Voltage

When the voltage falls below a certain level, the LED indicator keeps blinking with beeps.

When transmission is prohibited in high power, pressing [PTT] or VOX or Alert are invaild and LED indicator flashes orange until release [PTT] or VOX and Alert transmissions are finished.

Low Battery Warning

When you needs to the battery to be recharged or replaced. While operating the transceiver, if the battery power becomes low, an alert tone will sound

every 30 second and the LED indicator will blink red.
Replace or recharge the battery pack.

Channel Annunciation

When changing the channel using the channel selector, an audio voice will announce the selected channel number, after you stop changing the channel. (Channel Annunciation can be activated or deactivated by your dealer.)

Voice Options

a. Turn OFF

b. English

c. Chinese

TROUBLESHOOTING

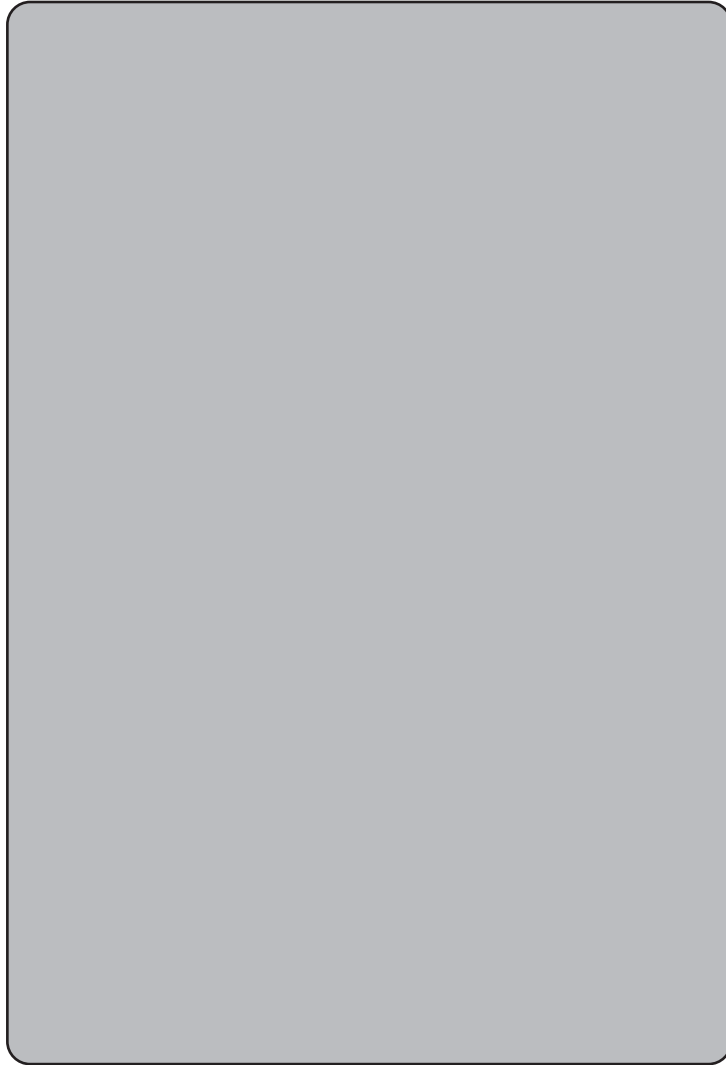
Troubles	Solution
No Electrical Source	<ul style="list-style-type: none"> The battery has been exhausted. Replace or recharge the battery. The battery is installed incorrectly. Remove it and install again.
The operating time becomes short, even the battery is fully charged.	<ul style="list-style-type: none"> Replace the battery.
Not able to communicate with the transceiver of the same group.	<ul style="list-style-type: none"> Confirm the CTCSS/DCS same. The distance is outside of range.
The voice of another group can be heard.	<ul style="list-style-type: none"> Change all CTCSS/DCS of the group.

SPECIFICATION

Frequency Range	Rx:450-470Mhz / Tx:420-450Mhz
Operating Temperature Range	-10°C~+40°C
Channel Capacity	16 Channels
Communication System	Simplex or Double Frequency Simplex
Modulation Type	FM (F3E)
Frequency Deviation	≤ ± 5KHz
Spurious Emission	< -60dB
TX Current	≤ 1.5A
Frequency Stability	± 2.5ppm
RX Sensitivity	< 0.18μV
Audio Output Power	≥ 400MW
Standby Current	72mA (Power Save Condition:20mA)

NOTE

All specifications shown are subject to change without notice.



Please cut along with this line



NOTE: This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.



RECYCLABLE PACKAGING

FM *TRANSCEIVER*



Time-out Timer (TOT) / Channel Annunciation
Battery Save / Battery Voltage Prompts
Busy Channel Lock (BCL)
Low Battery Warning

USER'S MANUAL