

7120710000



# **QP-750-U1 USER MANUAL**

**Quantun Electronics, LLC**

## **THANK YOU**

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**Thank you for your purchase of the Quantun two-way portable radio. This easy-to-use radio adopts the latest advanced technology, providing reliable communication performance in today's demanding communications environment.**

**Before operating this radio, please read this manual carefully to be acquainted with its operation and features.**

Caution: 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 condition that this device does not cause harmful interference.

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### **Service**

## User Safety, Training, and General Information



READ THIS IMPORTANT INFORMATION ON SAFE AND EFFICIENT OPERATION BEFORE USING YOUR QUANTUN PORTABLE TWO-WAY RADIO.

### Compliance with RF Energy Exposure Standards

Your **Quantun** two-way radio is designed and tested to comply with a number of national and international standards and guidelines (listed below) regarding human exposure to radio frequency electromagnetic energy. This radio complies with the IEEE (FCC) and ICNIRP exposure limits for occupational/controlled RF exposure environment at duty cycles of up to 50% talk-50% listen and should be used for occupational use only. In terms of measuring RF energy for compliance with the FCC exposure guidelines, your radio radiates measurable RF energy only while it is transmitting (during talking), not when it is receiving (listening) or in standby mode.

**Note:** The approved batteries supplied with this radio are rated for a 5-5-90 duty cycle (5% talk-5% listen-90% standby), even though this radio complies with the FCC occupational RF exposure limits at duty cycles of up to 50% talk.

**Your Quantun two-way radio complies with the following of RF energy exposure standards and guidelines:**

- United States Federal Communications Commission, Code of Federal Regulations; 47CFR part 2 sub-part J
- American National Standards Institute (ANSI)/Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1992
- Institute of Electrical and Electronic Engineers (IEEE) C95. 1-1999 Edition
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998
- Ministry of Health (Canada) Safety Code 6. Limits of Human Exposure to Radio Frequency Electromagnetic Fields in the Frequency Range from 3KHz to 300GHz, 1999

## Operational Instructions and Training Guidelines

To ensure optimal performance and compliance with the occupational/controlled environment RF energy exposure limits in the above standards and guidelines, users should transmit no more than 50% of the time and always adhere to the following procedures:

### Transmit and Receive

To transmit (talk), push the Push-To-Talk (PTT) button; to receive, release the PTT button.

### Hand-held radio operation

Hold the radio in a vertical position with the microphone one to two inches (2.5 to 5 cm) away from the lips.

### Body-worn operation

- Always place the radio in a Quantun approved clip, holder, holster, case, or body harness for this product. Use of non-Quantun-approved accessories may exceed FCC RF exposure guidelines.
- If you do not use a Quantun approved body-worn accessory and are not using the radio in the intended use position in front of the face, then ensure the antenna and the radio are kept one inch (2.5 cm) from the body when transmitting.

### Antennas & Batteries

- Use only Quantun approved, supplied antenna or Quantun approved replacement antenna. Unauthorized antennas, modifications, or attachments could damage the radio and may violate FCC regulations.
- Use only Quantun approved, supplied batteries or Quantun approved replacement batteries. Use of non-Quantun-approved batteries may exceed FCC RF exposure guidelines.

### Approved Accessories

For a list of Quantun approved accessories, see the accessories page of this user manual or visit the following website which lists approved accessories: <http://www.Quantun.com>

## **FCC Compliance**

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.

## **Industry Canada Compliance**

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 Canada.

## **FCC Requirements**

Your radio must be properly licensed by the Federal Communications Commission prior to use. Your Quantun Wireless dealer can assist you in meeting these requirements. Your dealer will program each radio with your authorized frequencies, signaling codes, etc., and will be there to meet your communications needs as your system expands.

## **Precautions**

- Only qualified technicians are allowed to maintain this product.
- Do not use the transceiver or charge a battery in explosive areas such as coal gas, dust, steam, etc.
- Switch OFF the transceiver while refueling or parking at gas station.

- Do not modify or adjust this transceiver without permission.
- Do not expose the transceiver to direct sunlight over a long time nor place it close to heating source.
- Do not place the transceiver in excessively dusty, humid areas, or on unstable surfaces.

**Safety:** It is important that the operator is aware of and understands hazards common to the operation of any transceiver.

## Care and Cleaning

- Do not place the repeater in a dusty or dirty environment.
- Clean the radio with a lint-free cloth to remove dirt or grease, to avoid poor contact due to excessive dust.
- Clean the radio using a lint-free cloth moistened with clean water and a mild dishwashing liquid.
- Avoid subjecting the radio to corrosives, solvents or spirits.

## Supplied Accessories

Please carefully take the transceiver out of the box. We recommend that you confirm the items listed in the following table are enclosed before discarding the box. If any items are missing or have been damaged during shipment, file a claim with the carrier immediately.

### Available Accessories

Item	P.N./Model	Qty. (Pcs.)
Antenna	AN0H510000	1
Belt Clip	4501000000	1
Battery	BP0M080010	1
Desktop Charger	SC1002	1
AC Adapter	PS03100000	1
User's Manual	7120710000	1

## Radio Overview

### Parts of the Radio

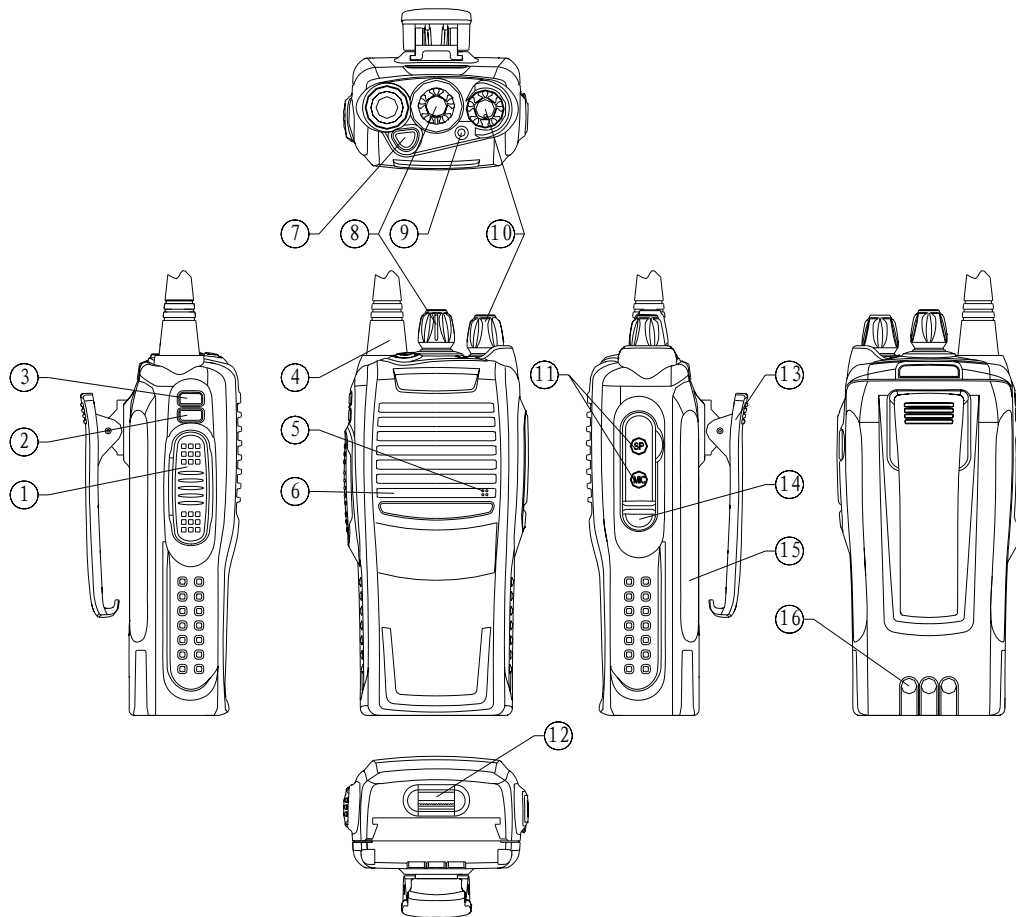


Figure 1

1. PTT Key
2. SFK1 (programmable Side Key 1)
3. SFK2 (programmable Side Key 2)
4. Antenna
5. Microphone
6. Speaker
7. TFK (programmable Top Key)
8. Channel Selector Knob



9. LED Indicator

( Details as following table)

10. Radio On-Off/Volume Control Knob

11. Accessory Jack

12. Battery Latch

13. Belt Clip

14. Accessory cover

15. Battery

16. Charge terminal

### The functions of the LEDs and beeps Table

Power On	The green LED flashes once, and radio beeps ( if programmed active )
Transmitting	LED glows red
Receiving	LED glows green when carrier presents.
Scanning	Green LED flashes once every 1 second.
Encoding (DTMF/PTT ID/2-Tone/MDC1200)	1) LED glows red while transmitting; 2) LED glows orange when transmission ends.
Decoding (2-Tone/MDC1200)	Orange LED flashes after the signaling is successfully decoded.
Function Key Press	One beep to enable, two beeps to disable.
Select Power Level	1W: One beep is heard; 2W: Two beeps are heard; 5W: Three beeps are heard.
Low Battery Alert	LED flashes red, and radio sounds three beeps every 30 seconds.

## **Programmable Auxiliary Functions**

Your dealer may program the TFK, SFK1, SFK2 (long or short press) keys with one of the following auxiliary functions respectively.

- Auto Contact
- Auto Contact Temporary Delete
- Battery Power Indicator
- Call I /Call II
  - DTMF
  - 2Tone
  - MDC1200
  - Safety Check
- Channel Annunciation Enable
- Channel Annunciation Temporary Enable
- Channel Lock
- Emergency ANI/ Emergency Alert
- Emergency Cancel
- Lone Work
- Lone Work backup
- Man Down (optional)
- Man Down backup (optional)
- Monitor
- Monitor Momentary
- Nuisance Channel Delete
- Nuisance Channel Temporary Delete
- Power Level (H/M/L)
- Power Level Indicator
- Rental Time Indicator
- Scan
- Scan backup
- Scrambler
- Scrambler backup
- Squelch Level (0~9)
- Squelch Level Indicator

- Squelch Off
- Squelch Off Momentary
- S<sup>2</sup> Double Saving mode
- Talk Around
- VOX
- VOX backup
- Whisper
- Whisper backup

## **Signaling Feature**

### 1) MDC 1200 Signaling:

- Selective call Decode
- Call Alert Decode
- Radio check Decode
- Selective Radio Inhibit Decode
- Selective Radio Inhibit Cancel Decode
- PTT ID Decode
- PTT ID Encode
- Selective Call Encode

### 2) 2Tone Signaling:

- Call alert Encode
- Call alert Decode
- Selective Call Encode
- Selective Call Decode

### 3) DTMF Signaling

- DTMF PTT ID Encode
- 16 call Encode

## **Getting Started**

### **Battery**

#### **Safety Precautions**

The battery is not charged at the factory. It is recommended to charge the new battery before using it. Also, batteries that may have set longer than 2 months since the last charge should be charged before using it. please charge it for 12 hours, which applies for Ni-Cd, Ni-MH and Li-Ion battery charged with slow or rapid rate charger. The battery capacity will be optimum after being charged/discharged two or three times. When the battery's charge is depleted, charge the battery or replace the battery with a new one.

#### **Caution:**

1. Do not short circuit the battery terminals or discard the battery in fire. Never attempt to disassemble the battery.
2. The battery should be charged at 5°C ~ 40°C, temperature out of this range could result the battery not fully charged.
3. When charging a battery attached to a radio, turn the radio off to ensure a full charge.
4. Do not cut off the power supply or remove the battery when charging a battery.
5. If the operation time will not increase even though the battery is properly charged, this means the battery life cycle is over, please replace with a new one.
6. Do not return fully charged batteries to the charger for an "extra boost". This action will significantly reduce battery life.
7. Never charge a battery that is wet. Please dry it with soft cloth prior to charge.

#### **To Prolong Battery Life**

- ✧ Battery performance will be greatly decreased at a temperature -20°C below. Please use back-up battery in cold weather. The cold battery unable to work in this situation may work under room temperature, so keep it for later use.
- ✧ The dust on the battery contact may affect battery life. Please use clean dry cloth to wipe it before the attaching the battery to the radio.

#### **Battery Storage**

1. Considering the battery's self-discharge characteristics, fully charge the battery prior to long time storage, to avoid battery damage due to over-discharge.
2. Recharge the battery after 6 months' storage, to avoid reducing battery capacity due to over-discharge.
3. Notice the ambient humidity and temperature for the battery storage. Please store it in cool dry area under room temperature, to reduce self-discharge capacity.

### Charging the Battery

When the radio top LED flashes red and three beeps sound every 30 seconds indicating the battery power runs low, please recharge the battery.

You are recommended to use Quantun authorized charger. Charger LED will indicate the charging status.

Charger LED	Status
Flashing Red	Battery is unchargeable
Steady Red	Battery is charging
Steady Green	Battery is fully charged

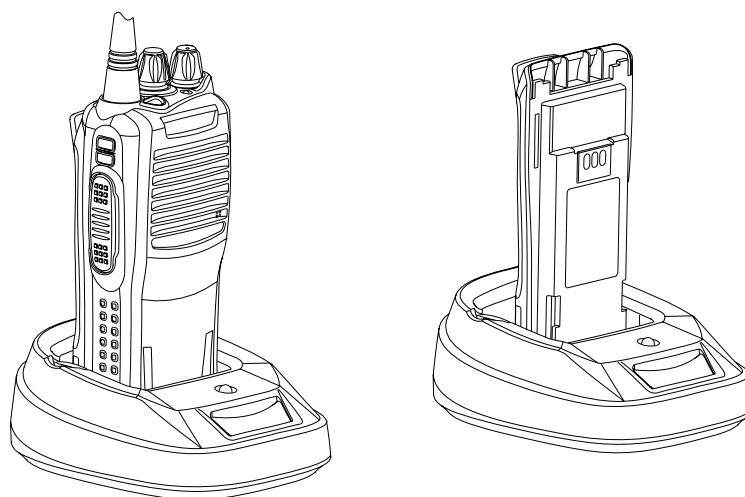


Fig. 2

## Antenna

Stubby antennas are ideal for communication within limited range. Fine and long antennas optimizes communication coverage, ideal when the radio is worn on the belt because they are flexible and soft.

Rainy days or forest locations may narrow your communication range, please repare in advance to avoid potential inconvenience.

## Accessory Installation

### Battery

Attaching the battery

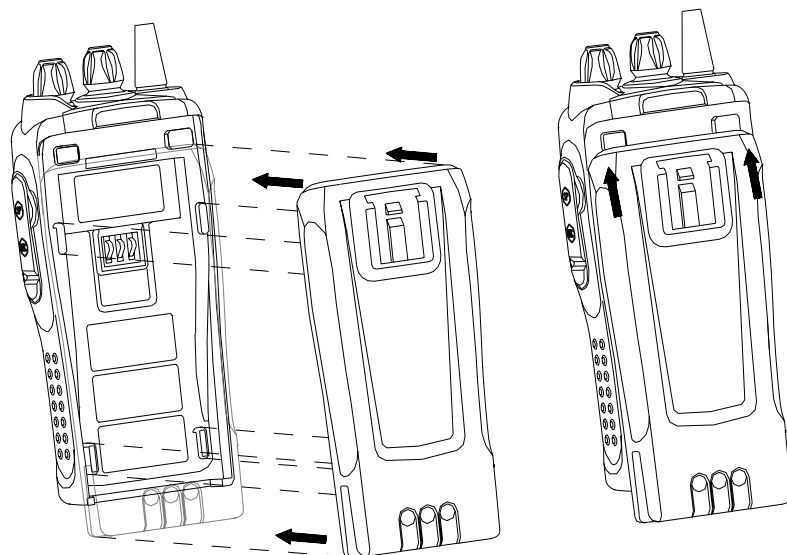


Fig. 3

1. Align the battery to the battery rail on the back of the radio (approximately 12mm from the top of the radio.)
2. Press the battery firmly to the radio and slide the battery upward until the latch snaps into place.

Removing the battery:

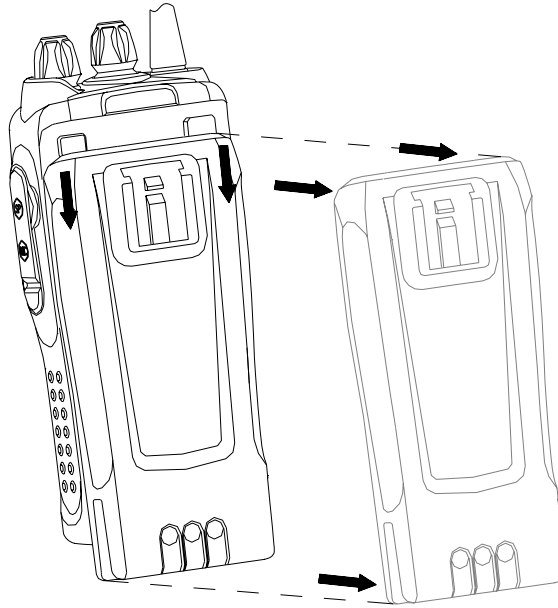


Fig. 4

1. Turn off the radio if it is turned on.
2. Disengage by pushing downward and holding the latch towards the front of the radio.
3. With the battery latch disengaged, slide the battery down from the top of the radio about 12mm. Once the battery is free from the battery rails, lift it directly away from the radio.

## Antenna

Insert the threaded end of the antenna into the connector on top of the radio. Rotate the antenna clockwise to fasten it.

Rotate the antenna counterclockwise to remove it. (See figure 5)

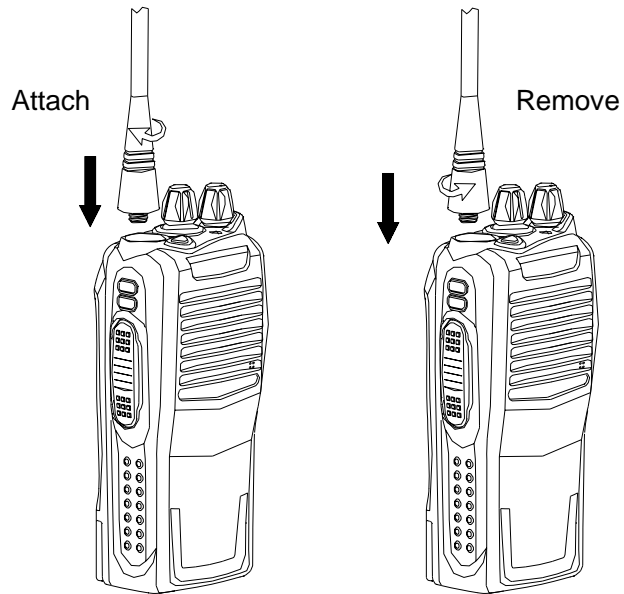


Fig. 5

## Belt Clip

Attaching Belt Clip:

Align the slot of the belt clip with the T-slot on the battery cover and press the belt clip downwards until it is locked.

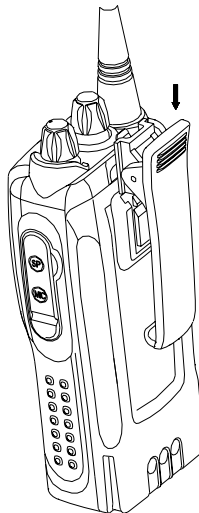


Fig. 6

Removing the belt clip:

Press the disassembly release outwards with a key until it releases and then push the belt clip upwards with your thumb to remove it. (See figure 7)



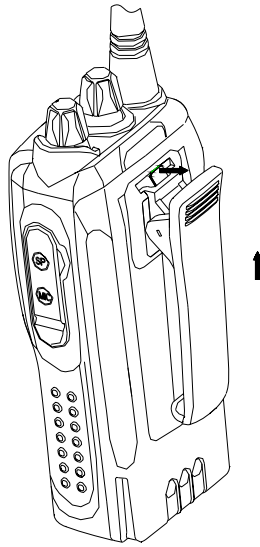


Fig.7

### **Attaching the Earpiece/Microphone**

Open (not remove) the accessory cover, plug the audio accessory firmly into the accessory jack.

Note: Using the radio with audio accessory may affect the waterproof performance of the radio.

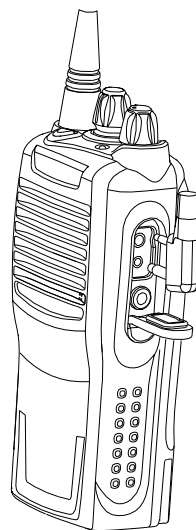


Fig. 8

## **Basic Operations**

### **Turn On/Off the Radio**

To turn the radio on, rotate the “Power/Volume” knob clockwise. An alert tone indicates that the self-test of the radio completed successfully. The LED glows green during power-up. If self-test fails and/or the selected channel is not set, you will also hear an alert tone.

To turn the radio off, rotate the “Power/Volume” knob counterclockwise until a click is heard.

### **Adjust the Volume**

Rotate the “Power/Volume” knob to adjust the volume.

### **Select Channel**

The radio provides 16 conventional channels. Some of the channels may be not programmed and, therefore, not used. Please contact your dealer for more details.

Rotate the “Channel Selector” knob to select the wanted channel.

### **Transmit**

1. Turn on the radio.
2. Rotate the “Channel Selector” knob to select the wanted channel.
3. Make sure there is no activity on the channel.
4. Press the PTT button and speak into the microphone with your mouth 1- 2 inches away from the radio. The LED glows red during transmission.
5. Release the PTT button to finish transmission.

### **Receive**

1. Turn on the radio.
2. Rotate the “Channel Selector” knob to select the wanted channel.
3. Adjust the volume.
4. When CTCSS/CDCSS or squelch tail elimination feature is set by your dealer:
  - No squelch tail will be heard at the end of a received transmission when the courtesy tone is disabled.
  - A beep tone sounds at the end of a received transmission when the courtesy tone

is enabled.

Please contact your dealer for more details.

## **VOX Operation**

When hands-free operation is desired, your radio can be activated by voice alone using the VOX feature when you speak through an accessory that is connected to your radio.

- **Connecting a VOX Headset**

1. Turn off your radio.
2. connect the VOX accessory to your radio and turn the radio on.

- **Enabling or Disabling VOX**

To enable or disable VOX operation, press the preprogrammed VOX button (see advanced operations)

**Note:** Pressing the PTT button disables VOX.

## Advanced Operations

The following functions are programmable by your dealer. These functions are for professional users.

### Auto Contact

When a group of radios are set with Auto Contact, the radio will automatically emit alert tone if the user is out of communication range.

### Auto Contact Temporary Delete

Press the programmed Auto Contact Temporary Delete key to temporarily delete the selected ID from the current Out-of-Range Alarm List.

### Battery Power Indicator

Upon press the programmed Battery Power Indicator key, the radio sounds “1”, “2”, “3”, or “4” to indicate the current battery level.

Audible Indicator	Battery Level
“1”	Very Low
“2”	Low
“3”	Satisfactory
“4”	High

### Call I /Call II

Press the programmed Call I /Call II key to transmit the stored DTMF code, 2-Tone, MDC1200 signaling, Safety check.

#### DTMF

If DTMF signaling is set on the current channel, press the programmed Call I /Call II key to transmit DTMF code.

Red LED solidly glows while encoding, and goes out when encoding ends.

#### 2-Tone/MDC1200

If 2-Tone/MDC1200 signaling is set on the current channel, press the programmed Call I /Call II key to transmit 2-Tone/MDC1200 signaling. Radios that set with match 2-Tone/MDC1200, can receive from you. The preset function will be performed when

radio receives an incoming signal that with match 2-Tone/MDC1200.

- Red LED solidly glows while encoding; orange LED solidly glows until the preset time expires after encoding ends.

- Green LED solidly glows while decoding; orange LED flashes until the preset time expires after successfully decoded.

### **Safety Check**

If Safety Check is set on the current channel, press the programmed Call I /Call II key. The radio will transmit a check code to the another radio checked, Once a radio receives a safety check signal, an alert tone sounds requesting the user to make some operation (pressing any key). Should the user not respond to a safety check signal then a defined emergency procedure is activated.

### **Channel Annunciation**

Press the programmed Channel Annunciation key, if two beep are heard, the Channel Annunciation will be canceled. Upon re-turn on radio, the current channel number will not be heard.

If one beep is heard, the Channel Annunciation will be enabled. Upon re-turn on radio, the current channel number will be heard.

Please select the volume level as "1", when using an earpiece.

### **Channel Annunciation Temporary Enable**

Press the programmed Channel Annunciation Control key, may activate the following two situations :

a) If the current channel number is heard :

Press the function key, if two beeps are heard, the Channel Annunciation will be temporarily canceled. Upon re-turn on radio, the current channel number will be heard.

If one beep is heard, the Channel Annunciation will be temporarily enabled. Upon re-turn on radio, the current channel number will be heard.

b) If the current channel number is not heard :

Press the function key, if two beeps are heard, the Channel Annunciation will be temporarily canceled. Upon re-turn on radio, the current channel number will not be heard.

If one beep is heard, the Channel Annunciation will be temporarily enabled. Upon re-turn

on radio, the current channel number will not be heard.

Please select the volume level as "1", when using an earpiece.

### **Channel Lock**

Press the programmed function key to activate the Channel Lock mode, When the Channel Lock feature is activated, rotate the channel selector is invalid.

### **Emergency**

Press the programmed Emergency key to emit emergency alarm, or send ANI (Emergency Automatic Number Identity) / background tone to a pre-defined person or the dispatcher (selectable via programming software). You may long or short press the programmed Emergency Cancel function key to temporarily cancel the emergency procedure.

### **Lone Work**

The feature provides added security and safety for individuals who work remotely from their team. Press the programmed function key to activate the Lone Work feature, the radio is set up to request a response from a user at regular intervals. Should a user not press any key as response to a regular warning tone, then a defined emergency procedure is activated.

The Lone Work status will not be memorized once radio power off.

### **Lone Work backup**

The feature provides added security and safety for individuals who work remotely from their team. Press the programmed function key to activate the Lone Work feature, the radio is set up to request a response from a user at regular intervals. Should a user not press any key as response to a regular warning tone, then a defined emergency procedure is activated.

The Lone Work status will be memorized after radio power off and on.

### **Man Down (optional)**

Press the programmed function key to activate the Man Down mode, horizontally or inversely position the radio will activate an alert tone, a defined emergency procedure is activated if the radio is horizontally or inversely positioned for a certain length of time. Place the radio vertically to cancel the emergency procedure.

The Man Down status will not be memorized once radio power off.

### **Man Down Backup (optional)**

Press the programmed function key to activate the Man Down mode, horizontally or inversely position the radio will activate an alert tone, a defined emergency procedure is activated if the radio is horizontally or inversely positioned for a certain length of time.

Place the radio vertically to cancel the emergency procedure.

The Man Down status will be memorized after radio power off.

### **Monitor/Squelch Off**

- Monitor

Press the Monitor key to open signaling squelch. Press it again to close.

- Monitor Momentary

Press and hold the Monitor Momentary key to open signaling squelch. Release it to close.

- Squelch Off

Press the Squelch Off key to open noise squelch. Press it again to close.

- Squelch Off Momentary

Press and hold the Squelch Off Momentary key to open noise squelch. Release it to close.

### **Power Level(H/M/L) /Power Level Indicator**

Short press the Power Level key to change the power level, the power increases by 1 level upon every press of the function key (low~med~high cycle). Your change is saved.

Upon long press the programmed Output Power Check key, the radio reports the output power level set on the current channel, with one beep for low power level, two beeps for medium power level, or three beeps for high power level.

### **Rental Time Indicator**

Upon press the programmed Rental Time Indicator key, the radio sounds "1", "2", "3", "4", or "5" to indicate the remaining time that the user is allowed to use the radio. The Rental Time is programmable by your dealer.

### **Scan**

Press the programmed Scan key to initiate radio scanning from the current channel, and ascends through the channel numbers in scan list. The green LED flashes when scanning proceeds, and solidly glows when a signal is received with signalling match on a channel.

Press the Scan key again to exit radio scanning. The Scan status will not be memorized once radio power off.

- **Nuisance Channel Temporary Delete**

- When scan pauses on an unwanted channel such as a noise channel, press the programmed Nuisance Channel Temporary Delete key to temporarily delete the channel from the scan list.
- The priority channel can be deleted temporarily only.
- If there's only one or two channels in the scan list, one of them cannot be deleted.
- Once radio exits from the scan mode, or power off and on, the temporarily deleted channel will turn back to the scan list.

- **Nuisance Channel Delete**

When scan pauses on an unwanted channel such as a noise channel, press the programmed Nuisance Channel Delete key to permanently delete the channel from the scan list. The deleted channel will not turn back to the scan list one radio exits from the scan mode, or power off and on.

- The priority channel can be deleted temporarily only.
- If there's only one or two channels in the scan list, one of them cannot be deleted.

### **Scan backup**

Press the programmed Scan key to initiate radio scanning from the current channel, and ascends through the channel numbers in scan list. The green LED flashes when scanning proceeds, and solidly glows when a signal is received with signalling match on a channel. Press the Scan key again to exit radio scanning.

The Scan status will be memorized after radio power off and on.

### **Squelch Level / Squelch Level Indicator**

Short press the Squelch Level key to change the squelch level, the squelch increases by 1 level upon every press of the function key (level 9~0 cycle, select level 0 activates a beep tone with the squelch always open), then save your change.

Upon long press the programmed Squelch Level Indicator key, the radio sounds the



squelch level set on the current channel.

### **S<sup>2</sup> Double Saving™ Mode**

Press the programmed S<sup>2</sup> Double Saving Mode key, if one beep is heard, the S<sup>2</sup> Double Saving Mode is enabled. If two beeps are heard, the S<sup>2</sup> Double Saving Mode is disabled. When S<sup>2</sup> Double Saving Mode is enabled, the battery will have a more long operation time .

### **Talk Around**

Press the programmed function key to activate the Talk Around feature. When activated, the Rx frequency is used in place of the Tx frequency when transmitting.

### **VOX**

Press the programmed function key to activate the VOX feature. The VOX feature enables you to transmit automatically by speaking into the microphone. Press the key again to exit from the feature.

Pressing the PTT button will disable VOX .

VOX will be reactivated after switching the power off and then back on.

### **VOX Backup**

Press the programmed function key to activate the VOX Backup feature. Press the key again to exit from the feature. The status will be memorized after radio power off and on.

### **Whisper**

Press the programmed function key to activate the Whisper feature. When activated, you can speak quietly into the radio and still be heard clearly. Press the key again to exit from the feature. The Whisper status will not be memorized once radio power off and on.

### **Whisper Backup**

Press the programmed function key to activate the Whisper feature. When activated, you can speak quietly into the radio and still be heard clearly. Press the key again to exit from the feature. The Whisper status will be memorized after radio power off and on.

## **Intrinsically Programmable Operations**

The feature allows for more efficient use of the radio, Those functions need to be programmed by your dealer.

### **CTCSS/CDCSS**

If CTCSS/CDCSS is set on the current channel, causes a CTCSS/CDCSS match to be required on an incoming signal for radio to unmute. The radio will not unmute to an incoming call that with invalid CTCSS/CDCSS.

This feature does not mean that your conversation will not be heard by others. Radios that set with the same CTCSS/CDCSS, or no CTCSS/CDCSS, can receive from you.

### **Signaling Logic**

CTCSS/CDCSS “AND” / “OR” 2-Tone/MDC1200

“AND: Radio unmute upon both the CTCSS/CDCSS and 2-Tone/MDC1200 conditions are matched.

“OR”: Radio unmute upon either the CTCSS/CDCSS or 2-Tone/MDC1200 condition is matched.

### **PTT ID**

Your dealer may configure whether to transmit Connect ID (BOT ID) or Disconnect ID (EOT ID), when connecting or disconnecting a repeater or telephone system.

If the BOT ID is selected, press the PTT to transmit BOT ID.

If the EOT ID is selected, release the PTT to transmit EOT ID.

If Both is selected, transmit both BOT ID upon each press of PTT, and EOT ID upon each release of PTT.

### **Time-out Timer (TOT)**

The feature allows for more efficient use of channels by limiting the maximum time of each transmission. Once a continuous transmission exceeds the preset time, the transmission is automatically terminated and alert tone is heard. Release the PTT to cancel the alert tone.

Your dealer may program the alert tone sounds before the TOT timer nearly expires.

### **Busy Channel Lockout (BCL)**

When the BCL feature is enabled, you are prevented from transmitting on a channel that is already in use. Press the PTT on a channel that is already in use, the radio will sound alert tone and turn back to the receive mode.

Carrier: If BCL is set on the current channel, press the PTT while the channel is already in use, the radio will sound beeps.

CTCSS/CDCSS: If CTCSS/CDCSS and BCL are set on the current channel, press the PTT while the channel is already in use, the radio will sound beeps without transmission.

Optional Signaling: If 2-Tone/MDC1200 signaling and BCL are set on the current channel, press the PTT while the channel is already in use, the radio will sound beeps without transmission.

### **Battery Save**

When enabled, the Battery Save feature is automatically activated once the situation that no activity on the channel and no operation performed, lasts for 12 seconds.

Pressing any key or receiving a signal will restore the radio to normal operation and exit from Battery Save.

### **S<sup>2</sup> Double Saving™ Mode**

When S<sup>2</sup> Double Saving Mode is enabled, and the radio transmit power will automatic change. The battery will have a more long operation time.

### **Low Battery Alert**

When enabled, and when the battery level run low. the red LED flashes and the radio emits three beeps at every 30 seconds, to alert the user to recharge the battery.

### **Scrambler**

This feature means that your conversation is secrecy.

If Scrambler is set on the current channel, only the radio setted Scrambler active can receive you, the radio not setted only get a noise voice.

### **Compander**

Companding is a feature that allows further improvement of voice quality. It compresses your voice at transmission, and expands it when receiving while simultaneously reducing extraneous noise. However, to enjoy this benefit, all transmitting and receiving radios

must have this feature activated.

## **VOX**

When hands-free operation is desired, your radio can be activated by voice alone using the VOX feature when you speak through an accessory that is connected to your radio.

Enabling or Disabling VOX operation, press the preprogrammed VOX button.

Note: Pressing the PTT button disables VOX.

## **Service**

If you need service, contact your Quantun dealer. If you find it inconvenient to have service performed by your local dealer, you may contact Quantun below:

**Quantun Electronics,LLC**

**1379 Shotgun Road Sunrise, Florida 33326 USA**

**Main line: 954-598-3500**

**Toll Free USA: 888-361-0521**

**[www.quantun.com](http://www.quantun.com)**