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QM-790-U1 USER MANUAL

Quantun Electronics, LLC

THANK YOU

Thank you for your purchase of the Quantun two-way Mobile 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.

- Do not touch the metal surface of the radio while it is in use.
- Do not mount the radio such that the chassis can come in contact with skin.
- High temperature may burn your skin.

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.

MANDATORY SAFETY INSTRUCTIONS TO INSTALLERS AND USERS

- Use Only manufacturer or dealer supplied antennas and power cable (32V/15A,with safety fuse).
- Maintain at least 82cm (32 inches) distance form the antenna.
- Antenna used for this transmitter must not exceed an antenna gain of 3dBi(for VHF)and 5.5dBi (for UHF).
- Antenna mounting: The antenna supplied by the manufacturer or radio dealer must not be mounted at a location such that during radio transmission, any person can come closer than the above indicated minimum safe distance to the antenna (i.e.82cm/32inches).
- To comply with current FCC RF Exposure limitations, the antenna must be installed at or exceeding the minimum safe distance indicated above, and in accordance with the requirements of the antenna manufacturer or supplier.
- Vehicle Mounting: The antenna can be mounted at the center of a vehicle metal roof or trunk lid if the minimum safe distance is observed.
- Antenna substitution: Don’t substitute the antenna supplied or recommended by the manufacturer or your dealer. You may be exposing person(s) to excessive radio frequency radiation. Please contact your dealer or the manufacturer for further instructions.
- Please make sure no stress on the antenna joint during transportation or installation.

CONTENTS

User Safety and General Information

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

The following general safety precautions as would normally apply, should be observed during all phases of operation, service and repair of this equipment.

- Do not attempt to configure the radio while driving; it is too dangerous.
- Do not operate your radio when someone is either touching the antenna or standing within 2 or 3 feet of it, to avoid the possibility of radio frequency burns or related physical injury.
- Do not operate the radio near dynamite blasting caps or in an explosive atmosphere.
- Turn OFF the radio while refueling or parking at gas station.
- Turn off your radio in any place where posted notices instruct you to do so.
- Do not expose the radio to direct sunlight over a long time, nor place it close to heating source.
- Do not place the radio in excessively dusty, humid areas, nor on unstable surfaces.
- Do not modify the radio for any reason.
- This equipment should be serviced by qualified technicians only.

Compliance with RF Energy Exposure Standards

Your **Quantun** mobile 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.

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.

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 numerique 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.

Operation Guidelines

- For vehicles equipped with electronic anti-skid braking systems, electronic ignition systems or electronic fuel injection systems, interferences may occur during the radio transmission If the foregoing electronic equipments are installed on your vehicle, please contact your dealer for further assistance to make sure that the radio transmission will not interfere with these equipments.
- For radio installation in vehicles fueled by LP gas with LP gas container within interior of the vehicles, the following precautions are recommended for personal safety.

  (1) Any space containing radio equipment shall be isolated by a seal from the space in which the LP gas container and its fitting are located.

  (2) Remote (outside) fitting connections shall be used.

  (3)Good ventilation is required for the container space.

Safety: It is important that the operator is aware of, and understands, hazards common to

the operation of any radio.

Installation Guidelines

- Do not mount the mobile radio overhead or on a sidewall unless you take special precautions.
- If the mobile radio is not properly installed, road shock could bump the radio loose, and the falling radio could, in some circumstances, cause serious injury to the driver or a passenger. In case of vehicle accidents, even when properly installed, the radio could break loose and become a dangerous projectile.
- Antenna mounting: The antenna supplied by the manufacturer or radio dealer must not be mounted at a location such that during radio transmission, any person can come closer than the above indicated minimum safe distance to the antenna (i.e. 82 cm/32inches).
- To comply with current FCC RF Exposure limitations, the antenna must be installed at or exceeding the minimum safe distance indicated above. and in accordance with the requirements of the antenna manufacturer or supplier.
- Vehicle Mounting: The antenna can be mounted at the center of a vehicle metal roof or trunk lid if the minimum safe distance is observed.

Antenna substitution: Don’t substitute the antenna supplied or recommended by the manufacturer or your dealer. You may be exposing person(s) to excessive radio frequency radiation. Please contact your dealer or the manufacturer for further instructions

Product Inspection

Before unpacking the QM-790-U1 mobile radio, please inspect the packaging for signs of damage and report any damage to your dealer.

Upon unpacking of the QM-790-U1 mobile radio, please ensure that all items shipped were received, report any missing or damaged items to your dealer.

Accessories

Item	Qty.(PCS)
Palm Microphone	1
Microphone Hanger	1
Microphone Hanger Screws	3
Mounting Bracket	1
Adjust knob	4
Bracket Mounting Screw Set	6
Fuse	2
DC Power Cable	1
User's Manual	1

Radio Overview

Front Panel

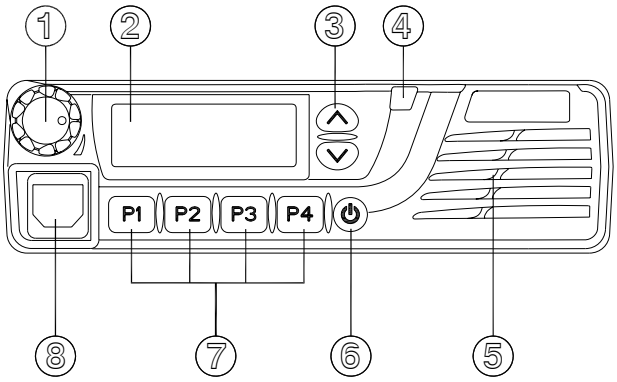


Figure 1

1. Volume Control Knob

   Turn the Volume Control Knob clockwise to increase the volume, or counter-clockwise to decrease the volume.

2. LCD

   Please refer to the “LCD Display” section for details.

3. Programmable Functions Key ([▲]/[▼])

   The [▲]/[▼] keys are programmable with auxiliary functions by your dealer. Please refer to the “Programmable refer Functions Keys” section.

4. LED Indicator

5. Speaker

6. Power Switch

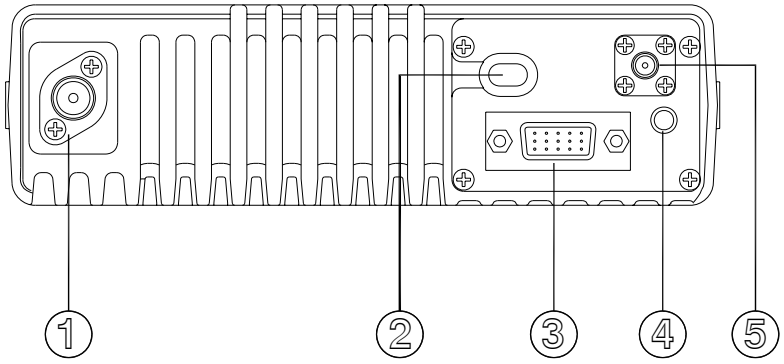
7. Programmable functions Keys ([P1]/[P2]/[P3]/[P4])

   The [P1]/[P2]/[P3]/[P4] keys are programmable with auxiliary Functions by your dealer. Please refer to the “Programmable Functions Keys” section.

8. Microphone Jack

   Plug the microphone connector into this jack.

Rear Panel



1. 15PIN external interface
2. External Speaker Jack

   Plug the external speaker connector (c3.5mm) into this jack.
3. Power Inlet

   Use the DC power cable supplied by Quantun to inlet 13.6v DC power supply.
4. Antenna Pedestal

   To connect the external antenna.

LED Indicator

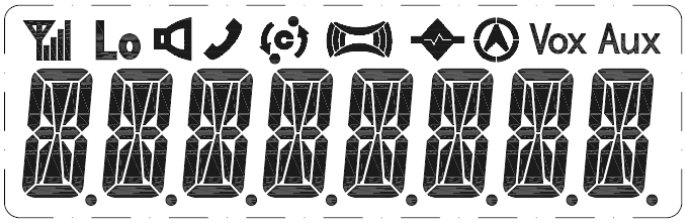
Transmitting	LED glows red
Receiving	LED glows green when carrier presents.
Scanning	Green LED flashes once every 1 second.
Encoding (DTMF/PTT ID/2-Tone/MDC1200)	1) LED glows red while transmitting; 2) LED glows orange when transmission ends.
Decoding (DTMF/2-Tone/MDC1200)	Orange LED flashes after the signaling is successfully decoded.
Function Key Press	One beep to enable, two beeps to disable.

Programmable Auxiliary Functions

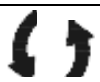
Your dealer may program the [P1]-[P4], [▲]/[▼] keys (long or short press) keys with one of the following auxiliary functions respectively.

1. Off
2. CH Up
3. CH Down
4. Zone Up
5. Zone Down
6. Monitor A
7. Monitor B
8. Monitor C
9. Monitor D
10. Display Frequency
11. Display Mode
12. User Selectable CTCSS/CDCSS(UST)
13. 2-Tone/MDC1200/DTMF Encode Select
14. TX Power Select
15. Scan
16. Scan Add/Delete
17. Reverse Frequency
18. Talk Around
19. Select Squelch Level
20. Home Channel
22. Scrambler
23. Voice Comp
24. Emergency Call

LCD Display



Indicator	Description
	1. Display zone/channel number. 2. Display zone/channel label 3. Display channel frequency 4. Display MDC1200 5. Display DTMF digit 6. Display GPS coordinates 7. Display menu, setting items, etc.
	1. Appears when the selected channel is busy 2. The bar number indicate the channel RSSI
	Appears when the transmitting power is low
	Appears when press MONI Key
	Appears when call transmission is selected
	1. C Indicating that the selected channel is contained in the scan list 2. C• Indicating that the selected channel is programmed as priority channel 1 3. •C Indicating that the selected channel is programmed as priority channel 2

	4.  flashed appears when the scan function is activated
	Appears when compander function is enabled
	Appears when scrambler function is enabled
	Appears when GPS function is enabled
Vox	Appears when VOX function is enabled
Aux	Appears when the Aux port is activated

Basic Operations

Turn Radio On/Off

Press the power switch to turn on the radio.
press and hold down the power switch for about 1 second to turn off the radio.

Adjust the Volume

Turn the Volume Control Knob clockwise to increase the volume, or counter-clockwise to decrease the volume.
During adjusting, please note that if the radio is programmed with CTCSS/CDCSS or2-Tone signalling squelch, noise will not be heard from local speaker even though you turn the volume control knob fully clockwise.

Select Power Level

If the current channel is programmed with high power by your dealer. the power output toggles between high and low upon each press the programmed Tx Power Select key. The “LO” icon is displayed on LCD while using low power.
A higher level means you can reach a radio that is farther away. A lower power level saves battery and reduces the possibility of interference. Use the high power setting only when necessary

Note:

● If the current channel is programmed with lower power press the Tx Power Select key prompts an error tone and the power level will not change.

● If you switch to low power on a channel that was set with high power, this configuration is done on all other channels that were set with high power.

Select a Channel

The [▲]/[▼], [F1]-[F4] function keys are programmable by your dealer to select a channel, The RX/TX frequency on each channel is set by your dealer.

Press the [CH Up] key (programmable) to select a higher numbered channel; press the [CH Down] key (programmable) to select a lower numbered channel.

Channel Annunciation

If the feature is enabled by your dealer, the current channel number will be heard when you press the channel select key.

Note: Please select the volume level as "1", when using an Easy-VOX earpiece accessory.

Select a Zone

The [▲]/[▼], [F1]-[F4] function keys are programmable by your dealer to select a zone.

Press the programmed [zone Up] key to select a higher numbered zone; press the programmed [Zone Down] key to select a lower numbered zone.

Receive a Call

If CTCSS/CDCSS, DTMF/2-Tone/MDC1200 is set on the current channel by your dealer, you can receive calls with matched signalling only,
If CTCSS/CDCSS, DTMF/2-Tone/MDC1200 is not set, you can hear from all the users on the same channel.

Send a Call

1. Hold down the [PTT]
2. Speak into the microphone. The red LED lights while calling.
3. Release the [PTT] to return to the receive mode.
4. When transmission ends, put the microphone on hook.

BOT ID and EOT ID

Your dealer may configure whether to transmit connect ID (BOT ID) and Disconnect ID (EOT ID), when connecting or disconnecting a repeater or telephone system. The following modes are programmable.

1. BOT ID occurs on each press of [PTT].
   EOT ID occurs on each release of [PTT]
2. Press the [*] while holding down the [PTT], then BOT ID is transmitted.
   Pres the [#] while holding down the [PTT], then EOT ID is transmitted.

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 Easy-VOX Microphone**

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

- **Enabling or Disabling VOX**

To enable or disable VOX operation, press the preprogrammed VOX button

Note: Pressing the PTT button disables VOX.

Monitor

If the monitor function is set by your dealer, press the programmed Monitor key while in receive mode to hear activities on the current channel.

The Monitor key is programmable with one of the following four operating modes by your dealer.

1. Carrier Squelch- Momentary

   Hold down the [MONI] key to open CTCSS/CDCSS/2-Tone signalling squelch, Release to close the signalling squelch.

2. Carrier Squelch-Toggle

   Press the [MONI] key to open CTCSS/CDCSS/2 -Tone signalling squelch. Press again to close the signalling squelch.

3. Squelch Off-Momentary

   Hold down the [MONI] key to open carrier squelch; Release to close the carrier squelch.

4. Squelch Off - Toggle

   Press the [MONI] key to open carrier squelch. Press again to close the carrier squelch.

Scan

■ Scan Type

1. Single Zone Scan

   Radio scans all the channels that added into the scan list on the current zone.

2. Multi Zone Scan

   Multiple zones that added into a multi scan list can be scanned. All channels within all the zones that added into the scan list can be scanned.

■ Scan Start

1. Add one or several non-priority channels into the scan list.
2. Press the programmed Channel Scan key to initiate scan from the current channel, and ascends through the channel numbers in scan list. The LCD displays the “SCAN” icon (“-SCAN-” indicates multi zone scan).

■ Scan Cease

Scanning pauses or ceases upon the following:

1. Upon repress the programmed Channel Scan key, scanning ceases, and the radio exits the scan mode.
2. Activate the Monitor function.
3. Receives carrier that satisfy radio un-mute condition.

■ Scan Resume

If scanning pauses on an active channel, the scanning will resume according to the scan resume mode. The scan resume mode is programmable by your dealer for Carrier operated scan or time operated scan.

1. Time Operated Scan

Scanning remains on an active channel for a programmed time period (programmable by your dealer),once the timer expires, the radio will begin scanning other channels even if the active channel is still busy.

2. Carrier operated scan

If carrier is detected during the scan sequence, scanning will remain on the active channel until here is on activity.

■ Dual Priority Scan

If dual priority channels are programmed by your dealer, the radio still checks the dual priority channels for activity at configured intervals. While scanning pauses on a non-priority channel. If carrier is detected on a priority channel, the radio will immediately switch to the active priority channel.

LCD displays the “p。” icon if the current channel is programmed as the Priority Channel 1. the “p.” icon if the cur-rent channel is programmed as Priority Channel 2, while the “p.” icon if the current channel is programmed as both the Priority Channel 1 and 2.

■ Scan Add/Delete

If the Scan Add/Delete feature is enabled by your dealer, the current channel can be added/deleted to/from the scan list, as the following procedures.

1. Select a channel to be added/deleted in the non-scan mode.

2.The current channel toggles between Add/Delete status upon each press the programmed scan Add/Delete key.

Note: Only channels that added into the scan list can be scanned.

■ Nuisance Channel Delete

Temporarily deletes a specific channel from your scan list during the scan sequence.

When scan pauses on an unwanted channel such as a noise channel, press the programmed Add/Del Scan key to temporarily deleted the channel from the scan list, then scanning reinitiates immediately.

Note: the temporary delete is not memorized once radio exits from scan mode.

■ Revert Channel

Upon pressing the [PTT] during scanning, the radio will pause scanning and switch to the Revert Channel to transmit. This feature is programmable by your dealer.

■ Off-Hook Scan

If the feature is enabled by your dealer, radio scans no matter the microphone is in the off or on hook condition. Otherwise, microphone must be on hook for scanning.

DTMF Call

■ Manual Dial

Press any key from the DTMF keypad of the microphone, while holding down the [PTT], to transmit the DTMF frequency, and the DTMF tone will be heard from the local speaker.

Release the [PTT] to remain transmission for 2s (programmable by your dealer), press a numeric key within the 2s to continue transmission.

■ Keypad Auto[PTT]

If the feature is enabled by your dealer, press numeric key to transmit DTMF frequency without pressing the [PTT].

■ Store & Send

When the feature enabled, enter a pre-stored DTMF number (up to 16 digits) in receive mode, then press the [PTT] on the microphone to initiate a call, simultaneously, the dialed DTMF number scrolls across the LCD, and the corresponding DTMF tone is heard.

Note:

● If you dialed a wrong number or you want to cancel the dialing, you just simply press any key on the front panel other than the power switch to exit.

● The “D” character can be programmed by your dealer as a blank tone, that is, the “D” tone will not be heard while transmitting, but only a delay. The delay time of the “D” character is programmable bu your dealer.

■ DTMF Speed

6,8,10 or 15 digits per second is programmable by your dealer.

The feature is designed to reduce false decode by providing a fixed interval time between digits Default: 10 digits per second.

■ Store DTMF Numbers

Allows you to store a DTMF number (up to 16 digits) in each of the 32 Auto Dial memory (01~32) respectively, detailed as follows:

1. Press the [#] key on the microphone keypad, then the LCD displays “D-------”.
2. Enter the desired number (range from 0~9, A~F) via the microphone keypad. If you want to enterA,B,C,D,E,F, please enter 2.5.8.0, *,# respectively while holding down the [PTT].
3. Press the [#] key, the “--” is displayed following the “D” character, indicating the location of the memory number.
4. Enter the desired memory number (01~32).
5. Press again the [#] key on the microphone keypad, then the entered number is stored into the corresponding memory.

If you dialed a wrong number or you want to cancel the dialing, please press any key on the front panel other than the power switch to exit.

■ **Confirm the Stored DTMF Numbers**

1. Press the [*] key on the microphone keypad, then the LCD displays “A--”.
2. Enter the memory number (01~32), the LCD displays the stored number or its alias.
3. Press any key other than the [PTT], the LCD resumes the initial display.

■ **Auto Dial**

1. Press the [*] key on the microphone keypad, then the LCD displays “A”.
2. Enter the memory number (01~32), the LCD displays the stored number or its alias.
3. Press the [PTT], then the number is transmitted.

■ **Clear Stored DTMF Numbers**

1. Press the [#] key on the microphone keypad, then the LCD display “D-----”
2. Press again the[#]key on the microphone keypad, then the LCD displays “Clear”.
3. Enter the memory number that to be cleared (01~32), To cancel this operation, please press any key other than 0~9.
4. Press the [#] key on the microphone keypad, then the stored number is cleared.

■ **Redial**

1. Press the [*] key on the microphone keypad, the LCD displays “A”.
2. Press the [0] key twice, then the last dialed number (up to 16 digits) is dialed and displayed on LCD.
3. Press the [PTT], the number is transmitted.

Note: The redial memory is cleared once radio power off.

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.

Emergency Call

Holding down the Emergency Call key (programmable as long or short press), the radio will enter the Emergency Call mode and switch to the preset Emergency Zone/Channel. The radio will firstly transmit within the preset time period, and then receive within the preset time period, and so does the cycle.
The radio will back to the channel before the Emergency Call mode, upon re-holding down the Emergency Call key (programmable as long or short press).

Code Squelch

This feature can be enabled/disabled by your dealer. If the feature is enabled, the preset 2-Tone controls radio mute/unmute. The radio will not unmute until matched signalling is received.

■ Receive

1, Radio is unmuted when matched 2-Tone signaling (programmed by your dealer) is received, the user can hear from the transmitter without any other operation.
2, The "?" icon flashes on LCD, and the LED flashes orange.
3, Radio is muted upon press the programmed Monitor key, or no signal is received within the preset time period.
4, If the alert tone is enabled, radio will emits alert tone when match signalling is received. If the Transpond is enabled, radio will transpond a tone to the calling radio. However, radio will not transpond if a group call is received.

■ Transmit

1, Holding down the [PTT],
2, While encoding, the LED lights red.
Please refer to the [TTS] key for 2-Tone encoding.
3, Upon release the [PTT], the signalling squelch is disabled, the "?" icon flashes on LCD, and LED flashes orange. The LED lights green while signal is received, and flash orange if signal off.
4, If the programmed [Monitor] key is pressed, or no signal is received within the preset time period, the signalling squelch is enabled.

Off Hook Decode

If the feature is enabled by your dealer, CTCSS/CDCSS signalling is active no matter the microphone is in the off/on hook condition. If the feature is disabled, CTCSS/CDCSS

signalling is disabled while the microphone is in the off hook condition.

Busy Channel Lockout (BCL)

The feature can be enabled/disabled by your dealer, this feature is to prevent transmission on a channel that is already in use. Press the [PTT] on a channel that is already in use, transmission is inhibited and an alert tone is heard . upon release the[PTT], the alert tone ceases and radio returns to receive mode. Press the [PTT] to transmit while the channel is free.

BCL Override

If the BCL Override feature is enabled, you can override the BCL feature to transmit on a busy channel. Press the [PTT], a BCL alarm will be heard, then repress the [PTT] within 0.5s to override the BCL feature and BCT feature and transmit on the busy channel.

Time-out Time (TOT)

■ Time-out Time (TOT)

The feature allows for more efficient use of channels by limiting the maximum time of each transmission. It protects the radio from damage caused by long time transmission. Once a continuous transmission exceeds the preset time.

(15～1200s programmable), the transmission is automatically terminated and alert tone is heard. The alert tone ceases upon release the[PTT].
The TOT default is 180s, it meets normal operation needs. Any change should be permitted by professional technicians.

■ TOT Pre-alert

The radio has a TOT Pre-alert timer. The radio will emit the Pre-alert tone at the programmed time (1～10s before the TOT timer expires).

■ TOT Re-Key Time

The radio has a TOT Re-Key timer. Since transmission is terminated upon the TOT timer expires, the TOT Re-key timer is activated, and transmission is inhibited if press the [PTT] before the expiration of TOT Re-key timer (programmable by your dealer as Off,1～60s).

■ TOT Reset Time

The TOT Reset timer is activated upon release the [PTT]. While the TOT timer will not reset until the TOT Reset timer expires. Press the [PTT] before the TOT Reset timer expires, the TOT timer continues to countdown.
The TOT Reset Time is programmable by your dealer as Off,1～15s.

Programmable Auxiliary Functions

The [P1]-[P4],[▲]/[▼] keys are respectively programmable with one of the following auxiliary functions by your dealer.

Reverse Frequency

If communications between radios are disrupted because of a long distance from the repeater, the Reverse Frequency function can be used to re-establish communications with another radio. When the function is activated, the transmit frequency and receive frequency will be reversed. The preset CTCSS/CDCSS encode and decode will also be reversed.

Press the programmed Reverse Frequency key to toggle the Reverse Frequency function ON or OFF.

RE1 ⟺ CH1
Enabled Disabled

Talk Around

If the Talk Around feature is enabled, the Rx frequency is used in place of the Tx frequency when transmitting, and the CTCSS/CDCSS decoding signal is used in place of the encoding signal when encoding.
Press the programmed Talk Around key to toggle the Talk Around function ON or OFF.

TA1 ⟺ CH1
Enabled Disabled

Selectable Squelch Level (SQL)

1, Upon press the programmed SQL key, LCD displays the current squelch level as the following figure.

SQL5 ⟺ CH1

2, Select the desired squelch level via the programmable function key [▲]/[▼].
3, Pressing any key from [P1]-[P4]to save the selected squelch level. The LCD resumes its initial display.

Note: High squelch level may cause the radio to ignore weak signals; while low squelch level may cause noise or unwanted signals to be heard.

User Selectable CTCSS/CDCSS (UST)

If the UST feature is enabled by your dealer, the user can temporarily change the

CTCSS/CDCSS codes that preset on the current channel, Operations are as follows:
1, Select a desired channel.
2, Press the programmed UST key to enter the UST mode.
3, Use the [▲]/ [▼] keys to select from the preset UST codes (the newly selected CTCSS/CDCSS code is valid in the UST mode only), then the CTCSS/CDCSS code on the current channel is set as the selected UST code.
4, Repress the UST key to exit the UST mode, then the LCD resumes its initial display.

Note: This configuration is automatically memorized if the UST Back Up function is enabled, or else, it will not be memorized once switching channel or power off.

Home Channel

Upon press the programmed Home Channel key, the radio will promptly go to the programmed home channel.
When dual home channels are set, press the programmed Home Channel key to promptly go to Home Channel 1, press again to promptly go to Home Channel 2, and press for the third time to return to the original channel.

2-Tone Encode Select (TTS)

1, Press the programmed TTS key, the LCD displays the preset 2-tone number or alias. The LCD scrolls the alias if it exceeds 8 digits.
2, Press the [▲]/[▼]key to select 2-tone number (01～32)or alias.
3, Holding down the [PTT] to transmit the selected code.
4, Upon release the [PTT], the signalling squelch is disabled and LED flashes orange, the LED lights green when signal is received, and flashes orange if signal off.
5. If the programmed Monitor key is pressed, or no signal is received within the preset time period, the signalling squelch is enabled.

Display Frequency

Upon press the programmed Display Frequency key, the LCD displays the frequency of the current channel.

Display Mode

Upon press the programmed Display Mode key, the radio toggle among the following 5 display modes:
1. Channel alias
2. Zone number followed by channel number, “1-CH1”
3. Zone alias
4. Channel frequency.
5. Channel number followed by zone number, “CH 1-1”

Voice Compander

Press the programmed voice Compander key to toggle the voice compander feature ON or OFF. When the feature enabled, LCD displays the “? ” icon.

Scrambler

Press the programmed Scrambler key to toggle the scrambler feature ON of OFF. When the feature enabled, the LCD displays the “? ” icon.

Note: the emphasis/de-emphasis feature is disabled while the scrambler is ON, and enabled while the scrambler is OFF.

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 allow to use the radio. The Rental Time is programmable by your dealer.

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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