HQT

User Manual

DH-9800

Digital portable radio

DMR

HQT

SHENZHEN HQT SCIENCE & TECHNOLOGY CO., LTD.

For more information, please visit **http://www.hqt-tech.com**、

Hello

We appreciate your purchasing DH-9800 Digital portable radio! We believe that the quality and function of this radio will bring you stable performance and smooth communication.

As a product built to the DMR standard, DH-9800 is gifted with ergonomic design, all round digital functions and remarkable quality to refresh your experience and enable you to be responsive to critical situations.

Please read this manual before use.

FCC RF EXPOSURE COMPLIANCE REQUIREMENTS FOR OCCUPATIONAL USE ONLY

The Federal Communications Commission (FCC), with its action in General Docket 93-62, November 7, 1997, has adopted a safety standard for human exposure to Radio Frequency (RF) electromagnetic energy emitted by FCC regulated equipment. Proper operation of this radio will result in user exposure far below the Occupational Safety and Health Act (OSHA) and Federal Communications Commission limits.

DO NOT transmit for more than 50% of total radio use time (50% duty cycle). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded.

This radio is NOT approved for use by the general population in an uncontrolled environment. This radio is restricted to occupational use, work related operations only where radio operator must have the knowledge to control the user's exposure conditions for satisfying the higher exposure limit allowed for occupational use.

When transmitting, hold the radio in a vertical position with its microphone 1 inch (2.5cm) away from your mouth. The radio is transmitting when the red LED on the front of the radio is illuminated. You can cause the radio to transmit by pressing the PTT bar on the radio.

These are required operating configurations for meeting FCC RF exposure compliance. Failure to observe these restrictions mean violation.

FCC Caution

Any Changes or modifications not expressly approved by the party responsible for compliance could void 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.

More detailed product information
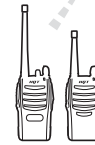
More professional technique support

HQT On-line Service Center

HQT service network provides more information about on-line service of HQT Digital portable radio.

More detailed product information
To deepen your understanding of the functions of this radio.

More plentiful product models.
To display more plentiful product models, so that you can understand the details of these products in advance and make decisions correctly according to the requirement of work.

For more details, please visit: www.hqt-tech.com.cn

More plentiful product models

More optional accessories

More professional technique support

User manual and brochures
To provide download or on-line reading of the latest user manuals and brochures in covering detailed information of Digital portable radios.

software download
To provide downloading of the latest programming software from HQT website. Your Digital portable radio can be connected to the computer with programming cable to manage or edit the parameters of channel frequency and other items.

On-line learning
To offer guidelines for detailed setting of the Digital portable radio.

More optional accessories
To provide various kinds of accessories, which can offer more comfortable operation an more remarkable performance of the radio to you.

Statement

HQT endeavors to achieve the accuracy and completeness of this manual. As for any inaccuracies and omissions that may possibly occur, the right to interpretation is reserved to Shenzhen HQT Science & Technology Co., Ltd.

The design or specification of this product is subject to be modified by Shenzhen HQT Science & Technology Co., Ltd. Without prior notice.

It is prohibited to copy, transmit, excerpt and store in any retrieval system, or translated to any languages without written authorization of HQT.

Contents

Safety Matters

Please read rules below. Nonobservance of these rules may cause danger or violation of law.

- The use this radio must comply with regulations of local government.

- Turn off the radio before you enter places of flammable or explosive environment.

- Do not replace or charge battery pack in places of flammable or explosive environment.

- Turn off the radio before you approach blast area and detonator area.

- Do not use the damaged antenna which may cause lightly burn on skin.

- Only qualified technician are allowed to maintain this two-way radio. Do not disassemble the radio by yourself.

- To avoid problems caused by electromagnetic interference or electromagnetic compatibility, please turn off the radio in places with "Wireless Communication Transmit Equipment Prohibited" mark, such as hospitals or other health care places. When taking a plane, turn off the radio if required.

- In a car with air bag, do not place the radio within possibly involved area when air bag expands.

- Do not expose the radio to direct sunlight or near heating devices for a long time.

- Keep the radio vertical and speak near the microphone during transmitting.

- Make sure that the antenna is 2.5 cm away from the body during transmitting if you carry the radio on your body.

Product Inspection

Thanks for using DH-9800 Digital portable radio. Before use, we recommend that:
First check the package for any signs of damage;
Carefully open the package and identify the items listed below;
If any items are missing or damaged during shipment, please contact your dealer.

Items

Radio DH-9800 Qty:1	Antenna Qty:1	Li-Ion Battery Qty:1	Charger Qty:1	Adapter Qty:1
Lanyard Strap Qty:1	Belt Clip Qty:1	Warranty Card Qty:1	User Manual Qty:1	Certificate Qty:1

Note: Frequency is marked on the color circle at the bottom of the antenna.

Get Acquainted

Battery Information

Applicable Battery Model:

lease charge with HQT approved battery; Using other batteries may burst and cause personal damage.

☞ Note:
1. Do not short-circuit the battery terminals or dispose the battery in fire. Never attempt to disassemble the battery pack.
2. Charge the battery in 0-45℃ temperature. Otherwise the battery may not be fully charged.
3. Turn off the radio equipped with battery before charge. Use the radio while charging may interfere with charging.
4. Do not pull/plug the adapter and the battery during charging to avoid interfere with the charging procedure.
5. When the battery power consumes quickly even if it is fully and correctly charged, that means the battery life is over and please replace with new battery.
6. Do not charge if the battery or radio is wet. Before charge, you should dry it with cloth to avoid danger.

⚠ Warning:

Conductive metals such as jewelry, key or decorating lace may result in short circuit and generate a large quantity of heat when coming to contact with battery electrodes. Treat any battery carefully especially when placing it into pocket, wallet or other metal container.

Charge Operation

Please charge as follows:
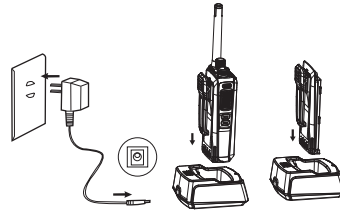
1. Turn off the radio. Plug the DC connector of adapter into the DC jack on the rear of the charger.
2. Plug the AC connector of adapter into an AC outlet.
3. After the charger is electrified, the LED glows red for 1 second and goes out. That means the charger is ready for normal charging. If the LED flashes red, it means the charger is not ready for battery charging.
4. Insert the battery or radio equipped with battery into the charger. Make sure the battery is in good connection with the charger electrode.
5. LED glows red during charging and flashed during trickle charging because of very low battery power. And after the battery power reached a certain mount during trickle charge, the charger automatically turns to normal charge mode.
6. The battery is fully charged when LED glows green. The charger stops charging automatically.

Cautions in Charging

1. The battery is not charged in factory. Please charge the battery before initial use or after long-time storage.
2. Repeat charging 2 to 3 times will make the battery reach its best capacity. Please replace or charge the battery if battery power is low.

3. When the battery power consumes quickly even if it is fully and correctly charged, that means the battery life is over and please contact your dealer and buy new HQT approved battery.

Antenna Information

● Stubby antenna is suitable for short-distance communication; thin and long antenna will provide best communication effect. Also it is comfortable to carry on the waist.

● The communication range may be shortened in rainy days or in forest. Please make preparations for that .

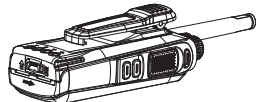## Attaching and Removing

Attaching the Battery

Match the two grooves of battery with corresponding guides on the back of the radio. And make sure the full contact and parallel between the battery and aluminum chassis.

Then push the battery along the guide until the battery latch locks.
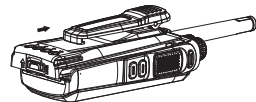
(Figure 1)

Push the battery latch towards the mark "Lock" to lock it.

(Figure 2)

Removing the Battery

To remove the battery,first make sure the radio is turned off, then push the battery latch in the opposite direction of the mark "LOCK" to unlock it,and push the battery latch downwards.
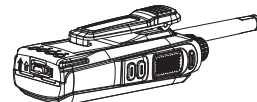
(Figure3)

Slide the battery away from the radio.
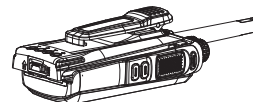
(Figure 4)

Attaching/Removing the Antenna

Attaching the antenna:
1.Insert the antenna into the connector on the top of radio by holding the antenna at its base.
2.Rotate the antenna clockwise to fasten it.

(Figure 2)

Removing the Antenna:
Rotate the antenna counter clockwise until you can remove it.

(Figure 1)

Installing/Removing the Belt Clip

Installing Belt Clip
Match the grooves of belt clip with those on the rear of radio and press the belt clip downwards until it is locked.

Removing Belt Clip
Use your nail or a tool to lift the metal spring piece in the belt clip from topside and pull the belt clip upward from the battery pack.
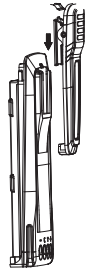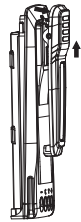
Note:
1. To use belt clip, please install the belt clip onto the battery before the installing of battery pack.
2. Remove the battery from the radio before the removing of belt clip.

(Figure 1)   (Figure 2)

Installing Hand Strap

Thread the strap into the hole at the back of the radio and fasten it.
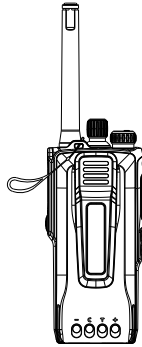
Attaching the Audio Accessory Programming Cable

1. Remove the screw on the accessory jack cover, open the accessory jack cover as figure show below.
2. Align the plug with the accessory jack.
3. Tighten the screw on the plug.
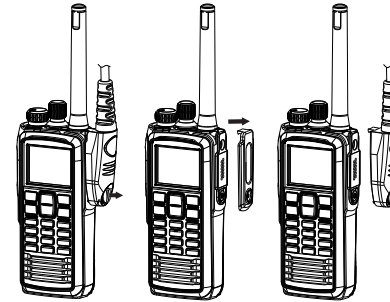
Removing the Accessory

To remove accessories, loosen the screw as figure shown below.

Radio Overview

1. PTT Key
2. Sk1(SideKey 1)
3. SK2(Side Key 2)
4. SK3(Side Key 3)
5. Speaker
6. Microphone
7. Numeric Keypad
8. LCD Display
9. Nameplate
10. TK(Top Key)
11. LED Indicator
12. Radio On-Off/Volume Control Knob

13. Channel Selector Knob
14. Antenna
15. Accessory Jack
16. Accessory Screw
17. Back Key
18. Strap Hole
19. Belt Clip
20. Battery
21. Battery Latch
22. OK/Menu Key
23. Up Key
24. Down Key

Status Indicators

LCD Icons

Icon Name	Icon	Radio Status
RSSI		No signal;
		More bars indicate better signal strength;
Message Icons		New Message/Unread Message;
		InBox is full;
Scan Icons		Scanning is in progress;
		Scanning pauses on a non-priority channel;
		Scanning pauses on Priority Channel 1;
		Scanning pauses on Priority Channel 2;
Tx Power Icons	Ⓛ	Low Tx power for the current channel;
	Ⓗ	High Tx power for the current channel;
Battery level Icons		More bars indicate more battery power;
Monitor Icon		The feature "Monitor" is active;
Speaker Icon		The speaker is unmuted;
Emergency Icon		The Emergency mode (other than secret emergency) is active or an emergency message is received;
Accessory Icon		An accessory is connected;

LED Indicator

The top LED indicator will help you easily identify current radio status.

LED Indicator	Radio Status
LED ashes green.	Powering on
LED flashes red.	Transmitting
LED flashes green.	Receiving
LED ashes orange.	Scanning

Operation Mode Icons

Icon Name	Icon	Operation Mode
Operation Mode Icons	DM	Direct Mode Operation: Under this mode, radios communicate with each other directly.
	RM	Repeater Mode Operation: Under this mode, radios communicate with each other via a repeater

Programmable Keys

For enhanced convenience, you may request your dealer to program the keys **SK1,SK2,SK3,P1,P2,TK** as shortcuts to the functions listed below:

No.	Shortcut Keys	Description
1	None	No feature will be assigned.
2	Zone Down	To select a desired zone quickly
3	Zone Up	To select a desired zone quickly
4	Scan	To receive signals on other channels
5	Nuisance Temporary Delete	To temporarily ignore unwanted channel activity
6	Emergency On	To summon help in emergent situations
7	Emergency Off	Emergency function is off
8	Adjust Power Level	To adjust power level
9	Keypad Lock	To lock or unlock the keypad
10	Contact List	To access the Menu "contact list" quickly
11	Message	To access the Menu "Message" quickly
12	Call Logs	To access the Menu "Call logs" quickly
13	Adjust Squelch Level	To adjust the squelch threshold required for the speaker to unmute
14	One Touch Call1	To transmit a call, short message or other service to a preset contact quickly
15	One Touch Call2	To transmit a call, short message or other service to a preset contact quickly
16	One Touch Call3	To transmit a call, short message or other service to a preset contact quickly
17	One Touch Call4	To transmit a call, short message or other service to a preset contact quickly

No.	Shortcut Keys	Description
18	One Touch Call5	To transmit a call, short message or other service to a preset contact quickly
19	Squelch Off Momentary	To momentary open the speaker
20	Squelch Off	To always open the speaker
21	Monitor	To adjust the condition for incoming signal match
22	Talk Around	To directly communicate with other radios
23	Home Screen	To quickly return to the previous menu or home screen
24	Scramble/Encrypt	Scramble: To encrypt your voice so as to guarantee privacy of your communication Encrypt: To encrypt your voice and message so as to guarantee privacy of your communication
25	VOX	To enable or disable the VOX function

Note: (1) Long and short press of a key can be assigned with different functions by your dealer.

(2) The TK is programmed as the Emergency key by default, and is programmable by your dealer.

Basic Operations

Turning the Radio On/Off
Rotate the Radio On-Off/Volume Control knob clockwise/counter-clockwise until a click is heard to turn the radio on/off.

Adjusting the Volume
After turning the radio on, rotate the Radio On-Off/Volume Control knob clockwise to increase the volume, or counter-clockwise to decrease the volume.

Selecting a Zone
A zone is a group of channels exhibiting the same property, and is programmed by your dealer. The radio supports up to 64 zones, each with a maximum of 16 channels. You may select a zone through any of the following methods:
1. Through menu selection
   Go to the menu "Zone", and use the Up/Down keys to select your desired zone.
2. Through the function keys
   You may quickly toggle to your desired zone by pressing the programmed Zone Up or Zone Down key.

Selecting a Channel
Rotate the Channel Selector knob to select a channel from CH01-CH16. according to the number mark at the bottom of the channel selector.

Digital/Analog Switch
Each channel can be programmed as either analog channel or digital channel. If the current zone includes both analog and digital channels, you may quickly switch between digital and analog through the Channel Selector knob.

Locking/Unlocking the Keypad
When the keypad is not in use, you can lock the keypad to prevent accidental keypad operation. Three methods are available for you to lock or unlock the keypad:

1. Through key combination
   Go to Option->Manual Lock, and then select to enable, Press [Menu]+[*] to unlock the keypad.

2. Through the function key
   Press the programmed Keypad Lock key to lock or unlock the keypad.

3. Through menu selection
   Go to Settings -> Radio Setting -> Keypad Lock, and then select Enable or Disable .

Enable: The keypad will be locked automatically if no operation is made for the preset time period.
Disable: The keypad will not be locked automatically. However, you can lock or unlock the keypad via the key combination or Keypad Lock key mention above .

Private Call

Transmitting a Private Call
You may transmit a Private Call through any of the following methods. When transmitting a Private Call, the icon will appear.

Transmitting a call to the preset contact
In standby mode, pressing PTT key will transmit an individual call to the contact (a Private Call number) preset for the current channel.
> Note: Your dealer may preset a contact for each digital channel. The preset contact could be a Private Call number, a Group Call number or an All Call number.

Transmitting a call through Contact List or Call Logs
1) Go to Contact -> Contact List, or go to Call Logs ->Call List.
2) Use the Up/Down key to select the Private Call number you want to call.
3) Hold down PTT key to transmit a Private Call to the selected contact.

Transmitting a call through Manual Dial
1) Go to Contact -> Manual Dial.
2) Input a Private Call number you want to call.
3) Press PTT key to transmit a call.

Receiving and Responding to a Private Call
Responding to a Private Call, after a Private Call is received, you may press the PTT key within the preset time period to call back. If you do not respond to a received Private Call, the radio will display the missed call icon .

Group Call

Transmitting a Group Call
You may transmit a Group Call through any of the following methods. When transmitting a Group Call, the icon will appear.

Transmitting a call to the preset contact
In standby mode, pressing PTT key will transmit a group call to the contact (a Group Call number) preset for the current channel.
> Note: Your dealer may preset a contact for each digital channel. The preset contact could be a Private Call number, a Group Call number or an All Call number.

Transmitting a call through Contact List or Call Logs
1) Go to Contact -> Contact List, or go to Call Logs -> Call List.
2) Use the Up/Down key to select the Group Call number you want to call.
3) Hold down PTT key to transmit a Group Call to the selected contact.

Receiving and Responding to a Group Call
Responding to a Group Call , after a Group Call is received, you may press the PTT key within the preset time period to call back.

Transmitting an All Call
Methods are the same as those in Transmitting a Group Call When transmitting an All Call, the icon will appear.

Receiving an All Call
When an All Call is received, your radio will display the icon .

Make a Call on Analog Channels
To make a call , hold down [PTT] key and speak into the microphone with normal voice. Please keep the microphone 2.5-5cm away from your mouth.

Note:
1. Hold down [PTT] key and the radio begins to transmit when LED glows red.
2. When the battery power is lower than normal battery power, the transmission is prohibitted.

Menu Navigation

Main Menu

Contact | Message | Call Logs | Zone | Scan | Settings
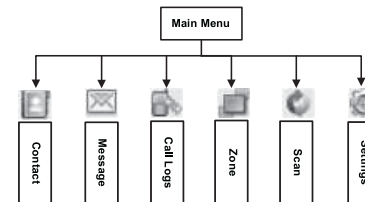
Contact
To access this item, press Menu key in idle mode and then select "Contact".

```
Contact 1/3
Contact List
New Contact
Manual Dial

Select        Back
```
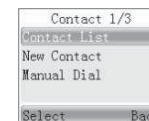
■ Contact List
You can save up to 512 entries in the list. To access this item, select "Contact -> Contact List" or press the shortcut key for Contact List.

Edit a Contact
You can edit the number and alias of each Private Call contact.

View a Contact
You can view details of each contact.

Delet a Contact
You can delete a Private Call contact. However, please note that you can not delete the contact when there is only one entry left in the list. In addition, the private contact preset on the digital channel cannot be deleted.

■ New Contact
You can add a Private Call contact to the contact list. The number and alias of each contact must be unique, and the available number range is 1-16776415.

■ Manual Dial
You can manually input the private call number for calling.

Message
To access this item, press the Menu key in idle mode and then select "Message", or press the shortcut key for Message directly.

```
Message 1/5
InBox          (0)
New Message
Quick Text
OutBox         (0)
Select        Back
```
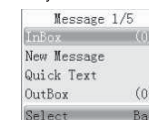
InBox

The InBox can save up to 10 received messages. When the InBox is full, the icon will appear, and the oldest entry will be overwritten by the latest one automatically.
For each message, you can choose to perform any of these operations: Reply, Forward, View Details and Delete.
To delete all messages in the InBox, select "Message -> InBox -> Delete All".

New Message

You can create your desired text message (128 characters at most) and send it to an individual user or to a talk group.

Quick Text

Under this option there are some text messages (10 entries at most) preset by your dealer . You can choose to edit and send any entry.

OutBox

The OutBox can save up to 10 sent messages. When the OutBox is full, the oldest entry will be overwritten by the latest one automatically.
For each message, you can choose to perform any of these operations: Reply, Forward and Delete.
To delete all messages in the OutBox, select "Message -> OutBox -> Delete All"

Drafts

The Drafts can save up to 10 draft messages. When the Drafts is full, the messages will be overwritten by the latest one automatically.
For each message, you can choose to perform any of these operations:
Send, Save and Delete.
To delete all messages in the Drafts, select "Message-> Drafts-<Delete All".
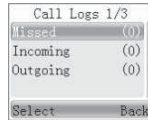
Call Logs

To access this item, press the Menu key in idle mode and then select "Call Logs", or press the shortcut key for Call Logs directly.


This radio can save up to 10 entries in the Outgoing List, Incoming List and Missed List respectively. When the memory for call logs is full, the oldest entry will be over written by latest one automatically.
After accessing a list and selecting an entry, you can perform any of these operations: hold down the PTT key to initiate a call; View Details or delete it.
To delete all entries in Outgoing List, Incoming List or Missed List at a time , select "Call Logs -> Outgoing/Incoming /Missed -> Delete All".

Scan

To access scan, press the Menu key in home screen and then select "Scan".
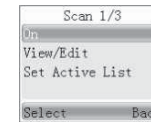
Scan On/Off

The function "Scan" allows you to listen to communication activities on other channels so that you can keep a close track of your team members. This option is used to enable or disable the function.

Scan List

You can request your dealer to create a scan list for each channel. Each list may contain 32 channels at most (either digital channel or analog channel is OK). After accessing the list, you can perform any of the following operations:

Adding a Channel

To include a new channel into the active scan list.

Editing Priority Channel

To set the selected channel as a non-priority or as a priority channel. If you are interested in activities on a channel, you can set it as a priority channel, which will be scanned more frequently than a non-priority channel. Each scan list may contain two priority channels at most. indicates priority channel 1, and indicates priority channel 2.

Deleting a Channel

To remove a channel from the active scan list. However, the first channel in the list can not be deleted.

Zone

To access this item, press the Menu key in idle mode and then select "Zone".
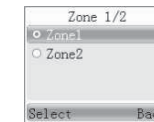
This radio supports up to 64 zones. You can use this menu to select your desired zone.

Settings

To access this item, press the Menu key in idle mode and then select "Settings".

You can optimize your radio performance by customizing related parameters according to actual needs and your preferences.

■ Radio Settings

Language

To set the language in which all interface information is displayed. At the currently, this radio only supports two languages: Chinese and English.

Tx Power

This option allows you to set transmit power level. Alternatively, you can change the power level by pressing the shortcut key for Adjust Power Level in idle mode. There are two levels available: High (indicated by) and Low (indicated by). High power level enables you to communication with farther team members.

Note: Power level should be set for each channel individually.

Lone Worker

This function can trigger off the Emergency mode if the radio does not work for a certain time period. This parameter determines whether to enable the Lone Worker function.

Vibration

This option allows the user to enable or disable the Vibration feature using the menu Checked: The user can set the Vibration from the menu.
Unchecked: The user cannot access the Vibration feature using the menu.

Keypad Lock

To set whether to enable this function. When "Keypad Auto Lock" is selected, you can use Up or Down key to select Disable or Enable, when select Enable, you can input numbers to set the time range after which the keypad will be locked.
Available range: 5-60 seconds.
Manual Lock: when"Manual Lock" is selected ,the keypad can be locked manually.

Tone

To set tones for your radio. You can set the following tones:
Radio Silent: to set whether the radio will give tone indication. If Silent On is selected, all alerts will be off.
Low Battery Tone: to set whether the radio will give tone indication when the remaining battery level becomes very low.

Call End Tone: to set whether the radio will give tone indication when the call end.

Private Call Tone: to set whether the radio will give tone indication when the radio receives a private call.

Text Message Tone: to set whether the radio will give tone indication when the radio receives a message.

Keypad Tone: to set whether the radio will give tone indication when you are making keypad operations.

Group Call Tone: to set whether the radio will give tone indication when the radio receives a group call.

Signaling Side Tone: to set whether the radio will give tone indication when after PTT is pressed (during transmission of PTT ID);

Set Brightness

To set the display brightness. You can increase or lower it using the Up or Down key. Available range: Level 1-Level 5.

LED

All LEDs: to enable /disable all LED indications.
TX LED: to set whether the Tx LED indicates during transmission.
RX LED: to set whether the Rx LED indicates during reception.
Scan LED: to set whether the Scan LED indicates in Scan mode.

Low Battery LED: to set whether the Low Battery LED indicates when the battery is low.

Carrier LED: to set whether Carrier LED indicates when receiving carrier.

Backlight

To set the backlight parameters. There are three options available: Off, On and Timed. The set time is programmed by your dealer. Available range: 3-60 seconds.

VOX

If enabled, the VOX function allows users to transmit every time the user speaks into the radio directly without pressing the PTT key.

Radio Password

When this option is enable, users have to input the correct Radio Lock Password to operate the radio normally.
Options: Off: Option Disabled.
On: Option Enabled.

Radio Info

With this option, you can view the basic information of your radio, including Serial Number, Radio Alias, Frequency Range, Firmware Ver, Radio Data Ver, Last Programmed Date.
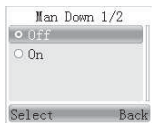
Accessories

To access this item, press the Menu key in idle mode and then select "Accessories".

```
Accessories 1/3
Man Down
GPS
Bluetooth

Select        Back
```

Man Down (Optional)

With this feature, your radio will alarm automatically to summon help from your companion when it is tilts to a certain gradient for a certain time period.

```
Man Down 1/2
● Off
○ On

Select        Back
```

Operation:

1. To enable the feature
   Go to "Main Menu-> Accessories->Man Down" and select "on"; or Press the programmed Man Down key (a high-pitched tone sounds); or turn on the radio if the feature is enabled via the programming software.

2. Your radio will sound a pre-alert tone if it is positioned aslant for a preset time period, and will enter the Emergency mode if you do not place it vertically within such time period. To exit the Emergency mode, place it upright.

3. To disable the feature
   Go to "Main Menu-> Accessories->Man Down" and select "off"; or Press the programmed man down key (a low-pitched tone sounds).

GPS(Optional)

Operation:
1. To enable the feature:
   Go to "Main Menu-> Accessories->GPS On/Off->off or on" and select "on".
2. To disable the feature:
   Go to "Main Menu-> Accessories->GPS On/Off->off or on" and select "off"

```
GPS 1/3
GPS On/Off
Position
Time Zone

Select        Back
```
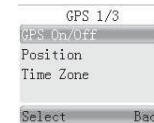
Position

With this option, you can view longitude, latitude, time, date, speed, altitude and SA(satellite) information of your radio.

Time Zone

Users can select a desired time zone from the drop-down list. The radio adjusts its time according to the selected time zone.

GPS Update Time

This option defines the time interval to update the GPS information Range:1 – 60 seconds.

Bluetooth (Optional)

This option decides whether to show the 🅑 option, through which users can enable or disable the 🅑 feature on the radio's interface.

```
Bluetooth 1/2
● Off
○ On

Select        Back
```
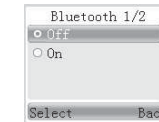
BT is a kind of wireless technology that supports short-distance (generally within 10 meters) communications and information exchange between devices such as mobile phones, PDAs, wireless earpieces, laptops, etc.

This feature must be enabled for working with a wireless earpiece.

Option Description
On: The 🅑 icon will be displayed on the screen.
Off: The 🅑 icon will not be displayed on the screen.

MIC AGC

If enabled via the programming software, your radio will process the audio signals during transmission, providing improved audio for the receiving radio.

Functions and Operations

Home Screen

The feature allows you to quickly return to the previous menu or the home screen.

Operation:

In the editing screen, press the [Option] Key , then the radio exits the screen and return to the previous menu immediately; in other screens, press the [Option] key,then the radio returns to the home screen.

Scan

The feature "Scan" allows you to listen to communication activities on other channels so that you can keep a close track of your team members.

Operation:

1. To enable the feature, you can select "On" from the menu "Scan"; or Press the programmed Scan key in standby mode; or Switch to a channel for which the feature "Auto Scan" is enabled via the programming software.
2. After the feature is enabled, your radio will scan according to the scan list set for the channel on which scanning starts. The scanning process is as follows:
● During scanning, LCD displays icon , and LED flashes orange.

● When activities are detected on a channel, the radio will stay on the channel to receive current activities.
If your radio stays on a non-priority channel, LCD will display icon ; if on Priority Channel 1 or Priority Channel 2, LCD will display icon or icon respectively.

● If you don't want to hear activities on the channel, press the programmed Nuisance Temporary Delete key to remove the channel from the scan list temporarily.

● If you want to continue staying on the channel, press the programmed Monitor or Squelch Off key during scan stays.

To exit the scanning process, you can select "Off" from the menu "Scan", or press the programmed Scan key again.

Talk Around

You can continue to communicate in DM mode by pressing the programmed Talk Around key, when your repeater malfunctions, or when your terminal is out of the repeater's range but within talking range of other terminals.

Operation:

Press the programmed Talk Around key to switch between DM mode and RM mode.

Monitor

To adjust match conditions for signal receiving, you can enable the feature "Monitor".

Operation:

● Press the programmed Monitor key to enable the feature, and the radio displays icon . To disable the feature, press this key again.

Squelch Off

If the feature "Squelch Off" is enabled, your radio's speaker will keep unmuted no matter whether carrier is present.

Operation:

● Press the programmed Squelch Off key to enable the feature. Then the radio displays icon and sounds background noise. To disable the feature, press this key again.

● Press the programmed Squelch Off Momentary key to enable the feature. Then the radio displays icon and sounds background noise. To disable the feature, release this key.

Operation Methods for Digital Emergency

● Emergency Alarm with Voice to Follow Operation:

1. Press the programmed Emergency key to go to the Emergency Revert Channel, and the radio displays the icon .
2. When the icon appears, you can speak into the microphone to make an emergency call.
3. When the icon appears, your radio is receiving. When a call is received, icon appears. If the preset voice cycles expire, you can press the PTT key to make the emergency call again (the radio displays the icon, with LED glowing red).

After the emergency call is transmitted, please release the PTT key to receive (the radio displays icon). When a call is received, icon appears. To exit the Emergency mode, long press the programmed Emergency key.

Note: Your dealer may set the time of voice cycles, duration of each transmission and Tx interval.

Busy Channel Lockout

If enabled via the programming software, this feature can prevent your radio interfering with other transmitting terminals on the same channel. If you hold down the PTT key while the channel is in use, your radio will keep beeping and display text information "Channel Busy",alerting you to transmission prohibition. To stop beeping, please release the PTT key. When the channel is free, you can press and hold down the PTT key to transmit.

Time-out Timer (TOT)

The purpose of TOT is to prevent any user from occupying a channel for an extended period.
If the preset time expires, the radio will automatically terminate transmission and keep beeping.
To stop beeping, please release the **PTT** key. You must wait for a certain time period (preset by your dealer) before you can press and hold down the **PTT** key to transmit again. If the pre-alert function is set by your dealer, your radio will alert you to the TOT expiration in advance.

Note: This feature is null in Emergency mode.

Invalid Channel Indication

If current operating channel is invalid channel, the radio will send continuous "Dududu" as alert tone, which means current channel is unable to transmit or receive.

Squelch

Through setting squelch level to decide how strong the signal is to unmute the speaker.The lower the squelch level the stronger the background noise to ummute the speaker, the larger the talk range and the weaker the Rx anti-interference ability. Setting range is 0~9,selecting "0" causes the squelch open. the higher the squelch level, the harder to open the squelch.

Optional Accessories

Optional accessories are available according to your requirements. All HQT accessories with good quality will ensure you clear communication and outstanding performance.

Antenna(VHF)   Antenna(UHF)   Earphone: ESN01   Earset: EHN01

Earphone (Air Tube):EAN01   Programming Cable: PR03   Remote Speaker: HN01

Care and Maintenance

Question and Answer

Phenomena	Analysis	Solution
The equipment can not be powered on.	The battery may be improperly installed.	Remove the battery and attach it again.
	The battery may run out.	Recharge or replace the battery.
	The battery may suffer from poor contact caused by dirtied or damaged battery contacts.	Clean the battery contacts. If the problem can not be solved, contact your dealer or authorized service center for inspection and repair.
During receiving signals, the voice is weak, discontinuous or totally inactive.	The battery strength may be too low.	Recharge or replace the battery.
	The volume may be set to a low level.	Increase the volume.
	The antenna may get loose or may be improperly installed.	Power off the radio, and re-install the antenna.
	The speaker may be blocked or damaged.	Clean surface of the speaker. If the problem can not be solved, contact your dealer or authorized service center for inspection and repair.
You can not communicate with other members.	The frequency or signaling may be inconsistent with that of other members.	Set your TX/RX frequency and signaling to the same as that of other members.
	The channel type (digital/analog) may be set inconsistently.	Make sure all members are on the same digital/analog channel.
	You may be too far away from the group members.	Move towards other members.
Irrelevant communications or noises are heard on the channel.	You may be interrupted by radios using the same frequency.	Change the frequency, or adjust the squelch level.
	The radio may not be set with any signaling.	Set signaling for all member radios to avoid interference at the same frequency.

Maintenance

Your radio is a product with excellent design and technology, please treat it with care.These recommendations can help you effectively use the radio.

- Keep the radio dry. Rain, moisture or other liquid may cause damage to the radio.
- Do not throw, hit or vibrate the radio. Brutal treatment.
- May damage the inner IC or other elements.
- Do not hold the radio by the antenna or external MIC.
- Please use the original or standard antenna. Unapproved. antenna or modifications of accessories may cause damage to the radio.

Note:
  All recommendations above also refer to your battery, charger and accessories. If any of them works abnormally, please send it to nearest service center.

- Use lint-free cloth to clean the dust or stains on the radio.
- Cover the earphone/microphone pad when not using the radio.
- Use mild detergent (not corrosive chemicals) and cloth to clear the casing, control knob and keyboard after long-time use.

Service and Support

Shenzhen HQT Science & Technology Co., Ltd. provides long-time support for its products, including repair and supply of the radio and its parts.

Service Commitment

1. HQT two-way radio body has an 18-month guarantee; accessories (battery, charge adapter, charger and antenna)6 months; earphone 3 months.
2. Replacement is available subject to the presentation of fully-filled warranty card or original purchasing invoice in case that the radio cannot work normally due to non-personal cause within the guarantee.
3. Replacement and repair is available subject to the presentation of fully-filled warranty card or original purchasing invoice in case that the radio or accessories cannot work normally within 30 days from the purchase date.
4. The repaired part has its own guaranty or 90-day guaranty from the repair date. The longer one is valid.

Warranty

1. The guaranty is only valid under normal use. And guaranty is unavailable under such conditions dissembling or modifications, damages caused by outside force, water let-in, fire burning, and usage of unapproved accessories or antenna, not according to unapproved accessories or antenna, not according to the instruction manual and so on.
2. The guaranty is in effect from the purchase date on the invoice.
3. Free repair is unavailable if the HQT mark or Serial Number mark is torn off.
4. Only the fully-filled warranty card and original purchasing invoice with HQT's seal or dealer's seal affixed is valid for identifying the guarantee.

Cautions

1. Read the user manual before use.
2. Do not use the radio with damaged antenna. Use the radio only with standard antenna.
3. Turn off the radio in potential dangerous environment.
4. Avoid the contact between the battery and the metal oily or corrosive objects.
5. Do not dip the radio or battery into water or throw them in fire.
6. Use the radio only with standard battery, adapter charger and earphone.

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Terms of Warranty

1. HQT two-way radio body has an 18-month guarantee; accessories (battery, adapter, charger and antenna) 6 months; earphone 3 months.
2. Only the fully-filled warranty card or original purchasing invoice with HQT 's seal or dealer's seal affixed is valid for identifying the guarantee. (The invoice should give clear indication of accessories, radio, serial-numver, purchasing date, purchasing price and other items.)
3. If the radio body went wrong within the guarantee, it should be ensured to work normally over 30 days after the repair.
4. Replacement and repair is available subject to the presentation of fully-filled warranty card or original purchasing invoice in case that the radio cannot work normally as the instruction says within 30 days from the purchase date. (Not that there must not be visible abrasion on radio body and accessories.)
5. Replacement of the same model is available subject to the presentation of 3-time repair receipt in case that the radio body still work abnormally after 3-time-or-above repairs within the guarantee.
6. Repair of accessories (battery, adapter, charger and antenna) is available to the original purchasing invoice.
7. The cost of materials and repair are covered during the time of guarantee.
8. Guarantee is unavailable in case that the HQT mark or the serial-number mark is torn off.
9. Guarantee is unavailable in cases below:
   1) Beyond the warranty period;
   2) Defects or damages under abnormal use;
   3) Defects or damages because of misoperation, accident, water penetration and carelessness;
   4) Defects or damages because of incorrect testing, operation, repair, installation, reconfiguration or adjustment;
   5) Defects or damages to antenna because of non-material or nin-processing problems;
   6) Defects or damages because of unauthorized repair and disassembling;
   7) Product that the serial-number mark is torn off or unable to identify;
   8) Product with unclear purchasing date;
   9) Battery under such conditions;
      a. Any damages or unsealing to the battery pack;
      b. Defects or damages to battery because of charging with improper equipment use beyond regulated maintain condition;
   10) Abrasion under normal use.

Note: The warranty ordinance, with is in accord wit Chinese warranty regulations, will be modified properl according to marking. If modified, the warranty ordinanc is subject to our latest updating notice issued by HQT service center.

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Appendix : Frequency Chart (Used to record the frequency.)

Model:
Serial number:

Channel	Tx Frequency	Tx CTCSS/CDCSS	Rx Frequency	Rx CTCSS/CDCSS	Optional Signaling
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

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