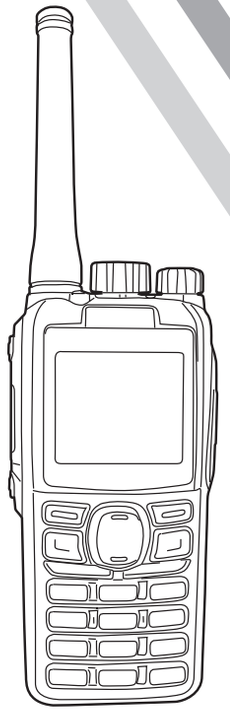
User manual



DMR
DIGITAL MOBILE RADIO ASSOCIATION

NOTICES TO THE USER

● Government law prohibits the operation of unlicensed radio transmitters within the territories under government control.

● Illegal operation is punished by fine or imprisonment or both

SAFTY:

● It' important that the operation is aware of and understand the general hazards to the operation of any transceiver.

● We can't guarantee the safety and operability of transceiver that using other accessories not sold by us.

▲ Disassembled and maintained by qualified technicians only.

WARNING:

Turn off the transceiver in the following locations:

● In explosive atmospheres. (Inflammable gas, dust particles, metallic powders, grain powers, etc.).

▲ While taking on fuel or parking at gasoline service stations.

PRECAUTIONS

Observe the following precautions to prevent fire, personal inquiry and transceiver damage.

♦ Do not modify or attempt to adjust this transceiver for any reason by non-technicians.

♦ Do not expose the transceiver of direct sunlight for long time, nor place it close to heating appliances.

♦ Do not place the transceiver in a dusty, humid or wet area, nor place on unstable surface.

♦ If an abnormal odor or smoke is detected coming from the transceiver, switch OFF the

transceiver immediately and remove the battery pack from the transceiver. And contact your dealer in time.

GETTING STARTED：

Before you use this user manual, please review the following information carefully.

♦ How to use this user manual

♦ What information that your dealer/ System Administrator can inform you

How to use this user the manual

This manual introduces basic operation compatible DMR/Analog handheld transceiver. However, your dealer or system administrator may already preset features of this radio based on your working type and requirement. Please consult with your dealer or system administrator about the details.

For your convenience and easy familiar with this radio, the icons below are used for distinguishing operable and available features for analog mode and digital mode.

This icon indicates the function is only available in Analog mode

This icon indicates the function is only available in Digital mode

There is no special icon shown for features that workable in both Analog and Digital mode.

What information that your Dealer/ System Administrator can inform you.

You can check with your dealer or system administrator for the following:

♦ Is your radio with default settings or any preset channels that the distributor usually set?

♦ Which buttons are have been designed to operate other features?

♦ What optional accessories can be used with your radio?

PREPARATION FOR OPERATING THE RADIO

Please assemble your radio by following steps:

1) The battery pack is not charged at the factory, charge it firstly before use.

2) Check the charger indicator, when charging is completed, the indicator lights green.

3) Install the battery to the radio

4) Install the antenna

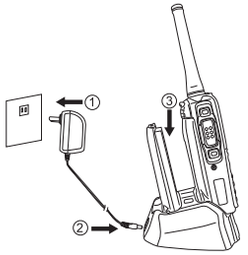
5) Install the belt clip

6) Switch the radio power ON and adjust the volume.

Charging the battery pack

Please use charger, adaptor and battery pack supplied only by us. The charger can indicate the charging status.

Charging diagram:



Charging steps:

1. Plug the AC adaptor into an AC outlet, like arrow (1)
2. Plug the AC adapter cable into the adapter jack located on the back of the charger, like arrow(2)
3. Place the battery pack or the radio with a battery pack into the charger, like arrow (3)
4. The indicator lights red and charging starts. When charging is completed, the indicator lights green. Then remove the battery pack or the radio from the charger.

Note: For optimum battery life and performance, charge the battery pack or the radio (with a battery pack) at least 12 hours before initial use.

Charging indicators.

LED indicator	Current state	Description
Flash red and then OFF	Electrify but on standby	No-load
Light Red	Charging	Insert battery
Light Green	Fully charged	Charging completed
Flash Red	Failure	For maintenances

Note:

1. It is normal if the charger LED flashes red for a short time when the charger is just connected.
2. If a second battery is replaced to charge, please wait until the current battery is fully charged (lights green).If the charger indicator flashes red during charging:

(1) Please check if the battery pack is well connected with the charger.

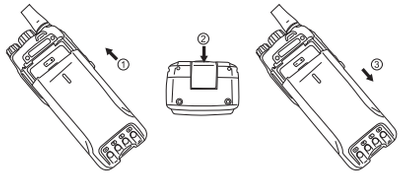
(2) The battery pack is damaged or failed

(3) The surrounding temperature is too high or too low.

Note: Please read the {Battery Safety Information} before use the charger.

Installing the battery pack

1. Align the battery pack to the battery slot like diagram 1
2. Sliding the battery pack to the battery slot till the battery lock to the right place like diagram 2



To remove the battery, turn off the radio firstly. Then slide the battery latch upwards to unlock the battery, like diagram 3.

Installing the antenna

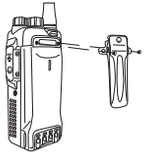
Turn off the radio, holding the base of antenna, and then screw it into the connector on the top of transceiver and turn clockwise until secure.



To remove the antenna, turn off the radio firstly, and rotate it anticlockwise.

Installing the belt clip

Align the belt clip to the two screw holes on the back of the radio, and then tighten the screws by using special screw driver.



To remove the belt clip, unscrew the screws.

Turning the radio ON

Turn the On / Off / Volume Control Knob clockwise until a click sound is heard. Then you hear a confirmation sound and a welcome image is shown on the radio display.

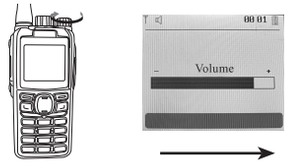


Note: There is no sound if the radio prompt tones or alert tone is disabled. If the radio is not power on, please check the battery firstly to make sure it is installed properly. If the radio is still not power on, please contact your dealer.

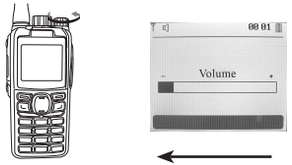
To turn off the radio, rotate anticlockwise the volume control, till a click sound is heard. The display will show power off message or a prompt tone will be heard.

Adjusting the volume

Rotate clockwise the volume control to increase the volume after power on. The Volume Increasing Progress Bar will appear on the display simultaneously.



Rotate anticlockwise the volume control to decrease the volume. The Volume Increasing Progress Bar will appear on the display simultaneously.



CONTENT (I)

To know more about the radio controls setting, please review the following sub-directory firstly:

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Programmable keys for setting radio features....9

Programming keys for other settings and utility functions....10

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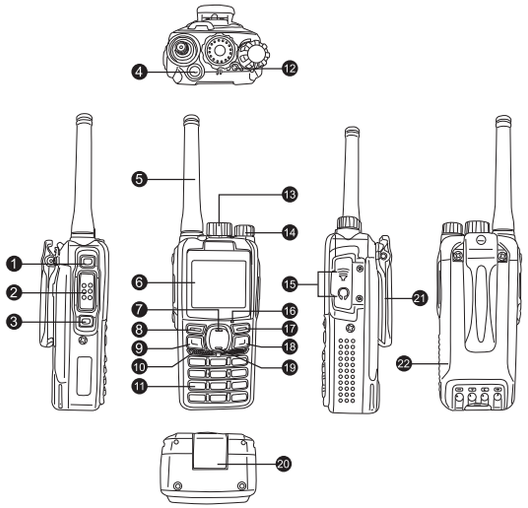
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RADIO CONTROLS INTRODUCTION

RADIO CONTROLS



1、FP1 (side key 1)
2、PTT button
3、FP2 (Side key 2)
4、FP3 (Top key 3)
5、Antenna
6、LCD Display
7、Up key
8、OK/Menu key
9、P1 (Programmable key)
10、Speaker
11、Numeric Keypad
12、LED indicator
13、Channel selector
14、Volume control/ Power switch
15、MIC /SP connector
16、MIC
17、Back key (function multiplex key)
18、P2 (Programmable key)
19、Down key
20、Battery latch
21、Belt clip
22、Battery pack

Note: Buttons like [FP? / P?] are programmable keys.

RADIO CONTROLS INTRODUCTION

PROGRAMMABLE KEYS

You dealers can pre-set the programmable keys based on the length of a button press.
Pre-setting can be shortcuts of radio functions.
♦ Short press——Pressing and Releasing quickly (programmable range is from 50ms-750ms)
♦ Long press----pressing and holding for programmed length(programmable range is from 500ms-5000ms)
Note: The programmable duration for a key press can be used for all radio functions / utility functions or setting, except Emergency Call feature.

RADIOS FUNCTIONS CAN BE PRESET BY PROGRAMMABLE KEYS

1. Radio revive — it is allowed to revive a target radio remotely
2. Radio inspection -- determine whether a system radio is activated or not
3. Radio kill -- it is allowed to kill a target radio
4. Remote monitor -- switch on the microphone of a target radio but without any indicators
5. Monitor -- Always monitor the selected channel's communication till this function being disabled.
6. Encryption on/off — turn on /off encryption feature
7. Emergency mode on -- start an emergency alarm or call
8. Emergency mode off -- cancel an emergency alarm or call
9. Zone switch -- change the current working zone (allowed to select from a zone list)
10. Scan on/off -- turn on /off scanning feature
11. Contacts list — direct access to the Contacts list

12. Voice Operating Transmission (VOX) on /off -- switch between VOX feature ON and Off
13. Man down alarm on /off -- switch between man down alarm automatically feature ON and OFF

OTHER SETTINGS AND UTILITY FUNCTIONS CAN BE PRE-SET BY PROGRAMMABLE KEYS

1. Backlight on /off -- turn display backlight On or Off
2. Keypad lock – switch keypad between locked and unlocked
3. Squelch level adjustment -- select the proper squelch level for receiving.
4. High/Low power selection -- switch transmit power level between high and low

MENU

You can access to the radio menu through the following way:

Press [MENU] key, then press [UP] or [DOWN] key to access the menu features,



♦ Press [MENU] key to select the needed feature or enter into the needed submenu.

♦ Press [BACK] key to return to the previous Menu or screen.

Note:

♦ When keypad lock is on, the radio will automatically exit the menu if the radio is inactivity after a period of time and returns to Home Screen.

When keypad lock is off, the radio will not automatically exit the menu and returns to home screen.

♦ If you want to exit the menu and return to home screen rapidly, please press [▭] key.

PTT BUTTON

There are two basic functions of PTT button: Transmitting and Receiving.



♦ Press PTT button to transmit the signals to other radios

♦ Release PTT button to receive signals from other radios

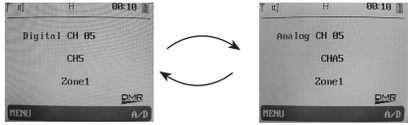
♦ If the Individual /Group Call Prompt Tone is activated, the PTT Side tone will be heard when you press or release PTT button.

♦ If the Individual /Group Call Prompt Tone is activated, you will hear the PTT Side tone when your radio is receiving or communication is finished.

Note: You can use programming software to turn off all radio alert tones and prompt tones or just disabled partial radio alert tones and prompt tone.

SWITCHING BETWEEN DIGITAL AND ANALOG MODE

For your convenience, each channel can be programmed as either analog channel or digital channel.



♦ In standby mode, press [Digital/Analog] button for at least 3 seconds, the current channel will be switched between Analog and Digital mode.

♦ If the radio is switched from Digital to Analog, some features maybe unavailable, where digital feature (for example SMS) icons will be hidden in the menu list.

♦ There is also shared feature list for functions being available both in Digital and Analog mode.

Note: During scanning, the radio also can switches between Analog and Digital mode, but scanning mode will be disabled.

RADIO STATUS INDICATORS

The below icons appears on LCD display; also appears in Contact list indicating ID type.

♦ Individual call:

Indicates an individual call is starting. In contact list, it indicates alias, name, ID No, encode etc.

♦ Group call:

Indicates a group call is starting. In contact list, it indicates alias, name, ID No, encode etc.

♦ General call:

Indicates a general call is starting. In contact list, it indicates alias, name, ID No, encode etc.

ICONS ON LCD DISPLAY

The liquid crystal display (LCD) of the radio shows radio status, character input and Menu items.

The following icons are appears on LCD display.

♦ Receiving signals

Indicates no signal is received

The Number of signal strength bars indicates the signal strength of your radio. Five bars indicate the strongest signal.. This icon is only appeared in receiving.

♦ Monitor

Indicates it is monitoring the selected channel

♦ Power level

"L" means the radio is set at low power

"H" means the radio is set at high power

♦ Ringing tones are disabled.

Tones are turned off.

♦ VOX

Appears when VOX is activated.

♦ GPS available

This icon appears when GPS is activated for locating

There is no icon appearing, if GPS is not available or out of range or not receiving data from satellite when GPS is enabled.

♦ Scan

Indicates Scanning is started

♦ Priority scan

"P" in scanning list, channels with "P"are set as priority scan channels

♦ Unread SMS

indicates there is unread SMS in inbox

Indicates the inbox is full

♦ Emergency alarm

Indicates the radio is in emergency mode

♦ Safety

Indicates communication encryption is activated

♦ Battery pack

the number of bars indicates the

RADIO CONTROLS INTRODUCTION

remaining battery level.

♦CTCSS

"QT"means CTCSS is activated

✦In standby mode, "QT" appearing means CTCSS is available in receiving.

✦In transmitting, "QT"appearing means CTCSS is available in transmitting

♦DCS

"DQT"means DCS is activated

✦In standby mode, "DQT"appearing means DCS is available in receiving.

✦In transmitting, "DQT"appearing means DCS is available in transmitting

LED INDICATOR

The LED Indicator indicates the working status of the radio.



◊Lighting Red -- radio is transmitting

◊Lighting Green -- radio is receiving.

◊Flashing red light -- the battery is in low power.

Note:

① In analog mode, when the LED indicator flashes or lights green, it indicates the radio detects the active signal over the air.

② If the busy channel lockout function is turned on, the radio will refuse to transmit signal when you press the PTT key.

CONTENT (II)

After you understand how your radio is configured, you are able to use it more deftly. Use this content to get familiar with the basic call feature:

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CONTENT (II)

After you understand how your radio is configured, you are able to use it more deftly. Use this content to get familiar with the basic call feature:

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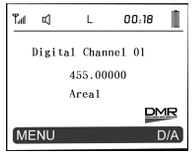
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INITIATING AND RECEIVING CALLS

HOME SCREEN

Knowing some related information of your radio through home screen.



① The working status icon, time, remaining battery capacity, and other indexes.
② The first line of the home screen indicates the channel mode (analog or digital) and the channel number.
③ The second line indicates either the name, frequency, or the serial number of the current channel, depending on the display mode the user choose.
(The channel name and serial number can be pre-edited with a maximum of 10 characters by user via programming software).
④ The third line indicates the zone to which the current channel belongs. The user can pre-edit the zone name and number and other information via programming software, with a maximum of 10 characters.

CHOOSING A ZONE

A zone is a group of channels. Your radio supports up to 16 zones, with a maximum of 16 digital channels and 16 analog channels per zone.
Choose a working zone by following steps:
Procedures/ Steps:
1. Press the preset "Zone" key to choose a zone for the radio.
2. Follow the steps below.
① When the radio is in standby mode, press the

【Menu】key to access the main menu.
② Use【▲/▼】key to choose【Setting】, and press **"OK"** to access the sub-menu.
③ Use【▲/▼】key to choose **"Zone"** in sub-menu, and press **"OK"** to access zone list.
④ Use【▲/▼】key to choose a desired zone in zone list and press **"OK"** to confirm. Now you can see "Zone Selected" on the display. Then the radio returns to the home screen.

CHOOSING A CHANNEL, USER ID, OR GROUP ID

After choosing the desired zone (provided that there is multiple zones preset in the radio), choose a working channel with the channel switch knob.



Note: When choosing a channel, you can see the information of current channel is displayed on the screen, such as channel name, channel number, frequency, ID, etc. (it depends on the display mode the user choose).

RECEIVING AND ANSWERING TO A RADIO CALL

In the current channel, you can receive or answer the call from user(s) with the same user ID or group ID.



The LED indicator lights up solid red while the radio is transmitting, and lights up solid green when the radio is receiving.

NOTE: To decode when a radio is transmitting or receiving with encryption ON, your radio must have the same encryption key, OR the same Key Value and Key ID (preset by your dealer), as the transmitting radio (the radio you are receiving the call from).

Please refer to **Encryption** on Page 28 for more detailed information.

Receiving and Answering to a Group Call

To receive a group call, your radio must be programmed as part of that group.
Procedures:
When receiving a group call,
① If the "Rx Begin Tone" feature for group call is enabled, you will hear a short tone when the transmitting radio press the "PTT" Key, means your radio is in receiving.
② The LED indicator lights up solid green.
③ The RSSI signal icon appears in the top left corner of the display. The first line shows the caller alias, number or ID (preset), and the second line shows the icon of "Group Call" (only appears in digital mode).
④ To respond, hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
⑤ If the "Rx Ended Tone" feature for group call enabled, you will hear a short tone when the transmitting radio release the "PTT" Key, which means your radio is free to respond, At this moment, you can press the "PTT" key and speak clearly into the microphone to answer the call.
⑥ If the "Tx Begin Tone" feature for group call is enabled , you will hear a short tone when you press the "PTT" key, then you can speak clearly into the microphone.

⑦ If the "Tx Ended Tone" feature for group call is enabled, you will hear a short tone when you release the "PTT" key, means you are available for receiving.

Please refer to **initiating a Group Call** on Page 22 for more detailed information.

Receiving and Answering to a Private Call

In order to receive a private call, the radio must be programmed as that call.

A private call refers to a call from an individual radio to another individual radio.

When receiving a private call:

① If the "Rx Begin Tone" feature for private call is enabled, you will hear a short tone when the transmitting radio presses the "PTT" Key, means the radio in receiving.

② The LED indicator light up solid green.

③ The RSSI signal icon appears in the top left corner of the display. The first line shows the caller alias, number or ID (preset), and the second line shows the icon of "Private Call" (only appears in digital mode).

④ To respond, hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.

⑤ If the "Rx Ended Tone" feature for private call is enabled, you will hear a short tone when the transmitting radio release the "PTT" Key, means the channel is free to response. At this moment, you can press the "PTT" Key and speak clearly into the microphone to answer the call.

⑥ If the "Tx Begin Tone" feature for private call is enabled , you will hear a short tone when you press the "PTT" Key, then you can speak clearly into the microphone.

⑦ If the "Tx Ended Tone" eature for private call

is enabled, you will hear a short tone when you release the "PTT" Key, means you are available for receiving.

Please refer to ***initiating a Private Call*** on Page 24 for more detailed information.

Receiving and Answering a General Call

A general call is a call from an individual radio to all radios in the same channel.

Procedures:

When receiving a general call:

1. If the "Rx Begin Tone" feature for general call is enabled, you will hear a short tone when the transmitting radio press the "PTT" Key, means the radio is in receiving.
2. The LED indicator lights up solid green.
3. The RSSI Signal icon appears in the top left corner of the display. The first line shows the caller alias, number or ID (preset), and the second line shows the icon of "General Call"(Only appears in digital mode).
4. To respond, hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth. .
5. If the "Rx Ended Tone" feature for general call is enabled, you will hear a short tone when the transmitting radio release the "PTT" Key, means the channel is free to response. At this moment, you can press the "PTT" Key and speak clearly into the microphone to respond the call.
6. If the "Tx Begin Tone" feature for general call is enabled, you will hear a short tone when you press the "PTT" Key, then you can speak clearly into the microphone.
7. If the "Tx Ended Tone" feature for general call is enabled, you will hear a short tone when you

release the "PTT" Key, means you are available for receiving.

Please refer to ***Initiating a General Call*** on Page 25 for more detailed information.

Note:

1. If you switch to another channel while receiving the General Call, the radio will stop receiving that general call.
2. During a General Call, you are not able to use any pre-programmed key until the call ends.

Initiating **a Radio Call**

You can choose a channel, user ID, or group alias by following instructions: .

1. Use the Channel Selector Knob.
2. Choose from the Contacts list.
3. Manual Dial the user ID in the "Contacts" this is only available in private call.

Note: Your radio can only transmit voice with encryption only when the "encryption"feature is turned on. Your target radio must have the same encryption key OR the same Key Value and Key ID with your radio to decode the transmission.

Using the Channel Switch Knob to Initiate a Call

Initiating a Group Call

To initiate a group call, your radio must be programmed as part of that group.

Procedures

1. Rotate the channel switch knob to choose the channel with the preset group alias or ID.
2. Hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth. .
3. Press the "PTT" key to initiate a call. The LED indicator lights up solid red. The group call icon will appear on the display, also the group alias

OR ID will be shown on the display.

4. Wait for the "Tx Begin Tone" to finish (if enabled), and speak clearly into the microphone.
5. Release the【PTT】key and listen to the response . When the target radio answers, the LED indicator lights up solid green. Then you see the display appears the group call icon, the group alias or ID, and transmitting radio alias or ID .
6. If the "Tx Ended Tone" is enabled, you will hear a short tone when the transmitting radio releases the "PTT" key, means the channel is free for you to answer. At this moment,you can press the "PTT" key and speak clearly into the microphone to answer the call.

Initiate a Group Call, Private Call or General Call from the "Contact List"

Initiate a call with the Pre-Programmed Key:

1. Press the pre-programmed key to accesss the contact list.
2. Use【▲/▼】key to choose a contact from the "Contact List" Then press the【PTT】key to initiate a call.

Initiate a call from menu:

1. Press the "Menu"key to enter the main menu.
2. Use【▲/▼】key to choose the "Contact" and press "OK" to enter the sub-menu.
3. Use【▲/▼】key to choose the "Contact List" and press "OK" to access the list.
4. Use【▲/▼】key to choose a contact from the list ,and press the【PTT】key to initiate the call.
5. The radio returns to Home Screen when release the PTT key.

Initiating a Private Call

When your radio is able to receive or answer to a private call from an authorized individual radio, you need to pre-programmed your radio to initiate a private call. If the function is not enabled, you can try to these ways: dialing from the "Contact List" or call logs, manual dialing, rotating the channel switch knob, or using the numeric keypad to add a contact, and then you can initiate a private call.

Procedure:

1. Rotate the channel switch knob to select a channel with group alias or ID.
2. Hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
3. Press the "PTT" key to initiate a call. The LED indicator lights up solid red. The private call icon will appear on the display, also the caller alias or ID will be shown on the display.
4. Wait for the "Tx Begin Tone" to finish (if enabled), and speak clearly into the microphone.
5. Release the "PTT" key and listen to the response. When the target radio answers, the LED indicator lights up solid green. Then you see the display appears the private call icon, the caller alias or ID etc.
6. If the "Rx End Tone" is enabled, you will hear a short tone when the transmitting radio is release the "PTT" key, means the channel is free for you to answer. At this moment,you can press the "PTT" key and speak clearly into the microphone to answer the call.

"Manual dial" to initiate a private call. (available in private call ONLY.)

Procedure:

1. Press 【Menu】key.
2. Use【▲/▼】key to navigate to 【contacts】, and press 【OK】to enter sub menu.
3. Use【▲/▼】key to navigate to 【Manual Dial】, and press 【OK】 to access manual dial interface,
4. Input ID numbers directly, and then press PTT to initiate the call.
5. The radio returns to Home Screen when release the PTT key.

General call

This feature allows you to transmit a call to all radios on the same channel. your radios must be programmed to allow to use this feature.

Procedure:

1. Rotate channel switch knob with the group alias or ID.
2. Hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth
3. Press the "PTT" key to initiate a call. The LED indicator lights up solid red. The general call icon will appear on the display, also the group alias or ID will be shown on the display.

NOTE: Users on the channel cannot answer to a general call.

Monitor Momentary

Use the monitor feature to listen to weak signal.

Procedure:

1. Press and hold the preset 【monitor】 key and listen to activity.
2. According to how your radio is programmed, you will hear radio activity or complete silence.
3. When you hear "white noise" (the channel is free), press PTT to talk and release PTT to listen.

Permanent Monitor

Use permanent monitor feature to continuously monitor a channel.

Procedure:

1. Press the preset 【permanent monitor】 key and listen to activity.
2. According to how your radio is programmed, you will hear radio activity or complete silence.
3. When you hear "white noise"(the channel is free), press PTT to talk and release PTT to listen.

Advanced Functions (pre-programmed by programming software)

DMR ADVANCED FUNCTIONS (PRE-PROGRAMMED BY PROGRAMMING SOFTWARE)

Calling Duration

Users can preprogram the calling duration of a radio by using the programming software. The calling duration can be from 30ms to 300ms.

Remote Monitor Duration

When use the remote monitor function to switch on the microphone of a target radio, your radio will show all audio and all audible activity surroundings from the target radio (the radio that being monitored) for a programmed remote monitor duration. (No audio or visible indication is shown to the target radio.)

Note: The target radio must be programmed to enable "remote monitor decoding" to allow to use this function.

Remote Monitor Decoding

1. When the status of "Remote Monitor Decoding" of your radio is "ON" it means your radio is allowing any other radio to switch on the microphone of yours.
2. When the status of "Remote Monitor Decoding" of your radio is "OFF" it means any other radio is NOT allowed to switch on the microphone of yours.

Radio Killing

1. When the status of "Radio Killing" of your radio is "ON" it means you can kill any radios in the system. For example, you may want to kill a stolen radio, to prevent the stealer using it, and re-activate that radio, when it is retrieved,
2. When the status of "Radio Killing" is "OFF" you cannot kill any other radio in the system.

Note: "Radio Killing" is limited to radios with these functions. Consult with your dealer or system administrator for more information.

Radio Detecting

1. When the status of "Radio Detecting" of your radio is "ON" it permits you to check if any other radio is active in the system with no bother to the use of that radio. No audio or visible indication is given to the target radio.
2. When the status of "Radio Detecting" function of your radio is "OFF" it means you will not be able to use this function.

Tips: This function is only apply to user aliases or IDs.

Radio Revive

1. When the status of "Radio Revive"of your radio is "ON" it means you can kill any radios

in the system. For example, you may want to kill a stolen radio, to prevent the stealer using it, and re-activate that radio, when it is retrieved,
2. When the status of Radio Revive is "OFF" you cannot re-activate any radios in the system.
Note: "Radio Revive" is limited to radios with these functions. Consult with your dealer or system administrator for more information.

Call Alert

1. When the status of "Call Alert" of your radio is "ON" it means the Private Call Ringing tone is enabled.
2. When the status of "Call Alert" of your radio is "OFF" it means the Private Call Ringing tone is disabled.

Note: You can turn on or off the ringtone of a received private call.

Encryption

1. If you enabled "Encryption" function of your radio, it helps to prevent the unauthorized users to eavesdrop on a channel. The portions of transmission signal and the user identification are not encrypted.
2. Your radio must enable "Encryption" function on the channel to send an encrypted transmission, although this is not an essential requirement to receive a transmission. While enabled "Encryption" function, your radio is still able to receive clear transmission that is being decrypted.:

Your radio supports three types of encryption:

- ♦ Basic Encryption
- ♦ Strong Encryption
- ♦ Enhanced Encryption

1. Only ONE of the encryption types can be preset to the radio.
2. To decrypt a encryption-enable call or data transmission, your radio must be preset to have the same encryption type, or the same Key Value and Key ID.
3. If you received a call with different encryption type or a different Key Value and Key ID, you will either hear a chaotic transmission or nothing at all.

Note: Some radio models may offer different encryption way or not offer this encryption function, and it may affect normal inter-communication. Please consult with your dealer or system administration for more information.

CONTENT (III)

After you understand how to initiate and receive a call from your radio, you are able to use it more deftly.

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CONTENT (III)

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TEXT MESSAGING

Your radio can receive text message from an individual radio. The maximum length of characters for a text message is 138.
Any text message in the writing/ editing screen will be saved to "Outbox" automatically.
Note: Press [ ] key at any time to return to the Home screen.

❒ Receiving a Text Message
When your radio receives a text message, the message icon will shows at the top of the screen.
Note: The radio exits the "New Message Received"alert screen and initiate a private or group call if the PTT key is pressed when the radio is showing the alert screen.

❒ Reading a Text Message
Procedure:

1. When the words"New message Received" appears on the display, press 【OK】 key to read the text message.
2. New text message will be shown on the screen.
3. Press 【Back】 key to return to the Inbox or press 【OK】 key to Reply, Forward, Edit or Delete the text message.
4. Press 【Back】Key to view the message.

❒ Getting familiar with the function submenu of text messaging
Please read the following information about submenu in text message carefully.

❒ Send a Text Message
Your radio will back to Contacts screen after a text message is sent.

❒ Insert Quick Notes
Navigate to quick notes, and press 【OK】to

view quick notes list, select one from the list and press 【OK】to send. The screen will return to Contacts after the message is sent.

❒ Exit Editer
Press 【Exit Editer】to return to the previous menu.

❒ Search Contacts
You will access to the contact list when press 【Search Contacts】, and choose a contact from the list, then press 【OK】key to send the message. The screen will return to Contacts after the message is sent.

❒ Write Number
It allows you to type ID number manually. When the cursor blinks in the screen, input the ID number and press 【OK】 to send message. The screen will return to editing screen after the message is sent.

❒ Save
It allows you to save edited messages or amended messages, the words "Message is saved" will appears on the screen once the message is saved. The screen will return to the previous menu after the message has been saved.
Note: Saved messages are in the outbox.

❒ Switch Input Method
Keys you may use, when editing a message:
Long Press [#] to switch input mode.
Long Press [*] to input a "Space"
Long Press [0] to input ??.
The current input method will be shown at the top of the display.
"AB" it means you are able to type capital letters.
"PY" it means you are able to type Chinese with Pinyin method.

"12" it means you are able to type numbers from 0 to 9.
"ab" it means you are able to input lowercase letters.

Managing Received Text Messages

◆ **Inbox**

Use the inbox to manage text messages. The inbox can store up to 30 messages. Your radio provides the following options for text messages:

- Reply
- Forward
- Edit
- Delete

Note: Sort order of text messages in Inbox are in accordance with the most recently received. Press the Red Key at anytime to back to the Home Screen.

Reading Text Message from the Inbox

Operation:
1. Press【Menu】Key to access the menu.
2. Press【▲/▼】key to select "message", and press [OK] key.
3. Press【▲/▼】key to select "Inbox" and press [OK] key.
4. Press【▲/▼】key to read the messages.
5. Press [OK] key to select current message, and press【OK】again to Reply, Forward, Edit, or Delete that message, or press【Back】key to return to the previous menu.

Tips: Unread message are indicated with an envelope icon.

Replying to a Text Message from the Inbox

Procedure:
1. Press 【Menu】 Key to access the menu.
2. Press【▲/▼】key to select "Message" and press【OK】key.
3. Press【▲/▼】key to select "*Inbox*" and press 【OK】 key.
4. Press【▲/▼】key to read the message.
5. Press [OK] key to current message
6. Press 【OK】 Key again to access the submenu.
7. Press【▲/▼】to select "Reply" and press 【OK】key
8. A flashes cursor appears, Use the keypay to write the message.
9. Press【OK】 key once finished writing.
10. Press【▲/▼】key to Send message or Insert Quick Notes or Exit Editer.

Note: When the message is sending, the display will show "MSG sending" If the message is sent successfully, the display will appear "MSG sent" If the message is failed to send, the display will apeears "MSG send failure".

Forwarding a Text Message from the Inbox

Procedure:
1. Press【Menu】Key to access the menu.
2. Press【▲/▼】key to select "Message" and press 【OK】key.
3. Press【▲/▼】key to select "Inbox" and press 【OK】 key.
4. Press【▲/▼】key to read the message..
5. Press【OK】key to current message
6. Press 【OK】 Key again to access the submenu.
7. Press【▲/▼】to select "Forward" and press 【OK】key

Press【▲/▼】to chose "Search" or "Write Numbers" and press【OK】Key.

Editing a Text Message from the Inbox

Procedure:

1. Press 【Menu】 Key to access the menu.
2. Press【▲/▼】key to select "Message" and press【OK】key.
3. Press【▲/▼】key to select "Inbox" and press 【OK】key.
4. Press【▲/▼】key to read the message.
5. Press【OK】key to current message.
6. Press 【OK】 Key again to access the submenu.
7. Press【▲/▼】to select "Edit" and press 【OK】key
8. Text message appears with a flashing cursor on the display. Use【▲/▼】to move cursor.
9. Use keypad to editing message or press 【Delete】to delete unwanted characters.
10. Press 【OK】 Key again to access the submenu.
11. Press 【OK】and scroll down to select "Search Contacts", "Write Number", "Insert Quick Notes" "Save" or "Exit Editer" and press 【OK】 Key.

Deleting a Text Message from the Inbox

Procedure:

1. Press 【Menu】 Key to access the menu.
2. Press【▲/▼】key to select "Message" and press [OK] key.
3. Press【▲/▼】key to select "Inbox" and press 【OK】key.
4. Press【▲/▼】key to read the message.
5. Press ok key to show current message.
6. Press 【OK】 Key again to access the submenu.

7. Press【▲/▼】to select "Delete" and press 【OK】key
8. The display shows the words "are you sure?" press 【OK】to delete or press 【Cancel】 to cancel.
9. The display will return to previous menu.

Note: Text messages cannot be restored after deletion.

Creating and Sending Message

◆Create a Message

You can create any new message.

Procedure:

① Press【MENU】key to access the menu.
② Press【▲/▼】to select "Write Megs" and press 【OK】key.
③ When a blinking cursor appears, use the keypad to type message.
④ Press【▲/▼】to move one space to the left or right.
⑤ Press 【Delete】 key to delete the unwanted characters.
⑥ Press 【OK】key again to access sub menu.
⑦ Press【▲/▼】key to scroll down to select "Contacts" "Manual Dial", "Insert Quick Notes" "Save"or "Exit", and press 【OK】key.
【Please read "Getting familiar with the function sub menu of Text Messaging" for more information.】

Reading a Message from the Outbox

◆ **Outbox**

You can read or edit any saved message in the Outbox.

Procedure:

① Press【MENU】key to access the menu.
② Press【▲/▼】key to select Outbox and press 【OK】key.
③ Press【▲/▼】to choose a message.
④ Press【OK】to read the current message.
⑤ Text message appears with a blinking cursor on the display. Use keypad to input texts.
⑥ Press【▲/▼】to move one space to the left or right.
⑦ Press【Delete】to delete any unwanted characters.
⑧ Press【OK】key again to access the sub menu.
⑨ Press【▲/▼】key to scroll down to select "Contacts", "Manual Dial" "Insert Quick Notes" "Save"or "Exit" and press 【OK】key.
【Please read "Getting familiar with the function sub menu of Text Messaging" for more information.】

❐ Creating or Sending Quick Notes

◆ Quick Notes

Your radio supports up to 50 Quick Noted. While Quick Notes are preset, you can view, edit, delete or send any predefined Quick Notes. You can also add new Quick Notes.

Procedure:

① Press 【MENU】key to access the menu.
② Press【▲/▼】to select "Message" and press 【OK】key.
③ Press【▲/▼】to select "Quick Notes" and press 【OK】key.
④ Press【▲/▼】key to read the current message.
⑤ Press【OK】key again to access the sub menu.
⑥ Press【▲/▼】key to scroll down to select one of the following options under the sub menu, and press 【OK】key.

❐ Display content

Procedure:

The display will show the contents of the selected Quick Notes.

Press 【Back】key to return to the previous menu.

❐ Add Quick Notes

Procedure:

Enter the editing Quick Notes. When a blinking cursor appears, use the keypad to type message.

Press 【OK】key again to access the sub menu.

Press【▲/▼】key to to scroll down to select one of the following options under the sub menu, and press 【OK】key.

- Save: save the edited notes.
- Exit: return to the previous menu.

❐ Edit Quick Notes

Procedure:

The display will show the contents of the selected Quick Note.

Press【▲/▼】key to move one space to the left or right, and use keypad to input text or press 【Delete】key to delete any unwanted characters.

Press【OK】key again to access the sub menu.

Press【▲/▼】key to scroll down to select one of the following options under the sub menu, and press 【OK】key.

- Save: save the edited notes.
- Exit: return to the previous menu.

❐ Edit Quick Notes

Procedure:

The display will show the contents of the selected Quick Note.

Press【▲/▼】key to move one space to the left or right, and use keypad to input text or press 【Delete】key to delete any unwanted characters.

Press【OK】key again to access the sub menu.
Press【▲/▼】key to scroll down to select one of the following options under the sub menu, and press【OK】key.

- Save: save the edited notes.
- Exit: return to the previous menu.

❒ **Delete Quick Notes**

You can delete any unwanted quick notes.
Procedure:
The display will show "Confirm to delete".
Press【OK】key to delete the Quick Note or press【Cancel】key to return to the previous menu.
Note: Quick Notes cannot be restored after deletion.

❒ **Send Quick Notes**

You can send any Quick Notes or edit any of them before sending.
Procedure:
The display will show the contents of the selected Quick Notes.
Press【▲/▼】key to move one space to the left or right, and use keypad to input text or press【Delete】key to delete any unwanted characters.
Press【OK】key again to access the sub menu.
Press key to select "Contacts" or "Manual Dial" and press【OK】key.
【Please read "Getting familiar with the function sub menu of Text Messaging" for more information.】

❒ **Clear the Message List**

You can clear the messages in the Inbox, Outbox and Quick Notes.
Procedure:

① Press【MENU】key to access the menu.
② Press【▲/▼】key to select the "Message" and press【OK】key.
③ Press【▲/▼】key to select "Clear All" and press【OK】key.
④ Press【▲/▼】key to choose the target. (Inbox, Outbox or Quick Notes)
⑤ Press【OK】key and the display shows "Confirm to delete?"
⑥ Press【OK】key to clear the selected list.
Note: Lists cannot be restored after deletion.

CONTACTS

Contact provides "address-book" for the portable radio. Each entry refers to an alias or ID that you can use to make a call.
Each contact will be connected with **one** of five types of calls below: Group Call, Private Call, General Call, PC Call or Dispatch Call.
Note: If the encryption feature is activated on a channel, you can make the encrypted group call, private call and general call on that channel. Only when the desired radio/radios has/have the same encryption key OR the same Key Value and key ID as your radio, the transmission can be decoded correctly.
For further information, please refer to the **Encryption** on page 28.
You are allowed to set any of the programming keys to access to the Contact. You can enter the contact list directly by pressing that key.
Each contact is provided with the following information:

- Call type
- Call alias
- Call ID

Note: you can add, delete or edit the user ID for the digital contact list.

❐ View Contact List

Procedure:

① Press 【MENU】key to access the menu.

② Press【▲/▼】key to select "Contact" and press【OK】key.

③ Press【▲/▼】key to select "Contact List" and press【OK】key to confirm or press 【BACK】key to return to the previous menu.

④ Press【▲/▼】key to choose the contacts.

⑤ Press 【OK】key to access the sub menu or hold 【PTT】key to make a call.

⑥ Press【▲/▼】key to scroll down to select one of the following options under the sub menu, and press 【OK】key.

❐ Info

Display will show the information of a contact, such as name, number and attribute.

Press【BACK】key to return to the previous menu.

❐ Add Contact

Display will show the name, number or saved contact. (Default: Private Call)

❐ Send Message

You can create and send messages.

【Please read "Getting familiar with the function sub menu of Text Messaging" for more information.】

❐ Menu of the Private Call

❐ Info

Display will show the information of contact, such as name, number and attribute.

Press【BACK】key to return to the previous menu.

❐ Add Contact

Display will show the name, number and save Contact. (Default: Private Call)

❐ Edit Contact

You can edit and save the name and number of the Contact. (Default: Private Call)

❐ Delete

You can delete the selected contact.

❐ Send Message

You can create and send message.

【Please read "Getting familiar with the function sub menu of Text Messaging" for more information.】

❐ Advanced Services

Includes functions like Radio Detection, Call Alert, Remote Monitor, Remote Kill and Remote Revive.

✧Radio Detection

If this is activated, you can check whether the target radio is available or not without disturbing. The target radio won't receive any audio or visible notice. This function is only available for the user name or ID.

Procedure:

① Select the Contact List and set the call type to be "Private Call" and press【OK】key.

② Select "Advance Services" and press 【OK】key to access the sub menu.

③ Select "Radio Detection" and press 【OK】key. You can check whether the target radio is power-on and within the range. If yes, the display

will show "Detection succeeded". Otherwise, it will show "Detection Failed" and return to the previous menu.

✧**Call Alert**

It allows you to alert the target radio to reply to you at its convenience.

Procedure:

① Select the Contact List and set the call type to be "Private Call" and press【OK】key.

② Select "Advance Services" and press 【OK】key to access the sub menu.

③ Select "Call Alert" and press 【OK】key. It will send out a calling signal to the target radio. Once the target radio receives the signal, the display will show "Alert Succeeded". Otherwise, it will show "Alert Failed" and return to the previous menu.

Note: When the target receives call alert signal, the radio will be beeping.

✧**Remote Monitor**

Use the Remote Monitor function to switch on the microphone of a target radio (user name or ID only). No audio or visible indication is shown to the target radio. You can use this function to monitor the surrounding activities of the target radio.

Note: the radio should be programmed first to use this function.

Procedure:

① Select the Contact List and set the call type to be "Private Call" and press 【OK】key.

② Select "Advanced Service" and press 【OK】key to access the sub menu.

③ Select "Remote Monitor" and press 【OK】key. It will send out the remote monitor signal to the target radio. If the signal is picked up

successfully by the target radio, the display will show "Monitor Succeeded". Otherwise, it will show "Monitor Failed" and return to the previous menu.

Note: The monitor time is determined by how the target radio has been programmed beforehand.

✧**Remote Kill:**

You can kill any other radios in the system. For example, you may want to kill a stolen radio to prevent the thief from using it, and re-activate that radio when it is retrieved.

Note: Only the radio with this function activated can carry out this function. For further information, please contact your supplier or system administrator.

Procedure:

① Select the Contact List and set the call type to be "Private Call" and press【OK】key.

② Select "Advanced Services" and press【OK】key to access the sub menu.

③ Select "Remote Kill" and press【OK】key. It will send out the remote kill signal to the target radio. If the signal is picked up successfully by the target radio, the display will show "Kill Succeeded" Otherwise, it will show "Kill Failed" and return to the previous menu.

Note: if the radio is killed, you need to use the function Remote Revive to activate it.

✧**Radio Revive:**

You can activate any other radios which have been killed. For example, you might want to re-activate and use a stolen radio which has been killed.

Note: Only the radio with this function activated can carry out this function. For further information,

please contact your supplier or system administrator.
Procedure:
① Select the Contact List and set the call type to be "Private Call" and press 【OK】key.
② Select "Advanced Services" and press 【OK】key to access the sub menu.
③ Select "Remote Revive" and press 【OK】key. It will send out the remote revive signal to the target radio. If the signal is picked up successfully by the target radio, the display will show "Revive Succeeded". Otherwise, it will show "Revive Failed" and return to the previous menu.

Manual Dial

Procedure:
① Press 【MENU】key to access the menu.
② Press【▲/▼】key to select "Contact" and press 【OK】key.
③ Press【▲/▼】to select "Manual Dial". Press 【OK】key to confirm or press 【BACK】key to return to the previous menu.
④ When a blinking cursor appears, use the keypad to input the contact ID.
⑤ Hold 【PTT】key to make a call.
⑥ Press【▲/▼】key to to scroll down to select one of the following options under sub menu and press 【OK】key.
Note: Manual Dial is only available for the "Private Call" ontacts.

CALL LOG

Your radio will record all the initiated, received or missed calls. Use the Call Log to check and manage the recent calls.
You can carry out the tasks below in the call lists:

- ♦ Check
- ♦ Time
- ♦ Send message
- ♦ Delete

Access Missed Calls

The display will show a message indicating that there is a missed call.
Note: If the【PTT】button is pressed when accessing the missed call, the radio will make a call and exit the missed call list.
Procedure:
① Press【MENU】key to access the menu.
② Press【▲/▼】key to select the "Call Log". Press 【OK】key to confirm or press 【BACK】key to return to the previous menu.
③ Press key to select "Missed Calls". Press 【OK】key to confirm or press 【BACK】key to return to the previous menu.
④ Press【▲/▼】key to access the missed call list.
⑤ Press【OK】key to select one of the following options under the sub menu or press 【PTT】to call back.

❒ View

You can check the ID of the missed call.
Press 【BACK】key to return to the previous menu.

❒ Call Duration

To check the time and length of the missed calls.
Press 【BACK】key to return to the previous menu.

❒ Send Message

Edit text message,and send it to a contact person.
[Please read: "Text Messaging" section under "Getting familiar with the basic operaion of function menu" .]

❒ **Delete**

Delete missed calls from a call list.

❒ **Access incoming calls**

To confirm a private call, please press 【PTT】 Key while the display still shows the call alert and is not terminated yet. The caller information will be recorded in the call log ,otherwise it will be regarded as a missed call.

Procedure:

① Press 【Menu】 Key to access the menu.

② Press【▲/▼】Key to select "call log", and press 【OK】Key.

③ Press【▲/▼】button to select "incoming calls", and press 【OK】Key or press 【BACK】 Key, to return to the previous menu.

④ Press【▲/▼】Key to view the list of incoming calls.

⑤ Press【OK】 Key to view the following submenu options,or press【PTT】 Key to call back.

❒ **Check**

Check the contacts ID of incoming calls. Press 【Return】Key to return to the previous menu.

❒ **Call Time**

Check the call time, call duration of incoming calls.

Press【BACK】Key to return to the previous menu.

❒ **Send a message**

Edit text message, and send it to a contact person.[Please read: "text Messaging" section under "Getting familiar with the basic operation of function menu".]

❒ **Delete**

Delete missed calls from a call list.

❒ **Access outgoing calls**

When you initiated a private call, the called party information, will be recorded in the outgoing call list.

Procedure:

①. Press【Menu】 Key to access the menu..

②. Press【▲/▼】Key to select "call log", and press 【OK】Key.

③. Press【▲/▼】button to select "outgoing calls", and press 【OK】Key or press 【Back】 key, to return to the previous menu

④. Press【▲/▼】Key to view the list of outgoing calls.

⑤. Press【OK】 Key to view the following submenu options,or press【PTT】 Key to initiate the call.

❒ **View the contact ID**

Check the contacts ID of incoming calls.

Press 【BACK】 Key to return to the previous menu.

❒ **Call Time**

Check the call time, call duration of incoming calls.

Press 【BACK】Key to return to the previous menu.

❒ **Send a message**

Edit text message, and send it to a contact person. [Please read: "Text Messaging" section under "Getting familiar with the basic operation of function menu"]

❒ **Delete**

Delete outgoing calls from a call list.

Clear the List

You can clear missed calls, incoming calls, and outgoing calls from call log.

Procedure:

Press the menu button [MENU], access to the main menu.

①. Press【Menu】 Key to access the menu.

②. Press【▲/▼】Key to select "Call log" and press 【OK】Key

③. Press【▲/▼】Key and select "Clear the list", press 【OK】Key or press 【BACK】Key to return to the previous menu.

④. Press【▲/▼】Key to select required list to delete. (Missed calls, incoming calls, outgoing calls).

⑤. Press 【OK】Key to confirm to delete the list, the display will appears the words "deletion finished" and returns to the previous menu.

Note: Once the deletion finished, the call log will be permanent deleted and cannot be restore.

THE STATUS INFORMATION

You can check the content or the time through the status information.

Procedure:

①. Press 【Menu】 Key to access the menu.

②. Press【▲/▼】Key to select "status information", then press【OK】button.

③. Press【▲/▼】Key to Select date... Options. Then press 【OK】 button to view the current selected status.

④. Press【BACK】Key to return to the previous menu.

SETTINGS

You can customize the functional options of your radio according to your preferences.

You can carry out the following tasks in settings under the menu:

- ♦ Machine Properties
- ♦ Parameter Settings
- ♦ Regional Settings
- ♦ Time Settings
- ♦ Tone Settings
- ♦ General Settings
- ♦ Restore Factory Settings
- ♦ Function Settings
- ♦ Signaling Settings
- ♦ Encryption Settings (only applicable to this type)

Procedure:

①. Press 【Menu】 Key to access the menu.

Note: Your radio must be preprogrammed to allow you to use all functions or partial functions under settings. Please check with your local agent or distributor for more details.

Machine Properties

You can check your radio ID number and Group ID information.

Procedure :

①. Press【Menu】 Key to access the menu

②. Press【▲/▼】Key to select "Settings", and press 【OK】 button.

③. Press【▲/▼】Key to select "Machine Properties", and press 【OK】 button. to check radio ID or Group ID.

④. Press【BACK】Key to return to the previous menu.

Parameter Settings

Parameter Settings allows to set call time limit, level power, and relay time slot of your radio.

Procedure :

①. Press 【Menu】 Key to access the menu.

②. Press【▲/▼】Key to select "Settings", and

press 【OK】 button.
③. Press【▲/▼】Key to select "Parameter Settings ", then press 【OK】 button.
④. Press【▲/▼】Key and choose from the following options, then press 【OK】 button.

❒ **Call Time Limit**

To avoid affecting communications of others due to the long time transmitting, you can turn the call time limit function ON or OFF. When enables the call time limit function, your radio will begin timing the moment you press the 【PTT】 button, when reaching the set time limit, the radio will automatically stop transmitting. Unless you release the【PTT】button and press it again.

● **Setting time limits**

Procedure：
Following the above steps ① to ④
⑤. Press【OK】 Key
⑥. Press【▲/▼】Key and choose the length of time.
⑦. Press【OK】Key, the screen will return to the previous menu.

● **Switch Call time limit ON/OFF**

Procedure:
Following the above steps ① to ④
⑤.Press【OK】 Key.
⑥. Press Key and choose ON or OFF.
⑦. Press【OK】Key to return to the previous menu.

❒ **Power Level**

You can see the status of the radio ,power level which is high or low, and extend the power of time.
Setting: High power used for radio communication which distance relatively far.

Low power used for radio communication which distance relatively near.
Procedure :
Following the above steps ① to ④
⑤. Press【▲/▼】Key to choose high power or low power.
⑥. Press【OK】Key to return to the previous menu.

❒ **Time Slot**

You can set up your radio time slot, and improve the utilization of frequency resources.
Procedure :
Following the above steps ① to ④
⑤. Press【▲/▼】Key to choose time slot 1 or time slot 2.
⑥. Press【OK】Key, to return to the previous menu.
Tip: when relay slot setup is complete, the screen will prompt "BS time slot is set" character.

❒ **Power saving mode**

You can set the radio not to receive any signal nor doing any operation, it will automatically enter power-saving mode, and prolong the using time of the battery power supply.

● **Power saving mode switch**

When the power-saving turn on, radio will be automatically based on the delay you have set up for the opening time then enter power-saving state and you can preset the duty ratio at the same time.
Procedure :
Following the above steps ① to ④
⑤. Press【OK】Key.
⑥. Press【▲/▼】Key and choose ON or OFF.
⑦. Press【OK】Key to return to the previous menu.

● **Delayed opening time**

When the radio didn't receive any signal or doing any operation, according to the delay opening time it will automatically enter the power-saving mode.

Procedure:

Following the above steps ① to ④

⑤. Press【OK】Key.

⑥. Press【▲/▼】Key to choose delay time. (the set range from 10S~60S)

⑦. Press【OK】Key, to return to the previous menu.

● **Sleep time ratio**

When your radio set time is higher than the battery power utilization rate.

Tip: If the time is set up longer than the time which have been set, there may be caused a delay of the communication access time.

Procedure :

Following the above steps ① to ④

⑤. Press【OK】 Key

⑥. Press【▲/▼】Key to select the time scale. (the setting range is between 1:1 , 1:2. 1:4)

⑦. Press 【OK】Key to retun to the previous menu

❐ **Area settings**

Setting the current channels. It can be set up to 16 channels.

Procedure :

①. Press 【Menu】Key to access the menu

②. Press【▲/▼】Key , select "SETTINGS" then press [OK] button

③.Press【▲/▼】Key, select "AREA SETTINGS" then press [OK] button

④. Press【▲/▼】Key, select AREA (1-16) then

press [OK] button

⑤. After confirm all the settings then return to the standby Mode.

❐ **Time Settings**

Setting the time ,date and date display format.

Procedure:

①. Press 【Menu】Key to access the menu

②. Press【▲/▼】Key , select "SETTINGS" then press [OK] button

③. Press【▲/▼】Key, select "TIME SETTINGS" then press [OK] button

④. Press【▲/▼】Key, select the following options then press [OK] button

❐ **Date**

Press【▲/▼】Key, move the cursor to the input location then input number directly. Press 【Menu】Key to access the menu

❐ **Time**

Press【▲/▼】Key, move the cursor to the input location then input number directly. Press 【Menu】Key to access the menu

❐ **Date display format**

Press【▲/▼】Key, move the cursor to the input location then input number directly. Press 【Menu】Key to access the menu

❐ **Alert Settings**

Just in case if needed, you can enable and disable the radio's prompt ringtone, you can also set some functions of volume control or prompt tone, ringtones settings by your own.

Procedure:

①. Press 【Menu】Key to access the menu

②. Press【▲/▼】Key , select "SETTINGS" then press [OK] button

③. Press【▲/▼】Key,select "ALERT SETTINGS" then press [OK] button
④. Press【▲/▼】Key, select the following options then press [OK] button

❒ **Scene Mode**
Your radio can set to Standard& Silent?Mode
Tips : Include the (!-) symbol
Procedure :
Following the above steps ① to ④
⑤. Press【▲/▼】Key, select SETTINGS options then press [OK] button. (Standard : enable the tone , Silent : disabled the tone)
⑥. Back to main menu

❒ **Tone Settings**
Your radio can be set to activate and deactivate the keyboard tone or keyboard volume.
Procedure :
Following the above steps ① to ④
⑤. Press【▲/▼】Key, select the following options then press [OK] button

● **Tone switch**
Press【▲/▼】Key, select enable or disable TONE options then press [OK] button.
Back to previous menu

● **Volume switch**
Press【▲/▼】key, select VOLUME options then press [OK] button.
Back to previous menu
Tips : After the setup is complete, the screen will show it has completed the current settings.

❒ **Power Tone**
You can set the radio to activate and deactivate reminding the low power or alert tone
Procedure :
Following the above steps ① to ④

⑤. Press【▲/▼】Key, select the following options then press [OK] button

● **Low Battery Alert**
Press【▲/▼】Key, select "Low Battery Alert options" then press [OK] button.
Back to previous menu

● **Volume Control**
Press【▲/▼】Key, select "Volume Control options" then press [OK] button.
Back to previous menu

❒ **Text Message Alert**
You can set the radio while receiving short message, the message alert tone.
Procedure :
Following the above steps ① to ④
⑤.PressKey, select the following options then press [OK] button. (you can select 1~5ringtones)
⑥. Back to previous menu

Tips : After the setting is complete, the screen will show it has completed the current settings.

❒ **Private Call Tone**
Just in case if needed, you can switch the private call and the private call tone in your radio.
Following the above steps ① to ④
Press Key,select the following options then press [OK]button.

● **Private Call Tone**
☐ Enable the TX Begin Tone (while turning on ,press the【PTT】button and it will beep)
☐ Disabled the TX Ended Tone (while turning on, press the【PTT】button and it will beep)
☐ Receiving the RX Begin Tone (while turning on, you will receive a call signal and it will beep)
☐ Disabled the RX Ended Tone (while turning on, while a call signal disappears and it will beep)
①. Press【▲/▼】Key, select TONE options then press [OK] button, select(✓)to turn on or off
②. Select [BACK] Key to return to previous menu

● **RingTones**

①. Press【▲/▼】Key, select RingTones options then press [OK] Key. (you can select 1~5ringtones)

Back to previous menu

Tips : After the setup is complete, the screen will show it has completed the current settings.

❒ **Group Call Settings**

Just in case if needed, you can set the group call settings to disable or enable mode in the radio

Procedure :

Following the above steps ① to ④

⑤. Press【▲/▼】Key, select the following options then press [OK] button.

● **Group Call**

□ Enable the Group Call (while turning on ,press the【PTT】button and it will beep)

□ Disabled the Group Call (while turning on, press the【PTT】button and it will beep)

□ Receiving the Group Call (while turning on, you will receive a call signal and it will beep)

□ Disabled the Group Call (while turning on, while a call signal disappears and it will beep)

Press【▲/▼】Key, select TONE options then press [OK] button, select(v)to turn on or off.

Select [BACK] Key to return to previous menu

● **Ringtone**

Press【▲/▼】Key, select RINGTONE options then press [OK] Key. (you can select 1~5ringtones)

Back to previous menu

Tips: After the setup is complete, the screen will show it has completed the current settings.

❒ **Group Call Tone**

You can set the radio while receiving the tone,

group call display and the ID

Procedure :

Following the above steps ① to ④

⑤. Press【▲/▼】key, select "TONE SETTINGS" options then press [OK] Key. (you can select 1~5ringtones)

Back to previous menu

Tips: After the setup is complete, the screen will show it has completed the current settings.

❒ **Basic settings**

Use this guide to learn more about basic settings available on your radio:

- Language
- Keypad lock
- Backlight
- Version
- Display mode
- Encode switch
- VOX (Voice Operating Transmission)

Procedure:

1. Press【MENU】key to access the men.
2. Press【▲/▼】key to select “settings”, and press【Ok】Key.
3. Press【▲/▼】key to choose “others”, then press【OK】Key.
4. Press【▲/▼】key to choose the desired option and press 【OK】Key.

❒ **Language:**

Press【▲/▼】key to choose Chinese or English, and press【OK】Key to confirm your selection. The screen will then returns to the previous menu.

❒ **Keypad Lock**

The radio keypads can be locked to prevent unintentional key input.

Press【▲/▼】key to choose ON or OFF, then press 【OK】to confirm, and backs to previous menu.

Note: When enables Key Lock feature, the radio't keypad will be locked automatically after a no operation within the preset time. To unlock or lock the keypad manually, please press 【MENU】+【*】.

❒ Backlight setting

You can turn ON, turn OFF or Auto the radio't display backlight as needed. The setting may affect browsing the menu list, but no impact on the keypad backlight.

• Switch the Backlight ON, OFF, Auto

Press【▲/▼】key to choose the backlight mode, and press【Ok】to confirm and backs to previous menu.

Note: When backlight mode setting is turn ON, the backlight will always light up.

When the backlight mode setting is Turn OFF, the backlight will be turned OFF with little light.

When the backlight mode setting is Auto, the backlight will be turned off after no operation within the preset time. When the radio received a signal or is operating, the backlight will be light up automatically.

• Brightness

Press【▲/▼】key , to adjust the lightness value, then press 【OK】to confirm and backs to the previous menu.

❒ Version

You can check your radio version. Press it, it will display its current version number. Press 【back】to returns to the previous menu.

❒ Display mode

If needed, you can set the relevant channel information displayed on screen while the radio is on standby mode.

Press【▲/▼】key, to choose from the following options, and press【OK】to confirm, and returns to the previous menu.

• Channel number and name

On standby, the LCD displays the current channel number and name.

• Channel number and frequency

On standby, the LCD displays the current channel number and frequency.

• Channel number

On standby, the LCD displays the current channel number.

Note: When the set finished, LCD will pop up "SAVED".

❒ Encode Switch

The radio can be programmed Encode switch be ON or OFF to prevent random or unexpected operation input.

The Encode to be set OFF, the encode fail to operate.

Note: The display will shows "completed" when it is set.

❒ Voice Operating Transmission (VOX)

This feature enables you to make a hands-free voice activated call on a preset channel. The radio will automatically transmits, for a preset period, as long as the microphone with the VOX-capable accessory detects voice signal.

If needed, you could activate the feature and no need to press the PTT button any more. Press【▲/▼】key to choose from the following options

and VOX level, then press 【OK】to confirm and back to the previous menu.

• **Turning VOX ON or OFF**

Press【▲/▼】key, to turn ON or OFF the feature, and press【OK】and back to the previous menu.

• **VOX Level**

Press【▲/▼】key, to adjust the sensitivity level of VOX, then press 【OK】and back to the previous menu.

Note: When VOX level is "1" means the lowest sensitivity it is. The sensitivity increased with the number increased. Please set it according to your actual operation environment.

❐**Restore factory.**

You can restore the radio to factory default if needed.

Procedure:

①. Press【MENU】to access the main menu.

②. Press【▲/▼】key to choose "Settings" and press 【Ok】key.

③. Press【▲/▼】key to choose "Restore factory" and press【Ok】key.

④. The radio will restart and then returns to Home Screen once press 【Ok】 key. Or Press 【Cancel】 to give up factory reset and backs to the previous menu.

Note: Partial settings of your radio will be restoring to factory default once a "restore factory" is confirmed.

FM RADIO

You can activate the FM radio feature to receive FM channels on your radio if needed.

To turn the FM radio ON or OFF

Procedure:

①. Press "MENU" to access the main menu.

②. Press【▲/▼】key to choose "FM radio", and press "OK" Key to activate it.

③. Press "back"to exit the FM radio.

④. Press "Ok" Key to choose from the following sub-menu.

Note: If the FM radio mode is Auto, you can search the FM radio stations by pressing【▲/▼】key.

❐ **To save a radio station:**

Follow the above procedure ① to ④.

⑤. Press 【Ok】key to store the current FM radio channel.

❐ **Existing Radio Stations**

Follow the above procedure ① to ④.

⑤. Press【Ok】key

⑥. To choose the saved radio stations list

⑦. Press【Ok】key to choose from the following sub-menu.

• **Delete**

Follow the above steps ① to ⑦

⑧. Press【Ok】key to delete current channel and backs to the previous menu.

• **Play**

Follow the above steps ① to ⑦

⑧. press【Ok】key to listen to the current channel

⑨. press【back】to exit the FM radio mode

❐ **Seek Mode**

Follow the above steps ① to ④

⑤. Press【Ok】key

⑥. Press【▲/▼】key to choose manual search or auto search the FM radio stations

⑦. Press【OK】key and backs to the previous menu.

Note: The FM radio will temporally exit while you press 【PTT】 Key or the radio is receiving a signal during listening to a FM channel. The radio will automatically re-activate once the TX or RX signal is disappeared.

SCAN

When you initiate a scan, your radio cycles via the preset scan list to check if any voice activity on the current channel.

LED indicator falashed red, and the Scan Icon appears on the display.

When your radio is on a dual mode scan, if you are on a digital channel, and your radio lockon an analogue channel, it will be switched automatically from digital mode to analogue mode for the call duration.

There are three options of scan modes

- CO
- SE
- TO

❐ Starting and Stopping Scan

During scanning, your radio will stops on channel or group where signal is detected. The radio will works as your preset scan mode (Co, SE, TO), either keep staying on active channel for a period of time or till the signal disappeared.

❐ Starting Scan

Procedure:

①. Press 【Menu】key to access the main menu

②. Press【▲/▼】key to choose scan, then press "OK" key .

③. Press【▲/▼】key to choose "scan" then press "OK" key .

④. Press【▲/▼】key to choose the desired scan list, then press "OK" key.

⑤. Press【▲/▼】key to choose "Start Scan" then press "OK" key.

Note: When your radio is starting scan, the LED indicator flashes red, the scan icon will appeared on the display. (if preset).

❐ Stopping scan

①. Press 【Menu】key to access the main menu

②. Press【▲/▼】key to choose scan, then press "OK" key .

③. Press【▲/▼】key to choose "scan" then press "OK" key.

④. Press【▲/▼】key to choose the desired scan list, then press 【Ok】.

⑤. Press【▲/▼】key to choose "Stop Scan" then press 【Ok】key.

Note: When scan stopped, the LED turns off and the scan icon is not displayed. (if preset).

❐ Viewing an item in the scan list

To create scan lists and assign to individual channels or groups. Your radio scans for voice signals for the current channel/group, by cycling the channel or group in the scan list.

You radio supports up to 16 scan list with a maximum of 256 members in a list. Each scan list supports mixed analogue and digital channels. You can add, delete channel or prioritize channels by editing a scan list.

Procedure:

①. Press【Menu】key to access the main menu.

②. Press【▲/▼】key to choose "Scan" then press【Ok】 key.

③. Press【▲/▼】key to choose "Scan list" then press【Ok】key.

④.Press【▲/▼】key to view items on the scan list, then press 【Ok】

❒ To prioritize channel on a scan list.

Procedure:

Follow the above procedure ① to ④.

⑤. Press【▲/▼】key to choose the desired channel.

⑥. Press【Ok】key

⑦. Press【▲/▼】key to choose "Set prio Ch"

⑧.Press【Ok】 then the channel will be prioritized when "Selected" displayed, and backs to the channel list page.

Note: When priority channel is set, a "P" will be marked on the right side of that channel.

❒ To disable priority channel in the scan list

Follow the above procedure ① to ④.

⑤. Press【▲/▼】key to choose the priority channel.

⑥. Press 【Ok】key

⑦. Press【▲/▼】key to choose "Disable Prio CH"

⑧. Press 【Ok】key, then a "Selected" displayed means operation succeeded, and backs to the channel list page.

Note: When priority channel is disabled, the priority mark "P" will be disappeared.

❒ To delete a channel from the scan list

Follow the above procedure ① to ④.

⑤. Press【▲/▼】key to choose the desired deleted channel.

⑥. Press【Ok】 key

⑦. Press【▲/▼】key to choose ?Delete CH

⑧.Press【Ok】key, then the word "Seleted" displayed, means operation succeeded. The display will then backs to the channel list page.

❒ To add a channel in the scan list

Follow the above procedure ① to ④.

⑤. Press【▲/▼】to key choose "ADD CH" then Press【Ok】.

⑥. Press【▲/▼】key to choose desired added channel.

⑦. Press【Ok】then the word "Selected" displayed, means operation succeeded. The display will then backs to the channel list page.

❒ Scan mode

You have three options for dealing with signal scanned during scanning, if needed.

Procedure:

①. Press 【Menu】key to access the menu.

②. Press【▲/▼】to choose "Scan" then press【Ok】.

③. Press【▲/▼】key to choose "Scan mode" then press 【Ok】.

❒ Carrier (CO) mode

When the radio is on Scan mode, once a carrier signal is received, the radio will stay on the channel until carrier disappeared, and resume to scan.

Procedure :

Follow the above procedure ① to ③.

④. Press【▲/▼】key to choose CO, then press【Ok】 to confirm.

❒ Time (TO) scan

When the radio is on scan mode, and a carrier signal is received, the radio will stay on the current channel for a preset duration. Once time is up, the radio will resume to scan.

Procedure:

Follow the above procedure ① to ③.

④. Press【▲/▼】key to choose TO, then press【Ok】to confirm.

❒ **Search (SE) mode**

When the radio is on scan mode, and a carrier signal is received, the radio will stay on the current channel, and exit the scan mode at the same time.

Procedure:

Follow the above procedure ① to ③.

④. Press【▲/▼】key, to choose SE, then press 【Ok】to confirm.

GLOBAL POSITIONING SYSTEM (GPS) (OPTIONAL)

You can choose to purchase the radio with or without GPS feature. GPS feature allows you to check or send your current longitude, latitude, time, date, altitude and speed etc data.

❒ **Access the GPS**

Procedure:

①. Press【Menu】to access the menu

②. Press【▲/▼】key to choose GPS operation, and press【Ok】to confirm

❒ **Turn GPS ON**

Procedure

Follow the steps ① to ②

③. Press【▲/▼】key , choose "GPS On/Off" then press【Ok】to confirm.

④. Press【▲/▼】key, choose "GPS On" then press【Ok】to confirm, and backs to the previous menu.

Note: When the GPS is activated, the radio may need some time to show the correct location data. Once the GPS turns on, the GPS icon will be displayed on the LCD.

❒ **Turn GPS OFF**

Procedure:

Follow the steps ① to ②

③. Press【▲/▼】key to choose "GPS On/Off" then press 【Ok】to confirm.

④. Press【▲/▼】key to choose "GPS Off" then

press 【Ok】to confirm, and backs to the previous menu.

Note: Once the GPS is turned off, the GPS icon on the display will be disappeared.

❒ **Check GPS positioning data**

Follow the steps ① to ②

③. Press【▲/▼】key to choose "Position" then press 【Ok】to confirm.

④. Press【▲/▼】key to check position data

⑤. Press "Send"---"Search" to send the data to the desired contact, or press 【BACK】to backs to the previous menu.

Note: Please refer to "Getting familiar with the Text Messaging" for more detailed information on sending data

❒ **Auto Aligning GPS time**

Procedure:

Follow the steps ① to ②

③. Press【▲/▼】key to choose "Time Zone" then press【Ok】to confirm.

④. Press【▲/▼】key to choose "Auto Aligning"

⑤. Press【Ok】to proceed or press 【BACK】to backs to the previous menu.

Note: When GPS is on auto aligning, it may take some time to complete, until "Waiting for..." disappeared from the display.

❒ **Manual Aligning GPS time**

Procedure:

Follow the steps ① to ②

③. Press【▲/▼】key to choose "Time Zone" then press【Ok】to confirm.

④. Press【▲/▼】key to choose "Manual Aligning" then press【Ok】to confirm.

⑤. Press【▲/▼】key to choose time list.

⑥. Press【Ok】to proceed or press【BACK】to return to the previous menu.

Note: When to aligning manually, please do it according your local+、- time zone difference .