



Kydera[®]
PROFESSIONAL DIGITAL TWO-WAY RADIO

DM-850 User Manual

TO USER

Thank you for purchasing the digital / analog two way radios designed and produced by Quanzhou City New Century Communication Electronic Co., Ltd. This product is developed elaborately as a regular digital handheld radio according to EU standard and advanced international technology. The radio is endowed with ergonomic design and comprehensive function to deliver an advanced communication solution, which can definitively bring you a whole new operation and digital communication experience, improve your work efficiency and convenience, and provide a reliable safeguard for emergent communication.

Our serial products are tested strictly by rigorous testing procedures with advance international instruments and equipments.

Warm warning: To derive optimum performance from your radio, please read this manual and the supplied Safety Information Booklet carefully before use.

FCC Statement

This equipment has been tested and found to comply with the limits for part 90 of FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct.

The interference by one or more of the following measures:

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

Note: "Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment."

Attention:

This radio complies with IEEE and ICNIRP exposure limits for occupational/controlled RF exposure.environment at operating duty factors of up to 50% and is authorized by the FCC for occupational use only.

Compliance with RF Exposure Standards

The radio complies with the following RF energy exposure standards and guidelines:

- United States Federal Communications Commission, Code of Federal Regulations; 47 CFR & 1.1307, 1.1310 and 2.1093
- American National Standards Institute (ANSI) / Institute of Electrical and Electronic Engineers (IEEE) C95. 1:2005; Canada RSS102 Issue 5 March 2015.
- Institute of Electrical and Electronic Engineers (IEEE) C95.1:2005 Edition

RF Exposure Compliance and Control Guidelines and Operating Instructions

To control your exposure and ensure compliance with the occupational/controlled environment exposure limits always adhere to the following procedures.

Guidelines:

- Do not remove the RF Exposure Label from the device.
- User awareness instructions should accompany device when transferred to other users.
- Do not use this device if the operational requirements described herein are not met.

Operating Instructions:

- Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) button. To receive calls, release the PTT button. Transmitting 50 % of the time, or less, is important because this radio generates

measurable RF energy exposure only when transmitting (in terms of measuring for standards compliance).

- Hold the radio in a vertical position in front of face with the microphone (and the other parts of the radio, including the antenna) at least one inch (2.5 cm) away from the nose. Keeping the radio at the proper distance is important because RF exposures decrease with distance from the antenna. Antenna should be kept away from eyes.
- When worn on the body, always place the radio in a approved clip, holder, holster, case, or body harness for this product. Using approved body-worn accessories is important because the use of our's or other manufacturer's non-approved accessories may result in exposure levels, which exceed the FCC's occupational/controlled environment RF exposure limits.
- If you are not using a body-worn accessory and are not using the radio in the intended use position in front of the face, then ensure the antenna and the radio are kept at least 2.5 cm (one inch) from the body when transmitting. Keeping the radio at the proper distance is important because RF exposures decrease with increasing distance from the antenna.
- Use only manufacturer's name approved supplied or replacement antennas, batteries, and accessories. Use of non-manufacturer-name approved antennas, batteries, and accessories may exceed the FCC RF exposure guidelines.

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 manual

This manual introduces the basic operation of Kydera 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

[🏠] In any operating screen, you can press this button to return back to Home screen.

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

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 up solid green.
- 3) Install the battery to the radio
- 4) Install the antenna
- 5) Install the belt clip
- 6) Install the general interface cover (dust cover)
- 7) 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)

- Place the battery pack or the radio with a battery pack into the charger, like arrow (3)
 - The indicator lights up solid red and charging starts. When charging is completed, the indicator lights up solid 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
Flashes red and then OFF	Electrify but on standby	No-load
Lights Red	Charging	Insert battery
Lights Green	Fully charged	Charging completed
Flashes Red	Failure	For maintenances

Note:

- It is normal if the charger LED flashes red for a short time when the charger is just connected.
- 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:
 - Please check if the battery pack is well connected with the charger.
 - The battery pack is damaged or failed
 - The surrounding temperature is too high or too low.

⚠ **Note:** Please read the "Battery Safety Information" before using the charger.

Installing the battery pack

- Align the battery pack to the battery slot like diagram 1

- 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.

Install the general interface cover (dust cover)

- Remove two screws (as per diagram 1), then open the jack stopper.
- Plug the accessory into according jack of the radio as per diagram 2, and then press it lightly for well contact.
- To remove the accessory by plugging it out as per diagram 3 direction.



Reminder: If the installation can't be use, please check if the accessory is appropriate or installed incorrect.

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)

Knowing more about the radio controls setting

Please review the following sub-directory firstly:

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Radio Controls Introduction

■ Radio Controls



Parts description:

NO.	Part Name	NO.	Part Name	NO.	Part Name
1	PTT key(Transmit key)	8	Speaker	15	SP/MIC connector
2	SK1 (Side key 1)	9	Numeric Keypad	16	Back key
3	SK2 (Side key 2)	10	Digital / Analog (LED) Indicator	17	Programmable key (P2)
4	Antenna	11	Lamp	18	Down key
5	LCD display	12	Power switch/ volume control	19	Battery latch
6	OK / Menu key	13	Up key	20	Belt clip
7	Programmable key (P1)	14	MIC	21	Li-ion battery pack

Note: Buttons like [SK? /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 activation  — it is allowed to enabled 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 channels? 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. (Optional)

□ 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 — witch 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

■ Access to features preset

You can access to the different radio features through one of the following ways:

- Short pressing or long pressing related preset keys.

OR

- Using the following menu button [MENU]:

1. For accessing to Menu list, press [MENU] key, then press [UP] or [DOWN] key to access the menu features.

2. Press [MENU] key to select the needed feature or enter

Radio Controls Introduction

into the needed submenu.

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

Note: If the radio is inactivity after a period of time, the radio will not automatically exit the menu and will stays in operation screen.

■ Use the keyboard

You can input user alias, ID or write a message thru the keyboard. Many characters require pressing one button several times to get. The following form shows the pressing times to get a certain character by pressing one button.

Pressing times

Secret Key	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	.	,	'	?	!	-	(	)	@	/	:	_	;	+	&	%	*	=	<	>	\$	[	]	{	}	~	^	'	#	!
	A	B	C																											
	D	E	F																											
	G	H	I																											
	J	K	L																											
	M	N	O																											
	P	Q	R	S																										
	T	U	V																											
	W	X	Y	Z																										
	Note: in Number editing mode, short press this button to enter number "0", while in Number, English and Chinese editing mode, long press this button to enter "+" symbol.																													
	Note: In Number, English and Chinese editing mode, short press this button to enter "*" symbol and long press it to enter space.																													

	Note: In Number, English and Chinese editing mode, short press this button to enter "#" symbol and long press to switch between Number, English and Chinese(Pinyin) editing mode ("AB"Capital letters, "ab"Lowercase letters, "12" Numbers and "PY-Chinese Pinyin")
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■ PTT button

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

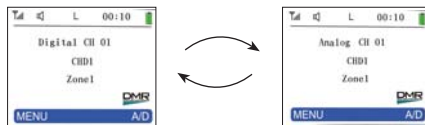


- ◆ Press [PTT] button to transmit the signals to other radios
 - ◆ Release [PTT] button to receive signals from other radios
 - ◆ If the Individual /Group Call or Prompt Tones is activated, the PTT Sidetone will be heard when you press or release [PTT] button. 
 - ◆ If the Individual / Group Call or Prompt Tone is activated, you will hear the PTT Sidetone 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. 

Radio Controls Introduction

■ 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 (RSSI)

✂ 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.

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◆ 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 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

◆ CDCSS 🗣

"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.
- Light 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 directory to familiar with the basic call feature:

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Initiating and Receiving Calls

■ Choose 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 analogue channels per zone.

Choose a working zone by following steps:

Procedure:

1. Press the preset "Zone Switch" key to switch in zones.

OR

2. Follow the steps below.

- ① 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 (1-16 Zones).
- ④ Use [▲/▼] key to choose a desired zone in zone list and press "OK" to confirm. Now you can see "Zone Settled" on the display.
- ⑤ After the radio returns to the home screen, the Zone No. displays at the bottom of the screen.

Note:

The No. and names showing in Zone list need to be preset by your dealer or System Administrator. (The maximum No. is 16 zones)

■ Choose 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, user alias or ID, or Group alias or ID with the channel selector.



Prompt:

- ◆ 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 preset information and display mode the user choose).
- ◆ You can change current working channel mode by pressing [Analog / Digital] key. (Analog / Digital Mode)

■ 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. In transmitting, the LED indicator lights red, while in receiving, it lights green (Provided that LED indicator is turned on).



Initiating and Receiving Calls

Note: 🗣️ To decode an encrypted call, your radio must have same encryption key, or same Key Value AND Key ID (preset by your dealer) as the transmitting radio. (The encryption can be preset by your dealer or yourself)
Please refer to **Encryption** on Page 42 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.

Procedure:

When receiving a group call (the Group Call icon displays on screen),

- 1) LED lights up green (if the LED indicator is turned on).
- 2) The first line shows the caller alias or ID, and the second line shows Group Call icon (only appears in digital mode).
- 3) To answer/reply, hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
- 4) 🗣️ 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.
- 5) 🗣️ If the "Rx End Tone" feature for group call is enabled, you will hear a short tone when the transmitting radio release the [PTT] Key, means your radio 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 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 End 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 **Initiate a Group Call** on Page 14 for more detailed information.

📖 Receiving and Answering to a Private Call 🗣️

A private call refers to a call from an individual radio to another individual radio. There are two kinds of Private Call for selection:

1. Make radio remote detection to make sure the receiver radio is existed.
2. Ready to initiate a call.

Procedure:

When receiving a private call (the Private Call icon displays on screen):

- 1) LED lights up green (if the LED indicator is turned on).
- 2) The first line shows the caller alias or ID, and the second line shows Group Call icon (only appears in digital mode).
- 3) To answer/reply, hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
- 4) 🗣️ If the "Rx Begin Tone" feature for private call is enabled, you will hear a short tone when the transmitting radio press the [PTT] Key, means your radio is in receiving.

Initiating and Receiving Calls

5)  If the "Rx End Tone" feature for private call is enabled, you will hear a short tone when the transmitting radio release the [PTT] Key, means your radio 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 End Tone" feature 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 **Initiate a Private Call** on Page 14 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.

Procedure:

When receiving a general call (the General Call icon displays on screen):

- 1) LED lights up green (if the LED indicator is turned on).
- 2) The first line shows the caller alias or ID, and the second line shows Group Call icon (only appears in digital mode).
- 3) To answer/reply, hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
- 4)  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 your radio is in receiving.

5)  If the "Rx End Tone" feature for general call is enabled, you will hear a short tone when the transmitting radio release the [PTT] Key, means your radio 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 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 End 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 **Initiate a General Call** on Page 15 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.

■ Initiate a Radio Call

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

1. Use [▲/▼] key
2.  Choose from the Contacts list thru Menu or Preset

Initiating and Receiving Calls

buttons.

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. Please refer to **Encryption** on Page 42 for more detailed information.

■ Using the UP & Down key to Initiate a Call

□ Initiating a Group Call

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

Procedure:

1. Rotate the [▲/▼] key to choose the channel with 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. 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.

5. If the "Tx Ended Tone" is enabled, you will hear a short tone when the transmitting radio is 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.

Note:

You also can initiate a group call through Contacts. (Please refer to **Initiating a Group Call** on Page 14 for more detailed information.)

□ Initiating a Private Call

To initiate a private call, your radio must be programmed as part of that private alias or ID.

Procedure:

1. Rotate the [▲/▼] key to choose the channel with preset private 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. 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.

Initiating and Receiving Calls

5. 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.

Note:

You also can initiate a private call through Contacts. (Please refer to **Initiating a private Call** on Page 14 for more detailed information.)

□ Initiating a 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 the [▲/▼] key to choose the channel with preset general 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 caller alias or ID will be shown on the display.
4. 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 general call icon, the caller alias or ID etc.
5. 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.

Note: Users on the channel can't answer to a general call.

□ Initiating a Group Call or Private Call

Procedure:

1. Press the preset [Contacts] Key to initiate a private or group call.
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, caller alias or ID, and the group call or private call icon will appear 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 call type icon, the caller alias or ID, and the transmitter radios alias or ID.
6. If the "Tx Ended Tone" is enabled, you will hear a short tone when the target 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.
7. If there is no voice activity in the preset time, then this call will be ended. The radios will be back to main menu.

Initiating and Receiving Calls

■ Manual dial to initiate a private call

Procedure:

1. Press preprogrammed "Contacts" key, and press [▲/▼] key to select sub menu-Manual dial.
2. Press "OK" key to enter Manual dial interface.
3. Input ID numbers directly.
4. Hold the radio vertically 2.5cm to 5cm(1 to 2 inches) from your mouth.
5. Press the [PTT] key to initiate a call, the LED indicator lights up solid red, the private call alias or ID, and the private call icon will appear on the display.
6. Wait for the "Tx Begin Tone" to finish (if enabled), and speak clearly into the microphone.
7. 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 ID or users ID.
- 8.If the "Tx Ended Tone" is enabled, you will hear a short tone when the target radio is 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. Or if there is no voice activity in the preset time, then this call will be ended.
9. When the call is end, press "Delete" key or press the  key to returns to the Home Screen.

■ Talk Around

You can continue to communicate by using talk around feature

when the repeater is not operating, or when two way radio is out of the repeater's range but within the talking range of other radios. This is known as "Talk Around"

Procedure:

1. Press preprogrammed "Talk Around" key to switching between talk around and repeater mode.

Note: When your radio works in talk around mode, the talk around icon "  " will appear on the display.

■ Monitoring features

☐ Monitor Momentary (Monitoring a channel)

Use the monitor feature to make sure a channel is free before transmitting.

Procedure:

1. Press and hold the preset [analog monitor] key and listen to the activity.
2. The LED indicator lights up solid green. (If LED indicator is enabled)
3. When you hear the activity of radio or "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. The LED indicator lights up solid green.
3. When you hear the activity of radio or "white noise"(the channel is free), press [PTT] to talk and release [PTT] to listen.

Content (III)

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Advanced Functions (pre-programmed by programming software)

DMR Service

For more information on turn on or off the radios setting and advanced functions through preprogrammed (by programming software), please review the following details.

Calling Duration

Users can preprogram the calling duration of a radio after ending call by using the programming software.
(Range from 30ms to 300ms)

Remote Monitor Duration

Users can limit the duration of the radio that being remote monitor by other users.
(Range from 10s to 120s)

Remote Monitor

Users can turn on or off for allowing your radio to receive and process the remote monitor instruction from other radios through pre-programmed (by programming software). This instructs indicate receiver radio within the range of remote monitor to revive its own Mic & transmitter. The radio will initiate a call silently and not give any notice to your radio about remote monitor.

Note:

The function is available ONLY in Digital mode.

Radio Killing

Users can turn on or off to allow the radio to receive and

process "Radio kill" instruction from another radio, and disable it remotely through pre-programmed (by programming software). This function can prevent the radio is used when it is stolen or lost.

Note:

The function is available ONLY in Digital mode.

Radio Check

Users can turn on or off for allowing other radios to check whether your radio is active in the system with no bother to that radio through pre-programmed (by programming software).

Note:

The function is available ONLY in Digital mode.

Radio Revive

Users can turn on or off for allowing your radio to receive and process "Radio revive"(revive your radio remotely) instruction from other radio through pre-programmed (by programming software). This function can be used when a stolen or lost radio has been recalled.

Note:

The function is available ONLY in Digital mode.

Call Alert

Users can turn on or off to allow other radios use the alert function to request you call back when you are available through pre-programmed (by programming software). But No voice communication.

Advanced Functions (pre-programmed by programming software)

Note:

The function is available ONLY in Digital mode.

Encryption Level

This function can add encryption to selected digital channel. The encryption is a scrambling solution based on the software, but not very reliable, it just for preventing eavesdrops. The portions of transmission signal and the user identification are not encrypted. The receiver and transmitter radio must be preset to have the same encryption level or the same Key Value and Key ID, then can decrypt an encryption-enable call or receive encrypted transmitting data. You can enable or disable the encryption function through custom buttons of Short press or Long press (The Encryption ON/OFF) or Encryption ("Eetting" menu). Your radio must enable "Encryption" function on the channel or the "Encryption" function of your radio to send an encrypted transmission signal. If the encryption function of Channel or your radio is enabled, the encryption icon will displays on the radio with LED.

Options:

- ◆ OFF — Turn off all encryption function of your radio.
- ◆ Low — Allow to add basic encryption to selected digital channel. For every radio, users must choose an initialization encryption key from preset list. If the initialization encryption key of receiving radio and the transmitting radio is different,

you will hear a chaotic transmission.

- ◆ Middle — Allow to add strong encryption to selected digital channel. Every channel with encryption ON must be connected with a initialization encryption key value. If the Key ID of the transmitting radio is not match with all Key ID of the receiving radio, the receiving radio will hear nothing.
- ◆ High — Allow to add enhanced encryption to selected digital channel. Every channel with encryption ON must be connected with a s initialization encryption key value. If the Key ID of the transmitting is not match with all Key ID of the receiving radio, the receiving radio will hear nothing.

Note:

The function is available ONLY in Digital mode. However, encryption function of a channel or a radio is not supported on some models.

Content (IV)

Use this directory to familiar with more function menu

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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 [] at any time to return to the Home screen.

Inbox

Receiving a Message

When your radio is receiving message, the radio will give a Message Tone (if enabled) and the display will show the message icon [].

Reading a Message

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 choose messages, and press [OK] key, then open message.
5. Press [Back] key to return to the Inbox.

Or:

Press [OK] key to access the Reply, Forward, Edit, or Delete message menu.

Press key to choose menu, then press [OK] key.

(Please refer to: the details operation for Reply, Forward, Edit,

or Delete message.)

6. Press [Back] key to return to the previous menu.

Note:

If there have unread message or received new message in the inbox, the display will show message icon [].

Managing Received Message

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 the order of text messages in Inbox are in accordance with the most recently received.

Tips: Long press [] at anytime to back to the Home Screen.

Replying to a Received Message

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 choose messages, and press [OK

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] key, then open message.

5. Press [OK] Key to access the submenu of Inbox.

6. Press to select "Reply" and press [OK] key. A flashing cursor appear, use the keypad to write the message.

Or:

Press [OK] key to access the Send, Insert common message or Exit Editor menu.

Press [▲/▼] key to select Insert common message, and press [OK] key. A flashing cursor appear, if need, use the keypad to edit your message.

7. After finished writing, press [OK] key to access the submenu.

8. Press [OK] key to select "Send" and press [OK] key.

9. The display will show "MSG sending"

10. If the message is sent successfully, the display will appear "MSG sent"

Or:

If the message is failed to send, the display will appears "Waiting-timeout"

11. The screen returns back to the previous menu.

Forwarding to a Received Message

To select the message from Inbox and send it to another users / Group call alias or ID.

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 choose messages, and press [OK] key, then open message..

5. Press [OK] Key to access the submenu of Inbox.

6. Press [▲/▼] key to select "Forward" and press [OK] key.

Press [▲/▼] key to select "Search" and press [OK] key.

Press [▲/▼] key to choose contacts alias or ID, and press [OK] key to send message.

Or:

Press key to select "Write Number" through keypad to input contacts ID number, press [OK] key to send message.

7. The display will show "MSG sending"

8. If the message is sent successfully, the display will appear "MSG sent"

Or:

If the message is failed to send, the display will appears "Waiting-timeout"

9. The screen returns back to the previous menu.

Editing to a Received Message

You can edit or modify the message on the Inbox before send.

Procedure:

1. Press [Menu] Key to access the menu.

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2. Press [▲/▼] key to select "Message" and press [OK] key.
3. Press [▲/▼] key to select "Inbox" and press [OK] key.
4. Press [▲/▼] key to choose messages, and press [OK] key, then open message.
5. Press [OK] Key to access the submenu of Inbox.
6. Press [▲/▼] Key to select "Edit" and press [OK] key.
7. A flashing cursor appear, use the keypad to write the message.

Press [▲/▼] Key to move one space to the left or right, press [Delete] key to delete any useless words before the flashing cursor.

Or:

Press [#] key to switch input mode. The current input method will be shown at the top of the display. (When it displays "AB" it means you are able to type capital letters. "ab" it means you are able to input lowercase letters. "12" it means you are able to type numbers from 0 to 9. "PY" it means you are able to type Chinese with Pinyin method.)

8. After finished writing, press [OK] key.

Press [▲/▼] key to select "Search" and press [OK] key.

Press [▲/▼] key to choose contacts alias or ID, and press [OK] key to send message.

Or:

Press [▲/▼] key to select "Write Number" through keypad to input contacts ID number, press [OK] key to send message.

The display will show "MSG sending"

If the message is sent successfully, the display will appear "MSG sent"

Or:

If the message is failed to send, the display will appears "Waiting-timeout"

Or:

Press Key to select "Insert common message" and press [OK] key.

Press [▲/▼] Key to choose the Quick Note, and press [OK] key. A flashing cursor appear, if need, use the keypad to edit the message.

Or:

Press [▲/▼] Key to select "Save" and press [OK] key. Then the message will be saved to "Outbox"

The screen returns back to the previous menu.

Or:

Press [▲/▼] Key to select "Exit Editor" and press [OK] key.

The screen returns back to the previous menu.

☐ Delete a Received Message

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.

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4. Press [▲/▼] key to choose messages, and press [OK] key, then open message.
5. Press [OK] Key to access the submenu of Inbox.
6. Press [▲/▼] Key to select "Delete" and press [OK] key.
7. The display will show "Confirm to delete"
Press [OK] key to delete, the display will show "Deleted"
- Or:**
Press [Cancel] key to return to the previous menu.
8. The screen returns back to the previous menu.

Writing a Text Message

Procedure:

1. Press [Menu] Key to access the menu.
2. Press [▲/▼] key to select "Message" and press [OK] key.
3. Press [▲/▼] key to select "Writing a Text Message" and press [OK] key.
4. A flashing cursor appear, use the keypad to write the message.
5. Press [▲/▼] Key to move one space to the left or right.
6. Press [Delete] key to delete any useless words before the flashing cursor.
- Or:**
Press [#] key to switch input mode. The current input method will be shown at the top of the display. (When it displays "AB" it means you are able to type capital letters. "ab" it means

- you are able to input lowercase letters. "12" it means you are able to type numbers from 0 to 9. "PY" it means you are able to type Chinese with Pinyin method.)
7. After finished writing, press [OK] key.
 8. Press [▲/▼] key to choose sub menu, and press [OK] key.
Press [▲/▼] key to select "Insert common message" and press [OK] key.
 - Or:**
Press [▲/▼] Key to choose the Quick Note, and press [OK] key. A flashing cursor appear, if need, use the keypad to edit the message.
 - Or:**
Press [▲/▼] Key to select "Save" and press [OK] key. Then the message will be saved to "Outbox"
The screen returns back to the previous menu.
 - Or:**
Press [Exit] Key to select "Exit Editor" and press [OK] key.
The screen returns back to the previous menu.
 - Or:**
Press [▲/▼] key to select "Search" and press [OK] key.
Press [▲/▼] key to choose contacts alias or ID, and press [OK] key to send message.
 - Or:**
Press [▲/▼] key to select "Write Number" through keypad

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to input contacts ID number, press [OK] key to send message.
The display will show "MSG sending"

If the message is sent successfully, the display will appear
"MSG sent"

Or:

If the message is failed to send, the display will appears
"Waiting-timeout"

9. The screen returns back to the previous menu.

Outbox

Procedure:

1. Press [Menu] Key to access the menu.
2. Press [▲/▼] key to select "Message" and press [OK] key.
3. Press [▲/▼] key to select "Outbox" and press [OK] key.
4. Press [▲/▼] key to choose messages, and press[OK]key.
5. A flashing cursor appear, use the keypad to write the message.
6. Press [▲/▼] Key to move one space to the left or right.
7. Press [Delete] key to delete any useless words before the flashing cursor.

Or:

Press [#] key to switch input mode. The current input method will be shown at the top of the display. (When it displays "AB" it means you are able to type capital letters. "ab" it means

you are able to input lowercase letters. "12" it means you are able to type numbers from 0 to 9. "PY" it means you are able to type Chinese with Pinyin method.)

8. After finished writing, press [OK] key.

9. Press [▲/▼] key to choose sub menu, and press [OK]key.
Press key to select "Insert common message" and press [OK] key.

Or:

Press [▲/▼] Key to choose the Quick Note, and press [OK] key. A flashing cursor appear, if need, use the keypad to edit the message.

Or:

Press [▲/▼] Key to select "Save"and press [OK] key. Then the message will be saved to "Outbox"
The screen returns back to the previous menu.

Or:

Press [▲/▼] Key to select "Exit Editor" and press [OK] key.
The screen returns back to the previous menu.

Or:

Press [▲/▼] key to select "Search" and press [OK] key.

Press [▲/▼] key to choose contacts alias or ID, and press [OK] key to send message.

Or:

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Press [▲/▼] key to select "Write Number" through keypad to input contacts ID number, press [OK] key to send message. The display will show "MSG sending"

If the message is sent successfully, the display will appear "MSG sent"

Or:

If the message is failed to send, the display will appears "Waiting-timeout"

10.The screen returns back to the previous menu.

Common message

You radio can preprogram the common message through software or through add Quick note to edit, it supports up to 50 Quick Noted. While Quick Notes are preset, you can view, edit, delete or send any predefined Quick Notes before send.

Procedure:

1. Press [MENU] key to access the menu.
2. Press [▲/▼] key to select "Message" and press [OK] key.
3. Press [▲/▼] key 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.

◆ 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 [▲/▼] key to move one space to the left or right, and use keypad to input text.

Press [Delete] key to delete any unwanted characters, and hold [#] key to change the input method, which will be shown at the top of the display.

("AB" it means you are able to type capital letters. "ab" it means you are able to input lowercase letters. "12" it means you are able to type numbers from 0 to 9."PY" it means you are able to type Chinese with Pinyin method.)

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

◆ Edit Quick Notes

Procedure:

View the setting of menu function and operation

The display will show the contents of the selected Quick Notes. When a blinking cursor appears, use the keypad to type message.

Press [▲/▼] key to move one space to the left or right, and use keypad to input text.

Press [Delete] key to delete any unwanted characters, and hold [#] key to change the input method, which will be shown at the top of the display.

("AB" means you are able to type capital letters. "ab" means you are able to input lowercase letters. "12" means you are able to type numbers from 0 to 9."PY" means you are able to type Chinese with Pinyin method.)

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 quick notes: save the edited notes.
- Exit Editor: 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.

◆ Send Quick Notes

You can send any quick notes or edit any of them before sending.

Procedure:

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

Press [▲/▼] key to move one space to the left or right, and use keypad to input text.

Press [Delete] key to delete any unwanted characters, and hold [#] key to change the input method, which will be shown at the top of the display.

("AB" means you are able to type capital letters. "ab" means you are able to input lowercase letters. "12" means you are able to type numbers from 0 to 9."PY" means you are able to type Chinese with Pinyin method.)

Press [OK] key again to access the sub menu.

Press [▲/▼] key to select the desired Contacts or ID.

Or press [▲/▼] key to select "Manual Dial" and use keypad to input the ID number. Press [OK] to send the quick note.

The display will show "Sending". If the quick note is sent successfully, it will show "Sent". Other wise, it will show "Failed".

6. Press [Back] key to return to the previous menu.

📄 Clear the Message List

You can clear the messages in the Inbox, Outbox and quick

View the setting of menu function and operation

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 access the sub menu.
- Press [▲/▼] key to select Inbox.

OR

Press [▲/▼] key to select Outbox.

OR

- Press [▲/▼] key to select Quick Note.
5. Press [OK] key to confirm.
 6. Press [OK] key and the display shows "Confirm to delete?"
 7. Press [OK] key to clear the selected list. Or press [Cancel] key to cancel.
 8. The display will return to the previous menu.

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 use to make a call. Each contact will be connected with **one** of four types of calls below:

- ① Group Call
- ② Private Call
- ③ General Call
- ④ 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.

◆ You radio can support at most 64 Contacts.

◆ 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:

Press the user-defined [Contact] key to access contact list and proceed to step 4.

OR

Follow the steps below to access contact list.

View the setting of menu function and operation

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.
4. Press [▲/▼] key to choose the desired alias or ID and press [OK] key.
5. Press [▲/▼] key to select "Info" and press [OK] key.
6. Display will show the information of a contact, such as name, number and attribute.
7. Press [BACK] key to return to the previous menu.

□ Add Contact

Procedure:

Press the user-defined [Contact] key to access contact list and proceed to step 4.

OR

Follow the steps below to access contact list.

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.
4. Press [▲/▼] key to choose the desired alias or ID and press [OK] key.
5. Press [▲/▼] key to select "Add Contact" and press [OK] key.
6. Display will show the information of a contact, such as

name, ID number and attribute.

7. Press [▲/▼] key to select "Name" and press [OK] key.
8. When a blinking cursor appears, use the keypad to type the name. Or Hold [#] key to change the input method, which will be shown at the top of the display. ("AB" means you are able to type capital letters. "ab" means you are able to input lowercase letters. "12" means you are able to type numbers from 0 to 9. "PY" means you are able to type Chinese with Pinyin method.)
9. Press [▲/▼] key to move one space to the left or right.
10. Press [Delete] key to delete any unwanted characters.
11. Press [OK] key to save the name.
12. It will return to the previous menu.
13. Press [▲/▼] key to select "ID Number" and press [OK] key.
14. When a blinking cursor appears, use the keypad to type the ID number, at most 8 numbers.
15. Press [▲/▼] key to move one space to the left or right.
16. Press [Delete] key to delete any unwanted characters.
17. Press [OK] key to save the ID number.
18. It will return to the previous menu.
19. Press [▲/▼] key to select "Save Contact" and press [OK] key.
20. The display will show "Contact saved"
21. The display will return to the previous menu.

View the setting of menu function and operation

Note:

- ◆ You can save a contact only when name and ID number is inputted.
- ◆ The call type of the added contact must be "Private Call"

□ Edit Contact

Procedure:

Press the user-defined [Contact] key to access contact list and proceed to step 4.

OR

Follow the steps below to edit contact.

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.
4. Press [▲/▼] key to choose the desired alias or ID and press [OK] key.
5. Press [▲/▼] key to select "Edit Contact" and [OK] key.
6. Display will show the information of a contact, such as alias, ID number and attribute.
7. Press [▲/▼] key to select "Alias" and press [OK] key.
8. When a blinking cursor appears, use the keypad to type the alias. Or Hold [#] key to change the input method, which will be shown at the top of the display.

("AB" means you are able to type capital letters. "ab" means you are able to input lowercase letters. "12" means you are able to type numbers from 0 to 9. "PY" means you are able to type Chinese with Pinyin method.)

9. Press [▲/▼] key to move one space to the left or right.
10. Press [Delete] key to delete any unwanted characters.
11. Press [OK] key to save the alias.
12. The screen will return to the previous menu.
13. Press [▲/▼] key to select "ID Number" and press [OK] key.
14. When a blinking cursor appears, use the keypad to type the ID number, at most 8 numbers.
15. Press [▲/▼] key to move one space to the left or right.
16. Press [Delete] key to delete any unwanted characters.
17. Press [OK] key to save the ID number.
18. The screen will return to the previous menu.
19. Press [▲/▼] key to select "Save Contact" and press [OK] key.
20. The display will show "Contact saved"
21. The display will return to the previous menu.

Note:

- ◆ You can save a contact only when alias and ID number is inputted.
- ◆ Only "Private Call" contact can be edited.

View the setting of menu function and operation

☐ Delete Contact

Procedure:

Press the user-defined [Contact] key to access contact list and proceed to step 4.

OR

Follow the steps below to delete contact.

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.
4. Press [▲/▼] key to choose the desired alias or ID and press [OK] key.
5. Press [▲/▼] key to select "Delete Contact" and press [OK] key.
6. The display will show "Contact deleted"
7. Press [OK] key to the contact. Or press [Cancel] key to cancel.
8. The screen will return to the previous menu.

☐ Send message from the Contact List

Procedure:

Press the user-defined [Contact] key to access contact list and proceed to step 4.

OR

Follow the steps below to edit contact.

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.
4. Press [▲/▼] key to choose the desired alias or ID and press [OK] key.
5. Press [▲/▼] key to select "Send Message" and [OK] key.
6. When a blinking cursor appears, use the keypad to type the message.

☐ Initiate a call from Contact

Procedure:

1. Press the user-defined [Contact] key. The contacts will be listed alphabetically.
2. Press [▲/▼] key to choose the desired alias or ID.
3. Hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
4. Press [PTT] key to initiate a call. Meanwhile, the LED light will turn red (if turned on).
5. The display will show the alias or ID and the icon.
6. You can speak clearly into the microphone until the "Tx Begin Tone" ends (if it has been turned on.)
7. Release the [PTT] key and wait. If anyone in the group make response, the LED lights green (if enabled). And the display will show the call type icon, Group Call ID or Private call ID.

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8. If the "Rx Ended Tone" feature is enabled, you will hear a short tone when the transmitting radio release the [PTT] key, which means your radio is free to respond.

OR

You can initiate a call from menu.

1. Press **【Menu】** key to access main menu.
2. Press **[▲/▼]** key to choose the "Contact" and press [OK] key.
3. Press **[▲/▼]** key to choose the "Contact List" and press [OK] key.
4. Press **[▲/▼]** key to choose the desired alias or ID. The contacts will be listed alphabetically.
5. Hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
6. Press [PTT] key to initiate a call. Meanwhile, the LED light will turn red (if turned on). The display will show the alias or ID and the icon.
7. You can speak clearly into the microphone until the "Tx Begin Tone" ends (if it has been turned on.)
8. Release the [PTT] key and wait. If anyone in the group make response, the LED light turn green (if enabled). And the display will show the call type icon, Group Call ID or Private call ID.
9. If the "Rx Ended Tone" feature is enabled, you will hear a short tone when the transmitting radio release the [PTT] key,

which means your radio is free to respond.

□ "Manual dial " to initiate a private call

Procedure:

1. Press **【Menu】** key to access main menu.
2. Press **[▲/▼]** key to choose the "Contact" and press [OK] key.
3. Press **[▲/▼]** key to choose the "Manual Dial" and press [OK] key.
4. When a blinking cursor appears, use the keypad to type the ID number, for a maximum of 8 numbers.
5. Press **[▲/▼]** key to move one space to the left or right.
6. Press [Delete] key to delete any unwanted characters.
7. Finish inputting.
8. Hold the radio vertically 2.5cm to 5cm (1 to 2 inches) from your mouth.
9. Press [PTT] key to initiate a call. Meanwhile, the LED light will turn red (if turned on). The display will show the alias or ID and the icon.
10. You can speak clearly into the microphone until the "Tx Begin Tone" ends (if it has been turned on.)
11. Release the [PTT] key and wait. If anyone in the group make response, the LED light turn green (if turned on). And the display will show the call type icon, Group Call ID or Private Call ID.
12. If the "Rx Ended Tone" feature is enabled, you will hear

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a short tone when the transmitting radio release the [PTT] key, which means your radio is free to respond.

☐ **Advanced Services**

Advanced services are needed to be programmed by software beforehand, and can be accessed by the user-defined keys or through Contact menu.

☐ **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 alias or ID.

☐ **Send Radio Detection**

Procedure:

1. Press the user-defined key [Radio Detection].
2. Press [▲/▼] key to select the desired alias or ID, and press [OK].
3. The display will show "Detecting..."
4. Wait for confirmation.
5. If the target radio is available in the system, the display will show "Detection succeeded" Otherwise, it will show "Detection Failed"
6. The screen will returns to the previous menu.

OR

Send radio detection through the menu.

Procedure:

1. Press [Menu] to access the main menu.
 2. Press [▲/▼] key to select "Contact" and press [OK] key.
 3. Press [▲/▼] key to select the desired sub menu.
- Press [▲/▼] key to select "Contact List" and press [OK] key.
- Press [▲/▼] key to select the desired alias or ID number, and press [OK] key.
- Press [▲/▼] key to select "Advanced Services" and press [OK] key.

OR

- Press [▲/▼] key to choose the "Manual Dial" and press [OK] key.
- When a blinking cursor appears, use the keypad to type the ID number, for a maximum of 8 numbers.
- Press [▲/▼] key to move one space to the left or right.
- Press [Delete] key to delete any unwanted characters.
- Press [OK] key.
- The display will show Advanced Services, and press [OK]key.
4. Press [▲/▼] key to select "Radio Detection" and press [OK] key.
 5. The display will show "Detecting..."
 6. Wait for confirmation.
 7. If the target radio is available in the system, the display will show "Detection succeeded" Otherwise, it will show "Detection Failed"
 8. The screen will return to the previous menu.