RECYCLABLE PACKAGING

MD-UV780 USER'S MANUAL

DMR DIGITAL TWO-WAY RADIO

GPS Optional

10W

单页尺寸：14x12.5cm

Our RadioBoss Technology radio generators RF electromagnetic energy during transmit mode. This radio is designed for and classified as “Occupational Use Only”, meaning it must be used only during the course of employment by individuals aware of the hazards, and the ways To Minimize Such hazards.

This radio is NOT intended for use by the “General Population” in an uncontrolled environment. This radio has been tested and complies with the FCC RF exposure limits for “Occupational Use Only”. In addition, our RadioBoss Technology radio complies with the following Standards and Guidelines with regard to RF energy and electromagnetic energy levels and evaluation of such levels for exposure to humans:

—-IEEE Std. 1528: 2013 and KDB447498, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields.
—-American National Standards Institute (C95.1-1992), IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz.
—-American National Standards Institute (C95.3-1992), IEEE Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields-RF and Microwave.

The information listed above provides the user with the information needed to make him or her aware of RF exposure, and what to do to as-sure that this radio operates with the FCC RF exposure limits of this radio. Electromagnetic Interference/ Compatibility.

During transmissions, RadioBoss Technology radio generates RF energy that can possibly cause interference with other devices or systems. To avoid such interference, turn off the radio in areas where signs are posted to do so. DO NOT operate the transmitter in areas that are sensitive to electromagnetic radiation such as hospitals, aircraft, and blasting sites.

Occupational/Controlled Use
The radio transmitter is used in situations in which persons are exposed as consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure.

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. An appropriate warning label is affixed to all units. In order to comply with RF exposure requirements, a minimum distance of 2.5cm must be maintained when held-to-face, and body-worn operations are restricted to the approved original accessories (belt clip).
Do not use this device when antenna shows obvious damages.

This product is compliance to FCC RF Exposure requirements and refers to FCC website https://apps.fcc.gov/oetcf/eas/reports/GenericSearch.cfm search for FCC ID: 2BLTR-UV780 to gain further information include SAR Values.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-Reorient or relocate the receiving antenna.
-Increase the separation between the equipment and receiver.
-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the use's authority to operate the equipment. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1)this device may not cause harmful interference, and
(2)this device must accept any interference received, including interference that may cause undesired operation.

WARNING: MODIFICATION OF THIS DEVICE TO RECEIVE CELLULAR RADIOTELEPHONE SERVICE SIGNALS IS PROHIBITED UNDER FCC RULES AND FEDERAL LAW.

To customers

Thank you very much for using our two-way radios. This product has a newly developed function menu and humanism operation design, making it easy to use. It will meet your requirement by the compact size and reasonable price.

Welcome to use our two-way radio

Frequency band:

136-174/400-480MHz (USA Version)
144-146/430-440MHz (EU Version)

120,000 contacts upgradeable
GPS Optional
Use Time-Division Multiple-Access (TDMA) digital function
Dual time slot for repeater
Dual time slot for point to point
Firmware upgradeable
Lone worker
Encryption function
Compatible with Mototrbo Tier I & II
Single call,group call and all call
Analog and digital combined
Remote kill/stun and activate
Comply with digital protocol ETSI TS 102 361-1,-2,-3
Color LCD display
Up to 3000 channels
Transmit interruption
Group call match (Promiscuous)
Private call match (Promiscuous)
8 hours of recording

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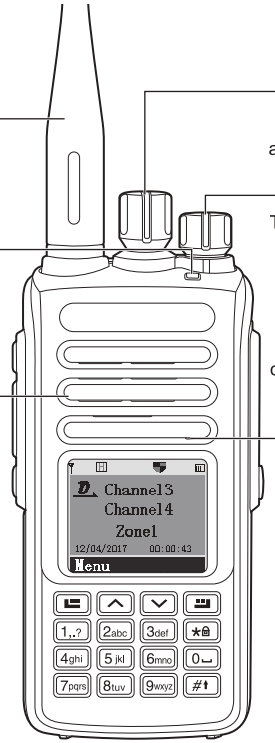
Getting familiar

Safety and Overview

Overview

Getting familiar



Antenna
with threaded head, for transmitting and receiving

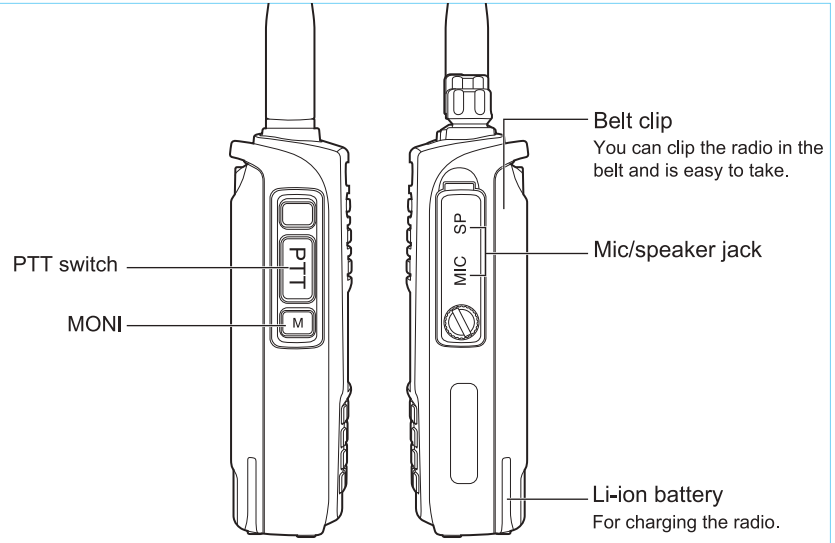
LED indicator light
The indicator light turns red when transmit, turns green when receive. It blinks red when the battery capacity is low, and blinks green when scanning.

Speaker
sound output

Channel-selecting knob
Select the working channel, channel annunciation when voice prompt is ON.

Power/volume knob
To power on/off and adjust the volume. Rotate it clockwise, a "click" sound is heard and a "Du" tone prompts the radio power on, continue to rotate it to adjust the volume. Rotate it counter-clockwise until a "click" sound is heard, it powers off.

Microphone
sound input



Notice: Either long-press or short-press of side-key1/ side-key2/P1/P2 can be programmed by software for the following functions:

1.Unassigned 2.All Alert Tones On/Off 3.Emergency On 4.Emergency Off 5.High/Low 6.Monitor 7.One Touch Access 1 8.One Touch Access 2 9.One Touch Access 3 10.One Touch Access 4 11.One Touch Access 5 12.One Touch Access 6 13.Repeater/Talkaround 14.Scan On/Off 15.Tight/Normal Squelch 16.Privacy On/Off 17.VOX On/Off 18.Zone Select 19.Battery Indicator 20.Lone Work On/Off 21.Record On/off(Firmware) 22.Record Playback(Firmware) 23.Delate All Record(Firmware) 24.1750Hz 25.Switch Up/down Screen 26.Right Key 27.Left Key

Safety and Overview

Product safety and RF Exposure for handheld two way radio .

!	Before using this two way radio, please read the manual which contains important operating instructions for safe usage, RF Energy Awareness, control information and operational instructions for compliance with RF Energy Exposure limits in applicable national and international standards Also read the operational instructions for safe use.

Overview

Switch On

Clockwise to turn on the radio volume knob, there will be a "KADA" sound, message sound, while the LED indicator lights up and becomes Green color if the battery is full charged.

Notice: if all LED indicators are forbidden, the screen will not light up when switch on the walkie talkie, but with a message sound.

Notice: if the Tones/Alerts is forbidden, there will not any sound when power on. Here, need to power off the walkie talkie and anticlockwise with the knob until a "KADA" sound.

Adjust Volume

Clockwise the volume knob to higher the volume or anticlockwise to lower: And there shows a volume line on the screen

Launch And Receive Calls

Emergency Function

Launch And Receive Calls

Zone Selection

Zones is a channel group. Each radio can set 250 zones and each zone with max 16 channels

The menu function:

1. Press [ ] key to enter the menu.
2. Press [or] key to choose, after that with [ ] key to confirm.
3. Screen shows the chosen zone and named by it.
4. Press [or] key to chose, after that press [ ] key to confirm.
5. Screen shows the chosen zone and named by it.

Selection Of Channels, User ID Or Group ID

Select the needed zone (if there are more than one zone), using the channel knob to select the channel, user name or ID, group name or ID.

Receive And Reply Group Call

The radio must be under a group, then can receive the group call.

When received the group call:

1. LED indicator is green color.
2. On the top of the middle screen will show RSSI mark: First line will show the group name, income call ID will be in the middle, group call ICON will be the last (this happens only under Digital mode)
3. Hold the radio and place it between your lip within 2.5~3cm
4. Press[PTT]key to answer the call, LED indicator light change to red color.
5. Release[PTT]key to receive next call
6. If there are not any voice activity, the call end.

Notice: When the radio out of the home page and if there is a group call income, it will be show all the time on the screen before you answer it.

Press [ ] key to receive the call, and check the income ID before reply.

Receive And Reply The Single Call

Single call means one on one call. Only with two types: One is testing presence of radio before call, and another one is to call immediately.

When Receive The Single Call:

1. LED indicator is green color.
2. On the top of the middle screen will show RSSI mark, follows shows single call, user name or ID in the middle, single call mark at the end (Only for analogue mode).
3. Hold the radio and place it between your lip with 2.5~3cm
   If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound, means this channel is free for you to answer.
4. Press[PTT]key to answer the call, LED indicator light change to red color.
5. Release [PTT]key to receive.
6. If there are not any voice activity, the call end.
7. You will hear a message sound and screen shows the call finished.

Receive all calls

All call means a walkie talkie call up all other users in a channel to public an important information

When receive the all calls:

1. LED indicator becomes green.
2. On the top of the middle screen will show RSSI mark,follows shows all call, User name or ID in the middle, all call mark at the end (Only for digital mode)
3. End of the all call, radio back to the screen before all call. If under the "free channel message sound" function, when release the PTT key, you will hear a message sound, means this channel is free to use and cannot reply

Notice: when receive the all call, if you turn over to another channel, the radio stop to receive all call. During the all call, You cannot use any re-programmed key until the call finished.

Launch a radio call

You can choose a channel, user ID or group call with following methods

- Channel Knob
- Pre-programmed key
- Contacts
- Manual dialing (only for single call)

Using Channel Knob To Make A Call

Group Call

The radio should be under the group then can have the group call

1. Turn over channel knob , use group name or ID to choose channel
2. Hold the radio and place it between your lip with 2.5~3cm.
3. Press[PTT]key to call, LED indicator changes to red. Screen shows group name or ID with group mark.
4. Let go [PTT] key to receive, when target radio is replying, LED indicator becomes green. Screen shows group mark or name or ID .
5. If on the "free channel message sound" function. let go [PTT] key, you can hear a message sound, means it channel is free for you to answer.
   If there are not any transmitter within the time limited, the call failed.
6. When walkie talkie back to home screen, you can make a group call with contacts.

Private Call

1. Turn over channel knob, use the name or user ID to choose channel.
2. Hold the radio and place it between your lip with 2.5~3cm.
3. On the top of the middle screen will show RSSI mark, follows shows private call.
   User name or ID in the middle, private call mark at the end (Only for analogue mode).
4. Let go [PTT] key to receive, when target radio is replying, LED indicator becomes green
5. If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound (means it channel is free for you to answer)

If there are not any transmitter within the time limited, the call failed.

6. You will receive a message sound and screen shows call finished.

You can make a single call with contacts or use keyboard to search the target walkie talkie to make a call.

All Call

Walkie talkie must be programmed with this function, so that you can send information to every user who are under the channel.

1. Turn over channel knob, use the name or user ID to choose channel.
2. Hold the radio and place it between your lip with 2.5~3cm.
3. Press [PTT] key to release a call, LED indicator becomes to red color. Screen shows Group name or ID with all call mark.

User under the channel can not reply the call.

Use A Key To Make A Group Call Or Private Call

Single key call function is convenient for you to set a name or ID for group call or private call with long-press or short-press the program key. Set a name or ID for a key there are more than one private call key.

1. Press pre-programmed call key.
2. Hold the radio and place it between your lip with 2.5~3cm
3. Press [PTT] key to call, LED indicator becomes to red color. Screen shows name or ID with a mark.

4. Let go[PTT] key to reveive, when target walkie talkie is replying, LED indicator changes to green.
5. If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound, means it channel is free for you to answer.

If there are not any voice activity, the call end.

6. Walkie talkie back to before call screen.

Using Manual Dial to make a call

There are two methods to enter Manual Dial

- Contacts
- Shortcut key

Press [ ] →Contacts→Manual Dial

Shortcut key

When radio standby, press [ ] to enter Manual Dial.

Emergency Function

Emergency alarm only use to transfer emergency situations, you can release a emergency call at anytime and anywhere. Even the walkie talkie is busy in transferring or receiving

Radio support 3 types of emergency call:

- Emergency Call
- Call follow emergency alarm
- A voice follow emergency alert

Moreover: alarm has the following types:

- Prohibit: radio can not send emergency call but can receive.
- Local + Remote: An emergency call with voice or notice.
- Remote: an emergency call without any voice or notice. Before press [PTT]key to call, local radios will not receive any voice or notice.
- Remote + Voice: radio sending an emergency call while accept to receive calls. Before press the [PTT] key to transmitter or reply, there are not any notice

Only one part of above emergency situations can be set as pre-programmed key.

Receive Emergency Call

1. When receiving emergency call, number of emergency calls and alarms received, exchange the sender name or ID.
2. With a message sound and LED indicator becomes red
3. If the radio have activated, then will confirm the emergency alarm automatically. When the radio receive the emergency alarm, screen shows the emergency alarm warning mark, until send with a confirm message then can logout. While, you will not receive any calls and notices from other radios during this situation.

Notice:short-press [▭] key, then with the pre-programmed off key, delect all received emergency call and logout the emergency mode .

Reply the emergency call

When received the emergency call:

1. Press any key to stop the emergency call alarm
2. Hold the radio and place it between your lip with 2.5~3cm. If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound, means it channel is free for you to answe.
3. Press [PTT]key to have a call. LED indicator becomes red. walkie talkie under the emergency call mode.
4. Let go [PTT] key to receive, when reply the emergency call, LED indicator becomes green. The screen shows group mark or ID and call ID
5. After the call, short-press [▭] key, then press pre-programmed emergency key to off, delect all the emergency call and logout.
6. Radio back to home screen.

Emergency Alarm

This function called not-speech signal and allows to send emergency alarm and will trigger on another radio.

1. Press pre-programmed power on key.
2. Screen shows sending emergency call, exchange ID with other walkie talkie. LED indicator changes to red and emergency call mark will down on the home screen.
3. When receive the emergency call, the radio issues the emergency call and LED indicator changes to green, screen shows emergency call send out successfully.
   Or, if the radio does not receive any confirm with the emergency call and out of the sending times, the radio will with a message sound and screen shows the emergency call failed.
4. Radio logout the emergency mode and back to home screen. If the radio under silence mode, there will not any sounds or reminder during the emergency mode.

Emergency Alarm call

This function allows you to send emergency call to other radio. After confirmed by the radio, the two radios can contact by a pre-programmed channel.

1. Press pre-programmed key to switch on
2. Screen shows sending emergency alarm call, exchange ID. LED indicator becomes red, emergency call mark will down on screen.
3. when the radio confirm with the sending emergency, screen will show emergency call successful and LED indicator change to green.

4. Hold the radio and place it between your lip with 2.5~3cm.
5. Press[PTT]key to call, LED indicator light changes to red, screen shows the group mark.
6. Let go [PTT] key to receive.
7. If on the "free channel message sound" function, let go [PTT] key, you can hear a message sound (means it channel is free for you to answer)
   Or press pre-programmed emergency call to off and logout the mode.
8. Radio back to home screen. If the radio is under the silence mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie, until press the [PTT] key. If the radio under "with voice mute" mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie. Until press the [PTT]key to call or receive, then the screen will show up.

Voice emergency Alarm

This function allows you to send emergency call to others ,after confirm with you, your radio microphone activate, allows you to call other radios with press the [PTT] key. This called "Emergency microphone". If press [PTT] key during pre-programmed emergency microphone. radio without ignore the [PTT] and stay on emergency mode.

Notice: If press[PTT]key during the emergency microphone, hold the key before duration within limits, let go [PTT]key to transfer.

1. Press the pre-programmed emergency start key.
2. Screen shows sending emergency call, LED indicator becomes red color and emergency call Mark will show on Screen.

3. Screen will show emergency call successful, then speak clearly. When under activated emergency microphone, radio transfer automatically without press [PTT] key before duration within limits
4. During transfer, LED indicator becomes red and emergency alarm mark will show on screen.
5. After the time of emergency microphone, radio stop to transmit. Press [PTT] key to transmit again If the radio under the "Silence" mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie, until pass the pre-programmed emergency microphone limited time and press with [PTT] key. If the radio under "with voice mute" mode, there are not any sounds or notices during the emergency mode, not receive calls from target walkie talkie. Until press the [PTT]key to call or receive, then the screen will show up.

Notice: If the emergency call failed, then the walkie talkie will back to home screen.

Restart Emergency Mode

Two situations will be happen:

- It will logout the emergency mode, if the walkie talkie change the channel under the emergency mode. While, reset the emergency mode under the new channel, the walkie talkie restart the emergency call.
- If press the Pre-programmed emergency key during the emergency call, the walkie talkie will be stop the emergency call but restart later.

Logout Emergency Mode

The walkie talkie will logout emergency mode when any of the following situations happen.

- Confirm with the received emergency call, or
- Meet with the max emergency call, or
- press the pre-programmed emergency off key, or
- Press[PTT]key.

Notice: Emergency mode will be logout when power off the walkie talkie. Radio will not under emergency mode when the radio is power on next time.

Menu operation

Settings

Menu operation

Character Input

Users can use the 3 x 4 alphanumeric keypad to access the radio's function. When you're Using the keypad to input a user alias or text messages, walkie-talkie input contains three modes: 1, English letters mode, 2, chinese input mode, 3, digital input mode. When using the keypad input ID, you can only select the digital mode.

English Typing:

Users have to press a button several times for getting some characters. The following table shows how many times needed to press a button to get the required character.0

Button	1	2	3	4	5	6	7	8	9	10	11	12	13
1	1	.	,	?	!	@	&	'	%	-	:	*	#
2	a	b	c	2	A	B	C						
3	d	e	f	3	D	E	F						
4	g	h	i	4	G	H	I						
5	j	k	l	5	J	K	L						
6	m	n	o	6	M	N	O						
7	p	q	r	s	7	P	Q	R	S				
8	t	u	v	8	T	U	V						
9	w	x	y	z	9	W	X	Y	Z				
0	0	Space											
*	*												
#	Press # to switch mode.												

Chinese Typing

Number 1 is a button of punctuation s selection input, Number 2-9 are correspond Pinyin input, when user input something, the screen shows the pinyin input interface, the first line of interface shows the contents inputted by user., second line of interface shows the Chinese characters what users input. When the content of the pinyin input interface show in the first row,users can move [▲ or ▼] to select Pinyin, users can press [◀]button to delete the Pinyin what they inputted previously one by one, when all the Pinyin characters were deleted, Pinyin input interface disappeears. Press [●] button to choose corresponding Chinese characters and display them in the editing area, At this time the Chinese character input finised, Pinyin input interface disappears. . Pressing* button shows *, pressing 0 button shows space, press # to switch input modes.

Numeral Writing

When in the Numbers input mode, press the number keys to display the corresponding number, press the "key to display" on the screen, press # to switch input mode.

Note: When users Enter a user alias, ID, or text messages, if editing area without any content, then the [◀] button is used for returning to the higher level menu, or else if there is any content on the editor area, pressing [◀] will delete one character before the cursor at one time, until the editing area has no content, then press the [◀] button to return to the higher level menu.

Menu Application

1. Press [◀] to enter Menu, then press left or right [▲ or ▼] to access the menu function
2. Press [◀], select a function or go into a sub menu.
3. Press [◀] to return the higher level menu.

Note: After a period of time not activity radio will automatically exit and return to the main menu screen (hang time is set by the programming software).

Radio chcek

If there are any activation, this feature allows you to determine whether there is other two way radio active inside the system, and does not disturb the walkie-talkie users, none-voice or visual notice appears on the target two way radio

Send Radio Check

Using menu:

1. Press [●] to enter menu.
2. Press [▲ or ▼] button to select Contacts, then press [●] to select.
3. Press [▲ or ▼] toThe required user alias or ID, then press [●] to select.
   Or press [▲ or ▼] key to manual dialing, and then press [●] key to select. If there are before calling ID, show ID and along with the flashing cursor, using the keyboard editing ID, press [●] .
4. Press [▲ or ▼] to radio detection, and then press [●] to select.

5. When Screen displays radio detection: < user alias or ID >, it is indicating the ongoing of radio detection. The LED indicator light is red.
6. Waiting for confirmation
7. If the target radio is active in the system , then it makes a prompt sound, screen will show that target two way radio has responded shortly.
   Or if the target radio in the system is not active, then it makes a prompt sound, screen will show that target two way radio has no answer shortly.
8. Two way radio returns to user alias or ID screen. If you press [ ] when waiting for confirmation, made a prompt sound, two way radio will end all retry and exit the two way radio detection mode.

Monitor

Using monitoring function to open the target two way radioís microphone (only the user alias or ID). You can use the function to monitor any sound around target two way radio.
Your must allow your two way radio to use this function by programming it.

Start Monitor

Using the menu:
1. Press [ ] to enter the menu.
2. Press [ ] or [ ] to Contacts,then press [ ] to select.
3. Press [ ] or [ ] to The required user alias or ID, then press [ ] to select.

   Or press [ ] or [ ] key to manual dialing, and then press [ ] key to select.
   If there are any calling ID remains before, radio shows the ID and along with the flashing cursor, using the keyboard to edit the ID, press [ ] key to choose.
   Or press [ ] or [ ] key to manual dialing, and then press [ ] key to select. Inputting the user alias or ID, and then press [0k] key to select.
4. Press [ ] or [ ] to select Remote Monitor then press [ ] to select.
5. When two way radio makes a prompt sound, LED light turns green.
6. Waiting for confirmation.
7. Screen displays Monitor successed,
   Or screen displays Monitor failed
   If success: two way radio began to receive voice signals from the radios which are being monitored voice and screen displays two way radio are moniting, until the end of the duration of the preprogrammed, two way radio made a prompt sound, and the LED light puts out, screen display that monitoring ends.
   If failed: two way radio Repeats until reach the preprogrammed attempts.

Contacts setting

Contacts is "address book" for handheld two way radio. Each entry corresponds to an alias or ID used to start the call. In addition, each item, according to the different content setting, relate to three types of call: group calling, single call, all call. Your radio support digital address book.
The Contactsí entries display in the following information

- Contacts
- New Contact
- Manual Dial

Note: you can add, delete, edit Contacts person in the digital address book(contacts)

Group Call With Contacts

1. Press [ ] to enter menu.
2. Press [or] to contacts, then press [ ] to choose, entries arrange in alphabetical order.
3. Press [or] to required calling group's alias or ID.
4. Holding the radio and let it in a vertical position and keep mouth 1 to 2 inches (2.5 to 5.0 cm) with radio.
5. Press [PTT] to start calling, the LED turns red. The screen displays the calling group's alias or ID,as well as icon of group call.
6. Releasing (PTT) button to receive, when any user response within the group, the LED light turns green. You will see on the screen group call icon of user's ID.
7. If you enable the "channel Free prompt " function: when the target radio release the (PTT) button, you will hear a short beep, said this channel is idle, waiting for your answer. Press the call key (PTT) to answer. If in a preprogrammed group called hang time without voice activity, the call is ended.

Private Call With Contacts

1. Press [ ] to enter menu.
2. Press [or] to Contact,then press [ ] to choose, entries arrange in alphabetical order.
3. Press [or] to required calling group's alias or ID.
   Or press [or] key to manual dialing, and then press [ ] key to choose. If there is a user alias or ID called before, radio shows ID and along with the flashing cursor, using the keyboard editing this ID.
   Or press [or] key to manual dialing, and then press [ ] key to choose, using the keyboard to enter a new ID.
4. Holding the radio and let it in a vertical position and keep mouth 1 to 2 inches (2.5 to 5.0 cm) with radio.
5. Press [PTT]to start calling, the LED turns red. The screen displays the calling group's alias or ID,as well as icon of group call.
6. Releasing (PTT) button to receive, when any user response within the group, the LED light turns green. You will see on the screen group call icon of userís ID
7. If you enable the "channel Free prompt " function: when the target radio release the (PTT) button, you will hear a short beep, said this channel is idle, waiting for your answer. Press the call key (PTT)to answer. If in a preprogrammed group called hang time without voice activity, the call is ended.
8. You will hear a sound short, screen shows the call ended.

Note:

If you release(PTT) button when you are setting up the call, and when it will exit and return to the previous screen without any remind. Radio can be preprogrammed executive two way radio are testing before establishing single call. If the target radio did not reply, you will hear a short beep, and screen shows the other radios did not reply. Two way radio return to menu before starting the radios around test.

New contact

1. Press [ ] key to enter the menu.
2. Press [or] to Contacts, and then press the [ ] key to select.
3. Press [or] to the New Contact, and then press the [ ] key.
4. Press [or] to Private Call or Group Call, and then press the [ ] key.
5. Enter the ID number and then press the [ ] key.
6. Enter the alias, and then press the [ ] key.
7. Press [or] to select the required hint, and then press the [ ] key.
8. Screen shows that the contact has been saved.

Note: When the contact shortcut key is set, the standby radio can quickly skip to the contact position in the Contacts by the corresponding shortcut key on the keyboard.

Call Log

Your radio can record all the recent dialed, received, and not answered call. Use the calling record function view and manage the recent calls.

Checking New Call's Number

Menu items can show the not answer call ,received calls and dialed call.

1. Press [ ] key to enter the menu mode.
2. Press the [or] key to the Call Log, and then press [ ] key to choose.
3. Press [or] to the required list, and then press [ ] key too choose.
4. The screen on the top of the list shows the recent entries.
5. Press [or] check list, press (PTT) at the current selected aliases or ID to start a call.

Missed Call

Whenever you miss call, two way radio will display a not answered call, select view or view later.

Note:

If you press (PTT),when you're viewing missing call number, radios will exit the missing call screen and establishing a single call again.

1. The screen shows the missing call, and the missing call's number and view.
2. Press [ ] view missing call's ID, missing call's record list displayed on the screen. Press [ ] to store or delete this entry; Or press [or] key to view later, and then press [ ] key choice, return to the main screen.

Storing Missed call's Alias Or ID

1. Press [ ] key to enter menu.
2. Press the [or] key to Call Log, and then press [ ] key to choose.
3. Press the [or] key to missed call, and then press [ ] key to choose.
4. Press [or] key to missed call's alias or ID, and then press [ ] key to choose.
5. Press the [or] key to store, and then press [ ] key to choose

6. Radio Shows flashing cursor, if needed, enter the ID alias, and then press [ ] key.
7. The screen contacts have been saved.
   You can also enter ID without alias.

Deleting Calling Log's Record

1. Press [ ] key to enter the menu.
2. Press the [or] key to Call Log and then press [ ] key to choose.
3. Press the [or] key to missed call, and then press [ ] key to choose.
4. Press [or] key to missed call's alias or ID, and then press [ ] key to choose
5. Press [or] key to delete the entries,then press [ ] key to select if you need to delete this entry.
6. Select "yes" , then press [ ] key to delete the entries, screen appears entry deleted;
   Or select "no" , press [ ] key to return to previous screen.
   When you select a call list but there is no entry in, the screen will display the list is empty, if the keyboard is open at this time, will be a low tone hint sound.

Call Alert Operation

Call alert makes you can suggest a specific radio users in the possible time to call you back. This feature applies only to the user alias or ID, and can be used through the menu by address book or manual dialing.

Receiving And Checking Call Alert

When you receive a call alert, screen shows call prompt, alternating transmit radio's alias or ID.

1. YOU will hear sound of repeat, LED light turn and shine red.
2. Then press and release [PTT] to confirm the prompt, or press [ ] to select "neglect" to exit the call reminder.

Starting Call Alert From Contact List

1. Press [ ] key to enter the menu.
2. Press the [or] key to Contacts, and then press [ ] key to choose.
3. Press [or] key to missed call's alias or ID, and then press [ ] key to choose.
   Or press [or] key to manual dialing, and then press [ ] key to choose, a flashing cursor appears,then enter the user ID you want to call, and then press [ ] key.
4. Press [or] key to Call Alert, the screen display Call Alert: < user s alias or ID >,and then press [ ] key and instructions have been sent Call Alert.
5. When the radio send call alert, the LED indicator for the red light.
6. If you receive calls prompt confirmation, issued a prompt, and display the call alert success.
   Or prompt confirmation if not received a call, send a hint sound, and the screen call failure.

Messages Function

Your radio can receive data, such as from another radio sent text messages, message of a maximum length of 144 characters, whole message is not longer than 50 lines.

Edit And Send SMS

Using the menu

1. Press [ ] key to enter the menu.

2. Press the [or] key to Messager, and then press [ ] key to choose.
3. Press [or] key to write, and then press [ ] key.
4. A flashing cursor appears, using the keyboard to input messages, press [ ] key to move to the left one, press [ ] button to the right one, when editing area have content, press the [ ] key to delete any useless character, otherwise when editing area without content to return to the higher level menu.
5. After writing the text, press [ ] to choose to send or save.
6. When on the process of editing, user can choose by pressing the [ ] key to empty option to empty all the content of the editor, quickly return to the higher level menu.
7. Choose the [or] key to the alias name or ID, and then press [ ] key to select . Or press [spending] key to manual dialing, and then press [ ] button, enter your user ID and press [ ] key.
8. The screen shows message: < user/group name or ID > call, sending message are being confirmed.
9. If the messages sent successfully, issued a prompt sound, and the screen displays text message has been sent.
   Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure. If message sent failure, radio will return to chance to return to the retransmission selection screen.

Send Quick Text

Two way radio support maximum 50 programming of prefabricated text messages by the agent: When a predefined text message, you can edit every message before you can send each message.

Using the menu

1. Press [ ] key to enter the menu.
2. Press the [or] key to Messages, and then press [ ] key to choose.
3. Press [or] key to Quick Text, press [ ] key to choose.
4. Press [or] key to the required quick text, press [ ] key to choose.
5. A flashing cursor appears, using the keyboard to input messages, press [ ] key to move to the left one, press [ ] button to the right one, when editing area have content , press the [ ] key to delete any useless character, otherwise when editing area without content to return to the higher level menu.
6. After writing the text message, press [ ] to choose to send or save.
7. If the messages sent successfully, issued a prompt sound, and the screen displays text message has been sent.
   Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure. If message sent failure, radio will return to chance to return to the retransmission selection screen.
8. After Choose send press [or] to the alias or ID, and then press [ ] key to choose. Or press [or] key to manual dialing, and then press [0 k] key choice. Enter the user alias or ID, then press [ ].
9. The screen shows message: < user/group name or ID > call, text messages were a being sent to confirm.
10. If the messages sent successfully, issued a prompt sound, and screen display text

message has been sent. Or if the message can't send, send out a high tone hint sound, screen display message sent failure, failure if the SMS messages, intercom chance to return to the retransmission selection screen.

Send Quick Text With A Key

1. Press Preprogrammed,single bond calls to a predefined alias or ID sends a prefabricated text messages.
2. The screen displays a text message: < user/group name or ID > call, to confirm text messages were being sent
3. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.
   Or if you cannot send text messages, screen display text message sent failure. If message sent failure, intercom chance to return to the retransmission selection screen.

Manage The Failed SMS

In retransmission selection screen, you can choose the following options:

- Resend
- Forward
- Edit

Resending message

1. Press [▭] to resend same message to same user/group name or ID.
2. If the messages sent successfully, issued a prompt sound, and display messages sent or

if you cannot send text messages, screen display text message sent failure.

Forwarding message

Choose to forward message to another User/group name or ID.

1. Press the [▲ or ▼] key to forward, and then press [▭] key choose.
2. Press [▲ or ▼] to the alias name or ID, and then press [▭] key to choose.
   Or press [▲ or ▼] key to manual dialing, and then press [▭] button to choose, enter your user ID and press [▭] key.
3. The screen display a text message: < user/group name or ID > call, to confirm text messages were being sent.
4. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.
   Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure.

Editing messages

Choosing edit to edit message before you edit.

Note: if you have a subject line (receive text messages from email program), you can't edit the subject line.

1. Press [▲ or ▼] key to edit, then press [▭] key to choose.
2. A flashing cursor appears, using the keyboard to input messages, press [▲] key to move to the left one, press [▼] button to the right one, when editing area have content,

press the [ ] key to delete any useless character, otherwise when editing area without content to return to the higher level menu.

3. After writing the text, press [ ] choose to send or save.
4. When in the process of editing, can choose by pressing the [ ] key to empty option to empty all the content of the editor, quickly return to the higher level menu
5. Choose after [or] button to send the required alias or ID, and then press [ ] key to choose.
   Or move [or] key to manual dialing, and then press [ ] button, enter your user ID and press [ ] key.
6. Screen displays message: < user/group name or ID > call, to confirm text messages were being sent
7. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.
   Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure.

Manage The Sent SMS

Once a message is sent to another radio, it will be saved in the "sent items". Send after sending a text message has always been to "sent items" at the top of the list. The sent items folder can store up to 50 recently send text messages. After the folder is full, the next send text messages will automatically replace the earlier messages in this folder.

Note: at any time pressing the [ ] key can return to the previous screen.

Check the sent messages

Using the menu function:

1. Press [ ] button to enter the menu.
2. Press the [or] key to Messages , and then press [ ] key to choose.
3. Press [or] to sent items, and then press [ ] key to choose.
4. Press the [or] key to the SMS, and then press [ ] key choose. If the message from the email program, a subject lines, will appear in the top right corner of the screen icon indicates state of SMS.

Sending the sent messages

When the view sent messages, you can choose the following options:

- Resend
- Forward
- Edit
- Delete

1. Check the message, press [ ] key again.
2. Press the [or] key to resend, then press [ ] key to choose.
3. The screen displays: < user/group name or ID > call, confirm that it is preparing to send the same message to the same target radio.
4. If the messages sent successfully, issued a prompt sound, and the screen display text message has been sent.

Or if the message was not sent, issued a high tone hint sound, and screen displays text message sent failure. If message sent failure, intercom chance to return to the retransmis sion options screen. Press the [ ] key to send SMS weight to the same user/group name or ID.

Note: Except for pressing the [ ] , [or] key, if you change the volume and the pre-ss any other key, will return to this message. When you press [PTT] for a single call or group call, or as a response to the group calling,radio will exit the retransmission selection screen. If received text messages or remote sensing information, emerge-ncy call, or call the police, or call reminder, radio will exit the retransmission selection screen.

If you press [PTT]in response to a single call (in addition to the radio in the show did not answer the call screen), or at the end of all call, the screen will return to resend selection screen. Press [ ] key, enter the forwarding, edit, or delete selection screen.

- choose forward, will choose the SMS sent to speak to other groups/user alias or ID.
- choose to edit, to edit the selected text messages before sending
- choose delete, delete the selected text.

Note: if you screen out SMS messages when send text messages, so radios will be in the "sent items" folder for SMS status updates, not the tip or by voice prompt. If the messages in the sent items folder state before update, walkie-talkie pattern changed or blackout, wal-kie-talkie will not be able to complete the ongoing message processing, and automatically start tag to the icon of failure. This radio can handle 5 text messages at the same time. At this stage, the radio can't send a new message, and automatically start tag icon to send failure.

Deleting all Sent Messages In the "sent items"

Using the Menu Function

1. Press the [ ] button to enter the menu.
2. Press the [or] key to Messages, and then press [ ] key choice.
3. Press [or] to Sent Items, and then press [ ] key choice.
4. Press the [or] key to delete all, and then press [ ] key choice.
5. When it appears to delete messages, press [ ] button, select "yes" project has clear screen display has been sent.

   Or delete the text, press [or] to no, and click [ ] key to return to the previous scr-een. When you select the "sent items" but not one of them text messages, the screen will display the list is empty, if the keyboard is open at this time, will be a low tone hint sound.

Receive SMS

When your radio are receiving SMS, the left of the screen shows the sender alias or ID

ICONS and text messages.

When receive text messages, you can choose the following options:

- reading?
- Reading Later
- delete

Note: when the radio shows tip on the screen, please press (PTT), two way will exit and to establish a single call or text message screen group call.

Check the SMS

1. Press the [▲ or ▼] key to Read, and then press [■] key to choose.
2. the selected text messages on the inbox opened, if the message is from the email program, it will appear a subject line.
3. Click [■] key to return to your inbox.
   Or press [■] to reply,forward or delete messages.
   Press [▲ or ▼] key to enter later view or delete selection screen:
   Later, select view screen before returning to receive messages.
   Choose delete, delete receive text messages.

Manage Received SMS

Use your inbox to manage messages. inbox can store up to 50 text messages at Most.
Two way radio supports the following text options:

- Reply
- Forward
- delete
- Delete all

store the message in the inbox in the order of received time .
Note: at any time according to the [↩] key can return to the previous screen.

Check The Inbox SMS

1. Press the [■] button to enter the menu.
2. Press the [▲ or ▼] key to Messages, and then press [■] key to choose.
3. Press [▲ or ▼] to the inbox, and then press [■] key to choose.
4. Press the [▲ or ▼] key to check the message. If the messages are from the email program, it will appaer a subject line.
5. Press the [■] key to choose the current text, then press [■] key again to reply, delete, or forward this message.

Unread messages: , Already read message:

Reply The Inbox SMS

Use the menu function:

1. Press [ ] button to enter the menu.
2. Press the [or] key to message, and then press [ ] key to choose.
3. Press [or] to the inbox, and then press [ ] key to choose.
4. Press the [or] key to the SMS, and then press [ ] key to choose. If the messages are from the email program, it will appear a subject line.
5. Press again [ ] button to enter submenu.
6. Press [or] to reply, and then press [ ] key to choose.
7. Press [or] to write messages, and then press [ ] key choice, a flashing cursor, using a keyboard editing text messages.
   Or press [or] key to prefabricated text messages, and then press [ ] key to choose. Choose the required message after press [ ] a flashing cursor, if needed, with the keyboard editing your message.
8. After Writing the text, press [ ] .
9. The screen displays message : < user/ call group name or ID >, to confirm. text messages were being sent .
10. If the messages sent successfully, issued a prompt sound, and screen display text message has been sent.
    Or if you cannot send text messages, screen display text message sent failure. If message sent failure, radio return to the retransmission selection screen.

Deleting the inbox messages

Use the menu function:

1. Press the [ ] button to enter the menu.
2. Press the [or] key to message, and then press [ ] key to choose.
3. Press [or] to the inbox, and then press [ ] key to choose.
4. Press the [or] key to the SMS, and then press [ ] key choice. If the messages are from the email program, it will appaer a subject line.
5. Press again [ ] button to enter submenu.
6. Press the [or] key to delete, and then press [ ] key to choose.
7. Delete messages, press [or] key to "yes", then press [ ] key to choose.
8. Screen appears short message has been deleted.
9. The screen back to inbox.

Deleting all messages in the inbox

Use the menu function:

1. Press the [ ] button to enter the menu.
2. Press the [or] to the Message, and then press [ ] key to choose.
3. Press [or] to the inbox, and then press [ ] key to choose.
4. Press the [or] key to delete all, and then press [ ] key to choose.
5. When it appears Deleting the messages, press [or] select yes, and then press [ ] key to choose .
6. Then The screen inbox was empty already.

When you select the "inbox" but not one of them text messages, the screen will display the list is empty, if the keyboard is open at this time, will be a low tone hint sound.

Encryption

If you enable this feature, which is beneficial to prevent other users on the channel by using the method of software encryption for unauthorized eavesdropping. The launch of signaling and user identification part unencrypted. Your radio must be enabled on the channel encryption function, can send encrypted, even if the receiving transmission is not must request to do so.

Basic encryption

Two way radio can only be assigned more than one type of encryption. If users Call for encryption or decryption of data transmission, must make to be preprogrammed walkie-talkies and launch radio has the same "encryption keys" (suitable for basic encryption).
If your radio to receive different encryption keys or key values and key encryption call ID, you will hear the sound of the transport chaos encryption (basic).
Press the preliminary programming encryption keys on or off.

DTMF

Dual Tone Multi-Frequency (DTMF) function allows to operate radio when there is interference in the radio system.
To initiate a DTMF call
1. Press and hold [PTT] key.

2. Enter number you need.
   You can disable DTMF tone by turning off all radio tone and prompts.

Secrecy

You can activate or kill any radio in the system. For example, you might want to disable a stolen radio, to prevent thieves use it, and enable it when you get it back.
Note: radio kill or activation is limited to activate the radios with these functions.

Radio Disable

Use menu mode

1. Press [▭] key to enter the menu mode.
2. Press [▲ or ▼] key to Contacts, and then press [▭] key to select, entries are in alphabetical order.
3. Press [▲ or ▼] key to the required alias or ID, and press [▭] key to select.
   Or press [▲ or ▼] key to Manual Dial, then press twice [▭] key to enter a user alias or ID, and press [▭] key to select.
4. Press [▲ or ▼] key to radio disable, and then press [▭] key to select.
5. The display shows the radio disable: <user alias or ID> and the LED indicator light is red.
6. Wait for confirmation.
7. If successful, emit a beep and the screen displays radio disable successfully.
   Or if it fails, emit a beep and the screen displays radio fail to disable.
   During radio disable operation, do not press the [▭] key, because you will not get a confirmation message.

Radio Enable

Use menu function:

1. Press [ ] key to enter the menu mode.
2. Press [or] key to Contacts, and then press [ ] key to select, entries are in alphabetical order.
3. Press [or] key to the required alias or ID, and press [ ] key to select.
   Or press [or] key to Manual Dial, then press twice [ ] key to enter a user alias or ID, and press [ ] key to select.
4. Press [or] key to radio enable, and then press [ ] key to select.
5. The display shows the radio enable: <user alias or ID> and the LED indicator light is red.
6. Wait for confirmation.
7. If successful, emit a beep and the screen displays radio enable successfully.
   Or if it fails, emit a beep and the screen displays radio fail to enable.
   During radio enable operation, do not press the [ ] key, because you will not get a confirmation message.

Scaning List

Create a scan list and assign to a single channel / talkgroup, your radio can support up to 250 scan lists, each up to 16 members. Each scan list support mixed analog and digital channels. You can edit the scan list to add / delete channels or set the priority channel.

Check members of list

1. Use the channel knob to select a channel with pre-programmed scan list;
2. Press the [ ] key to enter the menu mode;
3. Press [or] key to scan, and then press the [ ] key to select;
4. Press [or] key to Viewlist the list, and then press the [ ] button to select;
5. Use [or] key to see members of list.

If you set the priority, the priority icon is displayed in the left of member alias, indicating that the member is the Priority 1 or Priority 2 channel; if the priority is set to N, no priority icon.

In a scan list, you can not have more than one Priority 1 or Priority 2 channel.

Scanning Instruction

When scanning, your radio can view if there is a voice activity in current channel through circulating pre-programmed scan list. LED lights flashing for a red light, and the scan icon appears on the screen.

When scanning in dual mode, if you're in a digital channel and your radio locking an analog channel, radio will switch automatically from digital mode to analog mode throughout the