Diga-Talk² DMR Radios

User Manual

D2-1000U

Digital Mobile Radio

Diga-Talk² DMR Radios
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FCC Statement

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.
NOTE 1: 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, 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.

NOTE 2: Any 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.

- This radio is designed for and classified as “Occupational/ Controlled 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; NOT intended for use in an General population /uncontrolled environment.

- DO NOT operate the radio without a proper antenna attached, as this may damage the radio and may also cause you to exceed RF exposure limits. A proper antenna is the antenna supplied with this radio by the manufacturer or an antenna specifically authorized by the manufacturer for use with this radio, and the antenna gain shall not exceed 3.5 dBi by the manufacturer declared.

- DO NOT transmit for more than 50% of total radio use time, more than 50% of the time can cause RF exposure compliance requirements to be exceeded.

- During operation, the separation distance between user and the antenna shall be at least 80.79 cm, this separation distance will ensure that there is sufficient distance from a properly installed externally-mounted antenna to satisfy the RF exposure requirements

- During transmissions, your 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.

Preface

Thank you for purchasing DMR Digital Mobile Radio SERIES. We believe that the quality and function of this radio will meet your requirements and bring you stable, reliable, clear and high-efficient communication.

Safety Information

Please read the following safety guidelines. Nonobservance of these guidelines may cause danger or violation of law.

Warning

Don't transmit with antenna detached from the radio or don't damage or change antenna type. Strong electronic waves are emitted from the radio and damages or changes to the antenna may effect the performance of the radio, and it may cause the radio to be defective and not covered under warranty.

Warning

Don't use other manufacturers' accessories. Unknown or unauthorized accessories may cause the radio to be defective and void the warranty.

Warning

Don't disassemble the radio. Disassembly of the radio may cause a serious defect or malfunction and void the warranty.

Warning

Avoid an excessive shock to the radio.
Don't place the radio where the direct sunlight or high temperature occurs.
Avoid damage to the battery pack by sharp object or an excessive shock.

Warning

Turn off the radio before boarding on an airplane.
Don't use the radio in the hospital without any pre-approval.
Don't use the radio at the place of where computer of other electronic devices are being used.

Warning

- Please keep the radio at least 1 inch away from the human body.
- Don't give any damage to antenna.
- When using earphone, please reduce the volume to a low level. If not, unexpected high sound may have harmful effect to your ear.
- Don't touch the conductive metal of the battery radio with wet hands. It may cause damage on your hands.
- Please be careful when putting the battery in a pocket or a bag.

- FCC RF EXPOSURE COMPLIANCE REQUIREMENTS FOR OCCUPATIONAL USE ONLY

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

- DO NOT transmit for more than 50% of total radio use time (50% duty cycle). Transmitting more than 50% of the time can cause FCC RF exposure compliance requirements to be exceeded.
- This radio is NOT approved for use by the general population in an uncontrolled environment. This radio is restricted to occupational use, work related operations only where radio operator must have the knowledge to control the user's exposure conditions for satisfying the higher exposure limit allowed for occupational use.
- When transmitting, hold the radio in a vertical position with its microphone 1 inch (2.5cm) away from your mouth.
- The radio is transmitting when the red LED on the front of the radio is illuminated. You can cause the radio to transmit by pressing the PTT bar on the radio.
- These are required operating configurations for meeting FCC RF exposure compliance. Failure to observe these restrictions mean violation.

FCC Notice

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.

Product Inspection

Please unpack carefully and check that all items listed below are received. If any item is missing or damaged, please contact your dealer.

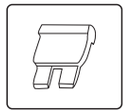
Items

Radio

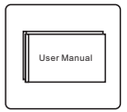
Microphone

Microphone Hanger and Screws

Power Cord


Fuse

Mounting Bracket Kit

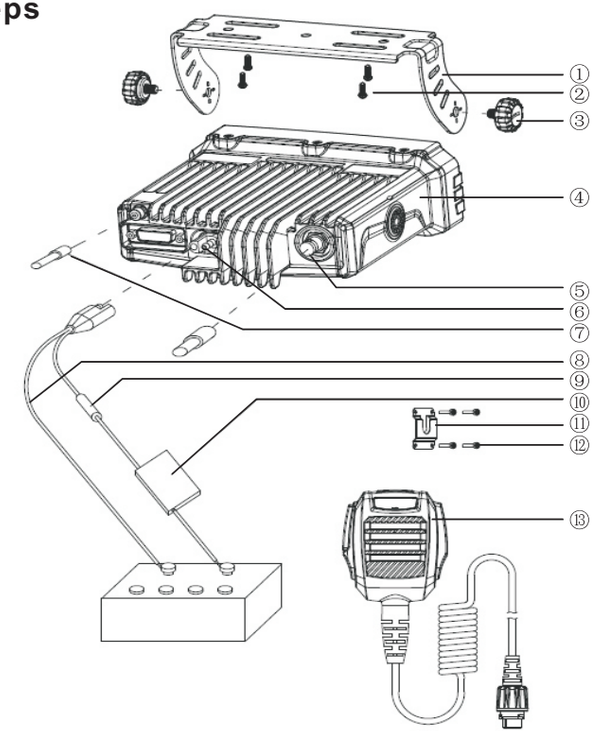


User Manual

Basic Instructions

• The radio operates with cathode-grounded power supply of 13.6V ± 15% only. Please check polarity and voltage of the power supply on the vehicle before you install the radio.
• Please check how long the screws will extend from the bottom surface of the radio, before you install the radio. Drill the mounting hole cautiously to avoid damage to the vehicle wiring and other parts.
• Please connect supplied antenna and power cord to the radio, before you install it in the bracket. And make sure the antenna and power cord is dedicated for our digital radios.
• Install the radio with supplied mounting bracket, to avoid radio looseness in case of accidents. The loose radio may cause bodily injury.
• Install the radio in a location where it's easy to reach the front panel controls.
• Please make sure there's sufficient space at back of the radio for wiring.
• When the fuse for DC power cord needs replacement, it must be replaced by a fuse with the same specification.

Installation Steps

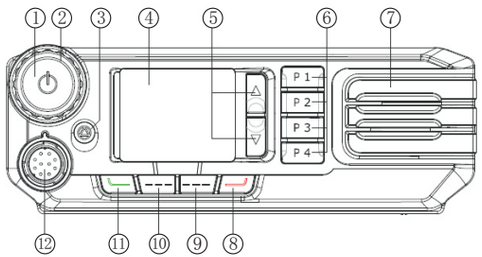


NO.	Part Name
1	Mounting Bracket
2	4.8 * 20 mm Self-tapping Screws
3	Locking Knobs
4	Radio Unit
5	RF Antenna Connector
6	Power Inlet
7	GPS Antenna Connector
8	Black Power Cord
9	Red Power Cord
10	Fuse
11	Microphone Hanger
12	4 * 16 mm Self-tapping Screws
13	Palm Microphone

A、Install the bracket in a location where it's easy to operate the radio.
B、Connect accessories such as antenna and power cord to the radio.
C、Slide the radio into the mounting bracket and secure it using the locking knobs.
D、Install the microphone hanger in a location where it can be reached easily.
E、Plug the palm microphone into the microphone jack on the front panel (but at first align the triangle index on the palm microphone with the microphone installation index), and place it on the hanger when you do not use it.

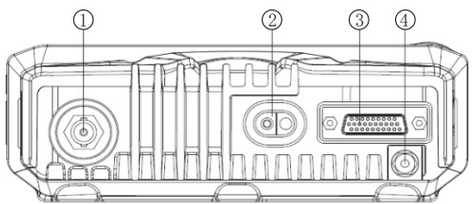
Radio Overview

Front Panel



NO.	Part Name	NO.	Part Name
1	Volume Control / Channel Selector/ Power On-Off Knob	2	LED Indicator
3	Emergency Key	4	LCD Display
5	Up/ Down Keys	6	Programmable Keys
7	Speaker	8	Back Key
9	Programmable Key	10	Programmable Key
11	Select Key	12	Palm Microphone Jack

Rear Panel



NO.	Part Name	NO.	Part Name
1	RF Antenna Connector	2	Power Inlet
3	Accessory Jack	4	GPS Antenna Connector

Status Indicators

LCD Icons

Status Icons

Icon Name	Icon	Radio Status
RSSI		No signal
		More bars indicate better signal strength
Message Icons		New message/unread message
		InBox is full
Scan Icons		Scanning is in progress
		Scanning pauses on a non-priority channel
		Scanning pauses on Priority Channel 1
		Scanning pauses on Priority Channel 2
TX Power Icons		Low TX power for the current channel
		High TX power for the current channel
Monitor Icon		The Monitor feature is active
Speaker Icon		The speaker is unmuted
Emergency Icon		The Emergency mode (other than secret emergency) is active or an emergency message is received
GPS Icon		The GPS feature is active, and valid GPS data is received

Operation Mode Icons

Icon Name	Icon	Operation Mode
Operation Mode Icon	DM	Direct Mode: Under this mode, radios communicate with each other directly (talk-around).
	RM	Repeater Mode: Under this mode, radios communicate with each other via a repeater.

LED Indicators

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

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

Programmable Keys

For enhanced convenience, you may request your dealer to program the keys P1, P2, P3, and P4 and ⚠ as shortcuts to the functions listed below:

No.	Shortcut Keys	Description
1	None	No feature will be assigned
2	Zone Up	To select a desired zone quickly
3	Zone Down	
4	Scan	To receive signals on other channels
5	Nuisance Temporary Delete	To temporarily ignore unwanted channel activity
6	Emergency On	To summon help in emergent situations
7	Emergency Off	Emergency function is off
8	Adjust Power Level	To adjust power level quickly
9	Keypad Lock	To lock or unlock the keypad
10	Contact List	To access the menu “Contact List” quickly
11	Message	To access the menu “Message” quickly
12	Call Logs	To access the menu “Call Logs” quickly
13	Adjust Squelch Level	To adjust the squelch threshold required for the speaker to unmute
14	One Touch Call 1	To transmit a call, text message or other service to a preset contact quickly
15	One Touch Call 2	
16	One Touch Call 3	
17	One Touch Call 4	
18	One Touch Call 5	
19	Squelch Off Momentary	To momentarily open the speaker
20	Squelch Off	To always open the speaker
21	Monitor	To adjust the condition for incoming signal match
22	Talk Around	To directly communicate with other radios
23	Home Screen	To quickly return to the previous menu or home screen
24	Scrambler /Encrypt	Scrambler (in analog mode): To encrypt your voice so as to guarantee privacy of your communication Encrypt (in digital mode): To encrypt your voice so as to guarantee privacy of your communication
25	VOX	To enable or disable the VOX function
26	Lone Worker	To enable or disable the Lone Worker function
27	Roaming	To enable or disable the Roaming function
28	Option Board	To enable or disable the Option Board function
29	Phone List	To access the “Phone List” menu quickly
30	DTMF Keypad	To access or exit the DTMF Keypad mode. The number input from the radio keypad is phone number in DTMF Keypad mode.

Note:
1 Long and short press of a key can be assigned with different functions.
2 The ⚠ is programmed as the Emergency key by default, and is programmable.

Basic Operations

Turning the Radio On/Off

To turn the radio on, long press the Power On/Off key until the radio shows power-up screen and sounds power-up alert, and the LED flashes green. To turn the radio off, press the Power On/Off key.

Adjusting the Volume

When the Volume Control / Channel Selector knob operates in volume adjustment mode (the radio displays the icon 🔊), rotate the knob clockwise to increase the call volume, or counterclockwise to decrease it.

Selecting a Zone

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

Selecting a Channel

Press the Volume Control / Channel Selector knob to switch it to channel selection mode (the radio displays the icon 📡),and then rotate the knob to select your desired channel. Alias of the current channel will appear in the home screen.
Note: The knob is in volume adjustment mode by default, and will return to this mode in 5 seconds after you select a channel.

Analog/Digital Switch

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

Private Call

Transmitting a Private Call

You may transmit a Private Call through any of the following methods. When transmitting a Private Call, the icon will appear.
• Transmitting a call to the preset contact
In the home screen, hold down the PTT key on the palm microphone to transmit a Private Call to the Private Call contact preset for the current channel.
Note: Your dealer may preset a contact for each digital channel. The preset contact could be a Private Call contact, a Group Call contact or an All Call contact.
• Transmitting a call through Contact List or Call Logs
1 Go to “Contact -> Contact List”, or go to “Call Logs” and access the Outgoing/Incoming/Missed list.
2 Use the Up/Down key to select the Private Call contact you want to call.
3 Hold down the PTT key to transmit the Private Call.
• Transmitting a call through Manual Dial
1 Go to “Contact -> Manual Dial”.
2 Input a Private Call number you want to call using the microphone with a keypad.
3 Hold down the PTT key to transmit the Private Call.

Receiving and Responding to a Private Call

When a Private Call is received, your radio will display the icon
You may hold down the PTT key within the preset time period to call back. If you do not respond to a received Private Call, your radio will display the missed call icon

Group Call

Transmitting a Group Call

You may transmit a Group Call through any of the following methods. When transmitting a Group Call, the icon will appear.
• Transmitting a call to the preset contact
In the home screen, hold down the PTT key to transmit a Group Call to the Group Call contact preset for the current channel.
• Transmitting a call through Contact List
1 Go to “Contact -> Contact List”.
2 Use the Up/Down key to select the Group Call contact you want to call.
3 Hold down the PTT key to transmit the Group Call.

Receiving and Responding to a Group Call

When a Group Call is received, your radio will display the icon
You may hold down the PTT key within the preset time period to call back.

All Call

Transmitting an All Call

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

Note: You can transmit an All Call only when it is enabled by your dealer.

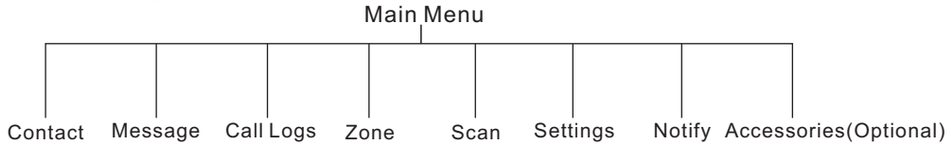
Receiving an All Call

When an All Call is received, your radio will display the icon
Note: You cannot respond to an All Call.

Making a Call on Analog Channels

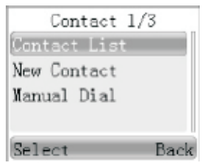
To transmit on an analog channel, hold down the PTT key and speak into the microphone. To receive, release the PTT key.

Menu Navigation



Contact

To access this item, press the Menu key in the home screen and then select “Contact”.



Contact List

You can save up to 512 entries in the list. To access this item, select “Contact -> Contact List” or press the shortcut key for Contact List.

Editing a Contact

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

Viewing a Contact

You can view details of each contact.

Deleting a Contact

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

New Contact

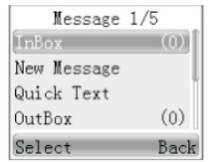
You can add a Private Call contact to the contact list. The number and alias of each contact must be unique, and the available number of digits range is 1-16776415.

Manual Dial

You can manually input the Private Call number for calling.

Message

To access this item, press the Menu key in the home screen and then select “Message”, or press the shortcut key for Message directly.



InBox

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

New Msg

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

Quick Text

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

OutBox

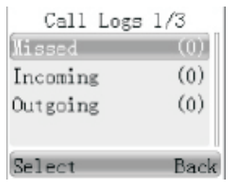
The OutBox can save up to 10 sent messages. When the OutBox is full, the earliest message will be overwritten by the latest one automatically.
For each message, you can choose to perform any of these operations: Resend, Forward, View Details and Delete.
To delete all messages in the OutBox, select “Message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

Drafts

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

Call Logs

To access this item, press the Menu key in the home screen and then select “Call Logs”, or press the shortcut key for Call Logs directly.



This radio can save up to 10 private call entries in the Outgoing/ Incoming/Missed list respectively. When the Outgoing/Incoming/ Missed list is full, the earliest entry will be overwritten by latest one automatically.
After accessing a list and selecting an entry, you can perform any of these operations: hold down the PTT key to initiate a call; add it to Contact List; or delete it.
To delete all entries in the Outgoing/Incoming/Missed list at a time, select “Call Logs -> Outgoing/Incoming/Missed -> Delete All”.

Scan

To access this item, press the Menu key in the home screen and then select “Scan”.

Scan On/Off

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

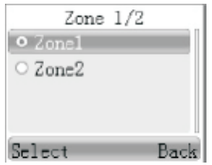
Scan List

You can request your dealer to create a scan list for each channel. Each list may contain 32 channels at most (either digital channel or analog channel is OK). After accessing the list, you can perform any of the following operations:
Adding a Channel
To include a new channel into the active scan list.
Editing Priority Channel
To set the selected channel as a non-priority or as a priority channel. If you are interested in activities on a channel, you can set it as a priority channel, which will be scanned more frequently than a non-priority channel.
Each scan list may contain two priority channels at most. Indicates priority channel 1, and indicates priority channel 2.
Deleting a Channel
To remove a channel from the active scan list. However, the first channel in the list cannot be deleted.

Zone

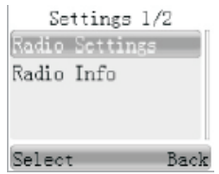
To access this item, press the Menu key in the home screen and then select “Zone”.

This radio supports up to 64 zones. You can use this menu to select your desired zone.



Settings

To access this item, press the Menu key in the home screen and then select “Settings”.



Radio Settings

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

Language

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

Tx Power

This option allows you to set TX power level. Alternatively, you can change the power level by pressing the shortcut key for Adjust Power Level in the home screen.

There are two levels available: High (indicated by H)and Low (indicated by L).High power level enables you to communicate with farther team members.

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

Lone Worker

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

Tone

To set tones for your radio. You can set the following tones:

- Radio Silent: to set whether the radio will give tone indication. If Silent On is selected, all tone indication will be cancelled.
- Call End Tone: to set whether the radio will give tone indication when the call ends.
- Private Call Tone: to set whether the radio will give tone indication when it receives a private call.
- Text Message Tone: to set whether the radio will give tone indication when it receives a message.
- Keypad Tone: to set whether the radio will give tone indication when you are making keypad operations.
- Group Call Tone:to set whether the radio will give tone indication when the radio received a group call.
- Signaling Side Tone:to set whether the radio will give tone indication when PTT is pressed (during transmission of PTT ID).

Squelch

This option allows you to select an appropriate squelch level. Alternatively, you can change the squelch level by pressing the shortcut key for Adjust Squelch Level in the home screen.

There are three levels available: Tight, Normal and Open. The default squelch level is “Normal”, and is often used in low noise environment.

And generally, “Tight” is used in high noise environment. It requires stronger signal for the radio to unmute. However, if the squelch level is set to Open, the speaker will keep unmuted irrespective of the decoding conditions.

Scrambler /Encrypt

To set whether to enable the Scrambler/Encrypt feature.

LED

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

VOX

- On/Off
- If“On” is selected,it allows the user to make calls every time the user speaks into the radio directly without pressing the PTT key.
- If“Off”is selected,the user should make calls by pressing the PTT key.

Gain Level
The range of “Gain Level” is Level 1 to Level 9 .The lower the Gain Level is ,the easier the VOX to be enabled .

Radio Password

Options: Off/ On
When “ On”is selected ,users have to input the correct Radio Lock Password to operate the radio normally When “ Off”is selected ,users can operate the radio without inputting the password .

Radio Info

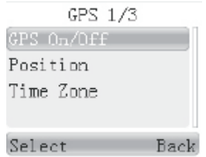
With this option, you can view basic information of your radio, including Serial Number, Radio Alias, Frequency Range and Firmware Version, etc.

Accessories

To access this item, press the Menu key in the home screen and then select “Accessories”.

GPS（Optional）

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



Position

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

Time Zone

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

GPS Update Time

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

Functions and Operations

Home Screen

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

Operation:
In the editing screen, press the “Option” key, and the radio exits the screen and returns to the previous menu immediately; in other screens, press the key, and the radio returns to the home screen immediately.

Talk Around

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

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

Monitor

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

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

Squelch Off

If the feature “Squelch Off” is enabled, the speaker will keep unmuted no matter whether carrier is present.

Operation:

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

• Hold down the programmed Squelch off Momentary key to enable the feature. Then the radio displays the icon and sounds background noise. To disable the feature, release this key.

Digital Emergency

Emergency Alarm with Voice to Follow

Operation:

1. Press the programmed Emergency key to go to the Emergency Revert Channel ,and the radio displays the icon .
2. When the icon appears, you can speak into the microphone to make an emergency call.
3. When the icon appears, you can receive. And when a call is received, the icon appears. If the preset Voice Cycles expire, you can hold down the PTT key to make the emergency call again (the radio displays the icon, with red LED glowing red).

After the emergency call is transmitted, release the PTT key to receive (the radio displays icon).
And when a call is received, the icon appears.
To exit the Emergency mode, long press the programmed Emergency key.
Note:Your dealer may set the time of voice cycles, duration of each transmission and Tx interval.

Busy Channel Lockout

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

Time-out Timer (TOT)

The purpose of TOT is to prevent any user from occupying a channel for an extended period. If the preset time expires, the radio will automatically terminate transmission and keep beeping. To stop beeping, please release the PTT key. You must wait for a certain time period (preset by your dealer) to initiate another transmission.
If the pre-alert function is set by your dealer, your radio will alert you to the TOT expiration in advance.
Note: This feature is null in Emergency mode.

Invalid Channel Indication

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

Squelch

The squelch level decides how strong the signal is to unmute the speaker. The lower the squelch level is, the stronger the background noise is to unmute the speaker. The larger the talk range is, the weaker the Rx anti-interference ability is. Setting range is 0-9, it causes the squelch to open by selecting “0”. The higher the squelch level is, the harder to open the squelch.

Optional Accessories

Optional accessories and replacement parts are available.

Those items include:

- VHF Antenna
- UHF Antenna
- GPS Antenna
- DTMF Microphone
- Programming Cable
- Programming Software

Troubleshooting

Phenomena	Analysis	Solution
The radio can not be powered on.	The power cord may be unconnected.	Connect the power cord correctly.
During receiving signals, the voice is weak, discontinuous or totally inactive.	The volume may be set to a low level.	Increase the volume by rotating the Volume Control knob clockwise.
	The antenna may get loose or may be improperly installed.	Power off the radio, re-install the antenna and power on the radio again.
	The speaker may be blocked or damaged.	Clean surface of the speaker. If the problem can not be solved, contact your dealer or our authorized service center for inspection and repair.
You can not communicate with other members in Analog mode.	The frequency or signaling may be inconsistent with that of other members.	Set your TX/RX frequency and signaling to the same as that of other members.
	You may be too far away from the group members.	Move towards other members. And make sure that you are within the communication range.
You can not communicate with other members in Digital mode although there is receiving indication.	Your ID may be inconsistent with that of other members. Consequently, the digital carrier can be received but can not be demodulated.	Set your ID to the same as that of other members.
Irrelevant communications or noises are heard on the analog channel.	You may be interrupted by radios using the same frequency.	Adjust the squelch level.
	The radio may be set with no signaling.	Set your radio with signaling to avoid interference at the same frequency, and make sure that all members share the same signaling.
The noise is too loud.	You may be too far away from other members.	Move towards other members, and then try again.
	You may be at an unfavorable position. For example, your communication may be blocked by high buildings or frustrated in the underground areas. You may suffer from external disturbance (such as electromagnetic interference).	Move to an open and flat area, and try again. Stay away from equipment that may cause interference.

Phenomena	Analysis	Solution
You can not use the keys.	The keypad may fail to function temporarily.	Restart the radio.
There is no display.	The LCD may fail to function temporarily.	Restart the radio.
The GPS cannot locate your position.	The GPS antenna is improperly connected.	Connect the GPS antenna correctly.
	No GPS signal is received.	Move to an open and flat area, and restart the radio.

If the above solutions can not fix your problems, or you may have some other queries, please contact us or your local dealer for more technical support.

Service and Support

We provide one year Warranty, simply contact your supplier for an easy diagnosis or replacement of your radios.

Cautions

1. Read the user manual before use.
2. Do not use the radio with a damaged antenna.
3. Turn off the radio in potentially explosive or flammable environments.
4. Do not immerse the radio into liquids or discard it in fire.
5. Use the radio only with our accessories.