



HP56X Digital Portable Radio

User Manual

Preface

Welcome to the world of Hytera and thank you for purchasing this product. This manual includes a description of the functions and step-by-step procedures for use.

To avoid bodily injury or property loss caused by incorrect operation, please carefully read the *Safety Information Booklet* before use.

This manual is applicable to the following product:

HP56X Digital Portable Radio (X may represent 2, 5, 6, 8, or 9)

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RF Exposure Compliance and Control Guidelines and Operating Instructions

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

- Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), push the Push-To-Talk (PTT) key. To receive calls, release the PTT key. Transmitting 50% of the time, or less, is important because the radio generates measurable RF energy only when transmitting (in terms of measuring for standards compliance).
- Keep the radio unit at least 2.5 cm away from the face. Keeping the radio at the proper distance is important as RF exposure decreases with distance from the antenna. The antenna should be kept away from the face and eyes.

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Documentation Information

This section describes the conventions of this document.

Documentation Conventions

Instruction Conventions

Icon	Description
 NOTE	Indicates references that can further describe the related topics.
 CAUTION	Indicates situations that could cause data loss or equipment damage.

Notation Conventions

Item	Description	Example
Boldface	Denotes menus, tabs, parameter names, window names, dialogue names, and hardware buttons.	To save the configuration, click Apply .
		The Log Level Settings dialogue box appears.
		Press the PTT key.
" "	Denotes messages, directories, file names, folder names, and parameter values.	The screen displays "Invalid Battery!".
		Open "PSS.exe".
		Go to "D:/opt/local".
		In the Port text box, enter "22".
>	Directs you to access a multi-level menu.	Go to File > New .
<i>Italic</i>	Denotes document titles.	For details about using the DWS, refer to <i>Dispatch Workstation User Guide</i> .
Courier New	Denotes commands and their execution results.	To set the IP address, run the following command: vos-cmd - m name IP

1. Packing List

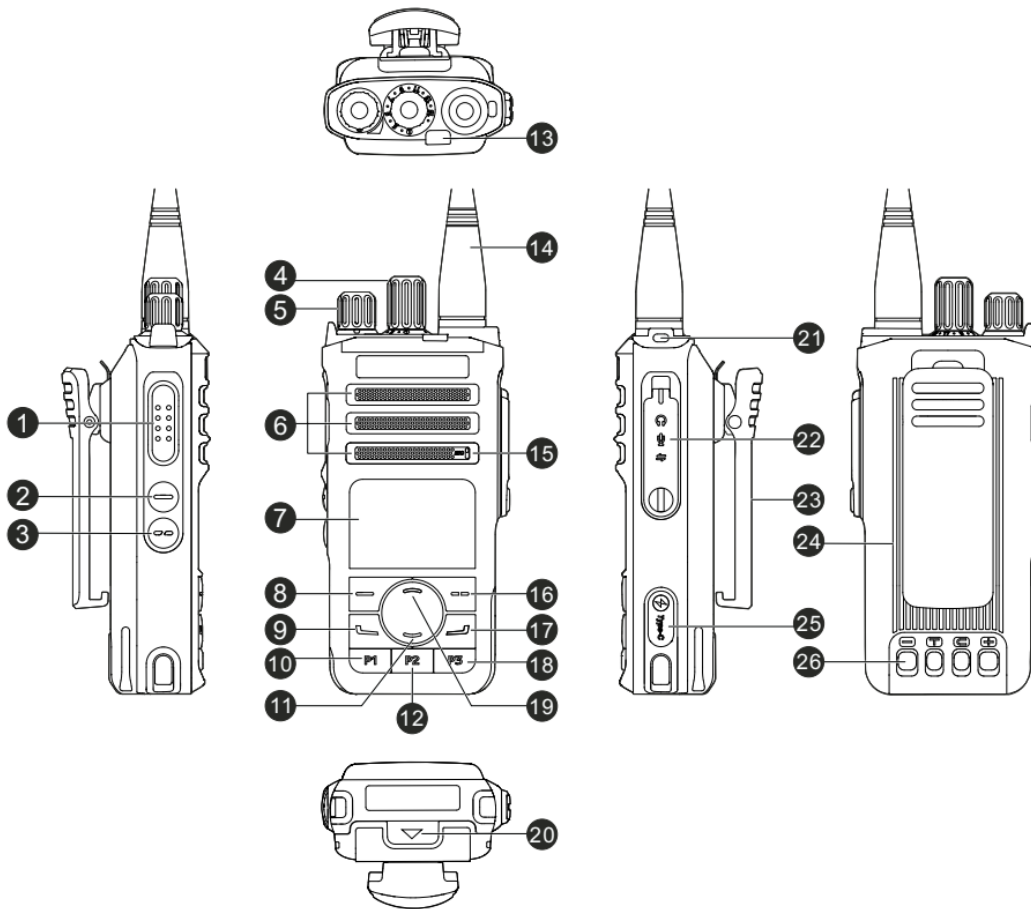
Unpack carefully and check that you have received the following items. If any item is missing or damaged, contact your dealer.

Item	Quantity (PCS)	Item	Quantity (PCS)
Radio	1	Antenna	1
Battery	1	Belt Clip	1
Charger	1	Strap	1
Power Adapter	1	Documentation Kit	1

NOTE

- Figures in this manual are only for reference.
 - Check and ensure that the frequency band marked on the antenna label matches that on the radio label. If not, contact your dealer.
-

2. Product Overview



No.	Part Name	No.	Part Name	No.	Part Name
1	Push-to-Talk (PTT) Key	10	P1 Key (Programmable)	19	Up Key (Programmable)
2	Side Key 1 (SK1) (Programmable)	11	Down Key (Programmable)	20	Battery Latch
3	Side Key 2 (SK2) (Programmable)	12	P2 Key (Programmable)	21	Strap Hole
4	Channel Selector Knob	13	LED Indicator	22	Accessory Connector
5	On-Off/Volume Knob	14	Antenna	23	Belt Clip
6	Speaker	15	Microphone	24	Battery
7	LCD Display	16	Back Key	25	USB Type-C Port
8	OK/Menu Key	17	P5 Key (Programmable)	26	Charging Contacts
9	P4 Key (Programmable)	18	P3 Key (Programmable)	/	/

 **NOTE**

To assign features to programmable keys, contact your dealer.

3. Before Use

3.1 Charge the Battery

CAUTION

- Use the approved charger to charge the battery.
- Read the *Safety Information Booklet* before charging.
- The remaining lithium-ion battery power is limited to 30% pursuant to the new lithium battery shipment regulation approved by the International Air Transport Association (IATA).
- It is recommended that the terminal remains turned off during charging.

Before initial use, use the charger to charge the battery alone or the battery attached to the radio. Then, you can charge the battery in either of the following ways:

- Use the charger to charge the battery alone or battery attached to the radio.
- Connect the radio with the battery to a power adapter, power bank, or PC through the USB Type-C data cable.

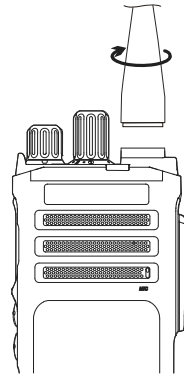
The LED indicator on the charger shows the charging status. For details, see the following table.

LED Indicator	Radio Status
Glow red	The battery is being charged.
Glow orange	The battery is charged to 90% or above.
Glow green	The battery is fully charged.
Flashes red slowly	No battery is placed on the charger.
Flashes red rapidly	The battery fails to be charged.

3.2 Install the Antenna

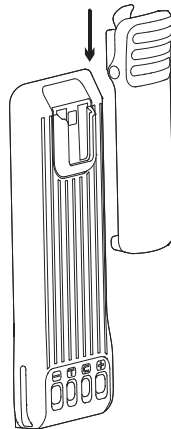
CAUTION

Do not hold the radio by the antenna and swing it. This may affect the antenna performance and shorten the life span of the antenna.



3.3 Attach the Belt Clip

1. Align the holder on the belt clip with the groove on the battery.
2. Press the belt clip downwards into place.



NOTE

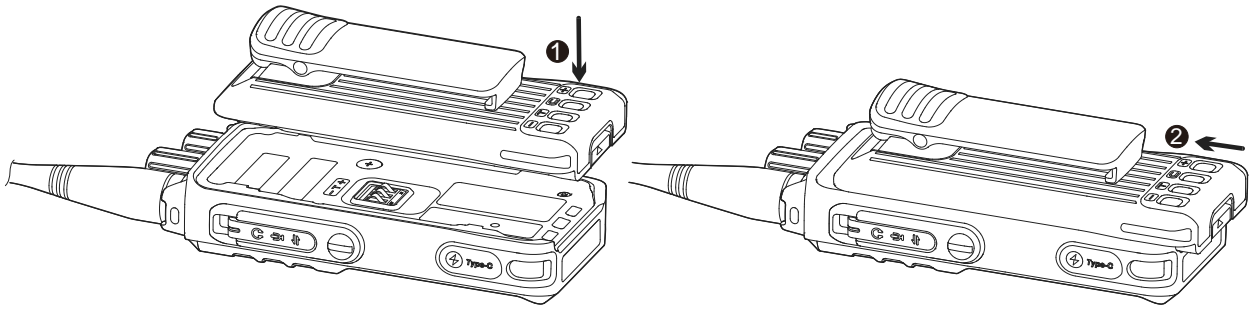
You can press and hold the belt clip spring plate and push the belt clip upwards to remove it.

3.4 Attach the Battery

CAUTION

- Use the approved battery to avoid the risk of explosion.
 - Dispose of the used battery according to "Precautions for Disposal" in the Safety Information Booklet.
-

1. Align the battery with the battery slot.
2. Press and push the battery upwards until you hear a click.



NOTE

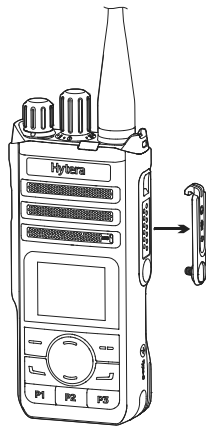
- Before removing the battery, turn off the radio.
- You can toggle up the battery latch and push the battery downwards to remove the battery.

3.5 Attach the Audio Accessory

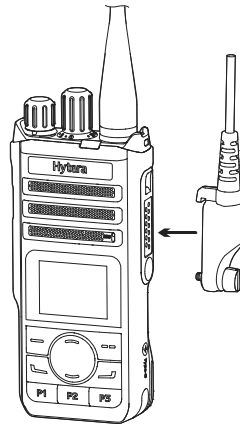
CAUTION

- For optimal waterproof and dustproof performance, do as follows:
- When attaching the accessory, do not scrape or damage the silicone rubber surrounding the screw hole on the accessory connector.
- After removing the accessory, close the accessory connector cover and fasten the screw.

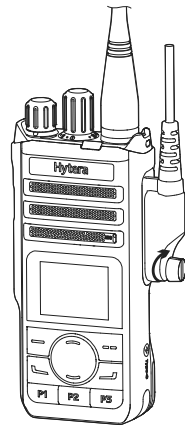
1. Rotate the screw for the accessory connector counterclockwise to remove the screw and cover.



2. Insert the audio accessory plug into the accessory connector.

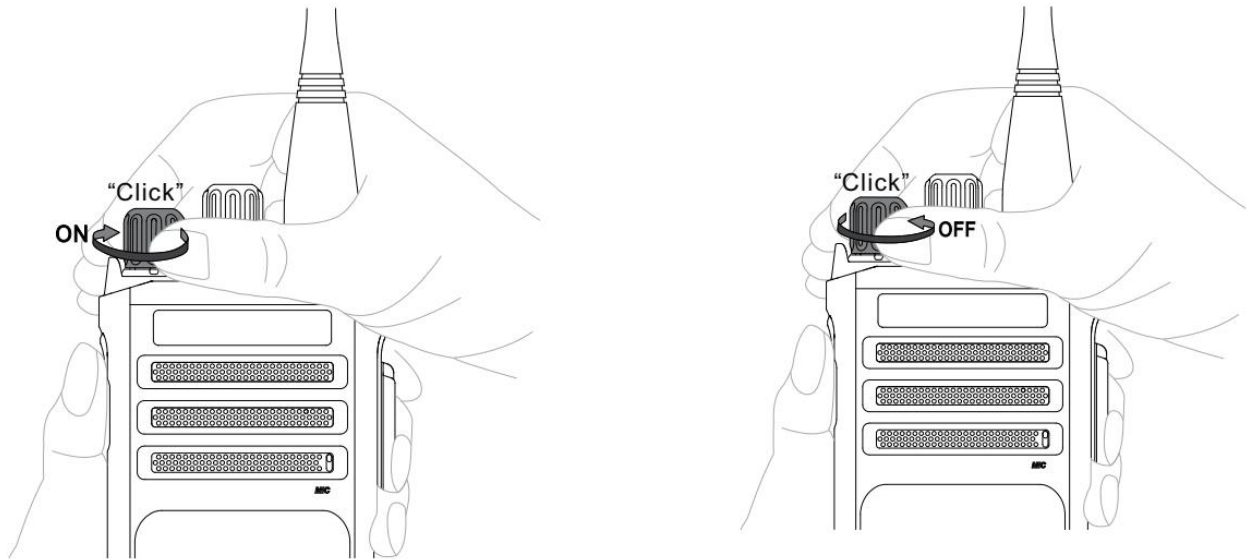


3. Rotate the screw clockwise until hand tight.

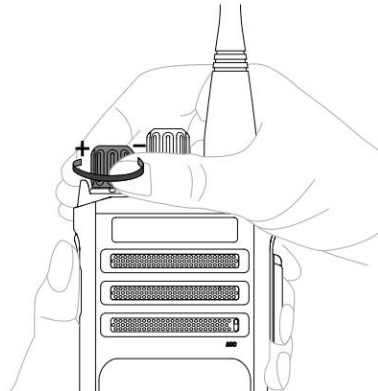


4. Basic Operations

4.1 Turn On or Off the Radio



4.2 Adjust the Volume



4.3 Select a Zone

Through the Programmable Key

Press the preprogrammed **Zone Up** or **Zone Down** key.

Through the Zone List

1. On the home screen, press the **Back** key.
2. Press the **Up** or **Down** key to select a zone, and then press the **OK/Menu** key.
3. Select **Set Default**, and then press the **OK/Menu** key.

4.4 Select a Channel

You can rotate the knob or press keys to switch to a channel within the same zone by default. If Cross-Zone Switchover is enabled, you can switch to a channel in other zones.

Through the Knob or Programmable Key

- Rotate the **Channel Selector** knob.
- Press the preprogrammed **Channel Up** or **Channel Down** key.
- Press the preprogrammed **Preset Channel** key.

Through the Channel List

1. On the home screen, press the **Back** key.
2. Press the **Up** or **Down** key to select a zone, and then press the **OK/Menu** key.
3. Select a channel, and then press the **OK/Menu** key.



NOTE

With Voice Broadcast enabled, the radio audibly conveys the current channel you have just changed.























4.5 Check the Radio Information




1. On the home screen, go to **Menu > Settings > Device Information**.
2. Select **Device Status**, or **Radio Information**.

You can view the radio ID, radio alias, serial number (SN), model, frequency range, and software version.

5. Status Indications

5.1 LCD Icons

Icon	Radio Status
	More bars indicate more remaining battery power.
	The battery is low.
	The radio detects no signal.
	More bars indicate stronger signal.
	The radio works in low power mode.
	The radio works in high power mode.
	An accessory is connected.
	Location is enabled, and valid position data has been received.
	Location is enabled, but no valid position data has been received.
	BT is enabled.
	A BT device is connected.
	The radio is in emergency mode.
	The radio stays on a site.
	The radio is roaming.
	Scrambler or Encrypt is enabled.
	The radio is scanning.
	The radio stays on an active channel.
	The radio stays on Priority Channel 1.
	The radio stays on Priority Channel 2.
	The radio has switched to the mixed channel.
	The radio works in the Meeting profile.
	The radio works in the Outdoor profile.

Icon	Radio Status
	Monitor is on.
	The speaker is on.
	The radio is in silent mode.

5.2 LED Indicator

LED Indicator	Radio Status	
Flashes green	The radio is being turned on.	
Glowes green	The radio is receiving.	
Glowes red	The radio is transmitting.	
Flashes orange slowly	The radio is scanning or roaming.	
Glowes orange	<ul style="list-style-type: none"> ● Digital mode: The radio is in the call hang time. In this case, no voice is being transmitted or received during a call. Within such a period, you can press and hold the PTT key and speak. ● Analog mode: The radio is in the auto reset time. 	
Flashes blue	Every 3s	BT is enabled, but the radio is not connected to any BT device.
	Every 1.5s	A BT device is connected.
	Every 0.1s	BT is being disabled.

6. Call Services

To ensure optimal voice quality on the receiving radio, keep the microphone 2.5 cm to 5 cm away from your mouth during speaking.

6.1 Group Call

A group call is a call from an individual user to other group members.

6.1.1 Initiate a Group Call Through the Preset Contact

1. Select a digital channel with a preset group contact according to [4.4 Select a Channel](#).
2. Press and hold the **PTT** key.

Through the Contact List

1. Enter the **Contact** interface.
 - Press the preprogrammed **Contact List** key.
 - On the home screen, go to **Menu > Contact**.
2. Select a group contact.
3. Press and hold the **PTT** key.

Through One Touch Call Key

1. Press the preprogrammed **One Touch Call** key.
2. Press and hold the **PTT** key.

6.1.2 Answer a Group Call

You can answer a group call without any operation.

6.1.3 End a Group Call

A group call ends when the call hang time expires.

6.2 Private Call

A private call is a call from an individual user to another individual user.

6.2.1 Initiate a Private Call Through the Preset Contact

1. Select a digital channel with a preset private contact according to [4.4 Select a Channel](#).
2. Press and hold the **PTT** key.

Through the Contact List

1. Enter the **Contact** interface.
 - Press the preprogrammed **Contact List** key.
 - On the home screen, go to **Menu > Contact**.
2. Select a private contact.
3. Press and hold the **PTT** key.

Through Call Logs

1. On the home screen, go to **Menu > Call Logs**.
2. Select a private call record.
3. Press and hold the **PTT** key.

Through the One Touch Call Key

1. Press the preprogrammed **One Touch Call** key.
2. Press and hold the **PTT** key.

6.2.2 Receive a Private Call

You can answer a private call without any operation.

6.2.3 End a Private Call

A private call ends when the call hang time expires.

6.3 All Call

An all call is a call from an individual user to every user on the current digital channel.



To preprogram All Call, contact your dealer.

6.3.1 Initiate an All Call Through the Preset Contact

1. Select a digital channel with a preset all call contact according to [4.4 Select a Channel](#).
2. Press and hold the **PTT** key.

Through the Contact List

1. Enter the **Contact** interface.
 - Press the preprogrammed **Contact List** key.
 - On the home screen, go to **Menu > Contact**.
2. Select an all call contact.
3. Press and hold the **PTT** key.

Through the One Touch Call Key

1. Press the preprogrammed **One Touch Call** key.
2. Press and hold the **PTT** key.

6.3.2 Receive an All Call

You can answer an all call without any operation.

6.3.3 End an All Call

An all call ends when the caller releases the **PTT** key.

6.4 Call on Analog Channel Call Without Signaling

On an analog channel without signaling, you can initiate a call to all the other users on the channel.

1. Select an analog channel according to [4.4 Select a Channel](#).
2. Press and hold the **PTT** key.

Call with Signaling

On an analog channel with signaling, you can initiate a call to a specific contact on the channel.

- Through the Contact List
 - a. On the home screen, go to **Menu > Contact**, or press the preprogrammed **Contact List** key.
 - b. Select a contact.
 - c. Press and hold the **PTT** key.

- Through the **One Touch Call** key

Press the preprogrammed **One Touch Call** key.

7. Message Services

Message allows you to send and receive text messages.

7.1 View a Message

- Unread Message

Upon message reception, press the **OK/Menu** key.

- Messages in the Inbox

- a. On the home screen, go to **Menu > Message**.
- b. Select a message, and then press the **OK/Menu** key.

7.2 Delete a Message

1. On the home screen, go to **Menu > Message**.
2. Select a conversation, and then select a message.
3. Press the **OK/Menu** key, and then do either of the following:
 - To delete the selected message, select **Delete**.
 - To delete the conversation, select **Delete All**.

8. Contacts

To view contact information, do the following:

1. Enter the **Contact** interface.
 - a. On the home screen, go to **Menu > Contact**.
 - b. Press the preprogrammed **Contact List** key.
2. Select a contact.
3. Press the **OK/Menu** key.

9. Settings

You can set radio parameters including **Basic Settings**, **Call Settings**, and **Security Settings**.

9.1 Basic Settings

9.1.1 Set the Display

On the home screen, go to **Menu > Settings > Basic Settings > Display**, and then set any of the following:

- **Backlight**

The backlight illuminates the display and keypad.

- In the **Display** interface, select **Backlight**.
- Press **Up** or **Down** key to select **Off**, **Light**, or **Timed**.
- Press the **OK/Menu** key.

- **Night mode**

The display supports both day mode and night mode. The screen brightness and user interface vary with the display mode.

- In the **Display** interface, select **Night Mode**.
- Press the **OK/Menu** key to turn on or off the night mode.

- **Brightness**

Small level number represents high screen brightness.

- In the **Display** interface, select **Brightness**.
- Press **Up** or **Down** key to select a brightness level.
- Press the **OK/Menu** key.

9.1.2 Set the Keypad Lock

You can lock the keypad to prevent misoperation.

Enable the Keypad Lock

- **Automatic**

After a preset time of inactivity, the keypad will be automatically locked.

- **Manual**

Press the preprogrammed **Keypad Lock** key.

NOTE

- To preprogram Keypad Lock, contact your dealer.
- It is recommended that you ask the dealer to assign the keypad lock feature to a programmable key so you can lock and unlock the keypad with the key.

Select Locked Keys

1. On the home screen, go to **Menu > Settings > Basic Settings > Keypad Lock > Optional Key**.
2. Press **Up** or **Down** key to select a key.
3. Press the **OK/Menu** key.

9.1.3 Set the Date and Time

With Time Display enabled by default, you can view the local time on the radio. If the radio cannot receive time data, you can view "--:--" on the radio.

On the home screen, go to **Menu > Settings > Basic Settings > Date & Time**.

- To display or hide time in the status bar, select **Time Display**, and then press the **OK/Menu** key.
- To view the detailed time, date, and day, select **Time View**.
- To set the time format, select **Time Format**, and then select **24 Hour** or **12 Hour**.
- To set the time zone, select **Time Zone**, and then select a time zone.

9.1.4 Set MIC & SPK

MIC & SPK allows you to select the microphone and speaker to transmit and receive voice. With the audio accessory connected, you can switch the audio paths.

MIC

Option	Description	Operation
Follow PTT	<ul style="list-style-type: none"> ● When you press the PTT key on the radio to transmit voice, the radio uses the internal microphone. ● When you transmit voice through the audio accessory, the radio uses the external microphone. 	<ul style="list-style-type: none"> ● Through the menu <ol style="list-style-type: none"> a. On the home screen, go to Menu > Settings > Basic Settings > MIC & SPK. b. Select MIC Selection.

Option	Description	Operation
Only Internal	The radio uses only the internal microphone.	<ul style="list-style-type: none"> c. Select the audio option. ● Press the preprogrammed Mic Set Switch key to switch the audio path.
Only External	The radio uses only the microphone of the audio accessory, such as earpieces.	
External First	When the radio is connected to an audio accessory, the radio uses the external microphone. Otherwise, the radio uses the internal microphone.	

SPK

Option	Description	Operation
External First	When the radio is connected to an audio accessory, the radio uses the external speaker. Otherwise, the radio uses the internal speaker.	<ul style="list-style-type: none"> ● Through the menu <ul style="list-style-type: none"> a. On the home screen, go to Menu > Settings > Basic Settings > MIC & SPK. b. Select SPK Selection. c. Select the audio option. ● Press the preprogrammed SPK Set Switch key.
Only Internal	The radio uses only the internal speaker.	
Only External	The radio uses only the speaker of the audio accessory, such as the remote speaker microphone.	

9.1.5 Set the USB Path

You can select a USB path for communication between the radio and external devices.

Option	Description	Operation
Type-C First	When both the USB Type-C port and accessory connector are connected to external devices, the radio uses the Type-C port as the USB path.	<ul style="list-style-type: none"> ● Through the menu <ul style="list-style-type: none"> a. On the home screen, go to Menu > Settings > Basic Settings > USB Path. b. Select the USB path option. ● Press the preprogrammed USB Path Switch key.
Pin Port First	When both the USB Type-C port and accessory connector are connected to external devices, the radio uses the accessory connector as the USB path.	

9.1.6 Set Language

1. On the home screen, go to **Menu > Settings > Basic Settings > Language**.
2. Press the **Up** or **Down** key to select the display language.
3. Press the **OK/Menu** key.

9.2 Call Settings

9.2.1 Set Power Level

You can set the TX power level to high or low.

1. On the home screen, go to **Menu > Settings > Call Settings > Power Level**.
2. Select **High Power** or **Low Power**.
3. Press the **OK/Menu** key.

9.2.2 Set Squelch Level

The squelch level controls the signal reception threshold on analog channels. Higher squelch level requires stronger signal.

- On the home screen, go to **Menu > Settings > Call Settings > Squelch**, select **Open**, **Normal**, or **Tight**, and then press the **OK/Menu** key.
- Press the preprogrammed **Adjust Squelch Level** key to adjust the level.

9.2.3 Enable Compandor

Compandor allows the radio to compress the voice signal when transmitting and decompress the voice signal when receiving to improve the voice quality.

1. On the home screen, go to **Menu > Settings > Call Settings > Compandor**.
2. Press the **OK/Menu** key.

9.3 Security Settings

9.3.1 Encryption

Encryption provides end-to-end encryption to protect your voice and data.

- On the home screen, go to **Menu > Settings > Security Settings > Encrypt**.
- Press the preprogrammed **Encrypt** key.

 **NOTE**

- When you enable Encryption, only the current channel is encrypted, and the channel remains to be encrypted after you switch the channel.
- To preprogram Encryption, contact your dealer.

Select Encryption Keys

1. On the home screen, go to **Menu > Settings > Security Settings > Encrypt > Key List**.
2. Select an encryption key.
3. Press the **OK/Menu** key.

9.3.2 Lone Worker

Lone Worker allows the radio to automatically send an emergency alarm to your companion or the control center, when you do not operate the radio or the radio does not transmit voice within the preset time. In this case, the radio enters the emergency mode.

- To enable Lone Worker, do either of the following:
 - On the home screen, go to **Menu > Settings > Security Settings > Lone Worker**, and then press the **OK/Menu** key.
 - Press the preprogrammed **Lone Worker** key.
- To exit the emergency mode, do any of the following:
 - Press a key.
 - Rotate a knob.

9.3.3 Scrambler

Scrambler allows the radio to invert audio signals at the sender's side and reverse the signals at the receiver so as to prevent eavesdropping.

To enable Scrambler, do either of the following:

- On the home screen, go to **Menu > Settings > Security Settings > Scrambler**, and then press the **OK/Menu** key.
- Press the preprogrammed **Scrambler** key.

10. Profiles

Profiles allows you to set the audio and alert tone of the radio for clear voice in various scenarios. The radio supports the following profiles:

- General: applies to the low-noise environment, such as a quiet street.
- Meeting: applies to the indoor environment that is relatively quiet.
- Outdoor: applies to the high-noise outdoor environment, such as a highway.

10.1 Switch Profiles

To switch profiles, do any of the following:

- On the home screen, go to **Menu > Profiles**, select a profile, and then press the **OK/Menu** key.
- Press the preprogrammed **Profiles Switch** key.
- Press the preprogrammed **One Touch Menu** key to go to the **Profiles** interface, and then switch the profile.

10.2 Customize Each Profile

After you select a profile, you can change the default audio or LED settings of the profile.

10.2.1 Set Mic AGC

Mic AGC allows the calling radio to control the voice output gain within a proper range during transmission, so as to provide improved voice with proper volume for the called radio. This feature ensures stable voice even in noisy environment.

With Mic AGC preprogrammed, to enable Mic AGC, do the following:

1. On the home screen, go to **Menu > Profiles > Setting > Audio Set**.
2. Select **Digital Mic AGC** or **Analog Mic AGC**.
3. Press the **OK/Menu** key.

10.2.2 Set AI-based Noise Cancellation

AI-based Noise Cancellation allows the radio to automatically eliminate ambient noise when receiving or transmitting voice. This feature enhances the voice clarity, but also slightly decreases the volume.

With AI-based Noise Cancellation preprogrammed, to enable AI-based Noise Cancellation, do the following:

1. On the home screen, go to **Menu > Profiles > Setting > Audio Set > Noise Cancellation**.

2. Press the **OK/Menu** key.

10.2.3 Set Audio Mode

Audio Mode adds gain to audio signals at high, medium, and low frequency, thus optimizing the audio quality.

1. On the home screen, go to **Menu > Profiles > Setting > Audio Set > Audio Mode**.
2. Select an audio mode.
3. Press the **OK/Menu** key.

10.2.4 Set Alert Tone

If You Want to...	Then...
Turn on or off all radio tones	<ol style="list-style-type: none"> a. On the home screen, go to Menu > Profiles > Setting > Tone > Radio Tone. b. Press the OK/Menu key.
Turn on or off single tone	<ol style="list-style-type: none"> a. On the home screen, go to Menu > Profiles > Setting > Tone > Single Tone. b. Select a feature, and then select On/Off. c. Press the OK/Menu key.
Adjust the volume of all radio tones	<ol style="list-style-type: none"> a. On the home screen, go to Menu > Profiles > Setting > Tone > Radio Tone Volume. b. Select a volume level. c. Press the OK/Menu key.
Adjust the volume of a single tone	<ol style="list-style-type: none"> a. On the home screen, go to Menu > Profiles > Setting > Tone > Single Tone. b. Select a feature. c. Select Tone Volume. d. Select a volume level. e. Press the OK/Menu key.

10.2.5 Set the LED Indicator

1. On the home screen, go to **Menu > Profiles > Setting > LED**.
2. Press the **OK/Menu** key to enable or disable the feature.

10.2.6 Reset the Radio Profile

1. On the home screen, go to **Menu > Profiles > Setting > Restore initial value**.
2. Press the **OK/Menu** key.

11. Radio Features

NOTE


To preprogram or enable features in this chapter, contact your dealer.




11.1 Scan

Scan allows you to listen to activities on other channels, keeping track of your team members

11.1.1 Enable Scan

- On the home screen, go to **Menu > Scan > Scan On/Off**, and then press the **OK/Menu** key.
- Press the preprogrammed **Scan** key.

The radio scans according to the scan list preset for the current channel. During the scanning, the LCD displays , and the LED indicator flashes orange slowly.

When detecting activities on a channel, the radio stays on the channel and the LED indicator glows green. If the radio stays on Priority Channel 1 or Priority Channel 2, the LCD displays  or . If the radio stays on a non-priority channel, the LCD displays .

NOTE

If you do not want to hear activities on the channel, press the preprogrammed **Nuisance Temporary Delete** key to remove the channel from the scan list temporarily.

11.1.2 Set Scan List

The scan list is a list of up to 32 analog and digital channels that the radio scans.

On the home screen, go to **Menu > Scan**, select a scan list, and then do any of the following:

- To view or manage all channels on the current list, select **View Record**, and then press the **OK/Menu** key.
 - To set the list as the default scan list, select **Set Default**, and then press the **OK/Menu** key.
 - To add a new channel to the list, select **Add CH**, and then press the **OK/Menu** key.
-

NOTE

- If you do not need to scan, select the current channel and then select **Delete CH** to delete the current channel.
 - If you want to preferentially hear the activities on a channel, you can select a channel, and then select **Set PrioCH-1** or **Set PrioCH-2**.
-

11.2 Positioning

Positioning allows you to collect the position information of the radio through satellites.

NOTE

Positioning applies only to radios with GPS, BDS, or GLONASS.

11.2.1 Enable Positioning

1. On the home screen, go to **Menu > Position > GPS On/Off**
2. Press the **OK/Menu** key.

11.2.2 View Position

1. On the home screen, go to the **Menu > Position > Position**.
2. Press the **OK/Menu** key.

You can view the position information of your radio (including longitude, latitude, speed, altitude, time, date, and the number of satellites).

11.2.3 Enable GPS Report

GPS Report allows the radio to report its location information to the control center.

Press the preprogrammed **GPS Report** key, or you can consult your dealer to configure the GPS trigger, allowing the radio to automatically report the GPS data upon power-on/-off, or according to the preset time or distance interval.

11.3 BT

BT is a wireless technology that supports short-distance communications and data exchange between devices. You can connect the radio to a BT device through the built-in BT module.

CAUTION

- To derive optimal communication quality, it is recommended that you use the BT devices approved by the Company.
 - If BT earpieces of other companies are used, you must use them with the wireless ring PTT of the Company. Otherwise, the earpieces cannot transmit.
-

To turn on BT, do either of the following:

- On the home screen, go to **Menu > BT**, select **BT**, and then press the **OK/Menu** key.
- Press the preprogrammed **BT** key.

 **NOTE**

BT applies only to radios with the BT module.

11.3.1 Connect to a BT Device

1. Turn on the BT device and enter the pairing status.

For details, refer to the related user manual of the BT device.

2. Turn on BT on the radio.
3. On the home screen, go to **Menu > BT > Auto Search**.
4. Select the BT device from the detected device list.
5. Press the **OK/Menu** key.

After the radio is connected to the BT device, the LED indicator of the radio flashes blue every 1.5 seconds.

11.3.2 Switch BT Audio

With the BT device connected, press the preprogrammed **BT Audio Switch** key to switch the audio output device between BT earpiece and the radio.

11.3.3 Set BT

 **NOTE**

Before setting BT, enable BT.


On the home screen, go to **Menu > BT > My Device**, and then set any of the following:

- To view the BT name, select **BT Devices Name**, and then press the **OK/Menu** key.
- To enable visibility, select **Always Detected**, and then press the **OK/Menu** key.
- To view the BT information, select **Device Information**, and then press the **OK/Menu** key.

11.4 One Touch Call/Menu

One Touch Call/Menu allows you to initiate a preset service or switch to the function menu by pressing the preprogrammed **One Touch Call** or **One Touch Menu** key.

The following table shows the services that can be implemented by this feature and the corresponding operations.

Description	Operation
On an analog channel, you can initiate a call to a two-tone contact.	Press the preprogrammed One Touch
<p>On a digital channel, you can do one of the following:</p> <ul style="list-style-type: none"> ● Initiate a(n) group, private, or all call. ● Send a quick text message or position message to a private or group contact. ● Initiate an alert call, radio check, remote monitor, radio enable, or radio disable service. ● Switch to a menu or realize a function. 	<p>Call or One Touch Menu key to initiate the service.</p> <p> NOTE</p> <p>To initiate a call on a digital channel, press the One Touch Call or One Touch Menu key, and then press and hold the PTT key.</p>

11.5 Roam

Roam allows the radio to select base stations according to signal strength. This ensures seamless communication across sites or networks.

- To enable Roam, do either of the following:
 - Press the preprogrammed **Roaming** key.
 - On the home screen, go to **Menu > Roaming > On/Off**, and then press the **OK/Menu** key.
- To set the roam list, do the following:
 - a. On the home screen, go to **Menu > Roaming > Roaming List**.
 - b. Select a roaming list.
 - c. Press the **OK/Menu** key.
 - d. Do any of the following:
 - To view or manage all channels on the current list, select **View Record**, and then press the **OK/Menu** key.
 - To set the list as the default scan list for the current channel, select **Set Default**, and then press the **OK/Menu** key.
 - To add a new channel to the list, select **Add CH**, and then press the **OK/Menu** key.

11.6 Priority Interrupt

Priority Interrupt allows you to interrupt the ongoing activities (such as a call, a call hang status or remote monitor) on the current channel to release it. Therefore, you can initiate a new call or data service on that channel.

Manual Priority Interrupt

Press the preprogrammed **Priority Interrupt** key to interrupt the ongoing activities.

Auto Priority Interrupt

Auto Priority Interrupt	Triggered When You...
Emergency Priority Interrupt	Make an emergency call.
Call Back Priority Interrupt	Press and hold the PTT key to call back.
Message Priority Interrupt	Send a message.
Radio Disable Priority Interrupt	Send the Radio Disable command.
All Call Priority Interrupt	Initiate an all call.

NOTE

To preprogram Priority Interrupt, contact your dealer.

11.7 XPT

In the Extended Pseudo Trunk (XPT) system networked by multiple digital repeaters, the radio can initiate services on any available logic channel, no longer limited to a dedicated control channel. This improves the channel usage and ensures stable communication.



NOTE



To preprogram XPT, contact your dealer.

11.8 Emergency Services

Emergency Service allows you to seek help from your companion or the control center in case of an emergency. You can initiate an emergency call with the highest priority even when your radio is transmitting or receiving.

In emergency mode, the radio transmits at high power level by default. According to the emergency type preset by your dealer, the radio gives different indications as follows:

Emergency Type	Description
Siren Only	The radio emits siren and displays  and  , but does not transmit any emergency signal to the control center.

Emergency Type	Description
Regular	The radio gives visible or audible indications.
Silent	The radio gives no visible and audible indication.
Silent w/ Voice	The radio gives audible indication only upon receiving a call. Otherwise, the radio gives no audible or visible indication.
Alarm w/ Siren	The radio transmits the emergency signal to the control center, and then emits siren and displays  and  .

In addition, you can request your dealer to set one of the following emergency modes:

Emergency Mode	Description	Note
Call Only	It allows you to initiate an emergency call.	If the emergency type is Siren Only or Alarm w/Siren, you do not need to set the emergency mode.
Alarm w/Call	It allows you to send an emergency code and initiate an emergency call.	
Alarm	It allows you to send an emergency code.	

11.8.1 Initiate an Emergency Call

Press the preprogrammed **Emergency On** key to initiate an emergency call to the preset contact.

If the Alarm w/Call To Follow feature is preprogrammed by your dealer, you can speak into the microphone without pressing or holding the **PTT** key. If the preset voice cycles expire, you can press and hold the **PTT** key to initiate an emergency call again.

11.8.2 Receive an Emergency Call

You can answer an emergency call without any operation.

11.8.3 End an Emergency Call

- Calling party
 - Press the preprogrammed **Emergency Off** key.
 - Turn off the radio.
- Called party
 - Switch the channel.

- Turn off the radio.

11.9 Radio Disable and Radio Enable

- Radio Disable allows you to disable the radio by sending a Radio Disable command to the radio.

The disabled radio can be monitored remotely, but is deprived of other features.

- Radio Enable allows you to enable the disabled radio again by either of the following:

- Send a Radio Enable command to the radio.
- Program the radio again.

12. Troubleshooting

Phenomena	Analysis	Solution
The radio cannot be turned on.	The battery may be installed improperly.	Remove and reattach the battery.
	The battery power may have run out.	Recharge or replace the battery.
	The battery may suffer from poor contact caused by dirtied or damaged battery contacts.	Clean the battery contacts.
The voice is unclear.	The signal may be weak.	Make sure call participants are within the communication range.
There are unknown voices or noises on the channel.	You may be interrupted by radios using the same frequency.	Change the frequency, or adjust the squelch level.
	The radio may be set with no signaling.	Set signaling for all member radios to avoid interference at the same frequency.
The LCD display does not display any information.	The LCD display may fail to function temporarily.	Restart the radio.
The radio cannot be located.	The radio may be at an unfavorable position, so no position signal is received.	Move to an open and flat area, and try again.
The radio cannot be paired with a BT device.	The battery power of the BT device may be low.	Recharge the BT device.
	The BT device may be too far away from the radio.	Move the BT device towards the radio.
During receiving, the voice is weak, discontinuous, or totally inactive.	The battery voltage may be low.	Recharge or replace the battery.
	The volume may be low.	Increase the volume, or contact your dealer to disable the Mic AGC feature.
	The antenna may be loosened or installed improperly.	Turn the radio off, and then reattach the antenna.

	The speaker may be blocked or damaged.	Clean the surface of the speaker.
The radio fails to communicate with group members.	The frequency or signaling type may be inconsistent with that of other members.	Set your TX/RX frequency and signaling to the same as that of other members.
	The channel type (digital/analog) may be set inconsistently.	Make sure all members are on the same digital/analog channel.
	You may be too far away from the group members.	Move towards other members.
	The signal may be weak.	Make sure call participants are within the communication range.
There is too much noise and hiss.	The signal may be weak.	Make sure call participants are within the communication range.
	The radio may be in an unfavorable position. For example, the signal may be blocked by tall buildings or frustrated in the underground areas.	Move to an open and flat area, and then restart the radio.
	The radio may suffer from external disturbance (such as electromagnetic interference).	Stay away from the equipment that may cause interference.

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

13. Care and Cleaning

13.1 Radio

CAUTION

If the product is seriously wet inside, do not turn on it. Contact the dealer or maintenance center for maintenance in time.

To guarantee optimum performance as well as a long service life of the product, follow the tips below:

- Do not disassembly the product.
- Do not throw, crack, or hammer the product.
- Do not pierce or scrape the product, especially the interfaces.
- Do not expose the product to the extreme temperature.
- Keep the product away from substances that can corrode it.
- Close the accessory connector cover when no accessory is in use.
- Do not connect the product to the incompatible device.
- Do not hold the product by its antenna.

To avoid liquid penetration into the product, please follow the tips below:

- Do not expose the product to the environment with high temperature and high humidity.
- Keep the product away from salty water, ionized water, alcoholic beverage, lotion, or other impure water.
- Before connecting the accessory or charger to the product, ensure the product and the interface are dry.

If the product has been wet, please follow the tips below:

- Do not turn on the product.
- Do not connect the accessory or charger to the product.
- Do not dry the product by microwave, hair dry, or other external heat sources.
- Do not insert the cotton buds or tissue into the interface.
- Use the clean and soft cloth to dry the water on the product surface, and then put the product to the well-ventilated place until it is dry.

13.2 Battery

To guarantee optimum performance as well as a long service life of the battery, follow the tips below:

- Use the approved charger to charge the battery.

- Keep the product turned off during charging.
- Do not use the product during charging.
- Charge the battery under the temperature from 0°C to 40°C.
- When the low battery alert occurs, replace or charge the battery in time.
- When the battery is fully charged, disconnect the charger in time.
- Do not drop the battery by force.
- Do not make the battery wet.
- To avoid short circuit, do not use the conductive substance such as iron wire to touch the anode and cathode of the battery.

13.3 Cleaning

CAUTION

- Turn off the product and remove the battery before cleaning.
 - Ensure no external devices are connected to the product.
 - Do not use chemical preparations such as stain removers, alcohol, sprays or oil preparations.
 - Do not directly spray the neutral cleanser on the product.
 - Do not use the product before it is fully dry.
 - After cleaning the accessory connector, put the cover back in place.
-

It is recommended to clean the product regularly. During cleaning, you can check whether the components are damaged. If damages exist, contact the local dealer or the Company.

1. Use the non-metal brush to clean up the dust or dirt on the product surface.
2. Use the lint-free cloth with proper neutral cleanser to clean the surface, screen, keys, knobs, and interfaces.
3. Use another lint-free cloth with proper pure water to clean up the cleanser or residue.
4. When cleaning the battery slot, use the non-metal brush to clean up the dust and dirt in the slot, and then use the dry and soft lint-free cloth to clean the contacts.

13.4 Sterilizing

CAUTION

- Turn off the product and remove the battery before sterilizing.
 - Ensure no external devices are connected to the product.
 - Do not directly spray the alcohol on the product.
 - Keep the product away from the power supply and fire.
 - Do not use the product before it is fully dry.
 - After sterilizing the accessory connector, put the cover back in place.
-

It is recommended to sterilize the product regularly. You can sterilize the product by the following tips:

Use the lint-free cloth with proper rubbing alcohol (density $\geq 70\%$) to clean the product surface, screen, keys, knobs, and interfaces.

13.5 Storing

CAUTION

- Turn off the product and remove the battery before storage.
 - Ensure no external devices are connected to the product.
-

When storing the product, follow the tips below:

- Keep the product in the well-ventilated place with the temperature from -5°C to 25°C and with the humidity from 45% to 75%.
- Keep the product away from the acidic and corrosive substances.
- Keep the product away from the fire or other heat sources.
- Do not store the product in direct sunlight.
- During storing, charge the battery once every three months, and care the battery once every six months.

14. Optional Accessories

CAUTION

Use the accessories approved by the Company only. Otherwise, we will not be liable for any loss or damage arising out of the use of unauthorized accessories.

Contact your local dealer for the optional accessories used with the product.

15. Abbreviations

Abbreviation	Full Name
A	
AGC	Automatic Gain Control
G	
GPS	Global Positioning System
L	
LCD	Liquid-Crystal Display
LED	Light-Emitting Diode
P	
PTT	Push-To-Talk
S	
SN	Serial Number
SK	Side Key
X	
XPT	Extended Pseudo Trunk



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