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. It also includes a troubleshooting guide. 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:

PD56X Digital Portable Radio (X may represent 2, 5, 6, or 8).

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We do not guarantee, for any particular purpose, the accuracy, validity, timeliness, legitimacy or completeness of the third-party products and contents involved in this manual.

If you have any suggestions or would like to receive more information, please visit our website at: http://www.hytera.com.

## FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. Verification of harmful interference by this equipment to radio or television reception can be determined by turning it off and then 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 different circuit to that of the receiver's outlet.
- Consult the dealer or an experienced radio/TV technician for help.

Operation is subject to the following two conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.

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

## Compliance with RF Exposure Standards

Hytera's radio complies with the following RF energy exposure standards and guidelines:

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

- Institute of Electrical and Electronic Engineers (IEEE) C95.1:2005 Edition

## RF Exposure Compliance and Control Guidelines and Operating Instructions

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

Guidelines:

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

Operating Instructions:

- Transmit no more than the rated duty factor of 50% of the time. To transmit (talk), press 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.
- When worn on the body, always place the radio in a Hytera-approved holder, holster, case, or body harness or by use of the correct clip for this product. Use of non-approved accessories may result in exposure levels which exceed the FCC's occupational/controlled environmental RF exposure limits.
- Use of non-approved antennas, batteries, and accessories causes the radio to exceed the FCC RF exposure guidelines.
- Contact your local dealer for the product's optional accessories.

## ISEDC Statement

The device has been tested and complies with SAR limits, users can obtain Canadian information on RF exposure and compliance.

Après examen de ce matériel aux conformité aux limites DAS et/ou aux limites d'intensité de champ RF, les utilisateurs peuvent sur l'exposition aux radiofréquences et la conformité and compliance d'acquérir les informations correspondantes

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

- This device may not cause harmful interference.

- This device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement

## EU Regulatory Conformance

As certified by the qualified laboratory, the product is in compliance with the essential requirements and other relevant provisions of the following directives: 1999/5/EC or 2014/53/EU, 2006/66/EC, 2011/65/EU, and 2012/19/EU.

Please note that the above information is applicable to EU countries only.

# Contents

# Documentation Conventions

## Icon 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 appears. |
| | | Press the **PTT** key. |
| " " | Denotes messages, directories, file names, folder names, and parameter values. | The screen displays "Invalid Battery!". |
| | | Open "PDT_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**. |
| *Italic* | Denotes document titles. | For details about using the DWS, refer to *Dispatch Workstation User Guide*. |
| Courier New | Denotes commands and their execution results. | To set the IP address, run the following command: `vos-cmd - m name IP` |

## Packing List

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

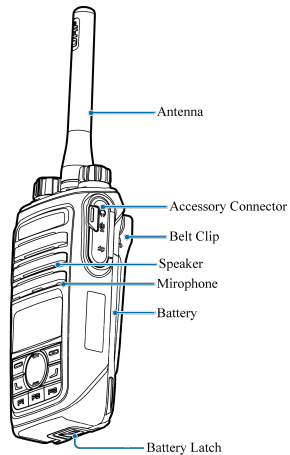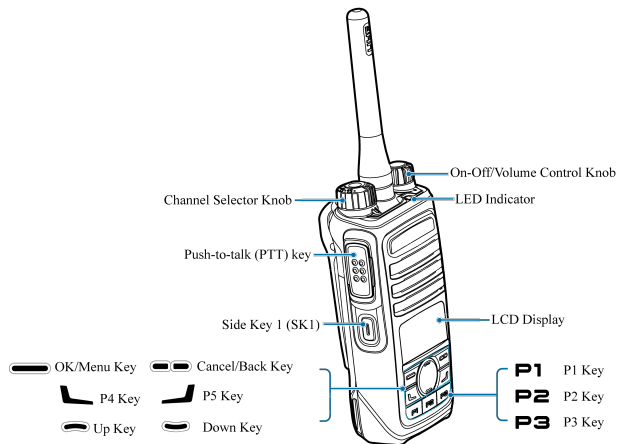| Item | Quantity (PCS) | Item | Quantity (PCS) |
|---|---|---|---|
| Radio | 1 | Antenna | 1 |
| Battery | 1 | Belt Clip | 1 |
| Charger | 1 | Strap | 1 |
| Power Adapter | 1 | Documentation Kit | 1 |

**Note**

Check whether the frequency band marked on the antenna label matches that on the radio label. If not, please contact your dealer.

## Product Overview

### Product Controls

On-Off/Volume Control Knob

Channel Selector Knob

LED Indicator

Push-to-talk (PTT) key

Side Key 1 (SK1)

LCD Display

OK/Menu Key

Cancel/Back Key

P4 Key

P5 Key

Up Key

Down Key

**P1** P1 Key

**P2** P2 Key

**P3** P3 Key

Antenna

Accessory Connector

Belt Clip

Speaker

Mirophone

Battery

Battery Latch

## Programmable Keys

You can request your dealer to program your radio to use the following keys as shortcuts to radio features: **SK1**, **P1** key, **P2** key, **P3** key, **P4** key, and **P5** key.

Please consult your dealer for assignable radio features.

## Before Use

## Charging the Battery

### ⚠ Caution

- Use the specified charger to charge the battery.
- Read the *Safety Information Booklet* before charging.

The new battery is uncharged. Before initial use, fully charge the battery to ensure optimum performance.

To charge the battery, do as follows:

1. Insert the output connector of the power adapter into the port on the back of the charger.
2. Plug the power adapter into a power outlet that is off.
3. Place the battery into the charger, and then switch the power outlet on.

To determine the charging status, check the light-emitting diode (LED) indicator on the charger according to the following table:

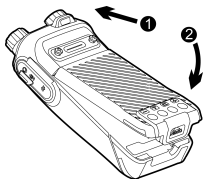| LED Indicator | Charging Status |
|---|---|
| Flashes red slowly | The battery fails to make proper contact with the charger. |
| Glows red | The battery is charging. |
| Glows orange | The battery is charged to 90% or above. |
| Glows green | The battery is fully charged. |
| Flashes red rapidly | The battery fails to be charged. |

If the LED indicator flashes red slowly, take the battery out of the charger, and then place it into the charger for proper contact.

If the LED indicator flashes red rapidly, please contact your dealer to check whether the battery or power adapter is damaged.

### 📝 Note

You can also charge the radio with battery attached. It is recommended that your radio remain powered off during charging.

# Attaching the Battery

### Note

To remove the battery, make sure that the radio is turned off, and then slide the battery latch upwards to unlock the battery.
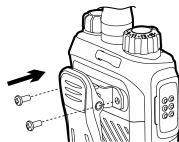
# Attaching the Antenna



### Caution

Do not hold the radio by the antenna, as it may reduce the radio performance and life span of the antenna.

# Attaching the Belt Clip

1. Use a Phillips screwdriver to turn the screws counter-clockwise on the back of the radio and remove them.
2. Align the screw holes on the belt clip with those on the back of the radio.
3. Put the screws back in place as shown below, and use the Phillips screwdriver to turn them clockwise until hand tight.



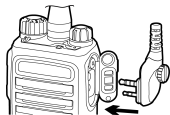# Attaching the Audio Accessories

### Caution

For optimal waterproof and dustproof performance, do close the accessory connector cover and fasten the screw when no accessory is attached.

1. Open the accessory connector cover.



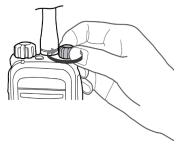2. Plug the accessory into the accessory connector.



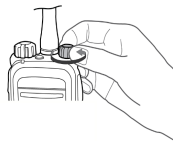3. Rotate the screw on the accessory plug clockwise until hand tight.



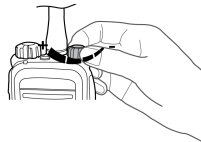## Basic Operations

### Turning on or off the Radio

ON        OFF



### Adjusting the Volume

## Checking the Battery Power

To check the battery power, press and hold the preprogrammed **Battery Power Indicator** key. The following table lists the battery power indications. The icon ▭ indicates that the battery runs low. In this case, please recharge or replace the battery.

| Icon | LED Indication/Tone |
|------|---------------------|
| ▥ | The LED indicator glows green. |
| ▥ | The LED indicator glows orange. |
| ▭ | The LED indicator glows red. |
| ▭ | The LED indicator glows red and an alert tone sounds. |

## Locking or Unlocking Keys and Knobs

When the keypad is not in use, it is recommended that you lock it to avoid unintended operations.

To lock or unlock the keypad, do one of the following from the home screen:

- Press the preprogrammed **Keypad Lock** key.
- Long press (2s by default) the **P3** key.

To allow the keypad to be locked automatically, enable the Keypad Lock feature as follows:

1. Press the **OK/Menu** key from the home screen, and then go to **Settings** > **Radio Set** > **Keypad Lock**.
2. Select **Enable**, and then set **Timed Set** by pressing the **Up** or **Down** key.

In addition, you can go to **Settings** > **Radio Set** > **Lockable Key** to set whether the corresponding keys and knobs still work when the keypad is locked.

## Selecting a Zone and Channel

The radio receives and transmits data and voice on the selected channel. A zone is a group of channels within the same operational area. Before selecting a channel, make sure that the current zone contains the channel.

To select a zone, do one of the following:

- Press the **OK/Menu** key, select **Zone**, and then select the required zone.
- Press the preprogrammed **Zone Up** or **Zone Down** key.

To select a channel, rotate the **Channel Selector** knob.

## Status Indications

### LCD Icons

| Icon | Radio Status |
|------|--------------|
| **DM** | Direct Mode: The radio transmits and receives directly. |
| **RM** | Repeater Mode: The radio transmits and receives through a repeater. |
| **TDMA** | TDMA Direct Mode: If one time slot is occupied, the radio can transmit and receive through the other time slot. |
| ▥ | The number of bars indicates the charge left in the battery. |
| $\Upsilon_\times$ | There is no signal. |
| $\Upsilon_{.ıl}$ | The number of bars indicates the signal strength. |
| 🄷 | The radio is set at high power. |
| 🄻 | The radio is set at low power. |
| 🝨 | An accessory is connected. |
| ⚠ | The radio is in emergency mode. |
| 🕭 | The radio is roaming. |

| Icon | Radio Status |
|------|--------------|
| 🖃 | The Scrambler or Encrypt feature is enabled. |
| ↻ | The radio is scanning. |
| ↻ | The radio stays on a non-priority channel. |
| ⤵ | The radio stays on priority channel 1. |
| ⤵ | The radio stays on priority channel 2. |
| Ⓥ | The Voice Operated Transmit (VOX) feature is enabled. |
| ◁] | The Monitor feature is enabled. |
| ◁)) | The speaker is turned on. |
| ℚ | The Loudness and Quality Optimizer (LQO) feature is enabled. |
| 📵 | There is/are missed call(s). |
| ✉ | There is/are unread short message(s). |
| 📵 | The InBox is full. |
| ▲ | A private call is in progress or a private contact is on the contact list. |
| ▲▲ | A group call is in progress or a group contact is on the contact list. |
| ▲▲ | An all call is in progress or an all call contact is on the |

| Icon | Radio Status |
|------|--------------|
|      | contact list. |

## LED Indications

| LED Indicator | Radio Status |
|---------------|--------------|
| Flashes green | Being turned on. |
| Glows green | Receiving. |
| Glows red | Transmitting. |
| Flashes orange slowly | Scanning or roaming. |
| Flashes orange rapidly | Working in emergency mode. |
| Glows orange | Call hang time: No voice is being transmitted or received on the channel during a call. Within such a period, you can press and hold the **PTT** key and speak. |

## Call Services

When you are speaking during a call, keep the microphone about 2.5 to 5 cm away from your mouth. This ensures optimal voice quality on the receiving radio.



## Call on Digital Channel

You can initiate or receive the following types of calls on a digital channel:

● Private call: a call from an individual user to another individual user.

● Group call: a call from an individual user in a group to all the other members in the group.

● All call: a call from an individual user to all the other users on the current channel.

The radio must be authorized by your dealer for you to initiate an all call.

### Initiating a Call

You can initiate a call in any of the following ways:

● Preset Contact

    1. Rotate the **Channel Selector** knob to select the required channel.

2. Press and hold the **PTT** key to call the private contact, group contact, or all call contact preset for the selected channel.

- Contact List or Call Log

  1. Press the **OK/Menu** key.
  2. Go to **Contact** > **Contact List** / **Favorite Contact** or **Call Logs** > **Outgoing/Incoming/Missed** > **Outgoing List** / **Incoming List** / **Missed List**.
  3. Press the **Up** or **Down** key to select the required contact.
  4. Press and hold the **PTT** key to call the selected contact.

The radio displays ![icon], ![icon], and ![icon] for an outgoing private call, group call, and all call respectively.

## Receiving and Responding to a Call

When receiving a call, you can listen to without any operation.

The radio displays ![icon], ![icon], and ![icon] for an incoming private call, group call, or all call respectively.

You can press and hold the **PTT** key and speak within call hang time.

## Call on Analog Channel

You can initiate or receive a call on an analog channel with or without signaling.

### Call Without Signaling

A call without signaling is a call initiated to all the other users on an analog channel without signaling.

To initiate a call without signaling, do as follows:

1. Rotate the **Channel Selector** knob to select the required channel.
2. Press and hold the **PTT** key, and speak into the microphone.

### Call With Signaling

A call with signaling is a call initiated to a specific contact on an analog channel with signaling.

To initiate a call with signaling, do as follows:

1. Rotate the **Channel Selector** knob to select the required channel.
2. Press the **OK/Menu** key, and go to **Contact** > **Contact List**.
3. Select the target contact.
4. Press and hold the **PTT** key, and speak into the microphone.

## Message Services

The Message feature allows you to send a quick text and receive, forward or delete a message. This feature is available only on a digital channel.

## Viewing a Message

To view a newly received message, directly press the **OK/Menu** key.

To view a received message or a sent message, do as follows:

1. Press the **OK/Menu** key.
2. Go to **Message** > **InBox/OutBox** > **InBox List** / **OutBox List**.
3. Select the required message.

## Sending a Message

You can send a quick text message, forward a message from the InBox or OutBox, and resend a message from the OutBox.

### Sending a Quick Text Message

A quick text message is a frequently used message predefined by your dealer. To send a quick text message, do as follows:

1. Press the **OK/Menu** key, and then go to **Message** > **Quick Text**.
2. Select the required quick text, and then press the **OK/Menu** key.
3. Select **Send**, and then select the target contact.
4. Press the **OK/Menu** key.

### Forwarding a Message

To forward a message from the InBox or OutBox, do as follows:

1. Press the **OK/Menu** key.
2. Go to **Message** > **InBox/OutBox** > **InBox List** / **OutBox List**.
3. Select the required message, and then press the **OK/Menu** key.
4. Select **Forward**, and then select the target contact.
5. Press the **OK/Menu** key.

### Resending a Message

To resend a message from the OutBox, do as follows:

1. Press the **OK/Menu** key.
2. Go to **Message** > **OutBox** > **OutBox List**.
3. Select the required message, and then press the **OK/Menu** key.
4. Select **ReSend**, and then press the **OK/Menu** key.

## Deleting a Message

To delete a message from the InBox or OutBox, do as follows:

1. Press the **OK/Menu** key.
2. Go to **Message** > **InBox/OutBox** > **InBox List** / **OutBox List**.
3. Select the required message, and then press the **OK/Menu** key.
4. Select **Delete**, and then press the **OK/Menu** key.

To delete all messages from the InBox or OutBox, do as follows:

1. Press the **OK/Menu** key.
2. Go to **Message** > **InBox/OutBox**.
3. Select **Delete All**, and then press the **OK/Menu** key.

## Supplementary Features

The supplementary features of the radio vary with the operation mode. For details, see the following table.

| Feature | Digital | Analog |
|---|---|---|
| Basic Settings | √ | √ |
| Contact Management | √ | √ |
| Mic Automatic Gain Control (AGC) | √ | √ |
| Treble Boost | √ | √ |
| LQO | √ | √ |
| Audio Feedback Suppression | √ | × |
| One Touch Call | √ | √ |
| Scan | √ | √ |
| Roam (paid feature) | √ | × |
| Talk Around | √ | √ |
| Time-out Timer (TOT) | √ | √ |
| VOX | √ | √ |
| Control Services | √ | × |

| Feature | Digital | Analog |
|---|---|---|
| Analog Services | × | √ |
| Personal Security Services | √ | √ |
| Encrypt | √ | × |
| Scrambler | × | √ |

## Basic Settings

You can press the **OK/Menu** key, go to **Settings** > **Radio Set**, and then perform the following operations:

| If you want to... | Then... |
|---|---|
| Set the language | Select **Language**, and then select the required language. |
| Check whether the battery is approved | Select **Battery**. If the battery is approved, the radio will display "Genuine Battery". |
| Set the backlight | Select **Backlight**, and select one of the following as required: <br> ● **Off**: The backlight remains off. <br> ● **On**: The backlight remains on. <br> ● **Timed**: The backlight automatically goes out if no |

| If you want to... | Then... |
|---|---|
| | operation or activity is performed within the preset period. |
| Adjust the brightness of the backlight | Select **Brightness**, and then press the **Up** or **Down** key. |
| Turn on or off the LED indication | Select **LED**, and then select **Enable** or **Disable**. |
| Turn on or off the silent mode | Go to **Tone** > **Radio Silent**, and then select **Silent On** or **Silent Off**. |
| Turn on or off a specific tone | 1. Select **Tone**, and then select the required tone.<br>2. Select **On/Off**, and then select **Enable** or **Disable**. |
| Adjust the volume of a specific tone | 1. Select **Tone**, and then select the required tone.<br>2. Select **Tone Volume**, and then select the required level. |
| Adjust the power level | Select **Power Level**, and then select one of the following as required:<br>● **Hight Power**: Enables communication with distant radios but consumes more battery power.<br>● **Low Power**: Enables communication with close radios and saves battery power. |
| Check the remaining | Go to **Rent** > **Rent Query**. |

| If you want to... | Then... |
|---|---|
| rental period | |
| Turn off all visible and audible indications | Select **Covert Mode**, and then select **On**. |

## Contact Management

You can view the Contact List and manage the Favorites list.

● To view the Contact List preset by your dealer, press the **OK/Menu** key, and then go to **Contact** > **Contact List**.

● To add a frequently used contact to the Favorites list, press the **OK/Menu** key, go to **Contact** > **Favorites** > **Add Contact**, and then select the required contact.

● To delete a contact from the Favorites list, select the required contact, select **Delete**, and then press the **OK/Menu** key.

## Audio Optimization

The features described in this section help optimize voice quality.

### Turning on or off the Mic AGC Feature

The Mic AGC feature allows the radio to automatically keep the microphone gain within a proper range during transmission. This provides

optimized voice with proper volume for the receiving party.

To turn on or off this feature, do as follows:

1. Press the **OK/Menu** key.
2. Go to **Settings** > **Audio Set** > **Mic AGC (D)** / **Mic AGC (A)**.
3. Select **On** or **Off**.

### Turning on or off the Treble Boost Feature

The Treble Boost feature allows the radio to output louder voice for better audio clarity.

To turn on or off this feature, do as follows:

1. Press the **OK/Menu** key.
2. Go to **Settings** > **Audio Set** > **Treble Boost**.
3. Select **On** or **Off**.

#### Note

With this feature enabled, the LQO feature is unavailable.

### Turning on or off the LQO Feature

The LQO feature allows the radio to automatically adjust the volume and effect of received voice in different environments.

To turn on or off this feature, do as follows:

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

2. Go to **Settings** > **Audio Set** > **LQO**.
3. Select **On** or **Off**.

### Turning on or off the Audio Feedback Suppression Feature

The Audio Feedback Suppression feature helps reduce the noises arising from short-distance communication.

To turn on or off this feature, contact your dealer.

## One Touch Call

The One Touch Call feature allows you to press the preprogrammed **One Touch Call** key to quickly access a service assigned by your dealer. The available services are as follows:

| Service Type | Description |
|---|---|
| Voice Service | **Analog Channel**: |
| | To call a 5-tone or 2-tone contact. |
| | **Digital Channel**: |
| | ● To initiate a group or private call. |
| | ● To perform the following services to a private contact: alert call, radio check, remote monitor, radio enable, and radio disable. |

| Service Type | Description |
|---|---|
| Data Service | To send a quick text message. |

To initiate a one touch call on the digital channel, press the **PTT** key, and then press the preprogrammed **One Touch Call** key.

## Scan

The Scan feature allows you to listen to activities on a channel, keeping a track of your team members. With this feature enabled, the radio searches the scan list preset for the current channel and stay on a channel with activities.

### Turning on or off the Scan Feature

To turn on or off the Scan feature, press the **OK/Menu** key, go to **Scan** > **Scan On/Off**, and then select **On** or **Off**.

With the Scan feature enabled, the radio displays ⟳ , and the LED indicator slowly flashes orange. When detecting activities on a channel, the radio stays on it, and the LED indicator glows green.

### 📝 Note

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

### Adding a Channel to a Scan List

1. Press the **OK/Menu** key, and then go to **Scan** > **Scan List**.
2. Select the required scan list, and then select **Edit/View**.
3. Select **Add CH**, and then select the required channel.

### Setting a Priority Channel

To set a channel scanned more frequently, do as follows:

1. Press the **OK/Menu** key, and then go to **Scan** > **Scan List**.
2. Select the required scan list, and then select **Edit/View**.
3. Select the required channel, and then select **Edit Prio CH** > **Set PrioCH-1** / **Set PrioCH-2**.

To change a priority channel to a non-priority channel, select the priority channel marked with P₁ or P₂, and then select **Edit Prio CH** > **Disable PrioCH**.

### Deleting a Channel from a Scan List

1. Press the **OK/Menu** key, and then go to **Scan** > **Scan List**.
2. Select the required scan list, and then select **Edit/View**.
3. Select the required channel, and then select **Delete CH**.

## Roam

The Roam feature allows you to enjoy seamless communication across sites or networks.

To turn on or off this feature, press the **OK/Menu** key, go to **Roam** > **Roam On/Off**, and then select **On** or **Off**.

To select a roam list, press the **OK/Menu** key, go to **Roam** > **Roam List**, and then select the required list.

## Talk Around

The Talk Around feature allows the radio to continue transmitting and receiving when the repeater is not operating, or when your radio is out of the repeater's coverage but within other radios' coverage.

To turn on or off this feature, press the **OK/Menu** key, go to **Settings** > **Radio Set** > **Talk Around**, and then select **Enable** or **Disable**.

## TOT

The TOT feature allows the radio to automatically stop transmission and keep beeping when the period preset by your dealer expires. To stop beeping, release the **PTT** key. You need to wait for a certain period (also preset by your dealer) to initiate transmission again.

This feature aims to prevent a radio user from occupying a channel for an extended period and to avoid radio damage due to overheating.

## VOX

The VOX feature allows you to transmit voice without pressing and holding the **PTT** key. The radio automatically transmits voice when the volume reaches the preset level.

To turn on or off this feature, press the **OK/Menu** key, go to **Settings** > **Radio Set** > **VOX** > **On/Off**, and then select **On** or **Off**.

To set the sensitivity of the external or internal microphone, press the **OK/Menu** key, go to **Settings** > **Radio Set** > **VOX** > **Gain Level** > **External/Internal**, and then select the appropriate level.

A higher gain level indicates lower sensitivity, which requires higher volume for triggering transmission.

## Control Services

On the digital channel, you can initiate the following control services to a private contact.

| Feature | Description | Operation |
|---|---|---|
| Alert Call | Allows you to alert a private contact to call you back. | To activate a feature, do as follows: |
| Radio Check | Allows you to check whether another radio is active on the current channel. | 1. Press the **OK/Menu** key, and then go to **Contact** > **Favorites** / **Contact List**. |
| Remote Monitor | Allows you to remotely monitor activities surrounding another radio. | 2. Select the target private contact. |
| Radio Enable | Allows you to remotely enable a disabled radio for normal operation. | 3. Go to **Ctrl Services** > **Alert Call** / **Rad Check** / **R. Monitor** / **Rad Enable** / **Rad Disable**. |
| Radio Disable | Allows you to remotely disable another radio. | |

Remote Monitor, Radio Enable, and Radio Disable are paid features.

## Analog Services

The following features are available only on an analog channel.

### Turning on or off the Compandor Feature

The Compandor feature improves voice clarity.

To turn on or off this feature, press the **OK/Menu** key, go to **Settings** > **Radio Set** > **Compandor**, and then select **Enable** or **Disable**.

### Turning on or off the Monitor Feature

The Monitor feature allows the radio to receive weak signals.

To turn on this feature, press the preprogrammed **Monitor** key or press and hold the preprogrammed **Monitor Momentary** key. In this case, the radio displays ¤] .

To turn off this feature, press the preprogrammed **Monitor** key again or release the preprogrammed **Monitor Momentary** key.

### Turning on or off the Squelch Off Feature

The Squelch Off feature allows the radio's speaker to keep turned on no matter whether the squelch condition is satisfied.

To turn on this feature, press the preprogrammed **Squelch Off** key or press and hold the preprogrammed **Squelch Off Momentary** key. In this case, the radio displays ¤]» .

To turn off this feature, press the preprogrammed **Squelch Off** key again or release the preprogrammed **Squelch Off Momentary** key.

## Setting the Squelch Level

The squelch level refers to the squelch threshold required for the radio's speaker to be turned on.

To set the squelch level, press the **OK/Menu** key, go to **Settings** > **Radio Set** > **Squelch**, and then select **Open**, **Normal**, or **Tight** (from low to high) as required.

Generally, a higher squelch level requires higher signal strength. If the squelch level is set to **Open**, the speaker will always keep turned on.

# Personal Safety Services

The features described in this section ensure personal safety.

## Using the Emergency Feature

The Emergency feature allows you to ask for help from your companion or the control centre in case of emergency.

In emergency mode, the radio gives different indications according to the preset emergency type. The available emergency types are as follows:

| Emergency Type | Description |
| --- | --- |
| Siren Only | The radio sounds shrill alarm tones with visible indications. |

| Emergency Type | Description |
| --- | --- |
| Regular | The radio gives audible and visible indications. |
| Silent | The radio gives no audible or visible indication, and you cannot listen to a received call. |
| Silent w/ Voice | The radio gives no audible or visible indication, but you can listen to a received call. |
| Alarm w/ Siren | The radio sends an alarm and sounds shrill alarm tones with visible indications. |

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

| Emergency Mode | Description |
| --- | --- |
| Alarm | Allows you to send an emergency alarm. |
| Call | Allows you to initiate an emergency call. |
| Alarm W/Call | Allows you to send an emergency alarm and initiate an emergency call. |

The three emergency modes can be combined with any of the following emergency types: **Regular**, **Silent**, and **Siren w/ Voice**.

### Triggering the Emergency Mode

To trigger the emergency mode, press the preprogrammed **Emergency On** key. The radio then enters the preset emergency mode with or without indications depending on the preset emergency type.

### Exiting the Emergency Mode

To exit the emergency mode (as the initiating party) or emergency alert mode (as the receiving party), press the preprogrammed **Emergency Off** key or turn off the radio.

## Turning on or off the Lone Worker Feature

The Lone Worker feature allows the radio to enter the emergency mode when no operation is detected for a preset period.

To turn on or off this feature, press the **OK/Menu** key, go to **Settings** > **Radio Set** > **Lone Worker**, and then select **Enable** or **Disable**.

## Communication Security Services

The features described in this section ensure communication security.

## Using the Encrypt Feature

The Encrypt feature prevents eavesdropping and ensures communication privacy. It allows the radio to automatically encrypt transmitted voice or data. Only the receiving radio with the same key value or ID can decrypt the voice or data.

### Turning on or off the Encrypt Feature

Press the **OK/Menu** key, go to **Settings** > **Radio Set** > **Encrypt** > **On/Off**, and then select **On** or **Off**.

### Selecting an Encryption Key

Press the **OK/Menu** key, go to **Settings** > **Radio Set** > **Encrypt** > **Key List**, and then select the required key.

## Turning on of off the Scrambler Feature

The Scrambler feature prevents eavesdropping and ensures communication privacy. It allows the radio to invert the frequency spectrum of transmitted audio signals. Only the receiving radio with the same scrambler setting can restore the audio signals.

To turn on or off this feature, press the **OK/Menu** key, go to **Settings** > **Radio Set** > **Scramble**, and then select **Enable** or **Disable**.

## Troubleshooting

| Phenomena | Analysis | Solution |
|---|---|---|
| You cannot turn on the radio. | The battery may be installed improperly. | Remove and reattach the battery. |
| | The battery power may run out. | Recharge or replace the battery. |
| | The battery may suffer from poor contact caused by dirty or damaged battery contacts. | Clean the battery contacts or replace the battery. |
| During receiving, the voice is weak or intermittent. | The battery voltage may be low. | Recharge or replace the battery. |
| | The volume level may be low. | Increase the volume. |
| | The antenna may be loose or may be installed incorrectly. | Turn off the radio, and then remove and reattach the antenna. |
| | The speaker may be blocked. | Clean the surface of the speaker. |
| You cannot communicate with other group members. | The frequency or signaling type may be inconsistent with that of other members. | Verify that your TX/RX frequency and signaling type are correct. |
| | The channel type (digital or analog) may be set incorrectly. | Verify that you are on the correct digital or analog channel. |
| | You may be too far away from other members. | Move towards other members. |
| You hear unknown voices or noise. | You may be interrupted by radios using the same frequency. | Change the frequency, or adjust the squelch level. |
| | The radio in analog mode may be set with no signaling. | Request your dealer to set signaling for the current channel to avoid interference. |

| Phenomena | Analysis | Solution |
|---|---|---|
| You are unable to hear anyone because of too much noise and hiss. | You may be too far away from other members. | Move towards other members. |
| | You may be in an unfavourable position. For example, your communication may be blocked by high buildings or blocked in an underground area. | Move to an open and flat area, restart the radio, and try again. |
| | It may be the result of external disturbance (such as electromagnetic interference). | Stay away from equipment that may cause interference. |
| You cannot use the keys. | The keypad may not work temporarily. | Restart the radio. |
| The LCD does not display any information. | The LCD may not work temporarily. | Restart the radio. |

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

## Care and Cleaning

To guarantee optimal performance as well as a long service life of the product, please follow these tips.

### Product Care

- Do not pierce or scrape the product.
- Keep the product far away from substances that can corrode the circuitry.
- Do not hold the product by the antenna or earpiece cable.
- Close the accessory connector cover when no accessory is in use.

### Product Cleaning

⚠ **Caution**

Turn off the product and remove the battery before cleaning.

- Clean up the dust and fine particles on the product surface and charging piece with a clean and dry lint-free cloth or a brush regularly.
- Use neutral cleanser and a non-woven fabric to clean the keys, knobs, and front case after long-time use. Do not use chemical preparations such as stain removers, alcohol, sprays or oil preparations, so as to avoid surface case damage.
- Make sure the product is completely dry before use.

## Optional Accessories

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

⚠ **Caution**

Use the specified accessories only; otherwise, we will not be liable for any loss or damage arising out of the use of any unauthorised accessories.

## Abbreviations

| Abbreviation | Full Name |
|---|---|
| AGC | Automatic Gain Control |
| DM | Direct Mode |
| LED | light-emitting diode |
| LQO | Loudness and Quality Optimizer |
| PTT | Push-to-Talk |
| RM | Repeater Mode |
| SK | Side Key |
| TOT | Time-out Timer |
| VOX | Voice Operated Transmit |