MOTOROLA SOLUTIONS

PROFESSIONAL DIGITAL TWO-WAY RADIO

MOTOTRBO™

XiR P8868T, XiR P8800T Series 4-BUTTON PORTABLE RADIOS

USER GUIDE

en-US

zh-CN

JANUARY 2021

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This is to declare that MSI products comply with the EU Directive 2011/65/EU (Restriction of Hazardous Substance or RoHS-2) and India RoHS, including applicable exemptions, with respect to the following substances:

Lead (Pb) < 0.1% by weight (1000 ppm)
Mercury (Hg) < 0.1% by weight (1000 ppm)
Cadmium (Cd) < 0.01% by weight (100 ppm)
Hexavalent Chromium (Cr6+) < 0.1% by weight (1000 ppm)
Polybrominated Biphenyls (PBB) < 0.1% by weight (1000 ppm)
Polybrominated Diphenyl Ethers (PBDE) < 0.1% by weight (1000 ppm)

Contents

Important Safety Information

RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios

CAUTION:
This radio is restricted to Occupational use only.
Before using the radio, read the RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable standards and Regulations.

Software Version

All the features described in the following sections are supported by the software version **R02.21.01.0000** or later.

Contact your dealer or administrator for more information.

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Disclaimer

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The European Union's WEEE directive requires that products sold into EU countries must have the crossed out trash bin label on the product (or the package in some cases).

As defined by the WEEE directive, this cross-out trash bin label means that customers and end-users in EU countries should not dispose of electronic and electrical equipment or accessories in household waste.

Customers or end-users in EU countries should contact their local equipment supplier representative or service centre for information about the waste collection system in their country.

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U.S. Pat. Nos. #5,870,405, #5,826,222, #5,754,974, #5,701,390, #5,715,365, #5,649,050, #5,630,011, #5,581,656, #5,517,511, #5,491,772, #5,247,579, #5,226,084 and #5,195,166.

Radio Care

This section describes the basic handling precaution of the radio.

Table 1: IP Specification

IP Specification	Description
IP67	Allows your radio to withstand adverse field conditions such as being submersed in water.

CAUTION:
Do not disassemble your radio. This could damage radio seals and result in leak paths into the radio. Radio maintenance should only be done in service depot that is equipped to test and replace the seal on the radio.

- If your radio has been submersed in water, shake your radio well to remove any water that may be trapped inside the speaker grille and microphone port. Trapped water could cause decreased audio performance.
- If your radio's battery contact area has been exposed to water, clean and dry battery contacts on both your radio and the battery before attaching the battery to radio. The residual water could short-circuit the radio.
- If your radio has been submersed in a corrosive substance (for example, saltwater), rinse radio and battery in fresh water then dry radio and battery.
- To clean the exterior surfaces of your radio, use a diluted solution of mild dishwashing detergent and fresh water (for example, one teaspoon of detergent to one gallon of water).
- Never poke the vent (hole) located on the radio chassis below the battery contact. This vent allows for pressure equalization in the radio. Doing so may create a leak path into radio and your radio's submersibility may be lost.
- Never obstruct or cover the vent, even with a label.
- Ensure that no oily substances come in contact with the vent.
- Your radio with antenna attached properly is designed to be submersible to a maximum depth of 1 m (3.28 ft) and a maximum submersion time of 30 minutes. Exceeding either maximum limit or use without antenna may result in damage to your radio.

- When cleaning your radio, do not use a high pressure jet spray on radio as this will exceed the 1 m depth pressure and may cause water to leak into your radio.

Introduction

This user guide covers the operation of your radios. All visual indicators throughout this publication are **not** applicable to Non-Display models.

Your dealer or system administrator may have customized your radio for your specific needs. Check with your dealer or system administrator for more information.

You can consult your dealer or system administrator about the following:

- Is your radio programmed with any preset conventional channels?
- Which buttons have been programmed to access other features?
- What optional accessories may suit your needs?
- What are the best radio usage practices for effective communication?
- What maintenance procedures that helps promote longer radio life?

1.1

Icon Information

Throughout this publication, the icons described are used to indicate features supported in either the conventional analog or conventional digital mode.

Indicates a conventional **Analog Mode-Only** feature.

Indicates a conventional **Digital Mode-Only** feature.

For features that are available in **both** conventional analog and digital modes, both icons are **not** shown.

All visual indicators throughout this publication are **not** applicable to Non-Display models.

1.2

Conventional Analog and Digital Modes

Each channel in your radio can be configured as a conventional analog or conventional digital channel.

1 : Channel Selector Knob

Certain features are unavailable when switching from digital to analog mode.

Your radio also has features available in both analog and digital modes. The minor differences in the way each feature works do **not** affect the performance of your radio.

NOTICE:
Your radio also switches between digital and analog modes during a dual mode scan. See Scan on page 160 for more information.

1.3

IP Site Connect

This feature allows your radio to extend conventional communication beyond the reach of a single site by connecting to different available sites by using an Internet Protocol (IP) network. This is a conventional multi-site mode.

When the radio moves out of range from one site and into the range of another, the radio connects to the repeater of the new site to send or receive calls or data transmissions. This is done either automatically or manually depending on your settings.

In an automatic site search, the radio scans through all available sites when the signal from the current site is weak or when the radio is unable to detect any signal from the current site. The radio then locks on to the repeater with the strongest Received Signal Strength Indicator (RSSI) value.

In a manual site search, the radio searches for the next site in the roam list that is currently in range but which may not have the strongest signal and locks on to the repeater.

NOTICE:
Each channel can only have either Scan or Roam enabled, not both at the same time.

Channels with this feature enabled can be added to a particular roam list. The radio searches the channels in the roam list during the automatic roam operation to locate the best site. A roam list supports a maximum of 16 channels, including the selected channel.

NOTICE:
You cannot manually add or delete an entry in the roam list. Contact your dealer for more information.

1.4
Capacity Plus

Capacity Plus is an entry-level trunked system for single and multiple sites. The single and multi-site dynamic trunking offers better capacity and coverage.

1.4.1
Capacity Plus–Single-Site

Capacity Plus–Single-Site is a single-site trunking configuration of the MOTOTRBO radio system, which uses a pool of channels to support hundreds of users and up to 254 Groups. This feature allows your radio to efficiently utilize the available number of programmed channels while in Repeater Mode.

You hear a negative indicator tone if you try to access a feature not applicable to Capacity Plus–Single-Site by using a programmable button press.

Your radio also has features that are available in conventional digital mode, IP Site Connect, and Capacity Plus. However, the minor differences in the way each feature works does not affect the performance of your radio.

Check with your dealer or system administrator for more information on this configuration.

1.4.2
Capacity Plus–Multi-Site

Capacity Plus–Multi-Site is a multi-channel trunking configuration of the MOTOTRBO radio system, combining the best of both Capacity Plus and IP Site Connect configurations.

Capacity Plus–Multi-Site allows your radio to extend trunking communication beyond the reach of a single site, by connecting to different available sites which are connected with an IP network. It also provides an increase in capacity by efficiently utilizing the combined available number of programmed channels supported by each of the available sites.

When the radio moves out of range from one site and into the range of another, it connects to the repeater of the new site to send or receive calls/data transmissions. Depending on your settings, this is done automatically or manually.

If the radio is set to do this automatically, it scans through all available sites when the signal from the current site is weak or when the radio is unable to detect any signal from

the current site. It then locks on to the repeater with the strongest RSSI value.

In a manual site search, the radio searches for the next site in the roam list that is currently in range (but which may not have the strongest signal) and locks on to it.

Any channel with Capacity Plus–Multi-Site enabled can be added to a particular roam list. The radio searches these channels during the automatic roam operation to locate the best site.

NOTICE:
You cannot manually add or delete an entry to the roam list. Check with your dealer or system administrator for more information.

Similar to Capacity Plus–Single Site, icons of features not applicable to Capacity Plus–Multi-Site are not available in the menu. You hear a negative indicator tone if you try to access a feature not applicable to Capacity Plus–Multi-Site by using a programmable button press.

Getting Started

Getting Started provides instructions to prepare your radio for use.

2.1 Charging the Battery

Your radio is powered by a Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) battery.

Turn off your radio when charging.

- To comply with warranty terms and avoid damages, charge the battery using a Motorola Solutions authorized charger as described in the charger user guide.
- Charge a new battery 14 to 16 hours before initial use for best performance.

  Batteries charge best at room temperature.
- Charge your IMPRES™ battery with an IMPRES charger for optimized battery life and valuable battery data. IMPRES batteries charged exclusively with IMPRES chargers receive a 6-month capacity warranty extension over the standard Motorola Solutions Premium battery warranty duration.

2.2 Attaching the Battery

Follow the procedure to attach the battery to your radio.

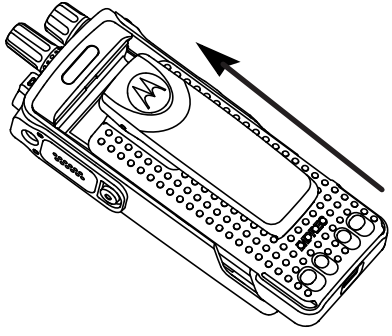
This battery mismatch alert feature is only applicable for IMPRES battery and Non-IMPRES battery with kit number programmed in Erasable Programmable Read Only Memory (EPROM).

When the radio is attached with a non-supported battery, an alert tone sounds, display shows `Unknown Battery`, and battery icon is disabled.

The certification of the radio is voided if you attach a UL battery to an FM approved radio or vice versa. Your radio can be preprogrammed in CPS to alert you if this battery mismatch occurs. Check with your dealer or system administrator to determine how your radio has been programmed.

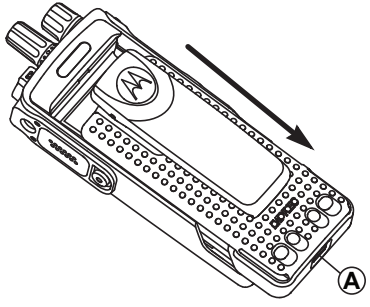
1. Align the battery with the rails on the back of the radio.

2 Press the battery firmly, and slide upwards until the latch snaps into place.



3 Slide battery latch into lock position.

4 To remove the battery, turn the radio off. Move the battery latch marked **A** into unlock position and hold, and slide the battery down and off the rails.



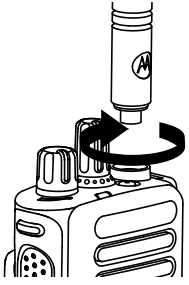
2.3

Attaching the Antenna

Turn off your radio.

Set the antenna in the receptacle and turn clockwise.

NOTICE:
To protect best against water and dust, ensure that antenna is tightly fitted.



NOTICE:
To remove the antenna, turn the antenna counterclockwise.

CAUTION:
To prevent damages, replace the faulty antenna with only MOTOTRBO antennas.

2.4

Attaching the Carry Holster

1 Align the rails on the carry holster with the grooves on the battery.

2 Press downwards until you hear a click.

2.5

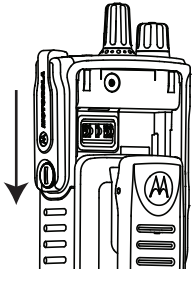
Attaching the Universal Connector Cover

The universal connector is located on the antenna side of the radio. It is used to connect MOTOTRBO accessories to the radio.

Replace the universal connector cover or dust cover when the universal connector is not in use.

1 Insert the slanted end of the cover into the slots above the universal connector.

2 Press downwards on the cover to seat the dust cover properly on the universal connector.



3 Secure the connector cover to the radio by turning the thumbscrew clockwise.

2.6

Cleaning the Universal Connector Cover

If the radio is exposed to water, dry the universal connector before attaching an accessory or replacing the dust cover. If the radio is exposed to salt water or contaminants, perform the following cleaning procedure.

1 Mix one tablespoon of mild dishwashing detergent with one gallon of water to produce a 0.5% solution.

2 Clean only the external surfaces of the radio with the solution. Apply the solution sparingly with a stiff, nonmetallic, short-bristled brush.

3 Dry the radio thoroughly with a soft and lint-free cloth. Ensure the contact surface of the universal connector is clean and dry.

4 Apply Deoxit Gold Cleaner or Lubricant Pen (Manufacturer CAIG Labs, Part number G100P) on the contact surface of the universal connector.

5 Attach an accessory to the universal connector to test the connectivity.

NOTICE:
Do not submerge the radio in water. Ensure excess detergent does not get trapped in between the universal connector, controls, or crevices.

Clean the radio once a month for maintenance. For a harsher environment such as in petrochemical plants or in a high salt density marine environment, clean the radio more often.

2.7

Removing the Universal Connector Cover (Dust Cover)

1 Push the latch downwards.

2 Lift the cover up and slide down the dust cover from the universal connector to remove it.

Replace the dust cover when the universal connector is not in use.

2.8

Turning the Radio On

Rotate the **On/Off/Volume Control** knob clockwise until it clicks.

If successful, your radio shows the following indications:

- A tone sounds.

NOTICE:
If the Tones/Alerts function is disabled, there is no tone upon powering up.

- The red LED lights up.
- The display shows a welcome message or image.

If the LED indicator is disabled, the Home screen does not light up during a power-up.

If your radio does not power up, check your battery. Make sure that the battery is charged and properly attached. Contact your dealer if your radio still does not power up.

2.9

Turning the Radio Off

Rotate the **On/Off/Volume Control** knob counterclockwise until it clicks.

2.10

Adjusting the Volume

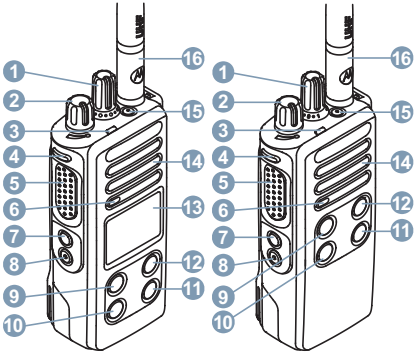
To adjust the volume of your radio, perform one of the following actions:

- To increase the volume, turn the **On/Off/Volume Control** knob clockwise.
- To decrease the volume, turn the **On/Off/Volume Control** knob counterclockwise.

NOTICE:
Your radio can be programmed to have a minimum volume offset where the volume level cannot be lowered past the programmed minimum volume.

Radio Controls

This chapter explains the buttons and functions to control the radio.



1 Channel Selector Knob

2 On/Off/Volume Control Knob

3 LED Indicator

4 Side Button 1[1]

5 Push-to-Talk (**PTT**) Button

6 Microphone

7 Side Button 2[1]

8 Side Button 3[1]

9 Button A

10 Button B

11 Button C

12 Button D

13 Display

14 Speaker

15 Emergency Button[1]

16 Antenna

[1] These buttons are programmable.

Capacity Max

Capacity Max is MOTOTRBO control channel based trunked radio system.

MOTOTRBO digital radio products are marketed by Motorola Solutions primarily to business and industrial users. MOTOTRBO uses the European Telecommunications Standards Institute (ETSI) Digital Mobile Radio (DMR) standard, that is, two-slot Time Division Multiple Access (TDMA), to pack simultaneous voice or data in a 12.5 kHz channel (6.25 kHz equivalent).

4.1

Push-To-Talk (PTT) Button

The **PTT** button serves two basic purposes.

- While a call is in progress, the **PTT** button allows the radio to transmit to other radios in the call. The microphone is activated when the **PTT** button is pressed.
- While a call is not in progress, the **PTT** button is used to make a new call.

Press and hold the **PTT** button to talk. Release the **PTT** button to listen.

If the Talk Permit Tone or the **PTT** Sidetone is enabled, wait until the short alert tone ends before talking.

If the Channel Free Indication feature is enabled on your radio (programmed by your dealer), you will hear a short alert tone the moment the target radio (the radio that is receiving your call) releases the **PTT** button, indicating the channel is free for you to respond.

You hear a continuous Talk Prohibit Tone if your call is interrupted, for example when the radio receives an Emergency call. You should release the **PTT** button.

4.2

Programmable Buttons

Depending on the duration of a button press, your dealer can program the programmable buttons as shortcuts to radio functions.

Short press
Pressing and releasing rapidly.

Long press
Pressing and holding for the programmed duration.

NOTICE:
See Emergency Operation on page 165 for more information on the programmed duration of the **Emergency** button.

4.3

Assignable Radio Functions

The following radio functions can be assigned to the programmable buttons by your dealer or system administrator.

Bluetooth® Audio Switch
Toggles audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Bluetooth Connect
Initiates a Bluetooth find-and-connect operation.

Bluetooth Disconnect
Terminates all existing Bluetooth connections between your radio and any Bluetooth-enabled devices.

Bluetooth Discoverable
Enables your radio to enter Bluetooth Discoverable Mode.

Cancel
Allows users to end selected calls.

Call Priority High
Indicating Call Priority Level High is enabled.

Emergency
Depending on the programming, initiates or cancels an emergency.

Intelligent Audio
Toggles intelligent audio on or off.

Manual Site Roam
Starts the manual site search.

Mic AGC
Toggles the internal microphone automatic gain control (AGC) on or off.

One Touch Access
Directly initiates a predefined Broadcast, Private, Phone or Group Call, a Call Alert, or a Quick Text message.

Option Board Feature
Toggles option board feature(s) on or off for option board-enabled channels.

Phone Exit
Ends a Phone Call.

Telemetry Control
Controls the Output Pin on a local or remote radio.

Toggle Call Priority Level
Enables your radio to enter Call Priority Level High/ Normal.

Trill Enhancement
Toggles trill enhancement on or off.

Voice Announcement On/Off
Toggles voice announcement on or off.

Zone Toggle
Allows radio user to toggle between Zone 1 and Zone 2.

4.4

Assignable Settings or Utility Functions

The following radio settings or utility functions can be assigned to the programmable buttons.

Tones/Alerts
Toggles all tones and alerts on or off.

Display Mode
Toggles the day/night display mode on or off.

Power Level
Toggles transmit power level between high and low.

4.5

Status Indicators

This chapter explains the status indicators and audio tones used in the radio.

4.5.1

Icons

The following are the icons that appear on the radio display.

Table 2: Display Icons

The following icons appear on the status bar at the top of the radio display. The icons are arranged left most in order of appearance or usage, and are channel-specific.

	**Battery** The number of bars (0–4) shown indicates the charge remaining in the battery. The icon blinks when the battery is low.

	Bluetooth Connected The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	Bluetooth Not Connected The Bluetooth feature is enabled but there is no remote Bluetooth device connected.
	DGNA Radio is in DGNA Talkgroup.
	Emergency Radio is in Emergency mode.
	GNSS Available GNSS feature is enabled. The icon stays lit when a position fix is available.
	GNSS Not Available GNSS feature is enabled but is not receiving data from the satellite.

	High Volume Data Radio is receiving high volume data and channel is busy.
	Mute Mode Mute Mode is enabled and speaker is muted.
	Notification Notification List has one or more missed events.
	Option Board The Option Board is enabled. (Option board enabled models only)
	Option Board Non-Function The Option Board is disabled.
5	**Over-the-Air Programming Delay Timer** Indicates time left before automatic restart of radio.
L or H	**Power Level** Radio is set at Low power or Radio is set at High power.

	Priority 1 Indicates Priority Talkgroup 1.
	Priority 2 Indicates Priority Talkgroup 2.
	Received Signal Strength Indicator (RSSI) The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.
	Response Inhibit Response Inhibit is enabled.
	Ring Only Ringing mode is enabled.
	Secure The Privacy feature is enabled.
	Shared Frequency Indicates radio is locking to shared control channel.

	Silent Ring Silent ring mode is enabled.
	Site Roaming The site roaming feature is enabled.
	Status Indicates a new status message.
	Unsecure The Privacy feature is disabled.
	Vibrate Vibrate mode is enabled.
	Vibrate and Ring Vibrate and Ring mode is enabled.

Table 3: Advance Menu Icons

The following icons appear beside menu items that offer a choice between two options or as an indication that there is a sub-menu offering two options.

	Checkbox (Checked) Indicates that the option is selected.

	Checkbox (Empty) Indicates that the option is not selected.
	Solid Black Box Indicates that the option selected for the menu item with a sub-menu.

Table 4: Bluetooth Device Icons

The following icons appear next to items in the list of Bluetooth-enabled devices available to indicate the device type.

	Bluetooth Audio Device Bluetooth-enabled audio device, such as a headset.
	Bluetooth Data Device Bluetooth-enabled data device, such as a scanner.
	Bluetooth PTT Device Bluetooth-enabled PTT device, such as a PTT-Only Device (POD).
	Bluetooth Sensor Device Bluetooth-enabled sensor device, such as gas sensor.

Table 5: Call Icons

The following icons appear on the display during a call. These icons also appear in the Contacts list to indicate alias or ID type.

	Bluetooth PC Call Indicates a Bluetooth PC Call in progress. In the Contacts list, it indicates a Bluetooth PC Call alias (name) or ID (number).
	Call Priority High Indicating Call Priority Level High is enabled.
	DGNA Call Indicates a DGNA Call is in progress.

	Group Call/All Call Indicates a Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).
	Phone Call as Group/All Call Indicates a Phone Call as Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).
	Phone Call as Private Call Indicates a Phone Call as Private Call in progress. In the Contacts list, it indicates a phone alias (name) or ID (number).
	Private Call Indicates a Private Call in progress. In the Contacts list, it indicates a subscriber alias (name) or ID (number).

Table 6: Mini Notice Icons

The following icons appear momentarily on the display after an action to perform a task is taken.

	Failed Transmission (Negative) Failed action taken.
	Successful Transmission (Positive) Successful action taken.
	Transmission in Progress (Transitional) Transmitting. This is seen before indication for Successful Transmission or Failed Transmission.

Table 7: Sent Items Icons

The following icons appear at the top right corner of the display in the Sent Items folder.

or	**In Progress** The text message to a subscriber alias or ID is pending transmission, followed by waiting for acknowledgement. The text message to a group alias or ID is pending transmission.

or	**Individual or Group Message Read** The text message has been read.
or	**Individual or Group Message Unread** The text message has not been read.
or	**Send Failed** The text message cannot be sent.
or	**Sent Successfully** The text message has been successfully sent.

4.5.2

LED Indicator

The LED indicator shows the operational status of your radio.

Solid Red

Radio is transmitting all types of voice call.

Blinking Red

Radio has failed the self-test upon powering up.

Radio is receiving an emergency transmission.

Radio is transmitting in low battery state.

Radio has moved out of range if Auto-Range Transponder System is configured.

Mute Mode is enabled.

Radio encounters charging errors.

Radio is indicating a battery mismatch.

Radio is detecting activity or retrieving Over-the-Air Programming transmissions over the air.

Radio programming has failed.

Radio is receiving a call or data.

Radio is upgrading to a new Option Board firmware file.

Solid Green
Radio is powering up.

Blinking Green
Radio is scanning for activity.

Solid Yellow
Radio is monitoring a conventional channel.

Blinking Yellow
Radio has yet to respond to a Call Alert.

Radio has Flexible Receive List enabled.

Radio Programming is in progress.

Double Blinking Yellow
Radio has Auto Roaming enabled.

Radio is actively searching for a new site.

Radio has yet to respond to a Group Call Alert.

Radio is locked.

4.5.3

Tones

The following are the tones that sound through on the radio speaker.

High Pitched Tone

Low Pitched Tone

4.5.3.1

Audio Tones

Audio tones provide you with audible indications of the status, or response to data received on the radio.

Continuous Tone
A monotone sound. Sounds continuously until termination.

Periodic Tone
Sounds periodically depending on the duration set by the radio. Tone starts, stops, and repeats itself.

Repetitive Tone
A single tone that repeats itself until it is terminated by the user.

Momentary Tone

Sounds once for a short duration set by the radio.

4.5.3.2

Indicator Tones

Indicator tones provide you with audible indications of the status after an action to perform a task is taken.

Positive Indicator Tone

Negative Indicator Tone

4.5.3.3

Registration

There are a number of registration-related messages that you may receive.

Registering

Typically, registration is sent to the system during power-up, Talkgroup change, or during site roaming. If a radio fails registration on a site, the radio automatically attempts to roam to another site. The radio temporarily removes the site where registration was attempted from the roaming list.

The indication means that the radio is busy searching for a site to roam, or that the radio has found a site successfully but is waiting for a response to the registration messages from the radio.

When `Registering` is displayed on the radio, a tone sounds and the yellow LED double flashes to indicate a site search.

When a radio is registering, a tone sounds and the yellow LED double flashes to indicate a site search.

If the indications persist, the user should change locations or if allowed, manually roam to another site.

Out of Range

A radio is deemed to be out of range when the radio is unable to detect a signal from the system or from the current site. Typically, this indication means that the radio is outside of the geographic outbound radio frequency (RF) coverage range.

When `Out of Range` is displayed on the radio, a repetitive tone sounds and the red LED flashes.

When a radio is out of range, a repetitive tone sounds and the red LED flashes.

Contact your dealer or system administrator if the radio still receives out of range indications while being in an area with good RF coverage.

Talkgroup Affiliation Failed

A radio tries to affiliate to the Talkgroup specified in the channels or Unified Knob Position (UKP) during registration.

A radio that is in affiliation fail state is unable to make or receive calls from the Talkgroup that the radio is trying to affiliate to.

When a radio fails to affiliate with a Talkgroup, `UKP Alias` is displayed in the home screen with a highlighted background.

Contact your dealer or system administrator if the radio receives affiliation failure indications.

Register Denied

Registration denied indicators are received when the registration with the system is not accepted.

The radio does not indicate to the radio user the specific reason the registration was denied. Normally, a registration is denied when the system operator has disabled the access of the radio to the system.

When a radio is denied registration, `Register Denied` is displayed on the radio and the yellow LED double flashes to indicate a site search.

When a radio is denied registration, the yellow LED double flashes to indicate a site search.

4.6

Zone and Channel Selections

This chapter explains the operations to select a zone or channel on your radio.

The radio can be programmed with a maximum of 250 Capacity Max Zones with a maximum of 160 Channels per zone. Each Capacity Max zone contains a maximum of 16 assignable positions.

4.6.1

Selecting Zones

Follow the procedure to select the required zone on your radio.

Press the programmed **Zone Toggle** button.

4.6.2

Selecting Channels

Follow the procedure to select the required channel on your radio.

Turn the **Channel Selector** Knob to select the channel, subscriber ID, or group ID.

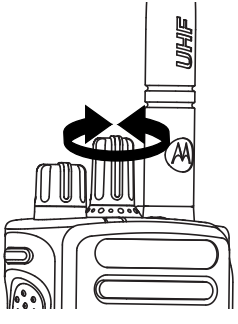
NOTICE:
For Display radio, if **Virtual Channel Stop** is enabled, your radio stops proceeding beyond the first or the last channel, and a tone is heard.

4.6.3

Selecting a Call Type

to select a call type. This can be a Group Call, Broadcast Call, All Call, or Private Call, depending on how your radio is programmed. If you this causes the radio to re-register with the Capacity Max System. The radio registers with the Talkgroup ID that has been programmed for the new call type.

Your radio does not operate when selected to an unprogrammed channel, use the to select a programmed channel instead.



Once the required zone is displayed (if you have multiple zones in your radio), to select the call type.

4.6.4

Selecting a Site

A site provides coverage for a specific area. In a multi-site network, the Capacity Max radio will automatically search for a new site when the signal level from the current site drops to an unacceptable level.

The Capacity Max system can support up to 250 sites.

4.6.5

Roam Request

A Roam Request tells the radio to search for a different site, even if the signal from the current site is acceptable.

If there are no sites available:

NOTICE:
This is programmed by your dealer.

Press the programmed **Manual Site Roam** button.

You hear a tone, indicating the radio has switched to a new site. The display shows `Site ID <Site Number>`.

4.6.6

Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.

4.6.7

Site Restriction

In Capacity Max system, your radio administrator has the ability to decide which network sites your radio is and is not allowed to use.

The radio does not have to be reprogrammed to change the list of allowed and disallowed sites. If your radio

attempts to register at a disallowed site, your radio receives indication that the site is denied. The radio then searches for a different network site.

When experiencing site restrictions, the yellow LED double flashes to indicate a site search.

4.6.8
Site Trunking

Site Trunking is only available with Capacity Max system. A site must be able to communicate with the Trunk Controller to be considered as System Trunking.

If the site cannot communicate with the Trunk Controller in the system, a radio enters Site Trunking mode. While in Site Trunking, the radio provides a periodic audible and visual indication to the user to inform the user of their limited functionality.

When a radio is in Site Trunking, a repetitive tone sounds.

The radios in Site Trunking are still able to make group and individual voice calls as well as send text messages to other radios within the same site. Voice consoles, logging recorders, phone gateways, and data applications cannot communicate to the radios at the site.

Once in Site Trunking, a radio that is involved in calls across multiple sites will only be able to communicate with other radios within the same site. Communication to and from other sites would be lost.

NOTICE:
If there are multiple sites that cover the current location of the radio and one of the sites enters Site Trunking, the radio roams to another site if within coverage.

4.7
Calls

This chapter explains the operations to receive, respond to, make, and stop calls.

You can select a subscriber alias or ID, or group alias or ID after you have selected a channel by using one of these features:

Contacts List
This method provides direct access to the Contacts list.

Programmed One Touch Access Button
This method is used for Group, Private, and Phone Calls only.

You can only have one ID assigned to a **One Touch Access** button with a short or long programmable button press.

Programmable Button
This method is used for Phone Calls only.

4.7.1
Group Calls

Your radio must be configured as part of a group to receive a call from or make a call to the group of users.

4.7.1.1
Making Group Calls

To make a call to a group of users, your radio must be configured as part of that group.

1 Do one of the following:
   - Select a channel with the active group alias or ID. See Selecting a Call Type on page 43.
   - Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

   The red LED lights up.

3 Release the **PTT** button to listen.

   The red LED blinks when the target radio responds.

4 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

   The call ends when there is no voice activity for a predetermined period.
   The call initiator can press the programmed **Cancel** button to end a Group Call.

4.7.1.2
Responding to Group Calls

When you receive a Group Call:

- The red LED blinks.

- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:
   - If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
   - If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

   The red LED lights up.

2 Do one of the following:
   - Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
   - Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

4.7.2

Broadcast Call

A Broadcast Call is a one-way voice call from any user to an entire talkgroup.

The Broadcast Call feature allows only the call initiating user to transmit to the talkgroup, while the recipients of the call cannot respond.

The broadcast initiator can also end the broadcast call. To receive a call from a group of users, or to call a group of users, the radio must be configured as part of a group.

4.7.2.1

Making Broadcast Calls

1 Do one of the following:
   - Select a channel with the active group alias or ID. See Selecting a Call Type on page 43.
   - Press the programmed **One Touch Access** button.

2 Turn the Channel Selector Knob to select the group alias or ID. (Applicable to PMUE4424A and PMUE4426A only)

3 Press the **PTT** button to make the call.

The red LED lights up.

4.7.2.2

Receiving Broadcast Calls

Follow the procedure to receive a Broadcast Call on your radio.

When you receive a Broadcast Call:

- The red LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

NOTICE:
Recipient users are not allowed to Talkback during a Broadcast Call. The Talkback Prohibit Tone plays momentarily if the **PTT** button is pressed during a Broadcast Call.

4.7.3

Private Call

A Private Call is a call from an individual radio to another individual radio.

There are two ways to set up a Private Call.

- The first call type is called Off Air Call Set-Up (OACSU). OACSU sets up the call after performing a radio presence check and completes the call automatically.
- The second type is called Full Off Air Call Set-Up (FOACSU). FOACSU also sets up the call after performing a radio presence check. However, FOACSU calls require user acknowledgment to complete the call and allows the user to either Accept or Decline the call.

The type of call is configured by the system administrator.

NOTICE:

4.7.3.1

Making Private Calls

Your radio must be programmed for you to initiate a Private Call. If this feature is not enabled, you hear a negative indicator tone when you initiate the call.

1 Do one of the following:

- Select a channel with the active subscriber alias or ID. See Selecting a Call Type on page 43.
- Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

The red LED lights up. The display shows the **Private Call** icon and alias.The display shows the **Private Call** icon, the subscriber alias, and call status.

3 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

5 The call ends when there is no voice activity for a predetermined period. You will hear a short tone.The display shows `Call Ended`.

Both the call initiator and recipient are able to terminate an on-going Private Call by pressing the programmed **Cancel** button.

4.7.3.2

Making a Private Call with a One Touch Call Button

The One Touch Call feature allows you to easily make a Private Call to a pre-defined Private Call alias or ID. This feature can be assigned to a short or long programmable button press.

You can only have one alias or ID assigned to a One Touch Call button. Your radio can have multiple One Touch Call buttons programmed.

1 Press the programmed **One Touch Call** button to make a Private Call to the pre-defined Private Call alias or ID.

2 Press the **PTT** button to make the call.

The LED lights up solid green.

The display shows the Private Call alias or ID.

3 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

4 Release the **PTT** button to listen.

When the target radio responds, the LED blinks green.

If there is no voice activity for a predetermined period of time, the call ends.

Both the call initiator and recipient are able to terminate an on-going Private Call by pressing

.Both the call initiator and recipient are able to terminate an on-going Private Call by pressing the programmed **Cancel** button.

4.7.3.3

Receiving Private Calls

When you receive Private Calls configured as Off Air Call Set-Up (OACSU):

- The red LED blinks.
- The first text line shows the **Private Call** icon.
- The second text line displays the **Private Call** alias.
- Your radio unmutes and the incoming call sounds through the speaker.

NOTICE:
Depending on how your radio is configured, either OACSU or Full Off Air Call Set-Up (FOACSU), responding to Private Calls may or may not require user acknowledgment.

For the OACSU configuration, your radio unmutes and the call connects automatically.

4.7.3.4

Accepting Private Calls

When you receive Private Calls configured as Full Off Air Call Set-Up (FOACSU):

- The red LED blinks.

- The first text line shows the **Private Call** icon.
- The second text line displays the **Private Call** alias.

1 To accept a Private Call, perform the following action:

   - Press the **PTT** button on any entry.

   The red LED lights up.

2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

   The call ends when there is no voice activity for a predetermined period. A tone sounds.

   NOTICE:
   Both the call initiator and recipient are able to terminate an on-going Private Call by pressing the programmed **Cancel** button.

4.7.3.5

Declining Private Calls

When you receive Private Calls configured as Full Off Air Call Set-Up (FOACSU):

- The red LED blinks.
- The first text line shows the **Private Call** icon.
- The second text line displays the **Private Call** alias.

To decline a Private Call, perform the following action:

- Press the programmed **Cancel** button.

4.7.4

All Calls

An All Call is a call from an individual radio to every radio on the site or every radio at a group of sites, depending on system configuration.

An All Call is used to make important announcements, requiring full attention from the user. The users on the system cannot respond to an All Call.

Capacity Max supports Site All Call and Multi-site All Call. The system administrator may configure one or both of these in your radio.

NOTICE:
Subscribers can support System-Wide All Calls but Motorola Solutions infrastructure does not support System-Wide All Calls.

4.7.4.1

Receiving All Calls

When you receive an All Call, the following occur:

- A tone sounds.
- The red LED lights up.
- The display shows the caller ID information at the top right corner.
- The first text line shows the **Group Call** icon and either `All Call`, `Site All Call`, or `Multi Site Call` depending on the type of configuration.
- Your radio unmutes and the incoming call sounds through the speaker.

The radio returns to the screen before receiving the All Call when the call ends.

If the Channel Free Indication feature is enabled, you hear a short alert tone when the transmitting radio releases the **PTT** button, indicating the channel is free for you to use. You cannot respond to an All Call.

NOTICE:
The radio stops receiving the All Call if you switch to a different channel while receiving the call. You are not able to continue with any menu navigation or editing until the call ends during an All Call. You are not able to continue with any programmed button functions until the call ends during an All Call.

4.7.4.2

Making All Calls

Your radio must be programmed for you to make an All Call.

1. Select a channel with the active All Call group alias or ID. See Selecting a Call Type on page 43.
2. Press the **PTT** button to make the call.

   The red LED lights up. The display shows the **Group Call** icon and either `All Call`, `Site All Call`, or

`Multi Site Call` depending on the type of configuration.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

Users on the channel cannot respond to an All Call. The call initiator can press the programmed **Cancel** button to end the All Call.

4.7.5

Phone Calls

A Phone Call is a call in between an individual radio or a group of radios and a telephone.

Depending on how the radio is configured, the following features may or may not be made available:

- Access code
- Dual Tone Multi Frequency (DTMF) tone
- De-access code
- Displaying of caller alias or ID on receiving a phone call
- Ability to reject or accept a phone call

The Phone Call capability can be enabled by assigning and setting up phone numbers on the system. Check with your system administrator to determine how your radio has been programmed.

4.7.5.1

Making Phone Calls

Follow the procedure to make Phone Calls on your radio.

When you attempt to make or end a Phone Call without the access and deaccess codes preconfigured, the attempt fails and a negative indicator tone sounds.

1 Press the programmed **One Touch Access** button to the predefined alias or ID.

If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

If successful:

- The DMTF Tone sounds.
- You hear the call waiting tone of the telephone user.

If unsuccessful:

- A negative indicator tone sounds.
- The phone call fails. Repeat this step.

2 The red LED lights up. The display shows **Phone Call** icon, subscriber alias, and call status.

If the call is successful:

- The DTMF Tone sounds.
- You hear the call waiting tone of the telephone user.

If the call is unsuccessful:

- A tone sounds.
- The display shows `Phone Call Failed` and then, `Access Code:`.
- If the access code has been preconfigured in the Contacts list, your radio returns to the screen you were on before initiating the call.

3 Press the **PTT** button to make the call.

4 Release the **PTT** button to listen.

5 (Applicable to PMUE4424A and PMUE4426A only) Press the programmed **One Touch Access** button. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF Tone sounds and the display shows `Ending Phone Call.`

If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended.`

If the call fails to end, the radio returns to the Phone Call screen. Repeat the last two steps or wait for the telephone user to end the call.

When the telephone user ends the call, a tone sounds and the display shows `Call Ended.`

6 Press the programmed **Phone Exit** button to end the call.

If end-call-setup is successful:

- A tone sounds.
- Your radio exits the Phone Call.

If end-call-setup is unsuccessful:

- A negative indicator tone sounds.
- Your radio returns to the Phone Call screen.
- Repeat this step, or wait for the telephone user to end the call.

4.7.5.2

Making Phone Calls with the Programmable Button

Follow the procedure to make Phone Calls with the programmable button.

1 Press the programmed **Phone** button to enter into the Phone Entry list.

2 Press ▲ or ▼ to the required alias or ID. Press OK to select.

The green LED lights up. The display shows **Phone Call** icon, subscriber alias or ID, and call status.

If the call-setup is successful:

- The DTMF tone sounds.
- You hear the call waiting tone of the telephone user.
- The display shows **Phone Call** icon, subscriber alias or ID, `Phone Call`, and call status.

If call-setup is unsuccessful:

- A tone sounds.
- The display shows `Phone Call Failed`.
- Your radio returns to the Access Code input screen. If the access code was preconfigured in the Contacts list, the radio returns to the screen you were on prior to initiating the call.

3 Press the **PTT** button to talk. Release the **PTT** button to listen.

4 Press to end the call.

If the end-call-setup is successful, a tone sounds and the display shows `Call Ended`.

If the end-call-setup is unsuccessful, your radio returns to the Phone Call screen.

When you press **PTT** button while in the Phone Contacts screen, a tone sounds and the display shows `Press OK to Place Call`.

When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.

NOTICE:

During channel access, press to dismiss the call attempt and a tone sounds.

During the call, when you press **One Touch Access** button with the deaccess code preconfigured or enter the deaccess code as the input for extra digits, your radio attempts to end the call.

4.7.5.3

Responding to Phone Calls as All Calls

When you receive a Phone Call as an All Call, the receiving radio is unable to talkback or respond. The recipient user is also not allowed to end the All Call.

- The red LED lights up.
- Your radio unmutes and the incoming call sounds through the speaker.

4.7.5.4

Responding to Phone Calls as Group Calls

Follow the procedure to respond to Phone Calls as Group Calls on your radio.

When you receive a Phone Call as a Group Call:

- The red LED lights up.
- Your radio unmutes and the incoming call sounds through the speaker.

1. Press the **PTT** button to respond to the call.
2. Release the **PTT** button to listen.

3 If there is no voice activity for a predetermined period of time, the call ends.

NOTICE:
Your radio is not able to terminate a phone call as a group call. The telephone user must end the call. The recipient user is only allowed to talk back during the call.

You hear a short tone.

4.7.5.5

Responding to Phone Calls as Private Calls

Follow the procedure to respond to Phone Calls as Private Calls on your radio.

When you receive a Phone Call as a Private Call:

- The red LED lights up.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Press the **PTT** button to respond to the call.

2 Release the **PTT** button to listen.

3 If there is no voice activity for a predetermined period of time, the call ends.

NOTICE:
Your radio is not able to terminate a phone call as a group call. The telephone user must end the call. The recipient user is only allowed to talk back during the call.

You hear a short tone.

4.7.6

Initiating Transmit Interrupt

An ongoing call is interrupted, when you perform the following actions:

- Press the **Voice PTT** button.
- Press the **Emergency** button.

The receiving radio displays `Call Interrupted`.

4.8

Advanced Features

This chapter explains the operations of the features available in your radio.

Your dealer or system administrator may have customized your radio for your specific needs. Check with your dealer or system administrator for more information.

4.8.1

Call Queue

When there are no resources available to process a call, Call Queue enables the call request to be placed in the system queue for the next available resources.

You hear a Call Queue Tone after pressing the **PTT** button and radio screen displays `Call In Queue` indicating that the radio has entered Call Queue State. The **PTT** button may be released once the Call Queue Tone is heard.

If the call setup is successful, the following occur:

- The red LED blinks.
- If enabled, the Talk Permit Tone sounds.
- The display shows the call type icon, ID or alias.
- The radio user has up to 4 seconds to press the **PTT** button to begin voice transmission.

If the call setup is unsuccessful, the following occur:

- If enabled, the Reject Tone sounds.
- The display shows the failure notice screen momentarily.
- The call is terminated and the radio exits the call setup.

4.8.2

Priority Call

Priority Call allows the system to preempt one of the ongoing non-priority calls and initiate the requested high priority call when all channels are busy.

With all channels occupied with high priority calls, the system does not preempt any calls, and places the requesting high-priority call into call queue. If the system fails to place the requesting high-priority call into call queue, it declares failure.

The default settings for Priority Call are preconfigured. Press the programmable button to toggle between normal and high priority level. When you use the following features, the call priority level reverts automatically to the preconfigured setting.

- All voice calls
- DMR Ⅲ Text Message/Text Message
- Job Ticket
- Remote monitor

The following are the types of Priority Call:

High Priority

The radio displays `Next Call: High Priority`.

Call Priority High icon appears at the top of your radio display.

Voice Announcement sounds Next Call: High Priority.

Normal Priority

The radio displays `Next Call: Normal Priority`.

Call Priority High icon disappears.

Voice Announcement sounds Next Call: Normal Priority.

4.8.3

Talkgroup Scan

This feature allows your radio to monitor and join calls for groups defined by a Receive Group List.

When scan is enabled, your radio unmutes to any member in its Receive Group List.

When scan is disabled, your radio does not receive transmission from any members of the Receive Group List, except for All Call, Permanent Talkgroup, and the selected Talkgroup.

4.8.3.1

Turning Talkgroup Scan On or Off

Follow the procedure to turn Talkgroup Scan on or off on your radio.

Press the programmed **Scan** button.

If scan is enabled:

- The display shows `Scan On` and **Scan** icon.
- The yellow LED blinks.
- A positive indicator tone sounds.

If scan is disabled:

- The display shows `Scan Off`.
- The **Scan** icon disappears.
- The LED turns off.
- A negative indicator tone sounds.

4.8.4

Receive Group List

Receive Group List is a feature that allows you to create and assign members on the talkgroup scan list.

This list is created when your radio is programmed and it determines which groups can be scanned. Your radio can support a maximum of 16 members in this list.

If your radio has been programmed to edit the scan list, you can:

- Add/remove talkgroups.
- Replace the existing scan list with a new scan list.

If a talkgroup is programmed as Permanent Talkgroup, you are unable to edit the talkgroup from the scan list.

IMPORTANT:
To add member into the list, the talkgroup must first be configured in the radio.

NOTICE:
Receive Group List is programmed by the system administrator. Check with your dealer or system administrator for more information.

4.8.5

Priority Monitor

The Priority Monitor feature allows the radio to automatically receive transmission from talkgroups with higher priority even when radio is in a talkgroup call.

Radio leaves lower priority talkgroup call for higher priority talkgroup call.

NOTICE:
This feature can only be accessed when Talkgroup Scan feature is enabled.

Priority Monitor feature applies only to members in the Receive Group List. There are two Priority Talkgroups: Priority 1 (P1) and Priority 2 (P2). P1 has higher priority than P2. In Capacity Max system, the radio receives transmission according to the priority order below:

1. Emergency Call for P1 Talkgroup
2. Emergency Call for P2 Talkgroup
3. Emergency Call for Non-priority Talkgroups in the Receive Group List
4. All Call
5. P1 Talkgroup Call
6. P2 Talkgroup Call

7 Non-priority Talkgroups in the Receive Group List

NOTICE:
This feature is programmed by the system administrator. Check with your dealer or system administrator for more information.

4.8.6

Multi-Talkgroup Affiliation

Your radio can be configured for up to seven talkgroups at a site.

Of the 16 talkgroups in the Receive Group List, up to seven talkgroups can be assigned as affiliation talkgroups. The selected talkgroup and the priority talkgroups are automatically affiliated.

4.8.7

Talkback

The Talkback feature allows you to respond to a transmission while scanning.

If your radio scans into a call from the selectable group scan list, and if the **PTT** button is pressed during the scanned call, the operation of the radio depends on whether Talkback was enabled or disabled during radio programming. Check with your dealer or system administrator for more information.

Talkback Disabled
The radio leaves the scanned call and attempts to transmit on the contact for the currently selected channel position. After the Call Hang Time on the currently selected contact expires, the radio returns to the home channel and starts the Scan Hang Time Timer. The radio resumes group scan after its Scan Hang Time Timer expires.

Talkback Enabled
If the **PTT** button is pressed during the Group Hang Time of the scanned call, the radio attempts to transmit to the scanned group.

NOTICE:
If you scan into a call for a group that is not assigned to a channel position in the currently selected zone and the call ends, switch to the proper zone and then select the channel position of the group to talk back to that group.

4.8.8

Bluetooth®

This feature allows you to use your radio with a Bluetooth-enabled device (accessory) through a Bluetooth connection. Your radio supports both Motorola Solutions and Commercially available Off-The-Shelf (COTS) Bluetooth-enabled devices.

Bluetooth operates within a range of 10 m (32ft) line of sight. This is an unobstructed path between your radio and your Bluetooth-enabled device. For high degree of reliability, Motorola Solutions recommends to not separate the radio and the accessory.

At the fringe areas of reception, both voice and tone quality start to sound "garbled" or "broken". To correct this problem, position your radio and Bluetooth-enabled device closer to each other (within the 10 m defined range) to re-establish clear audio reception. The Bluetooth function of your radio has maximum power of 2.5 mW (4 dBm) at the 10 m range.

Your radio can support up to three simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, a scanner, a sensor device, and a PTT-Only Device (POD).

Refer to the user manual of your respective Bluetooth-enabled device for more details on the full capabilities of your Bluetooth-enabled device.

Your radio connects to the Bluetooth-enabled device within range with either the strongest signal strength, or to one which it has connected to before in a prior session. Do not turn off your Bluetooth-enabled device or press the home back button during the finding and connecting operation as this cancels the operation.

4.8.8.1

Connecting to Bluetooth Devices

Follow the procedure to connect to Bluetooth devices.

Turn on your Bluetooth-enabled device and place it in pairing mode.

Press the programmed **Bluetooth Connect** button.

Your Bluetooth-enabled device may require additional steps to complete the pairing. Refer to the user manual of your Bluetooth-enabled device.

- A tone sounds.

- The yellow LED blinks.

Wait for acknowledgment.
If successful:

- A positive indicator tone sounds.

If unsuccessful:

- A negative indicator tone sounds.

4.8.8.2

Disconnecting from Bluetooth Devices

Follow the procedure to disconnect from Bluetooth devices.

Press the programmed **Bluetooth Disconnect** button.

A positive indicator tone sounds when the device has been disconnected.

4.8.8.3

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

Follow the procedure to toggle audio routing between internal radio speaker and external Bluetooth device.

Press the programmed **Bluetooth Audio Switch** button.

A tone sounds when the audio route has switched.

4.8.8.4

Permanent Bluetooth Discoverable Mode

The Permanent Bluetooth Discoverable Mode must be enabled by the dealer or system administrator.

Other Bluetooth-enabled devices can locate your radio, but the devices cannot connect to the radio. The Permanent Bluetooth Discoverable Mode enables dedicated devices to use your radio position in the process of Bluetooth-based location.

4.8.9

Indoor Location

NOTICE:
Indoor Location feature is applicable for models with the latest software and hardware. Check with your dealer or system administrator for more information.

Indoor Location is use to keep track of the location of radio users. When Indoor Location is activated, the radio is in a limited discoverable mode. Dedicated beacons are used to locate the radio and determine its position.

4.8.9.1

Turning Indoor Location On or Off

- Access this feature by using the programmed button.
  a. Long press the programmed **Indoor Location** button to turn on Indoor Location.

     You hear a positive indicator tone.
     One of the following scenarios occurs.

     - If successful, Indoor Location is turned on.
     - If unsuccessful, you hear a negative indicator tone.

  b. Press the programmed **Indoor Location** button to turn off Indoor Location.

     You hear a positive indicator tone.
     One of the following scenarios occurs.

     - If successful, Indoor Location is turned off.
     - If unsuccessful, you hear a negative indicator tone.

4.8.10

Multi-Site Controls

These features are applicable when your current radio channel is configured to a Capacity Max system.

4.8.10.1

Enabling Manual Site Search

Press the programmed **Manual Site Roam** button.

- A tone sounds.

- The red LED lights up.

If the radio finds a new site, your radio shows the following indications:

- A positive tone sounds.
- The LED extinguishes.

If the radio fails to find a new site, your radio shows the following indications:

- A negative tone sounds.
- The LED extinguishes.

4.8.10.2

Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.

4.8.11

Home Channel Reminder

This feature provides a reminder when the radio is not set to the home channel for a period of time.

If this feature is enabled when your radio is not set to the home channel for a period of time, the following occurs periodically:

- The Home Channel Reminder tone and announcement sound.
- The display shows `Non Home Channel.`

4.8.11.1

Muting the Home Channel Reminder

When the Home Channel Reminder sounds, you can temporarily mute the reminder.

Press the programmed **Silence Home Channel Reminder** button.

The display shows `HCR Silenced`.

4.8.11.2

Setting New Home Channels

When the Home Channel Reminder occurs, you can set a new home channel.

1. Press the **Reset Home Channel** programmable button to set the current channel as the new Home Channel.

2. Do one of the following:
   - Press the **Reset Home Channel** programmable button to set the current channel as the new Home Channel. Skip the following steps.
     The first line of the display shows the channel alias and the second line shows `New Home Ch`.

4.8.12

Remote Monitor

This feature is used to turn on the microphone of a target radio with a subscriber alias or ID. You can use this feature to remotely monitor any audible activity surrounding the target radio.

Both your radio and the target radio must be programmed to allow you to use this feature.

If initiated, the green LED blinks once on the target radio. This feature automatically stops after a programmed duration or when there is any user operation on the target radio.

4.8.12.1

Initiating Remote Monitor

Follow the procedure to initiate Remote Monitor on your radio.

1. Press the programmed **Remote Monitor** button.

2. Wait for acknowledgment.

   If successful:
   - A positive indicator tone sounds.

- The display shows a positive mini notice.
- The audio from the monitored radio starts playing for a programmed duration, and the display shows `Rem. Monitor`. Once the timer expires, an alert tone sounds, and the LED turns off.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

4.8.13

Call Indicator Settings

This feature allows you to configure call or text message ringing tones.

4.8.13.1

Escalating Alarm Tone Volume

The radio can be programmed to continually alert, when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

4.8.14

Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back when they are able to do so.

This feature is accessible by using a programmed **One Touch Access** button.

In Capacity Max, the Call Alert feature allows a radio user or a dispatcher to send an alert to another radio user requesting the radio user to call back the initiating radio user when available. Voice communication is not involved in this feature.

The Call Alert Operation can be configured by the dealer or the system administrator to allow the user to press the **PTT** button to respond directly to the call initiator by making a Private Call.

An Off Air Call Set-Up (OACSU) private call allows the user to respond immediately while a Full Off Air Call Set-Up (FOACSU) private call requires user acknowledgment for the call. OACSU type calls are therefore, recommended being used for the Call Alert feature. See Private Call on page 48.

4.8.14.1

Making Call Alerts

Follow the procedure to make Call Alerts on your radio.

1 Press the programmed **One Touch Access** button.

The display shows `Call Alert` and the subscriber alias or ID. The red LED lights up.

2 Wait for acknowledgment.

If the Call Alert acknowledgment is received, two chirps sound.

If the Call Alert acknowledgment is not received, a negative indicator tone sounds.

4.8.14.2

Responding to Call Alerts

When you receive a Call Alert:

- A repetitive tone sounds.
- The yellow LED blinks.

Press the **PTT** button within 4 seconds of receiving a Call Alert page to respond with a Private Call.

4.8.15

Mute Mode

Mute Mode provides an option to silence all audio indicators on your radio.

When Mute Mode is initiated, all audio indicators are muted except higher priority features such as emergency operations.

When Mute Mode is exited, your radio resumes playing ongoing tones and audio transmissions.

IMPORTANT:
You can only enable either Face Down or Man Down one at a time. Both features cannot be enabled together.

4.8.15.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Do one of the following:

- Access this feature by using the programmed **Mute Mode** button.
- Access this feature by placing the radio in a face-down position momentarily.

Depending on radio model, the Face Down feature can be enabled either through the radio menu or by your system administrator. Check with your dealer or system administrator for more information.

IMPORTANT:
User can only enable either Man Down or Face Down at a time. Both features cannot be enabled together.

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows `Mute Mode On`.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.
- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

4.8.15.2

Exiting Mute Mode

This feature can be exited automatically once the Mute Mode Timer expires.

Do one of the following to exit Mute mode manually:

- Press the programmed **Mute Mode** button.
- Press the **PTT** button on any entry.
- Place the radio in a face-up position momentarily.

The following occurs when Mute mode is disabled:

- Negative Indicator Tone sounds.
- Display shows `Mute Mode Off`.
- The blinking red LED turns off.
- **Mute Mode** icon disappears from home screen.
- Your radio unmutes and speaker state is restored.

- If the timer has not expired, Mute mode timer is stopped.

NOTICE:
Mute Mode is also exited if the user transmits voice or switches to an unprogrammed channel.

4.8.16

Emergency Operation

An Emergency Alarm is used to indicate a critical situation. You are able to initiate an Emergency at any time even when there is activity on the current channel.

In Capacity Max, the receiving radio can only support a single Emergency Alarm at a time. If initiated, a second Emergency Alarm will override the first alarm.

When an Emergency Alarm is received, the recipient may choose to either delete the alarm and exit the Alarm List, or respond to the Emergency Alarm by pressing the **PTT** button and transmitting non-emergency voice.

Your dealer or system administrator can set the duration of a button press for the programmed **Emergency** button, except for long press, which is similar with all other buttons:

Short Press
Duration between 0.05 seconds and 0.75 seconds.

Long Press
Duration between 1.00 second and 3.75 seconds.

The **Emergency** button is assigned with the Emergency On/Off feature. Check with your dealer for the assigned operation of the **Emergency** button.

NOTICE:
If short press the **Emergency** button is assigned to turn on the Emergency mode, then long press the **Emergency** button is assigned to exit the Emergency mode.

If long press the **Emergency** button is assigned to turn on the Emergency mode, then short press the **Emergency** button is assigned to exit the Emergency mode.

Your radio supports three Emergency Alarms:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

In addition, each alarm has the following types:

Regular
Radio transmits an alarm signal and shows audio and/or visual indicators.

Silent

Radio transmits an alarm signal without any audio or visual indicators. Radio receives calls without any sound through the speaker, until the programmed *hot mic* transmission period is over and/or you press the **PTT** button.

Silent with Voice

Radio transmits an alarm signal without any audio or visual indicators, but allow incoming calls to sound through the speaker. If *hot mic* is enabled, the incoming calls sound through the speaker after the programmed *hot mic* transmission period is over. The indicators only appear once you press the **PTT** button.

NOTICE:
Only one of the Emergency Alarms above can be assigned to the programmed **Emergency** button.

4.8.16.1

Sending Emergency Alarms

This feature allows you to send an Emergency Alarm, a non-voice signal, which triggers an alert indication on a group of radios. Follow the procedure to send Emergency Alarms on your radio.

Your radio does not display any audio or visual indicators during Emergency mode when it is set to Silent.

1 Press the programmed **Emergency On** button.
   - The display shows `Tx Alarms` and the destination alias.

   The red LED lights up. The **Emergency** icon appears.

2 Wait for acknowledgment.

   If successful:
   - The Emergency tone sounds.
   - The red LED blinks.

   If unsuccessful after all retries have been exhausted:
   - A tone sounds.
   - The display shows `Alarm Failed`.

The radio exits the Emergency Alarm mode and returns to the Home screen.

NOTICE:
When configured for Emergency Alarm only, the emergency process consists only of the Emergency Alarm delivery. The emergency ends when an acknowledgment is received from the system, or when channel access attempts have been exhausted.

No voice call is associated with the sending of an Emergency Alarm when operating as Emergency Alarm Only.

4.8.16.2

Sending Emergency Alarms with Call

This feature allows you to send an Emergency Alarm with Call to a group of radios or a dispatcher. Upon acknowledgment by the infrastructure within the group, a group of radios can communicate over a programmed Emergency channel.

The radio must be configured for Emergency Alarm and Call to perform an emergency call after the alarm process.

1 Press the programmed **Emergency On** button.

The red LED lights up.

NOTICE:
If your radio is programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode.

If an Emergency Alarm acknowledgment is successfully received:

- The Emergency tone sounds.
- The red LED lights up.

If an Emergency Alarm acknowledgment is not successfully received:

- All retries are exhausted.
- A low-pitched tone sounds.
- The radio exits the Emergency Alarm mode.

2 Press the **PTT** button to initiate a voice transmission.

The red LED lights up.

3 Release the **PTT** button to listen.

4 Press the **PTT** button to respond to the call.

If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond.

5 Press the **Emergency Off** button to exit the Emergency mode.

NOTICE:
Depending on how your radio is programmed, you may or may not hear a Talk Permit tone. Your radio dealer or system administrator can provide more information on how your radio has been programmed for Emergency.

The Emergency Call initiator may press the programmed **Cancel** button to end an on-going emergency call. The radio returns to a call idle state.

4.8.16.3

Sending Emergency Alarms with Voice to Follow

This feature allows you to send an Emergency Alarm with Voice to Follow to a group of radios. Your radio microphone is automatically activated, allowing you to communicate with the group of radios without pressing the **PTT** button. This activated microphone state is also known as *hot mic*.

If your radio has Emergency Cycle Mode enabled, repetitions of *hot mic* and receiving period are made for a programmed duration. During Emergency Cycle Mode, received calls sound through the speaker.

If you press the **PTT** button during the programmed receiving period, you hear a prohibit tone, indicating that you should release the **PTT** button. The radio ignores the **PTT** button press and remains in Emergency mode.

If you press the **PTT** button during *hot mic*, and continue to press it after the *hot mic* duration expires, the radio continues to transmit until you release the **PTT** button.

If the Emergency Alarm request fails, the radio does not retry to send the request, and enters the *hot mic* state directly.

NOTICE:
Some accessories may not support *hot mic*. Check with your dealer or system administrator for more information.

Follow the procedure to send Emergency Alarms with voice to follow on your radio.

1 Press the programmed **Emergency On** button.
   - The display shows `Tx Alarm` and the destination alias.
   - The display shows `Tx Telegram` and the destination alias.

   The red LED lights up. The **Emergency** icon appears.

2 Once the display shows `Alarm Sent`, speak clearly into the microphone.

   When *hot mic* has been enabled, the radio automatically transmits without a **PTT** press until the *hot mic* duration expires. The red LED lights up while transmitting.

   The radio automatically stops transmitting when:
   - The cycling duration between *hot mic* and receiving calls expires, if Emergency Cycle Mode is enabled.
   - The *hot mic* duration expires, if Emergency Cycle Mode is disabled.

3 Press the **Emergency Off** button to exit the Emergency mode.

   The radio returns to the Home screen.

4.8.16.4

Receiving Emergency Alarms

The receiving radio can only support a single Emergency Alarm at a time. If initiated, a second Emergency Alarm will override the first alarm. Follow the procedure to receive and view Emergency Alarms on your radio.

When you receive an Emergency Alarm:

- A tone sounds.

- The red LED blinks.

4.8.16.5

Exiting Emergency Mode

Press the programmed **Emergency Off** button.

Your radio shows the following indications:

- The tone ceased.
- The red LED extinguished.
- When acknowlegment is received, the display of the transmitting radio shows `Cancel Emer Success`. If no acknowledgement is received, the display shows `Cancel Emer Failed`.

NOTICE:
If the Cancel Emergency configuration is enabled on the transmitting radio, the emergency alarm in your receiving radio will cease and the status is added to the Alarm List of the receiving radio.

4.8.17

Status Message

This feature allows the user to send status messages to other radios.

The Quick Status list is configured by using CPS-RM and comprises up to a maximum of 99 statuses.

The maximum length for each status message is 16 characters.

NOTICE:
Every status has a corresponding digital value ranging from 0–99. An alias can be specified to each status for ease of reference.

4.8.17.1

Sending Status Messages

Follow the procedure below to send a status message.

Press the programmed **One Touch Access** button.

If successful:

- A positive indicator tone sounds.
- The LED turns off.

- The display shows a positive mini notice momentarily before returning to the `Quick Status` screen.
- The display shows ✔ beside the sent status message.

If unsuccessful:

- A negative indicator tone sounds.
- The LED turns off.
- The display shows the failure notice momentarily before returning to the `Quick Status` screen.

4.8.18

Text Messaging

Your radio is able to receive data, for example a text message, from another radio or a text message application.

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message is 280 characters, including the subject line. The subject line only appears when you receive messages from e-mail applications.

NOTICE:
The maximum character length is only applicable for models with the latest software and hardware. For radio models with older software and hardware, the maximum length of a text message is 140 characters. Contact your dealer for more information.

4.8.18.1

Quick Text Messages

Your radio supports Quick Text messages as programmed by your dealer.

4.8.18.1.1

Sending Quick Text Messages

Follow the procedure to send predefined Quick Text messages on your radio to a predefined alias.

1. Press the programmed **One Touch Access** button.
2. Wait for acknowledgment.

   If successful:

   - The red LED lights up.

- Two chirps sound confirming that your message is being sent.
- A positive indicator tone sounds.

If unsuccessful:

- A low-pitch tone indicates that your message cannot be sent.
- A negative indicator tone sounds.

4.8.19

Privacy

This feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software-based scrambling solution. The signaling and user identification portions of a transmission are not scrambled.

Your radio must have privacy enabled on the channel to send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel, the radio is still able to receive clear or unscrambled transmissions.

Your radio only supports Enhanced Privacy. To unscramble a privacy-enabled call or data transmission, your radio must be programmed to have the same Key Value and Key ID for Enhanced Privacy as the transmitting radio.

If your radio receives a scrambled call that is of a different Key Value and Key ID, you hear nothing at all for Enhanced Privacy.

On a privacy-enabled channel, your radio is able to receive clear or unscrambled calls, depending on how your radio is programmed. In addition, your radio may play a warning tone or not, depending on how it is programmed.

The red LED lights up when the radio is transmitting, and double blinks when the radio is receiving an ongoing privacy-enabled transmission.

NOTICE:
Some radio models may not offer this Privacy feature, or may have a different configuration. Check with your dealer or system administrator for more information.

4.8.19.1

Turning Privacy On or Off

Follow the procedure to turn privacy on or off on your radio.

Press the programmed **Privacy** button.

4.8.20

Response Inhibit

This feature helps prevent your radio from responding to any incoming transmissions.

NOTICE:
Contact your dealer to determine how your radio has been programmed.

If enabled, your radio does not generate any outgoing transmissions in respond to incoming transmissions, such as Radio Check, Call Alert, Radio Disable, Remote Monitor, Automatic Registration Service (ARS), Responding to Private Messages, and Sending GNSS location reports.

Your radio cannot receive Confirmed Private Calls when this feature is enabled. However, your radio is able to manually send transmission.

4.8.20.1

Turning Response Inhibit On or Off

Follow the procedure to enable or disable Response Inhibit on your radio.

Press the programmed **Response Inhibit** button.

If successful:

- A positive indicator tone sounds.
- The display shows a momentary positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a momentary negative mini notice.

4.8.21

Stun/Revive

This feature allows you to enable or disable any radio in the system. For example, the dealer or system administrator may want to disable a stolen radio to prevent unauthorized users from using it, and enable the radio when it is recovered.

A radio can be disabled (stunned) or enabled (revived) either through the console or through a command initiated by another radio.

Once a radio is disabled, the radio sounds a negative indicator tone and the home screen shows `Channel Denied`.

When a radio is stunned, the radio cannot request nor receive any user initiated services on the system that performed the Stun procedure. However, the radio can switch to another system. The radio continues to send GNSS location reports and can be monitored remotely when it was stunned.

NOTICE:
The dealer or system administrator may permanently disable a radio. See Radio Kill on page 79 for more information.

4.8.22

Radio Kill

This feature is an enhanced security measure to restrict unauthorized access to a radio.

Radio Kill causes a radio to be rendered inoperable. For example, the dealer may want to kill a stolen or misplaced radio to prevent unauthorized usage.

When powered on, a killed radio displays `Radio Killed` on the screen momentarily to indicate the killed state.

NOTICE:
A killed radio can only be revived at a Motorola Solutions service depot. Contact your dealer for more information.

4.8.23

Lone Worker

This feature prompts an emergency to be raised if there is no user activity, such as any radio button press or activation of the channel selector, for a predefined time.

Following no user activity for a programmed duration, the radio pre-warns you using an audio indicator once the inactivity timer expires.

If there is still no acknowledgment by you before the predefined reminder timer expires, the radio initiates an emergency condition as programmed by the dealer.

4.8.24

Password Lock

You can set a password to restrict access to your radio. Each time you turn on your radio, you are asked to enter the password.

Your radio supports a 4-digit password input.

These buttons function as a numeric keypad when entering password:

Channel Selector Knob
Position 1–9: Number 1–9

Position 10: Number 10

Side Buttons

Side Button 1–3: Number 1–3.

Your radio is unable to receive calls in locked state.

4.8.24.1

Accessing the Radio by Using Password

Turn on your radio.

1. Enter the four-digit password.
   a. To enter the first digit of the password, use the **Channel Selector Knob**.
   b. To enter each digit of the remaining three digits of the password, press Side Button 1, 2, or 3.
   c. To enter each digit of the remaining three digits of the password, press Side Button 1 or 2.

   A positive tone sounds for every digit entered.
2. Your radio automatically checks the validity of the password when you enter the last digit of the password.

If you enter the password correctly, the radio powers up.

If you enter the wrong password after the first and second attempt, your radio shows the following indications:

- A continuous tone sounds.
- The display shows `Wrong Password`.

Repeat step 1.

If you enter the wrong password after the third attempt, your radio shows the following indications:

- A tone sounds.
- The yellow LED double blinks.
- The display shows `Wrong Password` and then, `Radio Locked`.
- Your radio enters into locked state for 15 minutes.

Wait for the 15-minute locked state timer to end and then repeat step 1.

NOTICE:
If you turn off and turn your radio on again, the 15-minute timer restarts.

4.8.24.2

Unlocking Radios in Locked State

Your radio is unable to receive calls in locked state. Follow the procedure to unlock your radio in locked state.

Do one of the following:

- If the radio is powered on, wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 80 to access the radio.
- If the radio is powered off, power up the radio. Your radio restarts the 15-minute timer for locked state. A tone sounds. The yellow LED double blinks. The display shows `Radio Locked`.

  Wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 80 to access the radio.

4.8.25

Auto-Range Transponder System

The Auto-Range Transponder System (ARTS) is an analog-only feature designed to inform you when your radio is out-of-range of other ARTS-equipped radios.

ARTS-equipped radios transmit or receive signals periodically to confirm that they are within range of each other.

Your radio provides indications of states as follows:

First-Time Alert
A tone sounds.

ARTS-in-Range Alert
A tone sounds, if programmed.

ARTS-Out-of-Range Alert
A tone sounds. The red LED rapidly blinks.

NOTICE:
Check with your dealer or system administrator for more information.

4.8.26

Over-the-Air Programming

Your dealer can remotely update your radio by using Over-the-Air Programming (OTAP) without physical connection. Additionally, some settings can also be configured by using OTAP.

When your radio undergoes OTAP, the red LED blinks.

When your radio receives high volume data:

- The channel becomes busy.
- A negative tone sounds if you press the **PTT** button.

When your radio powers up after automatic restart:

- If successful, the display shows `Sw Update Completed`.
- If the program update is unsuccessful, a tone sounds, the red LED blinks once, and the display shows `Sw Update Failed`.

NOTICE:
If the programming update is unsuccessful, the software update failure indications appear every time you turn on your radio. Contact your dealer to reprogram your radio with the latest software to eliminate the software update failure indications.

4.8.27

Wi-Fi Operation

This feature allows you to set up and connect to a Wi-Fi network. Wi-Fi supports updates for radio firmware, codeplug, and resources such as language packs and voice announcement.

Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Your radio supports WEP/WPA/WPA2-Personal and WPA/WPA2-Enterprise Wi-Fi networks.

WEP/WPA/WPA2-Personal Wi-Fi network
Uses pre-shared key (password) based authentication.

Pre-shared key can be entered by using the menu or CPS/RM.

WPA/WPA2-Enterprise Wi-Fi network
Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.

NOTICE:
Check with your dealer or system administrator to connect to WPA/WPA2-Enterprise Wi-Fi network.

The programmed **Wi-Fi On or Off** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

Voice Announcements for the programmed **Wi-Fi On or Off** button can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

4.8.27.1

Turning Wi-Fi On or Off

Press the programmed **Wi-Fi On or Off** button. Voice Announcement sounds Turning On Wi-Fi or Turning Off Wi-Fi.

4.8.27.2

Connecting to a Network Access Point

When you turn on Wi-Fi, the radio scans and connects to a network access point.

NOTICE:
The WPA-Enterprise Wi-Fi network access points are pre-configured. Check with your dealer or system administrator to determine how your radio has been programmed.

4.8.27.3

Checking Wi-Fi Connection Status

Press the programmed **Wi-Fi Status Query** button for the connection status by using Voice Announcement. Voice Announcement sounds Wi-Fi is Off, Wi-Fi is On but No Connection, or Wi-Fi is On with Connection.

- The display shows `WiFi Off` when the Wi-Fi is turned off.
- The display shows `WiFi On, Connected` when the radio is connected to a network.
- The display shows `WiFi On, Disconnected` when the Wi-Fi is turned on but the radio is not connected to any network.

  Voice Announcements for the Wi-Fi status query results can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

  NOTICE:
  The programmed **Wi-Fi Status Query** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

4.8.28

Dynamic Group Number Assignment (DGNA)

Dynamic Group Number Assignment (DGNA) is a feature which allows the console to assign and remove a new talkgroup from your radio over the air.

When the console assigns DGNA to your radio, your radio is in DGNA mode:

- A tone sounds.
- The display shows `<DGNA Talkgroup Alias> Assigned` momentarily before returning to the home screen.
- The DGNA icon appears in the status bar.
- The home screen displays DGNA talkgroup alias.

When the console removes DGNA from your radio, your radio returns to the previous talkgroup:

- A tone sounds.
- The display shows `<DGNA Talkgroup Alias> Removed` momentarily before returning to the home screen.
- The DGNA icon disappears from the status bar.
- The home screen displays the previous talkgroup alias.

Depending on how your radio is programmed, you can view, edit, and listen to the original scan lists channels and the non-DGNA talkgroups.

When your radio is in DGNA mode, pressing the PTT button allows you to communicate only with the current DGNA talkgroup. To communicate with the previous non-DGNA talkgroup, program the **One Touch Access** button. See Making Non-DGNA Calls on page 85.

NOTICE:
Check with your dealer or system administrator to determine how your radio has been programmed.

4.8.28.1

Making DGNA Calls

When your radio is in DGNA mode, press the **PTT** button to make the call.

- A DGNA tone sounds.

- The display shows the DGNA icon and the DGNA talkgroup alias.

NOTICE:
If your radio is not in DGNA mode and you press the **One Touch Access** button, your radio sounds a tone, indicating error. The display remains unchanged.

4.8.28.2

Making Non-DGNA Calls

1 Press the programmed **One Touch Access** button.
   - A positive tone sounds.
   - Voice Announcement sounds One Touch Replaced Call.
   - The display shows `<Talkgroup Alias>` and `Press PTT` momentarily.

NOTICE:
If your radio is not in DGNA mode and you press the **One Touch Access** button, your radio sounds a negative tone, indicating error. The display remains unchanged.

2 Press **PTT** button before a negative tone sounds and your radio returns to the home screen.

NOTICE:
When your radio is in the home screen, a PTT press makes call to the DGNA talkgroup.

4.8.28.3

Receiving and Responding to DGNA Calls

When you receive a DGNA call:

- A DGNA tone sounds.
- The display shows the DGNA icon, DGNA talkgroup alias, and radio alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Press the **PTT** button to respond to the call.

2 Release the **PTT** button to listen.

4.9

Utilities

This chapter explains the operations of the utility functions available in your radio.

4.9.1

Text-to-Speech

The Text-to-Speech feature can only be enabled by your dealer. If Text-to-Speech is enabled, the Voice Announcement feature is automatically disabled. If Voice Announcement is enabled, then the Text-to-Speech feature is automatically disabled.

This audio indicator can be customized per customer requirements.

4.9.1.1

Setting Text-to-Speech

Follow the procedure to set the Text-to-Speech feature.

4.9.2

Turning the Acoustic Feedback Suppressor Feature On or Off

This feature allows you to minimize acoustic feedback in received calls.
Press the programmed **Acoustic Feedback Suppressor** button.

You hear a positive indicator tone, indicating that Acoustic Feedback Suppressor is now enabled.

You hear a negative indicator tone, indicating that the radio is unable to activate Acoustic Feedback Suppressor.

4.9.3

Turning Global Navigation Satellite System On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise

location. GNSS includes Global Positioning System (GPS) and BeiDou Navigation Satellite System (BDS).

NOTICE:
Selected radio models may offer GPS and BDS. GNSS constellation is configured by using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

Press the programmed **GNSS** button to toggle GNSS on or off on your radio.

4.9.4

Turning Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts, if needed, except for incoming Emergency alert tone . Follow the procedure to turn tones and alerts on or off on your radio.

Press the programmed **All Tones/Alerts** button.

If successful:

- The Positive Indicator Tone sounds.
- All tones and alerts are turned on.

If unsuccessful:

- The Negative Indicator Tone sounds.
- All tones and alerts are turned off.

4.9.5

Power Levels

You can customize the power setting to high or low for each channel.

High
This enables communication with radios located at a considerable distance from you.

Low
This enables communication with radios in closer proximity.

4.9.5.1

Setting Power Levels

Follow the procedure to set the power levels on your radio.

Press the programmed **Power Level** button.

If successful:

- The Positive Indicator Tone sounds.
- Radio transmits at low power.

If unsuccessful:

- The Negative Indicator Tone sounds.
- Radio transmits at high power.

4.9.6

Turning Option Board On or Off

Option board capabilities within each channel can be assigned to programmable buttons. A channel can support up to 6 option board features. Follow the procedure to turn option board on or off on your radio.

Press the programmed **Option Board** button.

4.9.7

Turning Voice Announcement On or Off

This feature enables the radio to audibly indicates the current zone or channel the user has just assigned, or the programmable button the user has just pressed.

This audio indicator can be customized according to customer requirements. Follow the procedure to turn Voice Announcement on or off on your radio.

Press the programmed **Voice Announcement** button.

If successful:

- The Positive Indicator Tone sounds.
- All tones and alerts are turned on.

If unsuccessful:

- The Negative Indicator Tone sounds.
- All tones and alerts are turned off.

4.9.8

Switching Audio Route between Internal Radio Speaker and Wired Accessory

Follow the procedure to toggle audio routing between internal radio speaker and wired accessory.

You can toggle audio routing between the internal radio speaker and the speaker of a wired accessory with the condition that:

- The wired accessory with speaker is attached.

Press the programmed **Audio Toggle** button.

A tone sounds when the audio route has switched.

Powering down the radio or detaching the accessory resets the audio routing to the internal radio speaker.

4.9.9

Turning Intelligent Audio On or Off

Your radio automatically adjusts the audio volume to overcome current background noise in the environment, inclusive of both stationary and non-stationary noise sources. This is a receive-only feature and does not affect transmission audio.

Press the programmed **Intelligent Audio** button.

NOTICE:
This feature is not applicable during a Bluetooth session.

4.9.10

Turning Trill Enhancement On or Off

You can enable this feature when you are speaking in a language that contains many words with alveolar trill (rolling "R") pronunciations. Follow the procedure to turn Trill Enhancement on or off on your radio.

Press the programmed **Trill Enhancement** button to toggle the feature on or off.

If successful:

- The Positive Indicator Tone sounds.
- All tones and alerts are turned on.

If unsuccessful:

- The Negative Indicator Tone sounds.

- All tones and alerts are turned off.

Connect Plus

Connect Plus is a full trunking solution based on DMR technology. Connect Plus uses a dedicated control channel for channel requests and allocations.

5.1

Additional Radio Controls in Connect Plus Mode

This chapter explains the additional radio controls available to the radio user through preprogrammed means such as programmable buttons and assignable radio functions.

5.1.1

Push-To-Talk (PTT) Button

The **PTT** button on the side of the radio serves two basic purposes:

- While a call is in progress, the **PTT** button allows the radio to transmit to other radios in the call.

  Press and hold the **PTT** button to talk. Release the **PTT** button to listen.

  The microphone is activated when the **PTT** button is pressed.

- While a call is not in progress, the **PTT** button is used to make a new call (see Making a Radio Call on page 100).

If the Talk Permit Tone is enabled, wait until the short alert tone ends before talking.

5.1.2

Programmable Buttons

Your dealer can program the programmable buttons as shortcuts to radio functions depending on the duration of a button press:

Short press
Pressing and releasing rapidly.

Long press
Pressing and holding for the programmed duration.

NOTICE:
The programmed duration of a button press is applicable for all assignable radio/utility functions or settings. See Emergency Operation on page 112 for more information on the programmed duration of the *Emergency* button.

5.1.2.1

Assignable Radio Functions

Beacon On/Off
Toggles the Beacon feature on or off. Requires purchase of Connect Plus Man Down feature.

Beacon Reset
Resets (cancels) the Beacon tone, but it does not turn the Beacon feature off. Requires purchase of Connect Plus Man Down feature.

Bluetooth® Audio Switch
Toggles audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Busy Queue Cancellation
Exits the busy mode when a non-Emergency call in the Busy Queue was initiated. Emergency calls, once accepted into the Busy Queue, cannot be cancelled.

Channel Announcement
Plays zone and channel announcement voice messages for the current channel.

Emergency On/Off
Depending on the programming, initiates or cancels an emergency.

Intelligent Audio
Toggles intelligent audio on or off.

Man Down Alarms On/Off
Toggles all configured Man Down Alarms on or off. Requires purchase of Connect Plus Man Down feature.

Man Down Alarms Reset
If pressed while a Man Down feature Alert Tone is playing, the tone is cancelled and feature timers are reset, but it does not turn the Man Down Alarms off. Requires purchase of Man Down feature.

One Touch Access
Directly initiates a predefined Private Call, a Call Alert, a Quick Text message, or Home Revert.

Privacy
Toggles privacy on or off.

Reset Home Channel
Sets a new home channel.

Ring Alert Type
Provides direct access to the Ring Alert Type Setting.

Roam Request
Requests to search for a different site.

Scan
Toggles scan on or off.

Silence Home Channel Reminder
Mutes the Home Channel Reminder.

Site Lock On/Off
When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Vibrate Style
Configures the vibrate style.

Voice Announcement On/Off
Toggles voice announcement on or off.

Wi-Fi
Toggles Wi-Fi on or off.

5.1.2.2
Assignable Settings or Utility Functions

5.1.3
Identifying Status Indicators in Connect Plus Mode

5.1.3.1
LED Indicator

The LED indicator shows the operational status of your radio.

Blinking red	Battery mismatch occurs or radio is transmitting at low battery condition, receiving an emergency transmission or has failed the self-test upon powering up, or has moved out of range if radio is configured with Auto-Range Transponder System.
Rapidly blinking red	Radio is receiving over-the-air file transfer (Option Board firmware file, Network Frequency file or Option Board Codeplug file) or upgrading to a new Option Board firmware file.
Blinking green and yellow	Radio is receiving a Call Alert, received a text message or Scan is enabled and is receiving activity.
Solid yellow	Radio is in Bluetooth Discoverable Mode.

Double blinking yellow	Radio is actively searching for a new site.
Blinking yellow	Radio is receiving a Call Alert or Scan is enabled and is idle (radio will remain muted to any activity).
Solid green	Radio is powering up or transmitting.
Blinking green	Radio is powering up, receiving a call or data.
Double blinking green	Radio is receiving a privacy-enabled call.

5.1.3.2

Indicator Tones

The following are the tones that sound through the radio speaker.

High pitched tone	□	Low pitched tone	■

Indicator tones provide you with audible indications of the status after an action to perform a task is taken.

■□	Positive Indicator Tone
□■	Negative Indicator Tone

5.1.3.3

Alert Tones

Alert tones provide you with audible indications of the status, or response to data received on the radio.

Continuous Tone ■	A monotone sound. Sounds continuously until termination.
Periodic Tone □□	Sounds periodically depending on the duration set by the radio. Tone starts, stops, and repeats itself.
Repetitive Tone □	A single tone that repeats itself until it is terminated by the user.
Momentary Tone ■	Sounds only once for a short period of time defined by the radio.

5.1.4

Switching Between Connect Plus and Non-Connect Plus Modes

To switch to a non-Connect Plus mode, you must change to another zone, if programmed by your dealer or system administrator. Check with your dealer or system administrator to see if your radio has been programmed with non-Connect Plus zones, and what features are available while operating in non-Connect Plus zones.

5.2

Making and Receiving Calls in Connect Plus Mode

This section explains general radio operations and call features that are available in your radio.

5.2.1

Selecting a Site

A site provides coverage for a specific area. A Connect Plus site has a site controller and a maximum of 15 repeaters. In a multi-site network, the Connect Plus radio will automatically search for a new site when the signal level from the current site drops to an unacceptable level.

5.2.1.1

Roam Request

A Roam Request tells the radio to search for a different site, even if the signal from the current site is acceptable.

If there are no sites available:

NOTICE:
This is programmed by your dealer.

Press the programmed **Roam Request** button.

You hear a tone, indicating the radio has switched to a new site.

5.2.1.2

Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.

5.2.2

Selecting a Zone

The radio can be programmed with a maximum of 16 Connect Plus Zones and each Connect Plus zone contains a maximum of 16 assignable positions.

Each assignable position can be used to start one of the following voice call types:

- Group Call
- Multi-group Call
- Site All Call
- Private Call

Access the Zone feature by performing the following:

5.2.3

Using Multiple Networks

If your radio has been programmed to use multiple Connect Plus networks, you can select a different network by switching to the Connect Plus zone that is assigned to the desired network. These network-to-zone assignments are configured by your dealer through radio programming.

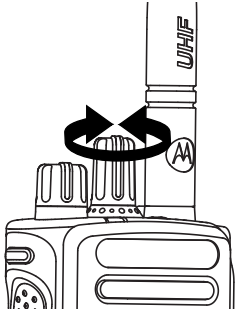
5.2.4

Selecting a Call Type

to select a call type. This can be a Group Call, Multi-group Call, Site All Call or Private Call, depending on how your radio is programmed. If you this causes the radio to re-register with the Connect Plus site. The radio registers with

the Registration Group ID that has been programmed for the new call type.

If you select a position that has no call type assigned to it, your radio sounds a continuous tone. Your radio does not operate when selected to an unprogrammed channel, use the to select a programmed channel instead.



Once the required zone is (if you have multiple zones in your radio), to select the call type.

5.2.5

Receiving and Responding to a Radio Call

Once the channel, subscriber ID or call type is , you can proceed to receive and respond to calls.

The LED lights up solid green while the radio is transmitting and blinks green when the radio is receiving.

NOTICE:
The LED lights up solid green while the radio is transmitting and double blinks green when the radio is receiving a privacy-enabled call. To unscramble a privacy-enabled call, your radio must have the same Privacy Key, OR the same Key Value and Key ID (programmed by your dealer), as the transmitting radio (the radio you are receiving the call from).

See Privacy on page 119 for more information.

5.2.5.1

Receiving and Responding to a Group Call

To receive a call from a group of users, your radio must be configured as part of that group.

Your radio unmutes and the incoming call sounds through the radio speaker.

1. Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

   The LED lights up solid green.

2. Wait for one of the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

3. Release the **PTT** button to listen.

   If there is no voice activity for a predetermined period of time, the call ends.

NOTICE:
See Making a Group Call on page 100 for details on making a Group Call.

5.2.5.2

Receiving and Responding to a Private Call

A Private Call is a call from an individual radio to another individual radio.

When you receive a Private Call, the LED blinks green. Your radio unmutes and the incoming call sounds through the speaker of the radio.

1. Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

2. Press the **PTT** button to respond to the call.

   The LED lights up solid green.

3. Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

4. Release the **PTT** button to listen.

If there is no voice activity for a predetermined period of time, the call ends.

You hear a short tone.

See Making a Private Call on page 101 for details on making a Private Call.

5.2.5.3

Receiving a Site All Call

A Site All Call is a call from an individual radio to every radio on the site. It is used to make important announcements requiring the user's full attention.

When you receive an Site All Call, a tone sounds and the LED blinks green.

Your radio unmutes and the incoming call sounds through the radio speaker.

A Site All Call does not wait for a predetermined period of time before ending.

You cannot respond to a Site All Call.

NOTICE:
The radio stops receiving the Site All Call if you switch to a different channel while receiving the call. During a Site All Call, you will not be able to use any programmed button functions until the call ends.

5.2.5.4

Receiving an Inbound Private Phone Call

When you receive an Inbound Private Phone Call,

1. Press and hold the **PTT** button to answer and talk. Release the **PTT** button to listen.
2. to end the call.

5.2.5.5

Receiving an Inbound Phone Talkgroup Call

When you receive an Inbound Phone Talkgroup Call,

Press the **PTT** button to talk and release it to listen.

5.2.5.6

Inbound Phone Multi-Group Call

When you receive an Inbound Phone Multi-Group Call, The radio unmutes and the incoming multi-group call sounds through the radio speaker.

5.2.6

Making a Radio Call

After selecting your channel, you can select a subscriber alias or ID, or group alias or ID by using:

- The Channel Selector Knob.
- A programmed **One Touch Access** button – The One Touch Access feature allows you to make a Private Call to a predefined ID easily. This feature can be assigned to a short or long programmable button press. You can only have one ID assigned to a **One Touch Access** button. Your radio can have multiple **One Touch Access** buttons programmed.

NOTICE:
Your radio must have the Privacy feature enabled on the channel to send a privacy-enabled transmission. Only target radios with the same Key Value and Key ID as your radio will be able to unscramble the transmission.

See Privacy on page 119 for more information.

5.2.6.1

Making a Call

This feature allows the radio users to make different call types : Group Call, Private Call, Site All Call, Multi-group Call.

5.2.6.1.1

Making a Group Call

To make a call to a group of users, your radio must be configured as part of that group.

1. Select the channel with the active group alias or ID. See Selecting a Call Type on page 96.
2. Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
3. Press the **PTT** button to make the call.

   The LED lights up solid green.
4. Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.
5. Release the **PTT** button to listen.

When the target radio responds, the LED blinks green.

If there is no voice activity for a predetermined period of time, the call ends.

5.2.6.1.2

Making a Private Call

While you can receive and/or respond to a Private Call initiated by an authorized individual radio, your radio must be programmed for you to initiate a Private Call.

You will hear a negative indicator tone, when you make a Private Call using the **One Touch Access** button, if this feature is not enabled.

Use the Text Message or Call Alert features to contact an individual radio. See Text Messaging on page 76 or Call Alert Operation on page 109 for more information.

1 Do one of the following.
   - Select the channel with the active subscriber alias or ID. See Selecting a Call Type on page 96.
   - Press the programmed **One Touch Access** button.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the **PTT** button to make the call.

   The LED lights up solid green.

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5 Release the **PTT** button to listen.

   When the target radio responds, the LED blinks green.

   If there is no voice activity for a predetermined period of time, the call ends. You hear a short tone.

5.2.6.1.3

Making a Site All Call

This feature allows you to transmit to all users on the site that are currently not engaged in another call. Your radio must be programmed to allow you to use this feature.

Users on the channel/site cannot respond to an Site All Call.

1 Select the channel with the active Site All Call group alias. See Selecting a Call Type on page 96.

2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

3 Press the **PTT** button to make the call.

The LED lights up solid green.

4 Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.

5.2.6.1.4

Making a Multi-group Call

This feature allows you to transmit to all users on multiple groups. Your radio must be programmed to allow you to use this feature.

NOTICE:
Users on the groups cannot respond to a Multi-group Call.

1

2 Press the **PTT** button to make the call.

The LED lights up solid green.

Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

5.2.6.1.5

Making a Private Call with a One Touch Call Button

The One Touch Call feature allows you to easily make a Private Call to a pre-defined Private Call alias or ID. This feature can be assigned to a short or long programmable button press.

You can ONLY have one alias or ID assigned to a One Touch Call button. Your radio can have multiple One Touch Call buttons programmed.

1. Press the programmed **One Touch Call** button to make a Private Call to the pre-defined Private Call alias or ID.
2. Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
3. Press the **PTT** button to make the call.

   The LED lights up solid green.
4. Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.
5. Release the **PTT** button to listen.

   When the target radio responds, the LED blinks green.

   If there is no voice activity for a predetermined period of time, the call ends.

5.3

Advanced Features in Connect Plus Mode

This chapter explains the operations of the features available in your radio.

5.3.1

Home Channel Reminder

This feature provides a reminder when the radio is not set to the home channel for a period of time.

You can respond to the reminder by performing one of the following actions:

- Return to the home channel.
- Mute the reminder temporarily by using the programmable button.
- Set a new home channel by using the programmable button.

5.3.1.1

Muting the Home Channel Reminder

When the Home Channel Reminder occurs, you can temporarily mute the reminder by performing the following action.

Press the **Silence Home Channel Reminder** programmable button.

5.3.1.2

Setting a New Home Channel

- Press the **Reset Home Channel** programmable button.

5.3.2

Auto Fallback

Auto Fallback is a system feature that allows you to continue to make and receive non-emergency calls on the selected Group Contact, if certain types of failures occur in the Connect Plus system.

If one of these failures occurs, your radio attempts to roam to a different Connect Plus site. This search process may result in your radio finding an operable Connect Plus site, or it may result in your radio finding a Fallback Channel (if your radio is enabled for Auto Fallback).

A Fallback Channel is a repeater that is normally part of an operable Connect Plus site, but cannot communicate with either the site controller or Connect Plus network at that moment. In Fallback mode, the repeater operates as a single digital repeater. Auto Fallback Mode supports non-emergency Group Calls only. No other call types are supported in Fallback Mode.

5.3.2.1

Indications of Auto Fallback Mode

When your radio is using a Fallback channel, you hear the intermittent Fallback Tone approximately once every 15 seconds (except while transmitting). Your radio only permits PTT on the selected Group Contact (Group Call, Multigroup Call, or Site All Call). It does not allow you to make other types of calls.

5.3.2.2

Making/Receiving Calls in Fallback Mode

NOTICE:
Calls are heard only by radios that are monitoring the same Fallback channel and selected to the same Group. Calls are not networked to other sites or other repeaters.
Emergency voice calls or Emergency Alerts are not available in Fallback mode. If you press the emergency button in Fallback mode, the radio provides an invalid key press tone.

Private (radio to radio) and Phone calls are not available in Fallback mode. If you attempt a call to a private contact, you will receive a denial tone. At this point you should select a desired group contact. Other non-supported calls include Remote Monitor, Call Alert, Radio Check, Radio Enable, Radio Disable, Text messaging, Location Updates, and packet data calls.

Enhanced Traffic Channel Access (ETCA) is not supported in Auto Fallback mode. If two or more radio users press **PTT** at the same time (or at almost the same time), it is possible that both radios transmit until **PTT** is released. In this event, it is

possible that none of the transmissions will be understood by receiving radios.

Making calls in Fallback mode is similar to normal functioning. Simply select the group contact you wish to use (using the radio's normal channel selection method), and then press the **PTT** to start your call. It is possible that the channel may be in use already by another group. If the channel is in use, you receive a busy tone. You may select Group, Multi-group or Site All Call contacts using your radio's normal channel selection method. While the radio is operating on the Fallback Channel, the Multigroup operates just like other Groups. It is only heard by radios that are currently selected to the same Multi-group.

5.3.2.3
Returning to Normal Operation

If the site returns to normal trunking operation while you are in range of your Fallback repeater, your radio automatically exits Auto Fallback mode. You hear a registration "beep" when the radio successfully registers. If you are in the range of an operable site (that is not in Fallback mode), you may press the Roam Request button (if programmed for your radio) to force your radio to search for and register on an available site. If no other site is available, your radio returns to Auto Fallback mode after searching is complete.

If you drive out of coverage of your Fallback repeater, your radio enters Search mode.

5.3.3
Scan

This feature allows your radio to monitor and join calls for groups defined in a pre-programmed scan list. When scan is enabled, the scan icon appears on the status bar and the LED blinks yellow when idle.

5.3.3.1
Starting and Stopping Scan

NOTICE:
This procedure turns the Scan feature On or Off for all Connect Plus zones with the same Network ID as your currently selected zone.

You can start and stop scanning by pressing the programmed **Scan** button.

5.3.3.2

Responding to a Transmission During a Scan

During scanning, your radio stops on a group where activity is detected. The radio continuously listens for any member in the scan list when idle on the control channel.

1. Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
2. Press the **PTT** button during hang time.

   The LED lights up solid green.
3. Wait for the Talk Permit Tone to finish (if enabled), and speak clearly into the microphone.
4. Release the **PTT** button to listen.

   If you do not respond within the hang time, the radio returns to scanning other groups.

5.3.4

Understanding Scan Operation

NOTICE:

There are some circumstances in which you can miss calls for groups that are in your scan list. When you miss a call for one of the following reasons, this does not indicate a problem with your radio. This is a normal scan operation for Connect Plus.

- Scan feature is not turned on .
- You are participating in a call already.
- No member of the scanned group is registered at your site (Multisite systems only).

5.3.5

Scan Talkback

If your radio scans into a call from the selectable group scan list, and if the **PTT** button is pressed during the scanned call, the operation of the radio depends on whether Scan Talkback was enabled or disabled during radio programming.

Scan Talkback Disabled

The radio leaves the scanned call and attempts to transmit on the contact for the currently selected channel position. After the Call Hang Time on the currently selected contact expires, the radio returns to the home channel and starts the Scan Hang Time Timer. The radio resumes group scan after its Scan Hang Time Timer expires.

Scan Talkback Enabled

If the **PTT** button is pressed during the Group Hang Time of the scanned call, the radio attempts to transmit to the scanned group.

NOTICE:
If you scan into a call for a group that is not assigned to a channel position in the currently selected zone and you miss the Hang Time of the call, switch to the proper zone and then select the channel position of the group to talk back to that group.

5.3.6

Editing Priority for a Talkgroup

The Priority Monitor feature allows the radio to automatically receive transmission from the talkgroup with higher priority when it is in another call. A tone sounds when the radio switches to the call with higher priority.

NOTICE:
If Default Emergency Revert Group ID is configured in MOTOTRBO Connect Plus Option Board CPS, there are three levels of priority for talkgroups: P0, P1, and P2. P0 is the permanent Emergency Revert Group ID and the highest priority. Check with your dealer or system administrator for more information.

5.3.7

Call Indicator Settings

This feature allows the radio users to configure call or text message ringing tones.

5.3.7.1

Selecting a Ring Alert Type

NOTICE:
The programmed **Ring Alert Type** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

You can program the radio calls to one predetermined vibrate call.

The radio vibrates once if it is a momentary ring style. The radio vibrates repetitively if it is a repetitive ring style. When set to Ring and Vibrate, the radio sounds a specific ring tone if there is any incoming radio transaction (for example, Call Alert or Message). It sounds like a positive indicator tone or missed call.

5.3.7.2
Configuring Vibrate Style

NOTICE:
The programmed **Vibrate Style** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

5.3.7.3
Escalating Alarm Tone Volume

You can program your radio to continually alert you when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

5.3.8
Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back when they are able to do so.

This feature is accessible by using .

5.3.8.1
Responding to Call Alerts

When you receive a Call Alert:

- A repetitive tone sounds.
- The yellow LED blinks.

Press the **PTT** button within 4 seconds of receiving a Call Alert page to respond with a Private Call.

5.3.8.2

Making a Call Alert with the One Touch Access Button

Press the programmed **One Touch Access** button to make a Call Alert to the predefined alias.

The LED lights up solid green when your radio is sending the Call Alert.

If the Call Alert acknowledgement is received, .

If the Call Alert acknowledgement is not received, .

5.3.9

Mute Mode

Mute Mode provides an option to silence all audio indicators on your radio.

When Mute Mode is initiated, all audio indicators are muted except higher priority features such as emergency operations.

When Mute Mode is exited, your radio resumes playing ongoing tones and audio transmissions.

IMPORTANT:
You can only enable either Face Down or Man Down one at a time. Both features cannot be enabled together.

5.3.9.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Do one of the following:

- Access this feature by using the programmed **Mute Mode** button.
- Access this feature by placing the radio in a face-down position momentarily.

Depending on radio model, the Face Down feature can be enabled either through the radio menu or by your system administrator. Check with your dealer or system administrator for more information.

IMPORTANT:
User can only enable either Man Down or Face Down at a time. Both features cannot be enabled together.

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows `Mute Mode On`.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.
- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

5.3.9.2

Exiting Mute Mode

This feature can be exited automatically once the Mute Mode Timer expires.

Do one of the following to exit Mute mode manually:

- Press the programmed **Mute Mode** button.
- Press the **PTT** button on any entry.
- Place the radio in a face-up position momentarily.

The following occurs when Mute mode is disabled:

- Negative Indicator Tone sounds.
- Display shows `Mute Mode Off`.
- The blinking red LED turns off.
- **Mute Mode** icon disappears from home screen.
- Your radio unmutes and speaker state is restored.
- If the timer has not expired, Mute mode timer is stopped.

NOTICE:
Mute Mode is also exited if the user transmits voice or switches to an unprogrammed channel.

5.3.10

Emergency Operation

NOTICE:
If your radio is programmed for Silent or Silent with Voice emergency initiation, in most cases it automatically exits silent operation after the Emergency Call or Emergency Alert is finished. The exception to this rule is when Emergency Alert is the configured Emergency Mode and Silent is the configured Emergency Type. If your radio is programmed in this manner, the silent operation continues until you cancel silent operation by pressing **PTT** or the button configured for Emergency Off.

Emergency voice calls and Emergency Alerts are not supported when operating in Connect Plus Auto Fallback mode. For more information see the Auto Fallback on page 104.

Your dealer can set the duration of a button press for the programmed **Emergency** button, except for long press, which is similar with all other buttons:

Short press
Between 0.05 seconds and 0.75 seconds.

Long press
Between 1.00 second and 3.75 seconds.

The **Emergency** button is assigned with the Emergency On/Off feature. Check with your dealer for the assigned operation of the **Emergency** button.

- If the short press for the **Emergency** button is assigned to turn on the Emergency mode, then the long press for the **Emergency** button is assigned to exit the Emergency mode.
- If the long press for the **Emergency** button is assigned to turn on the Emergency mode, then the short press for the **Emergency** button is assigned to exit the Emergency mode.

When your radio is selected to a Connect Plus zone, it supports three Emergency modes:

Emergency Call
You must press the **PTT** button to talk on the assigned emergency time slot.

Emergency Call with Voice to Follow
For the first transmission on the assigned emergency time slot, the microphone is automatically unmuted and you may talk without pressing the **PTT** button. The microphone stays “hot” in this fashion for a time period programmed into the radio. For subsequent

transmissions in the same Emergency call, you must press the **PTT** button.

Emergency Alert

An Emergency Alert is not a voice call. It is an emergency notification that is sent to radios that are configured to receive these alerts. The radio sends an emergency alert by using the control channel of the currently registered site. The Emergency Alert is received by radios in the Connect Plus network that are programmed to receive them (no matter which network site they are registered to).

Only one of the Emergency Modes can be assigned to the Emergency button per zone. In addition, each Emergency mode has the following types:

Regular

Radio initiates an Emergency and shows audio and/or visual indicators.

Silent

Radio initiates an Emergency without any audio or visual indicators. The radio suppresses all audio or visual indications of the Emergency until you press the **PTT** button to start a voice transmission.

Silent with Voice

The same as Silent operation, except that the radio also unmutes for some voice transmissions.

5.3.10.1
Responding to an Emergency Call

5.3.10.2
Ignore Emergency Revert Call

This feature enhancement provides an option for your radio to disregard an active Emergency Revert Call.

To enable Ignore Emergency Revert Call, your radio must be configured through the Connect Plus Customer Programming Software (CPCPS).

Contact with your dealer for more information.

5.3.10.3

Initiating an Emergency Call

NOTICE:
If your radio is set to Silent, it does not display any audio or visual indicators during Emergency mode until you press the **PTT** button to initiate a voice transmission.
If your radio is set to Silent with Voice, it does not initially display any audio or visual indicators that the radio is in Emergency mode. However, your radio unmutes for the transmissions of radios responding to your emergency. The emergency indicators only appear once you press the **PTT** button to initiate a voice transmission from your radio.

For both “Silent” and “Silent with Voice” operation, the radio automatically exits silent operation after the Emergency Call is finished.

1 Press the programmed **Emergency** button.

2 Press the **PTT** button to initiate a voice transmission on the Emergency group.

When you release the **PTT** button, the Emergency call continues for the time allotted for the Emergency Call Hang Time.

If you press the **PTT** button during this time, the Emergency call continues.

5.3.10.4

Initiating an Emergency Call with Voice to Follow

Your radio must be programmed for this type of operation.

When enabled for this operation, when you press the programmed **Emergency** button, and when your radio receives the time slot assignment, the microphone is automatically activated without pressing the **PTT** button. This activated microphone state is also known as "hot mic". The "hot mic" applies to the first voice transmission from your radio during the Emergency call. For subsequent transmissions in the same Emergency call, you must press the **PTT** button.

1 Press the programmed **Emergency** button.

2 The microphone remains active for the "hot mic" time specified in your radio codeplug programming.

During this time, the LED lights up green.

3 Press and hold the **PTT** button to talk longer than the programmed duration.

5.3.10.5

Initiating an Emergency Alert

NOTICE:
If your radio is programmed for "Silent" or "Silent with Voice", it will not provide any audio or visual indications that it is sending an Emergency Alert. If programmed for "Silent", the silent operation continues indefinitely until you press PTT or the button configured for "Emergency Off". If programmed for "Silent with Voice", the radio automatically cancels silent operation when the site controller broadcasts the Emergency Alert.

Press the orange **Emergency** button.

5.3.10.6

Exiting Emergency Mode

NOTICE:
If the Emergency call ends due to the expiration of the Emergency Hang Time, but the emergency condition is not over, press the **Emergency** button again to restart the process.

If you initiate an Emergency Alert by pressing the programmed **Emergency** button, your radio automatically exits Emergency mode after receiving a response from the Connect Plus system.

If you initiate an Emergency call by pressing the programmed **Emergency** button, your radio will be assigned a channel automatically when one becomes available. Once your radio has transmitted a message indicating the emergency, you cannot cancel your Emergency call. However, if you pressed the button by accident or the emergency no longer exists, you may wish to say this over the assigned channel. When you release the **PTT** button, the Emergency call is discontinued after the Emergency Call Hang Time expires.

If your radio was configured for Emergency with Voice to Follow, use the “hot mic” period to explain your error, then press and release the **PTT** button to discontinue the

transmission. The Emergency call is discontinued after the Emergency Call Hang Time expires.

5.3.11

Man Down Alarms

NOTICE:
Man Down Alarms are not supported when operating in Fallback mode. For more information see the Auto Fallback on page 104.

This section describes the Connect Plus Man Down Feature. This is a purchasable feature that may or may not apply to your radio.

Your Connect Plus portable radio can be enabled and programmed for one or more of the Man Down Alarms. Your dealer or radio system administrator can tell you whether or not this applies to your radio and which specific Man Down Alarms have been enabled and programmed.

If your radio has been programmed for one or more of the following Man Down Alarms, it is important for you to understand how the Alarm works, what indication (tones) your radio provides, and the action you should take.

The purpose of the Man Down Alarms is to alert others when you might be in danger. This is accomplished by programming your radio to detect a certain angle of tilt, lack of movement, or movement, depending on which Man Down Alarm(s) is/are enabled. If your radio detects a disallowed movement type, and if the condition is not corrected in a certain period of time, the radio starts to play an Alert Tone (if so programmed). At this point you should immediately take one or more of the corrective actions discussed below, depending on which Man Down Alarm(s) has/have been enabled for your radio. If you do not take corrective action within a certain period of time, your radio automatically starts an Emergency (either an Emergency Call or Emergency Alert).

- **Tilt Alarm** – When your radio is tilted at or beyond a specified angle for a period of time, it plays an Alert Tone (if so programmed). To prevent the radio from automatically starting an Emergency Call or Emergency Alert, restore the radio to the vertical position immediately.
- **Anti-Movement Alarm** – When your radio is motionless for a period of time, it plays an Alert Tone (if so programmed). To prevent the radio from automatically starting an Emergency Call or Emergency Alert, move the radio immediately.
- **Movement Alarm** – When your radio is in motion for a period of time, it plays an Alert Tone (if so programmed). To prevent the radio from automatically

starting an Emergency Call or Emergency Alert, stop the radio's motion immediately.

Your dealer or radio system administrator can tell you which of the above alarms (if any) has been enabled through radio programming. It is possible to enable both the Tilt and Anti- Movement Alarms. In that case, the Alert Tone plays when the radio detects the first movement violation.

Instead of taking the corrective actions discussed above, you can also prevent the radio from starting the Emergency call or Emergency Alert by using a programmable button, if your radio has been configured in this manner. This is discussed in the next two sections.

5.3.11.1
Turning Man Down Alarms On and Off

The procedure for turning the Man Down Alarms On and Off depends on how your radio is programmed. If programmed with a Man Down Alarms On/Off button, use the button to toggle the Man Down Alarms On and Off. This applies to all of the Man Down Alarms enabled for your radio.

When using the programmable button to toggle the Man Down Alarms On, your radio plays a tone that rises in pitch.

In order to hear the tones described above when turning the Man Down Alarms On and Off, the MOTOTRBO radio and Connect Plus Option Board must both be enabled for keypad tones.

5.3.11.2
Resetting the Man Down Alarms

This stops any Man Down Alert Tone that is currently playing, and it also resets the Alarm timers. However, it is still necessary to correct the movement violation by taking the appropriate corrective action described in the Man Down Alarms section. If the movement violation is not corrected within a period of time, the Alert Tone starts playing again.

5.3.12
Beacon Feature

The Beacon feature is part of Connect Plus Man Down, a purchasable feature. Your dealer or Radio System Administrator can tell you if the Beacon feature applies to your radio.

If your radio has been enabled and programmed for one or more of the Man Down Alarms, it can also be enabled for the Beacon feature.

If your radio automatically starts an Emergency Call or Emergency Alert due to one of the Man Down Alarms, and if your radio is also enabled for the Beacon feature, the radio starts to periodically emit a high pitched tone approximately once every ten seconds. The interval can vary depending on whether you are talking on your radio. The purpose of the Beacon tone is to help searchers locate you. If your radio has also been enabled for the “Visual Beacon”, the radio’s backlight comes on for a few seconds every time the Beacon tone plays.

You can stop your radio from playing the Beacon tone by using a programmable button, if your radio has been configured in this manner. This is discussed in the next two sections. If your radio does not have the programmable button or menu option, you can stop the Beacon tone by turning the radio off and then on again, or by changing to a different zone (if your radio has been programmed for more than one zone).

5.3.12.1
Turning Beacon On and Off

The procedure for turning the Beacon On and Off depends on how your radio is programmed. If programmed with a Beacon On/Off button, use the button to toggle the Beacon On and Off.

- When using the programmable button to toggle the Beacon On, your radio plays a tone that rises in pitch.
- When using the programmable button to toggle the Beacon Off, your radio plays a tone that falls in pitch.

In order to hear the tones described above when turning the Beacon On and Off, the MOTOTRBO radio and Connect Plus Option Board must both be enabled for keypad tones.

5.3.12.2
Resetting the Beacon

If your radio has been programmed with either the Beacon Reset button, it is possible to reset the Beacon. This stops the Beacon Tone without turning the Beacon feature Off.

5.3.13
Text Messaging

Your radio is able to receive data, for example a text message, from another radio or a text message application.

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message is 280

characters, including the subject line. The subject line only appears when you receive messages from e-mail applications.

NOTICE:
The maximum character length is only applicable for models with the latest software and hardware. For radio models with older software and hardware, the maximum length of a text message is 140 characters. Contact your dealer for more information.

5.3.13.1
Sending Quick Text Messages with the One Touch Access Button

To send a predefined Quick Text message to a predefined alias, press the programmed **One Touch Access** button.

If message is successfully sent, your radio shows the following indications:

- A positive tone sounds.

If message fails to be sent, your radio shows the following indications:

- A negative tone sounds.
- The display shows `Message Send Failed`.

If the text message fails to send, the radio returns you to the `Resend` option screen.

5.3.14
Privacy

If enabled, this feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software-based scrambling solution. The signaling and user identification portions of a transmission are not scrambled.

Your radio must have privacy enabled on the current channel selector position to send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel selector position, the radio is still able to receive clear (unscrambled) transmissions.

Your radio supports Enhanced Privacy.

To unscramble a privacy-enabled call transmission, your radio must be programmed to have the same Key Value and Key ID (for Enhanced Privacy) as the transmitting radio.

If your radio receives a scrambled call that is of a different Key Value and Key ID, you hear nothing at all (Enhanced Privacy).

The LED lights up solid green while the radio is transmitting and blinks green rapidly when the radio is receiving an ongoing privacy-enabled transmission.

You can access this feature by performing one of the following actions:

- Press the programmed **Privacy** button to toggle privacy on or off.Pressing the programmed **Privacy** button to toggle privacy on or off.

NOTICE:
Some radio models may not offer this Privacy feature. Check with your dealer or system administrator for more information.

5.3.14.1

Making a Privacy-Enabled (Scrambled) Call

Toggle privacy on using the programmed privacy button. Your radio must have the Privacy feature enabled for the currently selected channel position to send a privacy-enabled transmission. When privacy is enabled for the currently selected channel position, all voice transmissions made by your radio will be scrambled. This includes Group Call, Multigroup Call, talk-back during scanned calls, Site All Call, Emergency Call, and Private Call. Only receiving radios with the same Key Value and Key ID as your radio will be able to unscramble the transmission.

5.3.15

Bluetooth Operation

NOTICE:
If disabled via the CPS, all Bluetooth-related features are disabled and the Bluetooth device database is erased.

This feature allows you to use your radio with a Bluetooth-enabled device (accessory) via a wireless Bluetooth connection. Your radio supports both Motorola Solutions and Commercially available Off-The-Shelf (COTS) Bluetooth-enabled devices.

Bluetooth operates within a range of 10 meters (32 feet) line of sight. This is an unobstructed path between your radio and your Bluetooth-enabled device.

It is not recommended that you leave your radio behind and expect your Bluetooth-enabled device to work with a high degree of reliability when they are separated.

At the fringe areas of reception, both voice and tone quality will start to sound "garbled" or "broken". To correct this problem, simply position your radio and Bluetooth-enabled device closer to each other (within the 10-meter/32 feet defined range) to re-establish clear audio reception. Your radio's Bluetooth function has a maximum power of 2.5 mW (4 dBm) at the 10-meter/32 feet range.

Your radio can support up to 4 simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, and a PTT-Only Device (POD).

Refer to your respective Bluetooth-enabled device's user manual for more details on your Bluetooth-enabled device's full capabilities.

5.3.15.1

Finding and Connecting to a Bluetooth Device

Do not turn off your Bluetooth-enabled device during the finding and connecting operation as this cancels the operation.

1. Turn on your Bluetooth-enabled device and place it in pairing mode. Refer to respective Bluetooth-enabled device user manual.
2. On your radio, press .

If successful, tone sounds.

If unsuccessful, .

5.3.15.2

Disconnecting from a Bluetooth Device

On your radio, press the programmed **Bluetooth Disconnect** button.

A positive indicator tone sounds when disconnected.

5.3.15.3

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

You can toggle audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Press the programmed **Bluetooth Audio Switch** button.

A tone sounds when the audio route has switched.

5.3.15.4

Permanent Bluetooth Discoverable Mode

NOTICE:
The Permanent Bluetooth Discoverable Mode can only be enabled by using the MOTOTRBO CPS. If enabled, you will **not** be able to use any Bluetooth programmable button features.

Other Bluetooth-enabled devices can locate your radio, but the devices cannot connect to the radio. It enables dedicated devices to use your radio position in the process of Bluetooth-based location.

Turn on your Bluetooth-enabled device and pair it with your radio. Refer to the respective user manual of Bluetooth-enabled device.

5.3.16

Wi-Fi Operation

This feature allows you to set up and connect to a Wi-Fi network. Wi-Fi supports updates for radio firmware, codeplug, and resources such as language packs and voice announcement.

Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Your radio supports WEP/WPA/WPA2-Personal and WPA/WPA2-Enterprise Wi-Fi networks.

WEP/WPA/WPA2-Personal Wi-Fi network

Uses pre-shared key (password) based authentication.

Pre-shared key can be entered by using the menu or CPS/RM.

WPA/WPA2-Enterprise Wi-Fi network

Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.

NOTICE:
Check with your dealer or system administrator to connect to WPA/WPA2-Enterprise Wi-Fi network.

The programmed **Wi-Fi On or Off** button is assigned by your dealer or system administrator. Check with your dealer

or system administrator to determine how your radio has been programmed.

Voice Announcements for the programmed **Wi-Fi On or Off** button can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

5.3.16.1
Turning Wi-Fi On or Off

Press the programmed **Wi-Fi On or Off** button. Voice Announcement sounds Turning On Wi-Fi or Turning Off Wi-Fi.

5.3.16.2
Connecting to a Network Access Point

When you turn on Wi-Fi, the radio scans and connects to a network access point.

NOTICE:
The WPA-Enterprise Wi-Fi network access points are pre-configured. Check with your dealer or system administrator to determine how your radio has been programmed.

5.4
Utilities

This chapter explains the operations of the utility functions available in your radio.

5.4.1
Turning the Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts (except for the incoming Emergency alert tone) if needed.

5.4.2
Setting the Power Level

You can customize your radio power setting to high or low for each Connect Plus zone.

enables communication with tower sites in Connect Plus mode located at a considerable distance from you. enables communication with tower sites in Connect Plus mode in closer proximity.

5.4.3

Voice Announcement

This feature enables the radio to audibly indicate the current Zone or Channel the user has just assigned, or programmable button press. This audio indicator can be customized per customer requirements.

5.4.4

Setting the Text-to-Speech Feature

NOTICE:
The Text-to-Speech feature can only be enabled by using the MOTOTRBO CPS. If enabled, the Voice Announcement feature is automatically disabled, and vice versa. Check with your dealer or system administrator for more information.

- Press the programmed **Voice Announcement** button to toggle this feature on or off.

5.4.5

Intelligent Audio

Your radio can automatically adjust its audio volume to overcome background noise in the environment, inclusive of all stationary and non-stationary noise sources. This feature is a Receive-only feature and does not affect Transmit audio.

5.4.6

Turning the Acoustic Feedback Suppressor Feature On or Off

This feature allows you to minimize acoustic feedback in received calls.
Press the programmed **Acoustic Feedback Suppressor** button.

You hear a positive indicator tone, indicating that Acoustic Feedback Suppressor is now enabled.

You hear a negative indicator tone, indicating that the radio is unable to activate Acoustic Feedback Suppressor.

5.4.7

Turning GNSS On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise location. GNSS includes Global Positioning System (GPS),

Global Navigation Satellite System (GLONASS), and BeiDou Navigation Satellite System (BDS).

NOTICE:
Selected radio models may offer GPS, GLONASS, and BDS. GNSS constellation is configured by using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

Press the programmed **GNSS** button to toggle the feature on or off.

Other Systems

Features that are available to the radio users under this system are available in this chapter.

6.1

Push-To-Talk Button

The Push-to-Talk **(PTT)** button serves two basic purposes:

- While a call is in progress, the **PTT** button allows the radio to transmit to other radios in the call. The microphone is activated when the **PTT** button is pressed.
- While a call is not in progress, the **PTT** button is used to make a new call.

If the Talk Permit Tone or the PTT Sidetone is enabled, wait until the short alert tone ends before talking.

If the Channel Free Indication feature is enabled on your radio (programmed by your dealer), you hear a short alert tone the moment the target radio (the radio that is receiving your call) releases the **PTT** button, indicating the channel is free for you to respond.

You hear a continuous Talk Prohibit Tone if your call is interrupted. You should release the **PTT** button if you hear a continuous Talk Prohibit Tone.

6.2

Programmable Buttons

Depending on the duration of a button press, your dealer can program the programmable buttons as shortcuts to radio functions.

Short press
Pressing and releasing rapidly.

Long press
Pressing and holding for the programmed duration.

NOTICE:
See Emergency Operation on page 165 for more information on the programmed duration of the **Emergency** button.

6.2.1

Assignable Radio Functions

The following radio functions can be assigned to the programmable buttons.

Audio Toggle
Toggles audio routing between the internal radio speaker and the speaker of a wired accessory.

Battery Strength
Indicates battery strength by using the LED Indicator.

Bluetooth® Audio Switch
Toggles audio routing between internal radio speaker and external Bluetooth-enabled accessory.

Bluetooth Connect
Initiates a Bluetooth find-and-connect operation.

Bluetooth Disconnect
Terminates all existing Bluetooth connections between your radio and any Bluetooth-enabled devices.

Bluetooth Discoverable
Enables your radio to enter Bluetooth Discoverable Mode.

Call Forwarding
Toggles Call Forwarding on or off.

Channel Announcement
Plays zone and channel announcement voice messages for the current channel.

Emergency
Depending on the programming, initiates or cancels an emergency.

Indoor Location
Toggles Indoor Location on or off.

Intelligent Audio
Toggles intelligent audio on or off.

Manual Site Roam [2]
Starts the manual site search.

Mic AGC
Toggles the internal microphone automatic gain control (AGC) on or off.

Monitor
Monitors a selected channel for activity.

Notifications
Provides direct access to the Notifications list.

Nuisance Channel Delete[2]
Temporarily removes an unwanted channel, except for the Selected Channel, from the scan list. The Selected Channel refers to the selected zone or channel combination of the user from which scan is initiated.

[2] Not applicable in Capacity Plus.

One Touch Access
Directly initiates a predefined Private, Phone or Group Call, a Call Alert, a Quick Text message, or Home Revert.

Option Board Feature
Toggles option board feature(s) on or off for option board-enabled channels.

Permanent Monitor[2]
Monitors a selected channel for all radio traffic until function is disabled.

Phone Exit
Ends a Phone Call.

Privacy
Toggles privacy on or off.

Repeater/Talkaround
Toggles between using a repeater and communicating directly with another radio.

Reset Home Channel
Sets a new home channel.

Silence Home Channel Reminder
Mutes the Home Channel Reminder.

Scan [3]
Toggles scan on or off.

Site Info
Plays site announcement voice messages for the current site when Voice Announcement is enabled.

Site Lock
When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Transmit Interrupt Remote Dekey
Stops an ongoing interruptible call to free the channel.

Telemetry Control
Controls the Output Pin on a local or remote radio.

Trill Enhancement
Toggles trill enhancement on or off.

Voice Announcement On/Off
Toggles voice announcement on or off.

Voice Operating Transmission (VOX)
Toggles VOX on or off.

Wi-Fi
Toggles Wi-Fi on or off.

[3] Not applicable in Capacity Plus–Single-Site.

Zone Toggle
Allows radio user to toggle between Zone 1 and Zone 2.

6.2.2

Assignable Settings or Utility Functions

The following radio settings or utility functions can be assigned to the programmable buttons.

Tones/Alerts
Toggles all tones and alerts on or off.

Display Mode
Toggles the day/night display mode on or off.

Power Level
Toggles transmit power level between high and low.

6.3

Status Indicators

This chapter explains the status indicators and audio tones used in the radio.

6.3.1

Icons

The following are the icons that appear on the radio display.

Table 8: Display Icons

The following icons appear on the status bar at the top of the radio display. The icons are arranged left most in order of appearance or usage, and are channel-specific.

	**Battery** The number of bars (0–4) shown indicates the charge remaining in the battery. The icon blinks when the battery is low.
	**Bluetooth Connected** The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	**Bluetooth Not Connected** The Bluetooth feature is enabled but there is no remote Bluetooth device connected.

	Call Log Radio call log.
	Emergency Radio is in Emergency mode.
	Flexible Receive List Flexible receive list is enabled.
	GNSS Available GNSS feature is enabled. The icon stays lit when a position fix is available.
	GNSS Not Available GNSS feature is enabled but is not receiving data from the satellite.
	High Volume Data Radio is receiving high volume data and channel is busy.
	Job Ticket Notification Notification List has items to review.

	Monitor Selected channel is being monitored.
	Mute Mode Mute Mode is enabled and speaker is muted.
	Option Board The Option Board is enabled. (Option board enabled models only)
	Option Board Non-Function The Option Board is disabled.
	Over-the-Air Programming Delay Timer Indicates time left before automatic restart of radio.
	Received Signal Strength Indicator (RSSI) The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.

	Response Inhibit Response Inhibit is enabled.
	Ring Only Ringing mode is enabled.
	Scan [4] Scan feature is enabled.
	Scan-Priority 1[4] Radio detects activity on channel/ group designated as Priority 1.
	Scan-Priority 2[4] Radio detects activity on channel/ group designated as Priority 2.
	Secure The Privacy feature is enabled.
	Sign In Radio is signed in to the remote server.

	Sign Out Radio is signed out of the remote server.
	Silent Ring Silent ring mode is enabled.
	Site Roaming [5] The site roaming feature is enabled.
	Talkaround[4] In the absence of a repeater, radio is currently configured for direct radio to radio communication.
	Unsecure The Privacy feature is disabled.
	Vibrate Vibrate mode is enabled.
	Vibrate and Ring Vibrate and Ring mode is enabled.

[4] Not applicable in Capacity Plus.
[5] Not applicable in Capacity Plus–Single-Site

	Vote Scan Vote scan feature is enabled.

Table 9: Advance Menu Icons

The following icons appear beside menu items that offer a choice between two options or as an indication that there is a sub-menu offering two options.

	Checkbox (Checked) Indicates that the option is selected.
	Checkbox (Empty) Indicates that the option is not selected.
	Solid Black Box Indicates that the option selected for the menu item with a sub-menu.

Table 10: Bluetooth Device Icons

The following icons appear next to items in the list of Bluetooth-enabled devices available to indicate the device type.

	Bluetooth Audio Device Bluetooth-enabled audio device, such as a headset.
	Bluetooth Data Device Bluetooth-enabled data device, such as a scanner.
	Bluetooth PTT Device Bluetooth-enabled PTT device, such as a PTT-Only Device (POD).
	Bluetooth Sensor Device Bluetooth-enabled sensor device, such as gas sensor.

Table 11: Call Icons

The following icons appear on the display during a call. These icons also appear in the Contacts list to indicate alias or ID type.

	Bluetooth PC Call Indicates a Bluetooth PC Call in progress.

	In the Contacts list, it indicates a Bluetooth PC Call alias (name) or ID (number).
	Private Call Indicates a Private Call in progress. In the Contacts list, it indicates a subscriber alias (name) or ID (number).
	Group Call/All Call Indicates a Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).

Table 12: Mini Notice Icons

The following icons appear momentarily on the display after an action to perform a task is taken.

	Failed Transmission (Negative) Failed action taken.
	Successful Transmission (Positive) Successful action taken.
	Transmission in Progress (Transitional) Transmitting. This is seen before indication for Successful Transmission or Failed Transmission.

Table 13: Sent Items Icons

The following icons appear at the top right corner of the display in the Sent Items folder.

or	**In Progress** The text message to a subscriber alias or ID is pending transmission, followed by waiting for acknowledgement. The text message to a group alias or ID is pending transmission.
or	**Send Failed** The text message cannot be sent.


or


Sent Successfully
The text message has been successfully sent.

6.3.2

LED Indicators

LED indicators show the operational status of your radio.

Solid Red
Radio is transmitting all types of voice call.

Blinking Red
Radio is indicating a battery mismatch.

Radio has failed the self-test upon powering up.

Radio is detecting activity or retrieving Over-the-Air Programming transmissions over the air.

Radio is receiving an emergency transmission.

Radio is transmitting in low battery state.

Radio has moved out of range if Auto-Range Transponder System is configured.

Radio encounters charging errors.

Mute Mode is enabled.

Radio is upgrading to a new Option Board firmware file.

Radio programming has failed.

Radio is receiving a call or data.

Solid Green
Radio is powering up.

Blinking Green
Radio is scanning for activity.

Solid Yellow
Radio is monitoring a conventional channel.

Blinking Yellow
Radio has yet to respond to a Call Alert.

Radio has Flexible Receive List enabled.

Radio Programming is in progress.

Radio is scanning for activity.

Radio has yet to respond to a Call Alert.

All Capacity Plus–Multi-Site channels are busy.

Double Blinking Yellow
Radio has Auto Roaming enabled.

Radio is actively searching for a new site.

Radio has yet to respond to a Group Call Alert.

Radio is locked.

Radio is not connected to the repeater while in Capacity Plus.

All Capacity Plus channels are busy.

6.3.3
Tones

The following are the tones that sound through on the radio speaker.

High Pitched Tone

Low Pitched Tone

6.3.3.1
Indicator Tones

Indicator tones provide you with audible indications of the status after an action to perform a task is taken.

Positive Indicator Tone

Negative Indicator Tone

6.3.3.2
Audio Tones

Audio tones provide you with audible indications of the status, or response to data received on the radio.

Continuous Tone
A monotone sound. Sounds continuously until termination.

Periodic Tone
Sounds periodically depending on the duration set by the radio. Tone starts, stops, and repeats itself.

Repetitive Tone
A single tone that repeats itself until it is terminated by the user.

Momentary Tone
Sounds once for a short duration set by the radio.

6.4

Zone and Channel Selections

This chapter explains the operations to select a zone or channel on your radio. A zone is a group of channels.

Your Non-Display radio supports up to 32 channels and 2 zones, with a maximum of 16 channels per zone. While the Display radio supports up to 1000 channels and 251 zones, with a maximum of 160 channels per zone.

Each channel can be programmed with different features and/or support different groups of users. After selecting the relevant Zone, select the relevant channel you require to transmit or receive on.

6.4.1

Selecting Zones

Follow the procedure to select the required zone on your radio.

Press the programmed **Zone Toggle** button.

6.4.2

Selecting Zones by Using the Alias Search

Follow the procedure to select the required zone on your radio by using the alias search.

1 Press OK to access the menu.

2 Press ▲ or ▼ to Zone. Press OK to select.

The display shows ✓ and the current zone.

3 Enter the first character of the required alias.

The display shows a blinking cursor.

4 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

5

Press OK to select.

The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

6.4.3 Selecting Channels

Follow the procedure to select the required channel on your radio.

Turn the **Channel Selector** Knob to select the channel, subscriber ID, or group ID.

NOTICE:
For Display radio, if **Virtual Channel Stop** is enabled, your radio stops proceeding beyond the first or the last channel, and a tone is heard.

6.5 Calls

This chapter explains the operations to receive, respond to, make, and stop calls.

You can select a subscriber alias or ID, or group alias or ID after you have selected a channel by using one of these features:

Contacts List
This method provides direct access to the Contacts list.

Programmed One Touch Access Button
This method is used for Group, Private, and Phone Calls only.

You can only have one ID assigned to a **One Touch Access** button with a short or long programmable button press.

Programmable Button
This method is used for Phone Calls only.

6.5.1

Group Calls

Your radio must be configured as part of a group to receive a call from or make a call to the group of users.

6.5.1.1

Responding to Group Calls

To receive a call from a group of users, your radio must be configured as part of that group. Follow the procedure to respond to Group Calls on your radio.

When you receive a Group Call:

- The red LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The red LED lights up.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

6.5.1.2

Making Group Calls

Follow the procedure to make Group Calls on your radio.

1 Do one of the following:

- Select a channel with the active group alias or ID.

- Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

The red LED lights up. The display shows the **Group Call** icon and alias.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The red LED blinks when the target radio responds.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on prior to initiating the call.

6.5.2

Private Calls

A Private Call is a call from an individual radio to another individual radio.

There are two ways to set up a Private Call. The first type sets up the call after performing a radio presence check, while the second type sets up the call immediately. Only one of these types can be programmed to your radio by your dealer.

6.5.2.1

Responding to Private Calls

Follow the procedure to respond to Private Calls on your radio.

When you receive a Private Call:

- The red LED blinks.

- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Transmit Interrupt Remote Dekey feature is enabled, press the **PTT** button to stop an ongoing interruptible call and free the channel for you to respond.

The red LED lights up.

2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

6.5.2.2

Making Private Calls

Your radio must be programmed to initiate a Private Call. If this feature is not enabled, a negative indicator tone sounds when you initiate the call. Follow the procedure to make Private Calls on your radio.

1 Do one of the following:

- Select a channel with the active subscriber alias or ID.
- Press the programmed **One Touch Access** button.

2 Press the **PTT** button to make the call.

The red LED lights up.

3 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The red LED blinks when the target radio responds.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

6.5.3

All Calls

An All Call is a call from an individual radio to every radio on the channel. An All Call is used to make important announcements, requiring full attention from the user. The users on the channel cannot respond to an All Call.

6.5.3.1

Receiving All Calls

When you receive an All Call:

- A tone sounds.
- The red LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

The radio returns to the screen before receiving the All Call when the call ends.

An All Call does not wait for a predetermined period before ending.

If the Channel Free Indication feature is enabled, you hear a short alert tone when the transmitting radio releases the **PTT** button, indicating the channel is free for you to use.

You cannot respond to an All Call.

NOTICE:
The radio stops receiving the All Call if you switch to a different channel while receiving the call. You are **not** able to continue with any programmed button functions until the end of an All Call.

6.5.3.2

Making All Calls

Your radio must be programmed for you to make an All Call. Follow the procedure to make All Calls on your radio.

1 Select a channel with the active All Call group alias or ID.

2 Press the **PTT** button to make the call.

The red LED lights up. The display shows the **All Call** icon and `All Call`.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

Users on the channel cannot respond to an All Call.

6.5.4

Selective Calls

A Selective Call is a call from an individual radio to another individual radio. It is a Private Call on an analog system.

6.5.4.1

Responding to Selective Calls

Follow the procedure to respond to Selective Calls on your radio.

When you receive a Selective Call:

- The red LED blinks.
- The display shows the **Private Call** icon at the top right corner.
- The first text line shows the caller alias or `Selective Call` or `Alert with Call`.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Press the **PTT** button to respond to the call.

The red LED lights up.

2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

6.5.4.2

Making Selective Calls

Your radio must be programmed for you to initiate a Selective Call. Follow the procedure to make Selective Calls on your radio.

1 Select a channel with the active subscriber alias or ID.

2 Press the **PTT** button to make the call.

The red LED lights up. The display shows the **Private Call** icon, the subscriber alias, and call status.

3 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

4 Release the **PTT** button to listen.

The red LED blinks when the target radio responds.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.

6 The display shows `Call Ended`.

6.5.5

Phone Calls

A Phone Call is a call from an individual radio to a telephone.

If Phone Call capability is not enabled in your radio:

- The display shows `Unavailable`.
- Your radio mutes the call.
- Your radio returns to the previous screen when the call ends.

During the Phone Call, your radio attempts to end the call when:

- You press the **One Touch Access** button with the deaccess code preconfigured.
- You enter the deaccess code as the input for extra digits.

During channel access, access or deaccess code, or extra digits transmission, your radio responds to the **On/Off** , **Volume Control**, and **Channel Selector** buttons or knobs only. A tone sounds for every invalid input.

During channel access, press to dismiss the call attempt. A tone sounds.

NOTICE:
Check with your dealer or system administrator for more information.

6.5.5.1

Responding to Phone Calls as Private Calls

Follow the procedure to respond to Phone Calls as Private Calls on your radio.

When you receive a Phone Call as a Private Call:

- The red LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

If Phone Call capability is not enabled on your radio, your radio mutes the call.

The call ends when there is no voice activity for a predetermined period.

A tone sounds.

6.5.5.2

Responding to Phone Calls as Group Calls

Follow the procedure to respond to Phone Calls as Group Calls on your radio.

When you receive a Phone Call as a Group Call:

- The red LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

If Phone Call capability is not enabled on your radio, your radio mutes the call.

The call ends when there is no voice activity for a predetermined period.

A tone sounds.

6.5.5.3

Responding to Phone Calls as All Calls

When you receive a Phone Call as an All Call, you can respond to or end the call, only if an All Call type is assigned to the channel. Follow the procedure to respond to Phone Calls as All Calls on your radio.

If Phone Call capability is not enabled on your radio, your radio mutes the call.

6.5.5.4

Making Phone Calls

Follow the procedure to make Phone Calls on your radio.

When you attempt to make or end a Phone Call without the access and deaccess codes preconfigured, the attempt fails and a negative indicator tone sounds.

1 Press the programmed **One Touch Access** button to the predefined alias or ID.

If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

If successful:

- The (Dual Tone Multi Frequency) DMTF Tone sounds.
- You hear the dialling tone of the telephone user.

If unsuccessful:

- A negative indicator tone sounds.
- The phone call fails. Repeat this step.

2 The red LED lights up. The display shows the **Phone Call** icon at the top right corner. The first text line shows the subscriber alias. The second text line shows the call status.
If the call is successful:

- The DTMF Tone sounds.

- You hear the dialing tone of the telephone user.

If the call is unsuccessful:

- A tone sounds.
- The display shows `Phone Call Failed` and then, `Access Code:`.
- If the access code has been preconfigured in the Contacts list, your radio returns to the screen you were on before initiating the call.

3 Press the **PTT** button to make the call. Release the **PTT** button to listen.

4 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows `De-Access Code:`, and press OK to proceed. The radio returns to the previous screen.
- Press the programmed **One Touch Access** button.

  If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF Tone sounds and the display shows `Ending Phone Call.`
If the call ends successfully:

- A tone sounds.
- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat the last two steps or wait for the telephone user to end the call.

5 Press the programmed **Phone Exit** button to end the call.

If end-call-setup is successful:

- A tone sounds.
- Your radio exits the Phone Call.

If end-call-setup is unsuccessful:

- A negative indicator tone sounds.
- Your radio returns to the Phone Call screen.

- Repeat this step, or wait for the telephone user to end the call.

6.5.6

Initiating Transmit Interrupt

An ongoing call is interrupted, when you perform the following actions:

- Press the **Voice PTT** button.
- Press the **Emergency** button.
- Perform data transmission.
- Press the programmed **TX Interrupt Remote Dekey** button.

The recipient radio displays `Call Interrupted`.

6.5.7

Broadcast Voice Calls

A Broadcast Voice Call is a one-way voice call from any user to an entire talkgroup.

The Broadcast Voice Call feature allows only the call initiating user to transmit to the talkgroup, while the recipients of the call cannot respond (no Call Hang Time).

Your radio must be programmed to allow you to use this feature. Check with your dealer or system administrator for more information.

6.5.7.1

Making Broadcast Voice Calls

Program your radio to make Broadcast Voice Calls.

1. Select a channel with the active group alias or ID.
2. Do one of the following:
   - Select a channel with the active group alias or ID.
   - Press the programmed **One Touch Access** button.
3. Press the **PTT** button to make the call.

   The red LED lights up. The display shows `Broadcast Call`, the **Group Call** icon and alias.
4. Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

NOTICE:
Users on the channel cannot respond to Broadcast Voice Calls.

The radio returns to the previous menu after the call ends.

6.5.7.2

Making Broadcast Voice Calls by Using the Alias Search

6.5.7.3

Receiving Broadcast Voice Calls

When you receive a Broadcast Voice Call:

- A tone sounds.
- The red LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

When the call ends, the radio returns to the previous screen.

A Broadcast Voice Call does not wait for a predetermined period before ending.

You cannot respond to a Broadcast Voice Call.

NOTICE:
The radio stops receiving the Broadcast Voice Call if you switch to a different channel while receiving the call. You **cannot** continue with any programmed button functions until the end of the Broadcast Voice Call.

6.5.8

Unaddressed Calls

An Unaddressed Call is a group call to one of the 16 predefined group IDs.

This feature is configured using CPS-RM. A contact for one of the predefined IDs is required to initiate and/or receive an Unaddressed Call. Check with your dealer or system administrator for more information.

6.5.8.1

Making Unaddressed Calls

1 Select a channel with the active group alias or ID.

2 Do one of the following:

- Select a channel with the active group alias or ID.
- Press the programmed **One Touch Access** button.

3 Press the **PTT** button to make the call.

The red LED lights up.

4 Release the **PTT** button to listen.

The red LED blinks when the target radio responds. A momentary tone sounds.

5 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating that the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period.
The call initiator can press the programmed **Cancel** button to end a Group Call.

6.5.8.2

Responding to Unaddressed Calls

When you receive an Unaddressed Call:

- The red LED blinks.
- A momentary tone sounds.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the

transmitting radio and free the channel for you to respond.

The red LED lights up.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

6.5.9

Open Voice Channel Mode (OVCM)

An Open Voice Channel Mode (OVCM) allows a radio that is not preconfigured to work in a particular system to both receive and transmit during a group or individual call.

The OVCM group call also supports broadcast calls. Program your radio to use this feature. Check with your dealer or system administrator for more information.

6.5.9.1

Making OVCM Calls

Your radio must be programmed for you to make an OVCM Call. Follow the procedure to make OVCM Calls on your radio.

1 Select a channel with the active group alias or ID.

2 Do one of the following:

- Select a channel with the active group alias or ID.
- Press the programmed **One Touch Access** button.

3 Press the **PTT** button to make the call.

The red LED lights up.
The display shows OVCM, the call type icon and alias. indicating that the radio has entered OVCM State.

4 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.

- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

6.5.9.2

Responding to OVCM Calls

When you receive an OVCM Call:

- The red LED blinks.
- The display shows OVCM, the call type icon, and alias.
- Your radio unmutes and the incoming call sounds through the speaker.

NOTICE:
Recipient users are not allowed to Talkback during a Broadcast Call. If the **PTT** button is pressed during a Broadcast Call, the Talkback Prohibit Tone sounds momentarily.

1 Do one of the following:

- If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The red LED lights up.

2 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period.

6.6

Advanced Features

This chapter explains the operations of the features available in your radio.

Your dealer or system administrator may have customized your radio for your specific needs. Check with your dealer or system administrator for more information.

6.6.1
Bluetooth®

This feature allows you to use your radio with a Bluetooth-enabled device (accessory) through a Bluetooth connection. Your radio supports both Motorola Solutions and Commercially available Off-The-Shelf (COTS) Bluetooth-enabled devices.

Bluetooth operates within a range of 10 m (32ft) line of sight. This is an unobstructed path between your radio and your Bluetooth-enabled device. For high degree of reliability, Motorola Solutions recommends to not separate the radio and the accessory.

At the fringe areas of reception, both voice and tone quality start to sound "garbled" or "broken". To correct this problem, position your radio and Bluetooth-enabled device closer to each other (within the 10 m defined range) to re-establish clear audio reception. The Bluetooth function of your radio has maximum power of 2.5 mW (4 dBm) at the 10 m range.

Your radio can support up to three simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, a scanner, a sensor device, and a PTT-Only Device (POD).

Refer to the user manual of your respective Bluetooth-enabled device for more details on the full capabilities of your Bluetooth-enabled device.

Your radio connects to the Bluetooth-enabled device within range with either the strongest signal strength, or to one which it has connected to before in a prior session. Do not turn off your Bluetooth-enabled device or press the home back button during the finding and connecting operation as this cancels the operation.

6.6.1.1
Connecting to Bluetooth Devices

Follow the procedure to connect to Bluetooth devices.

Turn on your Bluetooth-enabled device and place it in pairing mode.

Press the programmed **Bluetooth Connect** button.

Your Bluetooth-enabled device may require additional steps to complete the pairing. Refer to the user manual of your Bluetooth-enabled device.

- A tone sounds.
- The yellow LED blinks.

Wait for acknowledgment.
If successful:

- A positive indicator tone sounds.

If unsuccessful:

- A negative indicator tone sounds.

6.6.1.2

Disconnecting from Bluetooth Devices

Follow the procedure to disconnect from Bluetooth devices.

Press the programmed **Bluetooth Disconnect** button.

A positive indicator tone sounds when the device has been disconnected.

6.6.1.3

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

Follow the procedure to toggle audio routing between internal radio speaker and external Bluetooth device.

Press the programmed **Bluetooth Audio Switch** button.

A tone sounds when the audio route has switched.

6.6.1.4

Permanent Bluetooth Discoverable Mode

The Permanent Bluetooth Discoverable Mode must be enabled by the dealer or system administrator.

Other Bluetooth-enabled devices can locate your radio, but the devices cannot connect to the radio. The Permanent Bluetooth Discoverable Mode enables dedicated devices to use your radio position in the process of Bluetooth-based location.

6.6.2

Indoor Location

NOTICE:
Indoor Location feature is applicable for models with the latest software and hardware. Check with your dealer or system administrator for more information.

Indoor Location is use to keep track of the location of radio users. When Indoor Location is activated, the radio is in a limited discoverable mode. Dedicated beacons are used to locate the radio and determine its position.

6.6.2.1

Turning Indoor Location On or Off

- Access this feature by using the programmed button.
  a. Long press the programmed **Indoor Location** button to turn on Indoor Location.

     You hear a positive indicator tone.
     One of the following scenarios occurs.

     - If successful, Indoor Location is turned on.
     - If unsuccessful, you hear a negative indicator tone.

  b. Press the programmed **Indoor Location** button to turn off Indoor Location.

     You hear a positive indicator tone.
     One of the following scenarios occurs.

     - If successful, Indoor Location is turned off.
     - If unsuccessful, you hear a negative indicator tone.

6.6.3

Multi-Site Control

Your radio is able to search for sites and switch between sites when signal is weak or your radio is unable to detect any signal from the current site.

When the signal is strong, the radio remains on the current site.

This setting is applicable when your current radio channel is part of an IP Site Connect or Capacity Plus–Multi-Site configuration.

Your radio can perform either one of the following site searches:

- Automatic Site Search
- Manual Site Search

If the current channel is a multi-site channel with an attached roam list and is out of range, and the site is unlocked, your radio also performs automatic site search.

6.6.3.1

Starting Automatic Site Search

6.6.3.2

Stopping Automatic Site Search

Follow the procedure to stop automatic site search when your radio is actively searching for a new site.

Press the programmed **Site Lock On/Off** button.

- A tone sounds.
- The LED turns off.

6.6.3.3

Enabling Manual Site Search

Press the programmed **Manual Site Roam** button.

- A tone sounds.
- The red LED lights up.

If the radio finds a new site, your radio shows the following indications:

- A positive tone sounds.
- The LED extinguishes.

If the radio fails to find a new site, your radio shows the following indications:

- A negative tone sounds.
- The LED extinguishes.

6.6.3.4

Site Lock On/Off

When toggled on, the radio searches the current site only. When toggled off, the radio searches other sites in addition to the current site.

Press the programmed **Site Lock** button.

If the **Site Lock** function is toggled on:

- You hear a positive indicator tone, indicating the radio has locked to the current site.

If the **Site Lock** function is toggled off:

- You hear a negative indicator tone, indicating the radio is unlocked.

6.6.4

Talkaround

This feature allows you to continue communicating when your repeater is non-operational, or when your radio is out of range from the repeater but within the talk range of other radios.

The talkaround setting is retained even after powering down.

6.6.4.1

Toggling Between Repeater and Talkaround Modes

Follow the procedure to toggle between Repeater and Talkaround modes on your radio.

Press the programmed **Repeater/Talkaround** button.

One of the following tones sounds:

Positive Indicator Tone

Radio is in talkaround mode.

Negative Indicator Tone

Radio is in repeater mode.

If enabled, ✓ appears beside `Enabled`. If disabled, ✓ disappears beside `Enabled`.

6.6.5

Monitor Feature

The feature allows you to ensure that a channel is free before transmitting.

6.6.5.1

Monitoring Channels

Follow the procedure to monitor channels.

1 Long press the programmed **Monitor** button.

If the channel is in use:

- The display shows the **Monitor** icon.
- You hear radio activity or total silence.
- The yellow LED lights up.

The yellow LED double blinks when the channel is busy.

2 Press the **PTT** button to talk. Release the **PTT** button to listen.

6.6.5.2

Permanent Monitor

The Permanent Monitor feature is used to continuously monitor a selected channel for activity.

6.6.5.2.1

Turning Permanent Monitor On or Off

Follow the procedure to turn Permanent Monitor on or off on your radio.

Press the programmed **Permanent Monitor** button.

When the radio enters the mode:

- An alert tone sounds.
- The yellow LED lights up.
- The display shows `Permanent Monitor On` and the **Monitor** icon.

When the radio exits the mode:

- An alert tone sounds.
- The yellow LED turns off.
- The display shows `Permanent Monitor Off.`

6.6.6

Home Channel Reminder

This feature provides a reminder when the radio is not set to the home channel for a period of time.

If this feature is enabled through CPS, when your radio is not set to the home channel for a period of time, the following occurs periodically:

- The Home Channel Reminder tone and announcement sound.

6.6.6.1

Muting the Home Channel Reminder

When the Home Channel Reminder sounds, you can temporarily mute the reminder.

Press the programmed **Silence Home Channel Reminder** button.

The display shows `HCR Silenced`.

6.6.6.2

Setting New Home Channels

When the Home Channel Reminder occurs, you can set a new home channel.

1 Press the **Reset Home Channel** programmable button to set the current channel as the new Home Channel.

2 Do one of the following:

- Press the **Reset Home Channel** programmable button to set the current channel as the new Home Channel. Skip the following steps.
  The first line of the display shows the channel alias and the second line shows `New Home Ch`.

6.6.7

Remote Monitor

This feature is used to turn on the microphone of a target radio with a subscriber alias or ID. You can use this feature to remotely monitor any audible activity surrounding the target radio.

There are two types of Remote Monitor:

- Remote Monitor without Authentication

- Remote Monitor with Authentication.

Authenticated Remote Monitor is a purchasable feature. In Authenticated Remote Monitor, verification is required when your radio turns on the microphone of a target radio.

When your radio initiates this feature on a target radio with User Authentication, a passphrase is required. The passphrase is preprogrammed into the target radio through CPS.

Both your radio and the target radio must be programmed to allow you to use this feature.

This feature stops after a programmed duration or when there is any user operation on the target radio.

6.6.7.1
Initiating Remote Monitor

Follow the procedure to initiate Remote Monitor on your radio.

1. Press the programmed **Remote Monitor** button.
2. Wait for acknowledgment.

   If successful:

   - A positive indicator tone sounds.
   - The display shows a positive mini notice.
   - The audio from the monitored radio starts playing for a programmed duration, and the display shows `Rem. Monitor`. Once the timer expires, an alert tone sounds, and the LED turns off.

   If unsuccessful:

   - A negative indicator tone sounds.
   - The display shows a negative mini notice.

6.6.8
Scan Lists

Scan lists are created and assigned to individual channels or groups. Your radio scans for voice activity by cycling through the channel or group sequence specified in the scan list for the current channel or group.

Your radio can support up to 250 scan lists, with a maximum of 16 members in a list.

Each scan list supports a mixture of both analog and digital entries.

6.6.9

Scan

Your radio cycles through the programmed scan list for the current channel looking for voice activity when you start a scan.

There are two ways of initiating scan:

Main Channel Scan (Manual)

Your radio scans all the channels or groups in your scan list. On entering scan, your radio may, depending on the settings, automatically start on the last scanned active channel or group, or on the channel where scan was initiated.

Auto Scan (Automatic)

Your radio automatically starts scanning when you select a channel or group that has Auto Scan enabled.

6.6.9.1

Turning Scan On or Off

Follow the procedure to turn scan on or off on your radio.

Do one of the following:

- Press the programmed **Scan** button to start or stop Scan.

If scan is enabled:

- The yellow LED blinks.
- A positive indicator tone sounds.

If scan is disabled:

- The LED turns off.
- A negative indicator tone sounds.

6.6.9.2

Responding to Transmissions During Scanning

During scanning, your radio stops on a channel or group where activity is detected. The radio stays on that channel for a programmed duration known as hang time. Follow the procedure to respond to transmissions during scanning.

1 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating

the channel is free for you to respond. Press the **PTT** button during hang time.

The red LED lights up.

2 Release the **PTT** button to listen.

The radio returns to scanning other channels or groups if you do not respond within the hang time.

6.6.9.3

Deleting Nuisance Channels

If a channel continually generates unwanted calls or noise, (termed a "nuisance" channel), you can temporarily remove the unwanted channel from the scan list. This capability does not apply to the channel designated as the Selected Channel. Follow the procedure to delete nuisance channels on your radio.

1 When your radio locks on to an unwanted or nuisance channel, press the programmed **Nuisance Channel Delete** button until you hear a tone.

2 Release the programmed **Nuisance Channel Delete** button.

The nuisance channel is deleted.

6.6.9.4

Restoring Nuisance Channels

Follow the procedure to restore nuisance channels on your radio.

Do one of the following:

- Turn the radio off and then power it on again.
- Stop and restart a scan using the programmed **Scan** button.
- Change the channel using the **Channel Selector Knob**.

6.6.10

Vote Scan

Vote Scan provides you with wide area coverage in areas where there are multiple base stations transmitting identical information on different analog channels.

Your radio scans analog channels of multiple base stations and performs a voting process to select the strongest received signal. Once that is established, your radio receives transmissions from that base station.

During a vote scan, the yellow LED blinks.

To respond to a transmission during a vote scan, see Responding to Transmissions During Scanning on page 160.

6.6.11

Call Indicator Settings

This feature allows you to configure call or text message ringing tones.

6.6.11.1

Escalating Alarm Tone Volume

The radio can be programmed to continually alert, when a radio call remains unanswered. This is done by automatically increasing the alarm tone volume over time. This feature is known as Escalert.

6.6.12

Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back.

This feature is accessible using a programmed **One Touch Access** button.

6.6.12.1

Responding to Call Alerts

When you receive a Call Alert:

- A repetitive tone sounds.
- The yellow LED blinks.

Press the **PTT** button within 4 seconds of receiving a Call Alert page to respond with a Private Call.

6.6.12.2

Making Call Alerts

Follow the procedure to make Call Alerts on your radio.

1 Press the programmed **One Touch Access** button.

The display shows `Call Alert` and the subscriber alias or ID. The red LED lights up.

2 Wait for acknowledgment.

If the Call Alert acknowledgment is received, two chirps sound.

If the Call Alert acknowledgment is not received, a negative indicator tone sounds.

6.6.13

Mute Mode

Mute Mode provides an option to silence all audio indicators on your radio.

When Mute Mode is initiated, all audio indicators are muted except higher priority features such as emergency operations.

When Mute Mode is exited, your radio resumes playing ongoing tones and audio transmissions.

IMPORTANT:
You can only enable either Face Down or Man Down one at a time. Both features cannot be enabled together.

6.6.13.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Do one of the following:

- Access this feature by using the programmed **Mute Mode** button.
- Access this feature by placing the radio in a face-down position momentarily.

Depending on radio model, the Face Down feature can be enabled either through the radio menu or by

your system administrator. Check with your dealer or system administrator for more information.

IMPORTANT:
User can only enable either Man Down or Face Down at a time. Both features cannot be enabled together.

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows `Mute Mode On`.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.
- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

6.6.13.2

Exiting Mute Mode

This feature can be exited automatically once the Mute Mode Timer expires.

Do one of the following to exit Mute mode manually:

- Press the programmed **Mute Mode** button.
- Press the **PTT** button on any entry.
- Place the radio in a face-up position momentarily.

The following occurs when Mute mode is disabled:

- Negative Indicator Tone sounds.
- Display shows `Mute Mode Off`.
- The blinking red LED turns off.
- **Mute Mode** icon disappears from home screen.
- Your radio unmutes and speaker state is restored.
- If the timer has not expired, Mute mode timer is stopped.

NOTICE:
Mute Mode is also exited if the user transmits voice or switches to an unprogrammed channel.

6.6.14

Emergency Operation

An Emergency Alarm is used to indicate a critical situation. You are able to initiate an Emergency at any time even when there is activity on the current channel.

Your dealer can set the duration of a button press for the programmed **Emergency** button, except for long press, which is similar with all other buttons:

Short Press
Duration between 0.05 seconds and 0.75 seconds.

Long Press
Duration between 1.00 second and 3.75 seconds.

The **Emergency** button is assigned with the Emergency On/Off feature. Check with your dealer for the assigned operation of the **Emergency** button.

NOTICE:
If a short press to the **Emergency** button initiates Emergency mode, then a long press to the same enables the radio to exit Emergency mode.

If a long press to the **Emergency** button initiates Emergency mode, then a short press to the same enables the radio to exit Emergency mode.

Your radio supports three Emergency Alarms:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

NOTICE:
Only one of the Emergency Alarms above can be assigned to the programmed **Emergency** button.

In addition, each alarm has the following types:

Regular
Radio transmits an alarm signal and shows audio and/or visual indicators.

Silent
Radio transmits an alarm signal without any audio or visual indicators. Radio receives calls without any sound through the speaker, until the programmed *hot mic* transmission period is over and/or you press the **PTT** button.

Silent with Voice
Radio transmits an alarm signal without any audio or visual indicators, but allow incoming calls to sound through the speaker. If *hot mic* is enabled, the incoming calls sound through the speaker after the programmed *hot mic* transmission period is over. The indicators only appear once you press the **PTT** button.

6.6.14.1

Sending Emergency Alarms

This feature allows you to send an Emergency Alarm, a non-voice signal, which triggers an alert indication on a group of radios. Your radio does not display any audio or visual indicators during Emergency mode when it is set to Silent.

Follow the procedure to send Emergency Alarms on your radio.

1 Press the programmed **Emergency On** button.

You see one of these results:

- The display shows `Tx Alarms` and the destination alias.
- The display shows `Tx Telegram` and the destination alias.

The red LED lights up. The **Emergency** icon appears.

2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
- The red LED blinks.
- The display shows `Alarm Sent`.

If unsuccessful after all retries have been exhausted:

- A tone sounds.
- A low-pitched tone sounds.
- The display shows `Alarm Failed`.

The radio exits the Emergency Alarm mode and returns to the Home screen.

The radio exits the Emergency Alarm mode.

6.6.14.2

Sending Emergency Alarms with Call

This feature allows you to send an Emergency Alarm with Call to a group of radios. Upon acknowledgement by a radio within the group, the group of radios can communicate over a programmed Emergency channel.

Follow the procedure to send Emergency Alarms with call on your radio.

1 Press the programmed **Emergency On** button.

- The display shows `Tx Alarm` and the destination alias.
- The display shows `Tx Telegram` and the destination alias.

The red LED lights up.

NOTICE:
If programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode. The Emergency Search tone can be programmed by your dealer or system administrator.

2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
- The red LED blinks.
- The display shows `Alarm Sent`.

3 Press the **PTT** button to make the call.

The red LED lights up.

4 Do one of the following:

- Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
- Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

5 Release the **PTT** button to listen.

6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

7 To exit the Emergency mode once the call ends, press the **Emergency Off** button.

6.6.14.3

Emergency Alarms with Voice to Follow

This feature allows you to send an Emergency Alarm with Voice to Follow to a group of radios. Your radio microphone is automatically activated, allowing you to communicate with the group of radios without pressing the **PTT** button. This activated microphone state is also known as *hot mic*.

If your radio has Emergency Cycle Mode enabled, repetitions of *hot mic* and receiving period are made for a programmed duration. During Emergency Cycle Mode, received calls sound through the speaker.

If you press the **PTT** button during the programmed receiving period, you hear a prohibit tone, indicating that you should release the **PTT** button. The radio ignores the **PTT** button press and remains in Emergency mode.

If you press the **PTT** button during *hot mic*, and continue to press it after the *hot mic* duration expires, the radio continues to transmit until you release the **PTT** button.

If the Emergency Alarm request fails, the radio does not retry to send the request, and enters the *hot mic* state directly.

NOTICE:
Some accessories may not support *hot mic*. Check with your dealer or system administrator for more information.

6.6.14.4

Sending Emergency Alarms with Voice to Follow

1 Press the programmed **Emergency On** button.

- The display shows `Tx Alarm` and the destination alias.

The red LED lights up. The **Emergency** icon appears.

2 Once the display shows `Alarm Sent`, speak clearly into the microphone.

When *hot mic* has been enabled, the radio automatically transmits without a **PTT** press until the *hot mic* duration expires. The red LED lights up while transmitting.

The radio automatically stops transmitting when:

- The cycling duration between *hot mic* and receiving calls expires, if Emergency Cycle Mode is enabled.
- The *hot mic* duration expires, if Emergency Cycle Mode is disabled.

3 Press the **Emergency Off** button to exit the Emergency mode.

The radio returns to the Home screen.

6.6.14.5

Receiving Emergency Alarms

When you receive an Emergency Alarm:

- A tone sounds.
- The red LED blinks.
- The display shows the **Emergency** icon, and the Emergency caller alias or if there is more than one alarm, all emergency caller aliases are displayed in an Alarm List.

NOTICE:
Your radio automatically acknowledges the Emergency Alarm (if enabled).

To return to home screen, perform the following actions:

a Press .

b Press ▲ or ▼ to Yes.

c Press OK to select.

The radio returns to the home screen and the display shows the Emergency icon.

6.6.14.6

Exiting Emergency Mode After Receiving the Emergency Alarm

Do one of the following to exit Emergency mode after receiving Emergency alarm:

- Change the channel.
- Press the **Emergency Off** button.

- Delete the alarm items.

6.6.14.7

Reinitiating Emergency Mode

Perform one of the following actions:

- Change the channel while the radio is in Emergency mode.

  NOTICE:
  You can reinitiate emergency mode only if you enable emergency alarm on the new channel.

- Press the programmed **Emergency On** button during an emergency initiation or transmission state.

The radio exits the Emergency mode, and reinitiates Emergency.

6.6.14.8

Exiting Emergency Mode

This feature is only applicable to the radio sending the Emergency Alarm.

Your radio exits Emergency mode when:

- An acknowledgment is received (for Emergency Alarm only).
- All retries to send the alarm have been exhausted.

NOTICE:
Your radio does not reinitiate the Emergency mode automatically when it is powered up again.

Follow the procedure to exit Emergency mode on your radio.

Press the programmed **Emergency Off** button.

6.6.15

Man Down

This feature prompts an emergency to be raised if there is a change in the motion of the radio, such as the tilt of the radio, motion and/or the lack of motion for a predefined time.

Following a change in the motion of the radio for a programmed duration, the radio pre-warns the user with an audio indicator indicating that a change in motion is detected.

If there is still no acknowledgment by the user before the predefined reminder timer expires, the radio initiates an Emergency Alarm or an Emergency Call. You can program the reminder timer by using CPS.

6.6.15.1

Turning the Man Down Feature On or Off

NOTICE:
The programmed **Man Down** button and Man Down settings are configured using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

If you disable the Man Down feature, the programmed alert tone sounds repeatedly until the Man Down feature is enabled. A device failure tone sounds when the Man Down feature fails while powering up. The device failure tone continues until the radio resumes normal operation.

- Press the programmed **Man Down** button to toggle the feature on or off.

6.6.16

Text Messaging

Your radio is able to receive data, for example a text message, from another radio or a text message application.

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message is 280 characters, including the subject line. The subject line only appears when you receive messages from e-mail applications.

NOTICE:
The maximum character length is only applicable for models with the latest software and hardware. For radio models with older software and hardware, the maximum length of a text message is 140 characters. Contact your dealer for more information.

6.6.16.1

Quick Text Messages

Your radio supports Quick Text messages as programmed by your dealer.

6.6.16.1.1

Sending Quick Text Messages

Follow the procedure to send predefined Quick Text messages on your radio to a predefined alias.

1 Press the programmed **Text Message** button.Press the programmed **One Touch Access** button.

2 Wait for acknowledgment.

If successful:

- The red LED lights up.
- Two chirps sound confirming that your message is being sent.
- A positive indicator tone sounds.

If unsuccessful:

- A low-pitch tone indicates that your message cannot be sent.
- A negative indicator tone sounds.

6.6.17

Privacy

This feature helps to prevent eavesdropping by unauthorized users on a channel by the use of a software-based scrambling solution. The signaling and user identification portions of a transmission are not scrambled.

Your radio must have privacy enabled on the channel to send a privacy-enabled transmission, although this is not a necessary requirement for receiving a transmission. While on a privacy-enabled channel, the radio is still able to receive clear or unscrambled transmissions.

Some radio models may not offer Privacy feature, or may have a different configuration. Check with your dealer or system administrator for more information.

Your radio supports two types of privacy, but only one can be assigned to your radio. They are:

- Basic Privacy
- Enhanced Privacy

To unscramble a privacy-enabled call or data transmission, your radio must be programmed to have the same Privacy Key for Basic Privacy, or the same Key Value and Key ID for Enhanced Privacy as the transmitting radio.

If your radio receives a scrambled call that is of a different Privacy Key, or different Key Value and Key ID, you either

hear a garbled transmission for Basic Privacy or nothing at all for Enhanced Privacy.

On a privacy-enabled channel, your radio is able to receive clear or unscrambled calls, depending on how your radio is programmed. In addition, your radio may play a warning tone or not, depending on how it is programmed.

The red LED lights up when the radio is transmitting, and double blinks when the radio is receiving an ongoing privacy-enabled transmission.

6.6.17.1
Turning Privacy On or Off

Follow the procedure to turn privacy on or off on your radio.

Press the programmed **Privacy** button.

6.6.18
Response Inhibit

This feature helps prevent your radio from responding to any incoming transmissions.

NOTICE:
Contact your dealer to determine how your radio has been programmed.

If enabled, your radio does not generate any outgoing transmissions in respond to incoming transmissions, such as Radio Check, Call Alert, Radio Disable, Remote Monitor, Automatic Registration Service (ARS), Responding to Private Messages, and Sending GNSS location reports.

Your radio cannot receive Confirmed Private Calls when this feature is enabled. However, your radio is able to manually send transmission.

6.6.18.1
Turning Response Inhibit On or Off

Follow the procedure to enable or disable Response Inhibit on your radio.

Press the programmed **Response Inhibit** button.

If successful:

- A positive indicator tone sounds.
- The display shows a momentary positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a momentary negative mini notice.

6.6.19

Security

This feature allows you to enable or disable any radio in the system.

For example, you may want to disable a stolen radio to prevent unauthorized users from using it, and enable the radio when it is recovered.

There are two ways to enable or disable a radio, with authentication and without authentication.

Authenticated Radio Disable is a purchasable feature. In Authenticated Radio Disable, verification is required when you enable or disable a radio. When your radio initiates this feature on a target radio with User Authentication, a passphrase is required. The passphrase is preprogrammed in the target radio through CPS.

You will not receive an acknowledgment if you press during Radio Enable or Radio Disable operation.

NOTICE:
Check with your dealer or system administrator for more information.

6.6.19.1

Disabling Radios

Follow the procedure to disable your radio.

1. Press the programmed **Radio Disable** button.
2. Wait for acknowledgment.

   If successful:

   - A positive indicator tone sounds.
   - The display shows a positive mini notice.

   If unsuccessful:

   - A negative indicator tone sounds.
   - The display shows a negative mini notice.

6.6.19.2

Enabling Radios

Follow the procedure to enable your radio.

1. Press the programmed **Radio Enable** button.

2 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows a positive mini notice.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.

6.6.20

Lone Worker

This feature prompts an emergency to be raised if there is no user activity, such as any radio button press or channel selection, for a predefined time.

Following no user activity for a programmed duration, the radio pre-warns you using an audio indicator once the inactivity timer expires.

If there is still no acknowledgment by you before the predefined reminder timer expires, the radio initiates an Emergency Alarm.

Only one of the following Emergency Alarms is assigned to this feature:

- Emergency Alarm
- Emergency Alarm with Call
- Emergency Alarm with Voice to Follow

The radio remains in the emergency state, allowing voice messages to proceed until action is taken. See Emergency Operation on page 165 for more information on ways to exit Emergency.

NOTICE:
Check with your dealer or system administrator for more information.

6.6.21

Auto-Range Transponder System

The Auto-Range Transponder System (ARTS) is an analog-only feature designed to inform you when your radio is out-of-range of other ARTS-equipped radios.

ARTS-equipped radios transmit or receive signals periodically to confirm that they are within range of each other.

Your radio provides indications of states as follows:

First-Time Alert
A tone sounds.

ARTS-in-Range Alert
A tone sounds, if programmed.

ARTS-Out-of-Range Alert
A tone sounds. The red LED rapidly blinks.

NOTICE:
Check with your dealer or system administrator for more information.

6.6.22

Password Lock

You can set a password to restrict access to your radio. Each time you turn on your radio, you are asked to enter the password.

Your radio supports a 4-digit password input.

These buttons function as a numeric keypad when entering password:

Channel Selector Knob
Position 1–9: Number 1–9

Position 10: Number 10

Side Buttons
Side Button 1–3: Number 1–3.

Your radio is unable to receive calls in locked state.

6.6.22.1

Accessing the Radio by Using Password

Turn on your radio.

1. Enter the four-digit password.
   - **a** To enter the first digit of the password, use the **Channel Selector Knob**.
   - **b** To enter each digit of the remaining three digits of the password, press Side Button 1, 2, or 3.
   - **c** To enter each digit of the remaining three digits of the password, press Side Button 1 or 2.

   A positive tone sounds for every digit entered.

2 Your radio automatically checks the validity of the password when you enter the last digit of the password.

If you enter the password correctly, the radio powers up.

If you enter the wrong password after the first and second attempt, your radio shows the following indications:

- A continuous tone sounds.
- The display shows `Wrong Password`.

Repeat step 1.

If you enter the wrong password after the third attempt, your radio shows the following indications:

- A tone sounds.
- The yellow LED double blinks.
- The display shows `Wrong Password` and then, `Radio Locked`.
- Your radio enters into locked state for 15 minutes.

Wait for the 15-minute locked state timer to end and then repeat step 1.

NOTICE:
If you turn off and turn your radio on again, the 15-minute timer restarts.

6.6.22.2

Unlocking Radios in Locked State

Your radio is unable to receive calls in locked state. Follow the procedure to unlock your radio in locked state.

Do one of the following:

- If the radio is powered on, wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 80 to access the radio.
- If the radio is powered off, power up the radio. Your radio restarts the 15-minute timer for locked state. A tone sounds. The yellow LED double blinks. The display shows `Radio Locked`.

  Wait for 15 minutes and then repeat the steps in Accessing the Radio by Using Password on page 80 to access the radio.

6.6.23

Over-the-Air Programming

Your dealer can remotely update your radio through Over-the-Air Programming (OTAP) without any physical connection. Additionally, some settings can also be configured by using OTAP.

When your radio undergoes OTAP, the red LED blinks.

When your radio receives high volume data:

- The channel becomes busy.
- A negative tone sounds if you press the **PTT** button.

When your radio powers up after automatic restart:

- If successful, the display shows `Sw Update Completed`.
- If the program update is unsuccessful, a tone sounds, the red LED blinks once, and the display shows `Sw Update Failed`.

NOTICE:
If the programming update is unsuccessful, the software update failure indications appear every time you turn on your radio. Contact your dealer to reprogram your radio with the latest software to eliminate the software update failure indications.

6.6.24

Transmit Inhibit

Transmit inhibit feature allow users to block all transmission from the radio.

NOTICE:
Bluetooth feature is available in Transmit Inhibit mode.

6.6.24.1

Enabling Transmit Inhibit

Follow the procedure to enable Transmit Inhibit.

Press the programmed **Transmit Inhibit** button.

- A positive indicator tone sounds.
- The display shows `Tx Inhibit On`.

NOTICE:
The status of the Transmit Inhibit does not change after the radio powers up.

6.6.24.2

Disabling Transmit Inhibit

Follow the procedure to disable Transmit Inhibit.

Press the programmed **Transmit Inhibit** button.

- A negative indicator tone sounds. Transmission is back to normal operation.

6.6.25

Wi-Fi Operation

This feature allows you to set up and connect to a Wi-Fi network. Wi-Fi supports updates for radio firmware, codeplug, and resources such as language packs and voice announcement.

Wi-Fi® is a registered trademark of Wi-Fi Alliance®.

Your radio supports WEP/WPA/WPA2-Personal and WPA/WPA2-Enterprise Wi-Fi networks.

WEP/WPA/WPA2-Personal Wi-Fi network

Uses pre-shared key (password) based authentication.

Pre-shared key can be entered by using the menu or CPS/RM.

WPA/WPA2-Enterprise Wi-Fi network

Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.

NOTICE:
Check with your dealer or system administrator to connect to WPA/WPA2-Enterprise Wi-Fi network.

The programmed **Wi-Fi On or Off** button is assigned by your dealer or system administrator. Check with your dealer or system administrator to determine how your radio has been programmed.

Voice Announcements for the programmed **Wi-Fi On or Off** button can be customized through CPS according to user requirements. Check with your dealer or system administrator for more information.

6.6.25.1

Turning Wi-Fi On or Off

Press the programmed **Wi-Fi On or Off** button.
Voice Announcement sounds Turning On Wi-Fi or Turning Off Wi-Fi.

6.6.25.2

Connecting to a Network Access Point

When you turn on Wi-Fi, the radio scans and connects to a network access point.

NOTICE:
The WPA-Enterprise Wi-Fi network access points are pre-configured. Check with your dealer or system administrator to determine how your radio has been programmed.

6.7

Utilities

This chapter explains the operations of the utility functions available in your radio.

6.7.1

Flexible Receive List

Flexible Receive List is a feature that allows you to create and assign members on the receive talkgroup list. Your radio can support a maximum of 16 members in the list. This feature is supported in Capacity Plus.

6.7.1.1

Turning Flexible Receive List On or Off

Follow the procedure to turn Flexible Receive List on or off.

6.7.2

Text-to-Speech

The Text-to-Speech feature can only be enabled by your dealer. If Text-to-Speech is enabled, the Voice Announcement feature is automatically disabled. If Voice Announcement is enabled, then the Text-to-Speech feature is automatically disabled.

This audio indicator can be customized per customer requirements.

6.7.2.1

Setting Text-to-Speech

Follow the procedure to set the Text-to-Speech feature.

6.7.3

Turning Acoustic Feedback Suppressor On or Off

The feature allows you to minimize acoustic feedback in received calls. Follow the procedure to turn Acoustic Feedback Suppressor on or off on your radio.

Press the programmed **AF Suppressor** button.

One of the following tone sounds:
Positive Indicator Tone

Acoustic Feedback Suppressor is activated.

Negative Indicator Tone
Acoustic Feedback Suppressor is not activated.

6.7.4

Turning Global Navigation Satellite System On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise location. GNSS includes Global Positioning System (GPS) and BeiDou Navigation Satellite System (BDS).

NOTICE:
Selected radio models may offer GPS and BDS. GNSS constellation is configured by using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

Press the programmed **GNSS** button to toggle GNSS on or off on your radio.

6.7.5

Turning Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts, if needed, except for incoming Emergency alert tone . Follow the procedure to turn tones and alerts on or off on your radio.

Press the programmed **All Tones/Alerts** button.

If successful:

- The Positive Indicator Tone sounds.
- All tones and alerts are turned on.

If unsuccessful:

- The Negative Indicator Tone sounds.
- All tones and alerts are turned off.

6.7.6

Power Levels

You can customize the power setting to high or low for each channel.

High
This enables communication with radios located at a considerable distance from you.

Low
This enables communication with radios in closer proximity.

6.7.6.1

Setting Power Levels

Follow the procedure to set the power levels on your radio.

Press the programmed **Power Level** button.

If successful:

- The Positive Indicator Tone sounds.
- Radio transmits at low power.

If unsuccessful:

- The Negative Indicator Tone sounds.
- Radio transmits at high power.

6.7.7

Voice Operating Transmission

The Voice Operating Transmission (VOX) allows you to initiate a hands-free voice-activated call on a programmed channel. The radio automatically transmits, for a programmed period, whenever the microphone on the VOX-capable accessory detects voice.

You can enable or disable VOX by doing one of the following:

- Turn the radio off and then power it on again to enable VOX.
- Change the channel by using the **Channel Selector** knob to enable VOX.
- Press the **PTT** button during radio operation to disable VOX.

NOTICE:
Turning this feature on or off is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

6.7.7.1

Turning Voice Operating Transmission On or Off

Follow the procedure to turn VOX on or off on your radio.

Press the programmed **VOX** button to toggle the feature on or off.

NOTICE:
If the Talk Permit Tone is enabled, use a trigger word to initiate the call. Wait for the Talk Permit Tone to finish before speaking clearly into the microphone. See Turning Talk Permit Tone On or Off for more information.

6.7.8

Turning Option Board On or Off

Option board capabilities within each channel can be assigned to programmable buttons. A channel can support up to 6 option board features. Follow the procedure to turn option board on or off on your radio.

Press the programmed **Option Board** button.

6.7.9

Turning Voice Announcement On or Off

This feature enables the radio to audibly indicates the current zone or channel the user has just assigned, or the programmable button the user has just pressed.

This audio indicator can be customized according to customer requirements. Follow the procedure to turn Voice Announcement on or off on your radio.

Press the programmed **Voice Announcement** button.

If successful:

- The Positive Indicator Tone sounds.
- All tones and alerts are turned on.

If unsuccessful:

- The Negative Indicator Tone sounds.
- All tones and alerts are turned off.

6.7.10

Switching Audio Route between Internal Radio Speaker and Wired Accessory

Follow the procedure to toggle audio routing between internal radio speaker and wired accessory.

You can toggle audio routing between the internal radio speaker and the speaker of a wired accessory with the condition that:

- The wired accessory with speaker is attached.

Press the programmed **Audio Toggle** button.

A tone sounds when the audio route has switched.

Powering down the radio or detaching the accessory resets the audio routing to the internal radio speaker.

6.7.11

Turning Intelligent Audio On or Off

Your radio automatically adjusts the audio volume to overcome current background noise in the environment, inclusive of both stationary and non-stationary noise sources. This is a receive-only feature and does not affect transmission audio.

Press the programmed **Intelligent Audio** button.

NOTICE:
This feature is not applicable during a Bluetooth session.

6.7.12

Turning Trill Enhancement On or Off

You can enable this feature when you are speaking in a language that contains many words with alveolar trill (rolling "R") pronunciations. Follow the procedure to turn Trill Enhancement on or off on your radio.

Press the programmed **Trill Enhancement** button to toggle the feature on or off.

If successful:

- The Positive Indicator Tone sounds.
- All tones and alerts are turned on.

If unsuccessful:

- The Negative Indicator Tone sounds.

- All tones and alerts are turned off.

Authorized Accessories List

Motorola Solutions provides the following approved accessories to improve the productivity of your digital portable two-way radio.

Antennas

- UHF, 403–450 MHz, Stubby Antenna (PMAE4069_)
- UHF, 440–490 MHz, Stubby Antenna (PMAE4070_)
- UHF, 470–527 MHz, Stubby Antenna (PMAE4071_)
- UHF, 403–527 MHz, Slim Whip Antenna (PMAE4079_)

Batteries

- IMPRES Hi-Capacity Li-Ion, 2300 mAh Battery (FM) (NNTN8129_)
- Impres Hi-Capacity Li-Ion, 2500 mAh IP57 Battery, 2300M 2500T (NNTN8560_)
- Battery Standard IP67 Li-Ion 1500M 1600T (PMNN4406_R)
- IMPRES Hi-Capacity Li-Ion, 2250 mAh Battery (PMNN4409_R)
- Ultra High, Li-Ion Battery 2750 mAh (Replacement for PMNN4409_) (PMNN4454_)
- IP68 Li-Ion Battery (Replacement for PMNN4463_) (PMNN4543_)
- IMPRES Li-Ion, 3000 mAh IP68 Battery for Vibrating Belt Clip (PMNN4488_)
- IMPRES Li-Ion, 2900 mAh TIA 4950 HAZLOC IP68 Battery (PMNN4489_)
- IMPRES Slim Li-Ion, 2100 mAh IP68 Battery (PMNN4491_)
- IMPRES Li-Ion, 3000 mAh IP68 Battery, low voltage (PMNN4493_)
- Core Li-Ion, 2450 mAh IP68 Battery (PMNN4543_)
- IMPRES Li-Ion, 2450 mAh IP68 Battery (PMNN4544_)

Carry Devices

- Belt Clip for 2 in. Belt Width (PMLN4651_)
- 2.5 in. Replacement Leather Swivel Belt Loop (PMLN5610_)
- 3 in. Replacement Leather Swivel Belt Loop (PMLN5611_)

- Hard Leather Carry Case with 3 in. Fixed Belt Loop for Full-Keypad Radio (PMLN5838_)
- Hard Leather Carry Case with 3 in. Fixed Belt Loop for Non-Display Radio (PMLN5839_)
- Hard Leather Carry Case with 3 in. Swivel Belt Loop for Full-Keypad Radio (PMLN5840_)
- Hard Leather Carry Case with 2.5 in. Swivel Belt Loop for Full-Keypad and Limited-Keypad Radio (PMLN5842_)
- Hard Leather Carry Case with 2.5 in. Swivel Belt Loop for Non-Display Radio (PMLN5843_)
- Nylon Carry Case with 3 in. Fixed Belt Loop for Full-Keypad and Limited-Keypad Radio (PMLN5844_)
- Nylon Carry Case with 3 in. Fixed Belt Loop for Non-Display Radio (PMLN5845_)
- Hard Leather Carry Case with 3 in. Swivel Belt Loop for Non-Display Radio (PMLN5846_)
- Belt Clip for 2.5 in. Belt Width (PMLN7008_)
- Vibrating Belt Clip for 2.5 in. Belt Width (PMLN7296_)
- Leather Radio Strap (RLN6486_)[6]
- Leather Radio Strap, Size XL (RLN6487_)[6]
- Anti-Sway Leather Radio Strap (RLN6488_)[6]

Chargers

- Charger SWM with Power Supplyer that includes 2571886T01, Euro Plug (EPNN9286_)
- IMPRES Battery Fleet Management License Key (HKVN4036_)
- Wall Mount Bracket for IMPRES Multi-Unit Charger (NLN7967_)[7]
- IMPRES Battery Reader (NNTN7392_)
- IMPRES Vehicular Charger (NNTN7616_)
- IMPRES Battery Fleet Management Multi-Unit Charger Interface Unit (NNTN7677_)[7]
- IMPRES Battery Fleet Management Single-Unit Charger Interface Unit (NNTN8045_)[7]
- Core Single-Unit Charger, Base Only (NNTN8117_)

[6] Your radio is compatible with the accessories listed here. Contact your dealer for details.
[7] Your radio is compatible with the accessories listed here. Contact your dealer for details.

- Travel Charger, Rapid Rate with Voltage Regulated Vehicular Charger Adapter, Custom Charger Base, Mounting Bracket, and Coil Cord (NNTN8525_)[7]
- Micro USB Switched-Mode Power Supply, China Plug (PMPN4008_)
- Power Supply Adaptor, Power-Wall Cube, 14 W, 207–253 V, China Plug (PS000037A05)
- IMPRES Multi-Unit Charger, Base Only (WPLN4211_)
- IMPRES Multi-Unit Charger with Display Base Only (WPLN4218_)
- IMPRES Single-Unit Charger, China Plug (WPLN4245_)
- IMPRES Single-Unit Charger, 1.25 A, 230 VAC, Australia/New Zealand/APME (WPLN4256_)
- Transformer, 15 W, Waris, China (2564060M01)

Earbuds and Earpieces

- Receive-Only Earbud (AARLN4885_)
- Earpiece with Volume Control (BDN6666_)
- Receive-Only Earpiece with Volume Control, Black (BDN6728_)
- D-Shell Receive-Only Earpiece (PMLN4620_)
- D-Shell Earset (PMLN5096_)
- IMPRES Temple Transducer with In-line Push-to-Talk (PMLN5101_)
- Ear Receiver with In-line Mic/PTT, MagOne (PMLN5973_)
- Swivel Earpiece with MIC/PTT, MagOne (PMLN5975_)
- Earset with Boom MIC In-line PTT, MagOne (PMLN5976_)
- Earbud with In-line Mic/PTT, MagOne (PMLN6069_)
- Flexible Fit Swivel Earpiece with Boom Mic (PMLN7181_)[8]
- Flexible Fit Swivel Earpiece with Boom Mic, Multipack (PMLN7203_)[8]
- Completely Discreet Earpiece Kit (PMLN7696_)[8]
- Operational Critical Wireless Earpiece PTT (PMLN7851_)
- Receive-Only Earpiece (RLN4941_)
- Receive-Only Noise Surveillance Kit, Black (RLN5313_)

[8] Your radio is compatible with the accessories listed here. Contact your dealer for details.

- Receive-Only Noise Surveillance Kit, Beige (RLN5314_)
- Standard Earpiece, Black (RLN6279_)
- Standard Earpiece, Beige (RLN6280_)
- Replacement Foam Ear Pad and Windscreen (RLN6283_)
- Earpiece with Acoustic Tube Assembly, Beige (RLN6284_)
- Earpiece with Acoustic Tube Assembly, Black (RLN6285_)
- Earpiece with High Noise Kit, Beige (RLN6288_)
- Earpiece with High Noise Kit, Black (RLN6289_)
- Clear EP7-Small Hearing Protectors [Sonic Defenders] Ultra Earplugs, Noise reduction = 28 dB (RLN6511_)[8]
- Clear EP7-Medium Hearing Protectors [Sonic Defenders] Ultra Earplugs, Noise reduction = 28 dB (RLN6512_)[8]
- Clear EP7-Large Hearing Protectors [Sonic Defenders] Ultra Earplugs, Noise reduction = 28 dB (RLN6513_)[8]
- Swivel Earpiece with In-Line Microphone for Bluetooth Accessory Kit Pod, Pack of 3 (RLN6550_)[8]
- 1-Wire Earbud, 29 cm Cord, Black (NNTN8294_)
- 1-Wire Earbud, 116 cm Cord, Black (NNTN8295_)
- Wireless Covert Kit, includes two sets of 2-Wire Earbuds (1 Black and 1 White), 1-Wire Earbud (Black), and a 3.5 mm Adapter to plug into any off-the-shelf headphones (NNTN8296_)
- Eartips for Operations Critical Wireless Earbuds (Replacement for NNTN8294_ and NNTN8295_) (NNTN8299)
- Over-the-Ear Receiver for Remote Speaker Microphone (WADN4190_)
- Wireless Neckloop Y-adapter and retention hook for Completely Discreet Kit (NNTN8385_)[8]

Headsets and Headset Accessories

- Earpiece 12 in. Cable (Replacement for NNTN8125_) (NTN2572_)
- Non-Secure Wireless Headset and Push-to-Talk Device with Push-to-Talk Audio, 12 in. Cable (NNTN8189_)
- Push-to-Talk Module, without Charger (NNTN8191_)
- Ultra-Lite Headset (PMLN5102_)
- Lightweight Headset with Boom Mic and PTT, MagOne (PMLN5974_)

- Breeze Headset with Boom MIC and PTT, MagOne (PMLN5979_)
- Business Wireless Accessory Kit (PMLN6463_)
- Next Generation Behind-the-Head Heavy Duty Headset GCAI (PMLN6852_)
- Next Generation Behind-the-Head Heavy Duty Headset GCAI TIA 4950 (PMLN6853_)
- Over-the-Head Heavy Duty Headset with GCAI (PMLN7466_)
- Over-the-Head Heavy Duty Headset/TIA with GCAI (PMLN7467_)
- XBT Behind-the-Neck, Non-Secure Wireless Heavy Duty Headset (RLN6490_)
- XBT Overhead, Non-secure Wireless Heavy Duty Headset (RLN6491_)
- Lightweight Headset (RMN5058_)

Remote Speaker Microphones

- IMPRES Remote Speaker Microphone, IP57 (NNTN8382_)
- IMPRES Remote Speaker Microphone, with Earjack (NNTN8383_)
- Remote Speaker Microphone (PMMN4024_)
- IMPRES Remote Speaker Microphone (PMMN4025_)
- Remote Speaker Microphone, Submersible (IP57) (PMMN4040_)
- IMPRES Remote Speaker Microphone, with Volume, IP57 (PMMN4046_)
- IMPRES Remote Speaker Microphone, with Earjack, Noise Canceling (PMMN4050_)
- IMPRES Remote Speaker Microphone Large, APX IP68 Delta T (GCAI) (PMMN4083_)[9]
- IMPRES IP68 Heavy Duty Remote Speaker Microphone (PMMN4099_)
- IMPRES Noise Cancelling Remote Speaker Microphone, 3.5 mm Jack, Long Coil Cable, with Nexus Connector (PMMN4102_)
- IMPRES Noise Cancelling Remote Speaker Microphone, 3.5 mm Jack, Long Coil Cable, with Nexus Connector (Green Housing) (PMMN4102B_GRN)

[9] Your radio is compatible with the accessories listed here. Contact your dealer for details.

- IMPRES OMNI Remote Speaker Microphone, 3.5 mm Jack, Long Coil Cable, with Nexus Connector (PMMN4113_)
- Remote Speaker Microphone Replacement Coil Cord Kit (For Use with PMMN4024_ and PMMN4040_) (RLN6074_)
- Remote Speaker Microphone Replacement Coil Cord Kit (For Use with PMMN4025_ , PMMN4046_, PMMN4050_) (RLN6075_)
- Operational Critical Wireless RSM (RLN6561_/ MDRLN6561_)

Surveillance Accessories

- 1-Wire Surveillance Kit with Translucent Tube, Black (NNTN8459_)
- IMPRES 3-Wire Surveillance with Clear, Comfortable Acoustic Tube, Black (PMLN6123_)
- IMPRES 3-Wire Surveillance with Clear, Comfortable Acoustic Tube, Beige (PMLN6124_)
- Receive Only Surveillance Kit, Black (Single Wire) (PMLN6125_)
- Receive Only Surveillance Kit, Beige (Single Wire) (PMLN6126_)
- IMPRES 2-Wire Surveillance Kit, Black (PMLN6127_)
- IMPRES 2-Wire Surveillance Kit, Beige (PMLN6128_)
- IMPRES 2-Wire Surveillance Kit with Clear, Comfortable Acoustic Tube, Black (PMLN6129_)
- IMPRES 2-Wire Surveillance Kit with Clear, Comfortable Acoustic Tube, Beige (PMLN6130_)
- Operations Critical Wireless 1-Wire Surveillance Kit with translucent tube (PMLN7052_)[10]
- Small Custom Earpiece for Surveillance Kits, Right Ear (RLN4760_)
- Medium Custom Earpiece for Surveillance Kits, Right Ear (RLN4761_)
- Large Custom Earpiece for Surveillance Kits, Right Ear (RLN4762_)
- Small Custom Earpiece for Surveillance Kits, Left Ear (RLN4763_)
- Medium Custom Earpiece for Surveillance Kits, Left Ear (RLN4764_)

[10] Your radio is compatible with the accessories listed here. Contact your dealer for details.

- Large Custom Earpiece for Surveillance Kits, Left Ear (RLN4765_)
- Replacement Foam Plugs, Pack of 50 (For Use with RLN5886_) (RLN6281_)
- Replacement Ear Tips, Clear, Pack of 50 (For Use with RLN5887_) (RLN6282_)

Miscellaneous Accessories

- Dust Cover Assembly (15012157001)
- Replacement Strap for RLN4570_ and HLN6602_ Chest Packs (1505596Z02)
- Antenna Identification Band – Grey (32012144001)
- Antenna Identification Band – Yellow (32012144002)
- Antenna Identification Band – Green (32012144003)
- Antenna Identification Band – Blue (32012144004)
- Antenna Identification Band – Purple (32012144005)
- Belt (4200865599)
- Universal RadioPAK Extension Belt (4280384F89)
- SMA To BNC Adapter, reworked (5880348B33)
- Screen Protector, Clear (single pack contains one unit) (AY000267A01_) [11]
- Universal Chest Pack (HLN6602_)
- Waterproof Bag, includes Large Carry Strap (HLN9985_)
- Shoulder Strap (Attaches to D-Ring on Carry Case) (NTN5243_)
- DMR Portable Programming Cable (PMKN4012_)
- Test and Alignment Cable for programming (PMKN4013_)
- DMR Portable Telemetry Cable (PMKN4040_)
- IMPRES Portable Non PC Adapter (PMKN4071_)
- TTR and Programming Cable for test alignment (PMKN4126_)
- Tactical GCAI PTT/VOX Interface Module (PMLN6765_)
- Tactical Remote Body Push-to-Talk (PMLN6767_)
- Push-to-Talk Interface Module (PMLN6827_)
- Tactical Remote Ring Push-to-Talk (PMLN6830_)

[11] Your radio is compatible with the accessories listed here. Contact your dealer for details.

- Tactical Heavy Duty Temple Transducer with Noise Cancelling Boom Microphone (PMLN6833_)
- Small Clip, Epaulet Strap (RLN4295_)
- Break-A-Way Chest Pack (RLN4570_)
- Universal Radio Pack and Utility Case (Fanny Pack) (RLN4815_)

目录

重要安全信息

便携式双向对讲机的射频能量辐射和产品安全手册

小心:

此对讲机仅限职业应用。在使用本对讲机之前，请阅读便携式双向对讲机的射频能量辐射和产品安全手册，其中包括安全操作说明以及射频能量信息和控制，以确保符合适用的标准和法规。

软件版本

软件版本 **R02.21.01.0000** 或更高版本支持以下章节中介绍的所有功能。

有关详细信息，请联系您的经销商或管理员。

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欧盟 (EU) 废弃电子电气设备 (WEEE) 指令

欧盟的 WEEE 指令要求销售到欧盟国家/地区的产品必须在产品上（有时是在包装上）张贴带叉号的垃圾箱标签。

根据 WEEE 指令的定义，此带叉号的垃圾箱标签表示欧盟国家/地区的客户和最终用户不得将此电子电气设备或附件作为生活垃圾处置。

欧盟国家/地区的客户或最终用户应联系当地的设备供应商代表或服务中心，以了解有关各个国家/地区废物收集系统的相关信息。

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对讲机护理

本节介绍对讲机的基本操作预防措施。

表 1 ： IP 规格

IP 规格	说明
IP67	让对讲机可耐受恶劣的现场工作条件，例如浸没在水中。

小心:
请勿拆卸对讲机。这样可能会损坏对讲机密封垫，并造成通往对讲机内部的漏洞。对讲机维护只能在可以检测对讲机的密封性和更换密封件的服务站进行。

- 如果对讲机被浸没在水中，用力挥动对讲机，将积留在扬声器网罩和麦克风接口内的水甩出。积留的水分会导致音质降低。
- 如果对讲机的电池触点部位接触到水，在装入电池前，将对讲机和电池的电池触点擦干净并晾干。残留的水分会导致对讲机短路。
- 如果对讲机被浸没在腐蚀性液体中（例如盐水），用清水将对讲机和电池冲洗干净，然后将对讲机和电池凉干。
- 清洁对讲机的外部表面时，请使用中性餐洗剂和清水的稀释溶液（例如一茶匙餐洗剂和一加仑水）。
- 切勿刺戳位于电池触点下方的对讲机壳上的孔（洞）。该孔能够使对讲机内的压力保持平衡。如果刺戳该孔，液体会渗漏进对讲机，可能会导致对讲机丧失防水性能。
- 切勿堵塞或覆盖该孔，即使是标签也不可以。
- 确保不让油泥接触到该孔。
- 配备有适当天线的对讲机所设计的防水性能为：最大防水深度为 1 米（3.28 英尺），最长浸没时间为 30 分钟。越过最大限值或不使用天线可能会导致对讲机损坏。
- 清洁对讲机时，禁止使用高压喷水，因为其压力会大于 1 米深的水压并可能会导致水渗漏进对讲机。

简介

本用户指南介绍了对讲机操作。本手册中的所有视觉提示不适用于非显屏机型。

您的经销商或系统管理员可能已经针对您的具体需要对对讲机进行了定制。请联系您的经销商或系统管理员了解详情。

您可以向您的经销商或系统管理员咨询以下事项：

- 您的对讲机是否带有预设传统信道？
- 哪些按钮已预设为访问其他功能？
- 哪些可选附件满足您的需求？
- 使用对讲机实现有效通信的最佳做法是什么？
- 怎样的维护过程有助于延长对讲机寿命？

1.1 图标信息

在本手册中，所述的图标用于表示在传统模拟模式或传统数字模式中支持的功能。

表示**仅在传统模拟模式下**有效的功能。

表示**仅在传统数字模式下**有效的功能。

对于在传统模拟和数字模式下均可用的功能，两个图标均不显示。

本手册中的所有视觉提示不适用于非显屏机型。

1.2 传统模拟和数字模式

对讲机中的每个信道都可配置为传统模拟信道或传统数字信道。

1：信道选择旋钮

从数字模式切换到模拟模式时，某些功能不可用。

对讲机也有在模拟和数字模式下均可使用的功能。各种功能工作方式之间的微小差别不影响对讲机性能。

注意:
在双模扫描期间，对讲机也可以在数字模式和模拟模式之间进行切换。有关详细信息，请参阅扫描，页 133。

1.3

IP 站点连接

此功能允许您的对讲机连接至通过互联网协议 (IP) 网络连接的不同可用站点，从而将传统通信扩展到单个站点范围之外。这是传统的多站点模式。

当对讲机从一个站点的范围移到另一个站点的范围内时，对讲机连接到新站点的中继器以发送或接收呼叫或数据传输信号。这可以自动或手动完成，具体取决于您的设置。

在自动站点搜索中，当来自当前站点的信号较弱或对讲机无法检测到来自当前站点的任何信号时，对讲机将扫描所有可用站点。对讲机然后锁定具有最强接收信号强度指示 (RSSI) 值的中继器。

在手动站点搜索中，对讲机搜索漫游列表中当前在范围内的下一个站点（但该站点可能不具有最强的信号）并锁定该站点。

注意:
每个信道只能激活“扫描”或“漫游”，但不能同时激活这两者。

可以将激活了此功能的信道添加到特定的漫游列表中。在自动漫游操作过程中，对讲机搜索漫游列表中的信道以确定最佳站点。一个漫游列表最多支持 16 个信道（包括选定的信道）。

注意:
您不能在漫游列表中手动添加或删除条目。有关详细信息，请联系您的经销商。

1.4

智能信道共享

智能信道共享是用于单站点和多站点的入门级系统。单站点和多站点动态集群可提供更佳的容量和覆盖范围。

1.4.1

智能信道共享--单站点

“智能信道共享--单站点”是 MOTOTRBO 对讲机系统中的单站点集群配置，它使用信道池支持数百个用户以及最多 254 个通话组。此功能允许您的对讲机在处于中继器模式时有效地利用多个可用的预设信道。

如果您尝试使用可预设按钮访问不适用于“智能信道共享--单站点”的功能，您将听到一声否定提示音。

您的对讲机还有在传统数字模式、IP 站点连接、智能信道共享中均可使用的功能。然而，各种功能工作方式之间的微小差别不影响对讲机性能。

有关此配置的详细信息，请咨询您的经销商或系统管理员。

1.4.2

智能信道共享--多站点

“智能信道共享--多站点”是 MOTOTRBO 对讲机系统中的多信道集群配置，它将智能信道共享和 IP 站点连接配置的优点结合在了一起。

“智能信道共享--多站点”允许您的对讲机连接至使用 IP 网络连接的不同可用站点，从而将集群通信扩展到单个站点范围之外。它还通过有效利用每个可用站点支持的一系列可用预设信道的组合增加了容量。

当对讲机从一个站点的范围移到另一个站点的范围内时，对讲机连接到新站点的中继器以发送或接收呼叫/数据传输信号。根据您的设置，此操作可以自动或手动进行。

如果将对讲机设置为自动执行此操作，则当来自当前站点的信号较弱或对讲机无法检测到来自当前站点的任何信号时，它将扫描所有可用站点。然后，它将锁定具有最强 RSSI 值的中继器。

在手动站点搜索中，对讲机搜索漫游列表中当前在范围内的下一个站点（但该站点可能不具有最强的信号）并锁定该站点。

任何启用了“智能信道共享--多站点”的信道均可添加到特定的漫游列表中。在自动漫游操作过程中，对讲机将搜索这些信道以确定最佳站点。

注意:
您不能在漫游列表中手动添加或删除条目。请联系您的经销商或系统管理员了解详情。

与“智能信道共享--单站点”类似，不适用于“智能信道共享--多站点”的功能的图标将不显示在菜单中。如果您尝试使用可预设按钮访问不适用于“智能信道共享--多站点”的功能，您将听到一声否定提示音。

使用入门

“使用入门”提供有关为对讲机做好使用准备的说明。

2.1 为电池充电

此款对讲机由镍氢电池 (NiMH) 或锂离子 (Li-Ion) 电池供电。

充电时请关闭对讲机。

- 为了遵守保修条款和防止损坏，请务必使用充电器用户手册中要求经 Motorola Solutions 认可的充电器来为电池充电。
- 为了获得最佳电池性能，初次使用时新电池充电时间应为 14 到 16 小时。

  电池最好在室温下进行充电。
- 为了取得最佳电池寿命和宝贵的电池数据，请使用 IMPRES™ 充电器为 IMPRES 电池充电。仅使用 IMPRES 充电器充电的 IMPRES 电池可以在标准的 Motorola Solutions 优质电池保修期之上得到 6 个月的延长容量保证期。

2.2 安装电池

按照步骤将电池安装到您的对讲机。

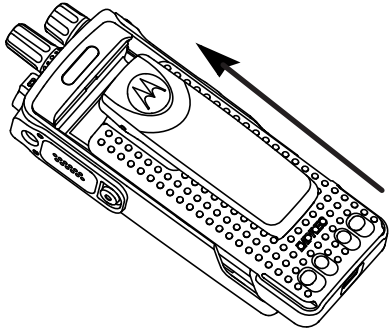
此电池不匹配提醒功能仅适用于 IMPRES 电池和套件编号已编入可擦除可编程只读存储器 (EPROM) 内的非 IMPRES 电池。

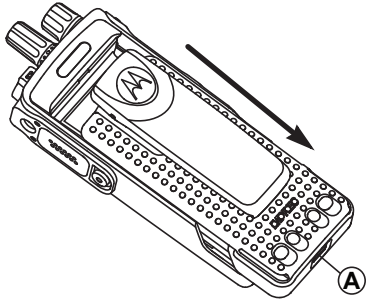
如果在对讲机中装入不受支持的电池，则对讲机会发出提示音，显示屏将显示未知电池，且电池图标处于禁用状态。

如果您将 UL 电池装入经过 FM 认证的对讲机（反之亦然），则对讲机认证将失效。您可以在 CPS 中预设对讲机，以便在出现电池不匹配时提醒您。咨询经销商或系统管理员以确定对讲机的预设情况。

1 将电池与对讲机背面的电池滑轨对齐。

2 按牢电池，将电池往上滑动，直到锁片锁到正确位置。





3 将电池锁拨到锁定位置。

4 要取出电池，请先关闭对讲机。将标记为 **A** 的电池锁拨到解锁位置并按住，然后将电池向下滑动脱离电池滑轨。

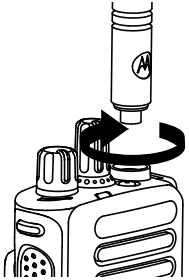
2.3

安装天线

关闭对讲机。

将天线插入插孔中并顺时针转动。

注意:
要取得最佳防水和防尘效果，请确保天线安装牢固。



注意:
要取出天线，请以逆时针方向旋转天线。

小心:
要防止损坏，请只使用 MOTOTRBO 天线替换出现故障的天线。

2.4

装上便携皮套

1 将便携皮套上的滑轨与电池上的凹槽对齐。

2 向下按，直到您听到一声“咔嗒”声。

2.5

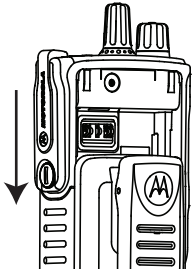
安装通用接口护盖

通用接口位于对讲机的天线一侧。它用于将 MOTOTRBO 附件连接到您的对讲机。

在不使用通用接口时，请装回通用接口护盖或防尘罩。

1 将护盖的倾斜端插入通用接口上方的卡槽中。

2 向下按护盖，使防尘罩正确卡在通用接口中。



3 顺时针旋转指旋螺钉，将接口盖固定在对讲机上。

2.6 清洁通用接口护盖

如果对讲机暴露在水中，请在安装附件或更换防尘罩前干燥通用连接器。如果对讲机暴露在盐水或污染物中，请执行以下清洁步骤。

1. 将一茶匙中性餐洗剂和一加仑水混合，制成浓度为 0.5% 的溶液。
2. 此解决方案仅用于清洁对讲机的外部表面。应用解决方案时应使用硬质非金属短毛刷小心清理。
3. 使用一块柔软的无绒布彻底干燥对讲机。确保通用接口的接触点表面清洁且干燥。
4. 在通用接口的接触点表面应用 Deoxit Gold 清洁剂或润滑剂笔（制造商 CAIG 实验室，部件号 G100P）。
5. 安装附件至通用接口以测试连接性。

注意:
请勿将对讲机浸没在水中。确保没有过量的清洁剂残留在通用连接器、控件或缝隙之间。

每月清洁一次对讲机以进行维护。对于更恶劣的环境，例如石化厂或高盐度海洋环境，对讲机的清洁频率应更高。

2.7 取下通用接口护盖（防尘罩）

1. 向下推动锁片。
2. 向上提起护盖，然后向下滑动防尘罩，从通用接口上拆下防尘罩。

当不使用通用接口时，请装回防尘罩。

2.8 打开对讲机

顺时针旋转**开/关/音量控制**旋钮，直到听到一声“咔嗒”声。

如果成功开机，对讲机会显示以下指示：

- 系统将发出一声提示音。

  注意:
  如果禁用“提示音/提示”功能，则开机时没有提示音。

- 红色 LED 指示灯亮起。
- 显示屏显示欢迎信息或图像。

如果禁用 LED 指示灯，则主屏幕不会在开机时亮起。

如果您的对讲机没有开机，请检查电池。确保电池已充电并正确安装。如果对讲机仍没有开机，请与经销商联系。

2.9 关闭对讲机

逆时针方向旋转**开/关/音量控制**旋钮，直到听到一声“咔嗒”声。

2.10 调节音量

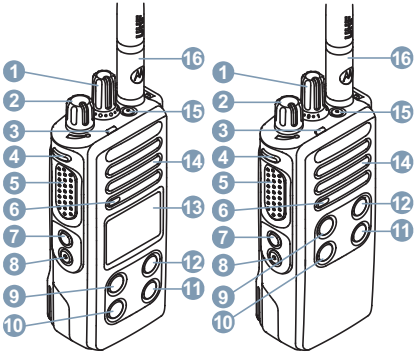
要调节对讲机音量，请执行以下操作之一：

- 要调高音量，请顺时针旋转**开/关/音量控制**旋钮。
- 要调低音量，请逆时针旋转**开/关/音量控制**旋钮。

注意:
对讲机可通过预设来设置最低音量补偿，这种情况下音量无法降低至所设置的最低音量以下。

对讲机控件

本章介绍了控制对讲机的按钮和功能。



1 信道选择旋钮

2 开/关/音量控制旋钮

3 LED 指示灯

4 侧边按钮 1[1]

5 通话按键 (**PTT**)

6 麦克风

7 侧边按钮 2[1]

8 侧边按钮 3[1]

9 按键 A

10 按键 B

11 按键 C

12 按键 D

13 显示

14 扬声器

15 紧急呼叫按钮 [1]

16 天线

[1] 以下按钮可预设。

Capacity Max

Capacity Max 是基于 MOTOTRBO 控制信道的集群对讲机系统。

MOTOTRBO 数字对讲机产品是 Motorola Solutions 主要面向商业和工业用户营销的产品。MOTOTRBO 使用欧洲电信标准协会 (ETSI) 数字移动无线电 (DMR) 标准（即双时隙时分多址 (TDMA)）将同步语音或数据整合至 12.5 kHz 信道（相当于 6.25 kHz）中。

4.1

通话按键 (PTT)

PTT 按钮有两个基本用途。

- 正在进行呼叫时，**PTT** 按钮可让对讲机向该呼叫中的其他对讲机发射信号。按下 **PTT** 按钮时，可激活麦克风。
- 当不进行呼叫时，**PTT** 按钮用于发起一次新呼叫。

按住**通话按键**进行通话。释放 **PTT** 按钮接听。

如果启用了通话许可提示音或**通话按键**侧音，则等待短提示音结束后即可开始通话。

如果您的对讲机激活了“信道空闲提示”功能（经销商进行了预设），则当目标对讲机（接收您呼叫的对讲机）释放**通话按键**时，您将会听到一声短提示音，表示此信道空闲，等待您的回答。

如果呼叫中断（例如，当对讲机接收到紧急呼叫时），您将听到一声连续的通话禁止提示音。您应释放 **PTT** 按钮。

4.2

可预设按钮

根据按下按钮的持续时间，您的经销商可将可预设按钮设置为对讲机功能的快捷键。

短按

快速按下并释放。

长按

按住然后保持预设的时间。

注意:
请参阅紧急操作，页 137 详细了解**紧急呼叫**按钮的预设持续时间。

4.3

可分配的对讲机功能

可通过您的经销商或系统管理员将以下对讲机功能分配到可编程的按钮。

蓝牙® 音频切换
在内部对讲机扬声器和已启用蓝牙功能的外部附件之间切换音频路由。

蓝牙连接
启动蓝牙查找并连接操作。

蓝牙断开
终止您的对讲机和任何已启用蓝牙的设备之间的所有现有蓝牙连接。

蓝牙可发现
使对讲机进入蓝牙可发现模式。

取消
允许用户结束选定呼叫。

呼叫优先级高
指示“呼叫优先级高”已启用。

紧急呼叫
根据预设，发起或取消紧急呼叫。

智能音频
打开或关闭智能音频。

手动站点漫游
启动手动站点搜索。

麦克风 AGC
打开或关闭内部麦克风自动增益控制 (AGC) 功能。

单键接入
直接启动预定义的广播呼叫、单呼、电话呼叫或组呼、呼叫提示或预制短信。

选件板功能
在支持选件板功能的信道上打开或关闭选件板功能。

电话退出
结束电话呼叫。

遥感遥测控制
控制本地或远程对讲机上的输出引脚。

切换呼叫优先级
让对讲机可以进入呼叫优先级高/正常状态。

颤音增强功能
打开或关闭颤音增强功能

语音提示开/关
打开或关闭语音提示。

区域切换
允许对讲机用户在区域 1 和区域 2 之间切换。

4.4
可分配的设置或实用功能

可将以下对讲机设置或实用功能分配到可编程的按钮。

音调/提示
打开或关闭全部音调和提示。

显示模式
在日间/夜间显示模式之间进行切换。

电量级别
在高低功率之间切换发射功率级别。

4.5
状态指示灯

本章介绍对讲机中使用的状态指示灯和音频提示音。

4.5.1
图标

下面是出现在对讲机显示屏上的图标。

表 2 ： 显示屏图标

以下图标出现在对讲机显示屏顶部的状态栏中。图标按出现或使用顺序排列在最左侧，并为信道特定图标。

	电池 电量条的数量 (0–4) 表示电池中的剩余电量。电池电量低时图标将闪烁。
	蓝牙已连接 蓝牙功能已启用。当连接了一个远程蓝牙设备时，此图标将保持亮起状态。
	未连接蓝牙 蓝牙功能已启用，但尚未连接远程蓝牙设备。
	DGNA 对讲机处于 DGNA 通话组中。
	紧急呼叫 对讲机处于紧急呼叫模式。
	GNSS 可用 GNSS 功能已启用。定位可用时，该图标亮起。

	GNSS 不可用 GNSS 功能已启用，但未接收到卫星数据。
	大批量数据 对讲机正在接收大批量数据，信道处于繁忙状态。
	静音模式 静音模式已启用，扬声器已静音。
	通知 通知列表中有一个或多个错过的事件。
	选件板 选件板已启用。（仅已激活选件板的机型）
	选件板不工作 选件板已禁用。
5	**无线编程延迟计时器** 表示自动重新启动对讲机之前剩余的时间。
L 或 H	**功率级别** 对讲机设在低功率级别或对讲机设在高功率级别。

1	**优先级 1** 表示通话组的优先级为 1。
2	**优先级 2** 表示通话组的优先级为 2。
	接收信号强度指示器 (RSSI) 显示的信号强度柱数目表示对讲机信号强度。四个信号强度柱表示信号的强度最强。只有在接收时才显示该图标。
	响应抑制 响应抑制已启用。
	仅响铃 已激活响铃模式。
	安全 加密功能已启用。
	共享频率 指示对讲机正锁定到共享控制信道。
	静音 已激活静音模式。

	站点漫游 已启用站点漫游功能。
	状态 表示有一则新的状态消息。
	不安全 加密功能已禁用。
	振动 已激活振动模式。
	振动和响铃 已激活振动和响铃模式。

表 3 ： 高级菜单图标

以下图标显示在菜单项旁边，这些图标供用户在两个选项之间进行选择或者向用户表明有一个可提供两个选项的子菜单。

	复选框（选中） 表示已选择选项。
	复选框（未选中） 表示未选择选项。
	实心黑框 表示为包含子菜单的菜单项所选择的选项。

表 4 ： 蓝牙设备图标

以下图标显示在可用的已启用蓝牙功能的设备列表中的列表项旁边，用于指示设备类型。

	蓝牙音频设备 已启用蓝牙功能的音频设备，例如耳机。
	蓝牙数据设备 已启用蓝牙功能的数据设备，例如扫描器。
	蓝牙 PTT 设备 已启用蓝牙功能的 PTT 设备，例如仅具备 PTT 功能的设备 (POD)。

	蓝牙传感器设备 已启用蓝牙功能的传感器设备，例如气体传感器。

表 5 ： 呼叫图标

以下图标在呼叫过程中出现在显示屏上。这些图标也出现在通讯录列表中，表示别名或 ID 类型。

	蓝牙 PC 呼叫 表示正在进行蓝牙 PC 呼叫。 在“通讯录”列表中，它表示蓝牙 PC 呼叫别名（名称）或 ID（编号）。
	呼叫优先级高 指示“呼叫优先级高”已启用。
	DGNA 呼叫 表示正在进行 DGNA 呼叫。
	组呼/全呼 表示正在进行组呼或全呼。 在“通讯录”列表中，它表示通话组别名（名称）或 ID（编号）。
	组呼/全呼电话呼叫 表示正在进行组呼或全呼电话呼叫。 在“通讯录”列表中，它表示通话组别名（名称）或 ID（编号）。
	单呼电话呼叫 表示正在进行“单呼电话呼叫”。 在“通讯录”列表中，它表示电话别名（名称）或 ID（编号）。
	单呼 表示正在进行单呼。在“通讯录”列表中，它表示用户别名（名称）或 ID（编号）。

表 6 ： 小型通知图标

在采取执行任务的操作后，显示屏上会短暂显示以下图标。

	发射失败（否定） 操作执行失败。
	发射成功（确定） 操作执行成功。

	**正在发射（发射中）** 正在发射。在指示发射成功或发射失败时显示。

表 7 ： 已发信息图标

以下图标显示在显示屏右上角的已发信息文件夹中。

	**进行中** 至某一用户别名或 ID 的短信正在等待发送，然后等待确认。至某一通话组别名或 ID 的短信正在等待发送。
	**已读单条或群组信息** 已读短信。
	**未读单条或群组信息** 短信未读。
	**发送失败** 短信无法发送。
	**发送成功** 短信已经成功发送。

4.5.2

LED 指示灯

LED 指示灯显示对讲机的工作状态。

稳定红色

对讲机正在传输所有类型的语音呼叫。

呈红色闪烁

开机后对讲机自检失败。

对讲机正在接收紧急发射信号。

对讲机正在低电池电量状态下发射。

如果配置了自动范围应答机系统，对讲机已移至范围以外。

已启用静音模式。

对讲机出现充电错误。

对讲机正在指示电池不匹配。

对讲机正通过无线方式检测活动或者检索无线编程传输活动。

对讲机预设失败。

对讲机正在接收呼叫或数据。

对讲机正在升级到新的选件板固件文件。

稳定绿色

对讲机正在开机。

呈绿色闪烁

对讲机正在扫描活动。

稳定黄色

对讲机正在监听某个传统信道。

呈黄色闪烁

对讲机尚未响应呼叫提示。

对讲机已启用灵活接收列表。

正在进行对讲机预设。

黄灯双闪

对讲机已启用自动漫游功能。

对讲机正在主动搜索新站点。

对讲机尚未响应组呼提示。

对讲机被锁定。

4.5.3
提示音

以下是通过对讲机扬声器发出的提示音。

□

高音调提示音

■

低音调提示音

4.5.3.1
音频提示音

音频提示音通过声音向您发出有关对讲机状态或对讲机对所接收的数据进行的响应的提示。

连续音

发出单调音。连续发音直至终止。

周期音

根据对讲机设定的持续时间周期发音。铃音自我启动、停止和重复。

重复音

自我重复的单音，直至用户将其终止。

瞬间音

根据对讲机设定的短持续时间发出一次。

4.5.3.2

提示音

在采取执行任务的操作后，提示音为您提供状态的声音提示。

确定提示音

否定提示音

4.5.3.3

注册

您可接收很多与注册相关的消息。

正在注册

通常，在开机期间、通话组更改期间或站点漫游过程中，会将注册发送到系统。如果对讲机在站点上注册失败，对讲机将自动尝试漫游到其他站点。对讲机暂时从漫游列表中删除它尝试过注册的站点。

指示意味着对讲机正忙于搜索要漫游的站点，或该对讲机已成功找到站点，但在等待对讲机注册消息的响应。

当正在注册显示在对讲机上时，对讲机会发出提示音并且 LED 黄灯双闪，以指示站点搜索。

当对讲机正在注册时，对讲机会发出提示音并且 LED 黄灯双闪，以指示站点搜索。

如果指示始终显示，用户应该更改位置，或如果允许，手动漫游至其他站点。

Out of Range

当对讲机无法从系统或当前站点检测到信号时，对讲机被视为不在信号区。通常，此指示意味着对讲机超出地理出站射频 (RF) 覆盖范围。

当对讲机上出现超出范围时，将发出重复的提示音且红色 LED 闪烁。

当对讲机不在信号区时，将发出重复提示音且红色 LED 闪烁。

如果对讲机在处于较好 RF 覆盖的区域仍接收到不在信号区指示，请联系您的经销商或系统管理员。

通话组加入失败

对讲机尝试加入注册过程中在信道或统一旋钮位置 (UKP) 中指定的通话组。

加入通话组失败的对讲机无法与该对讲机尝试加入的通话组之间发起或接收呼叫。

当对讲机加入通话组失败时，主屏幕上会出现 UKP 别名以及突出显示的背景。

如果对讲机接收到加入失败指示，请联系您的经销商或系统管理员。

注册被拒

当系统不接受注册时，将接收到注册被拒提示。

对讲机不向对讲机用户指明注册被拒的具体原因。通常，当系统操作员禁用对讲机对系统的访问时，注册会被拒。

当对讲机注册被拒时，对讲机上会显示注册被拒并且 LED 黄灯双闪，以指示站点搜索。

当对讲机注册被拒时，LED 黄灯双闪，以指示站点搜索。

4.6

区域和信道选择

本章介绍了在对讲机上选择区域或信道的操作。

对讲机最多可预设 250 个 Capacity Max 区域，且每个区域最多 160 个信道。每个 Capacity Max 区域最多包含 16 个可分配的位置。

4.6.1

选择区域

按照步骤在对讲机上选择所需的区域。

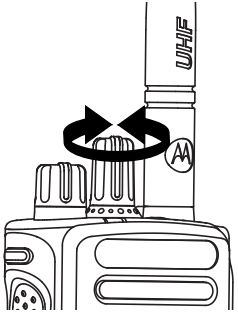
按预设的**区域切换**按钮。

4.6.2

选择信道

按照步骤在对讲机上选择所需的信道。

，旋转**信道选择**旋钮选择信道、用户 ID 或组 ID。



注意:
对于显屏对讲机，如果启用了**虚拟信道停止**功能，您的对讲机会在跨越第一个或最后一个信道后停止，而且您会听到提示音。

4.6.3

选择呼叫类型

选择呼叫类型。呼叫类型可以是组呼、广播呼叫、全呼或单呼，具体取决于对讲机的预设情况。如果，这样会导致对讲机在 Capacity Max 系统重新注册。对讲机使用新呼叫类型预设的通话组 ID 注册。

由于选定未预设的信道时对讲机不工作，所以需要使用选择预设的信道。

所需区域显示后（如果对讲机中有多个区域），以选择呼叫类型。

4.6.4

选择站点

站点会覆盖特定区域。在多站点网络中，Capacity Max 对讲机会在当前站点的信号等级降低至无法接受的等级时自动搜索新站点。

Capacity Max 系统支持多达 250 个站点。

4.6.5

漫游请求

漫游请求会使对讲机搜索其他站点，即使当前站点的信号可接受。

如果无站点可用：

注意:
该功能已由经销商进行预设。

按预设的**手动站点漫游**按钮。

您将听到提示音，表示对讲机已切换到新站点。显示屏显示站点 ID <站点编号>。

4.6.6

站点锁定开/关

切换为打开时，对讲机只搜索当前站点。切换为关闭时，对讲机将搜索当前站点和其他站点。

按预设的**站点锁定**按钮。

如果**站点锁定** 功能切换为开启：

- 您将听到确定提示音，表示对讲机已锁定到当前站点。

如果**站点锁定** 功能切换为关闭：

- 您会听到否定提示音，表示对讲机已解锁。

4.6.7

站点限制

在 Capacity Max 系统中，您的对讲机管理员能够确定允许对讲机使用和不允许对讲机使用的网络站点。

对讲机无需重新预设即可更改允许和不允许站点列表。如果对讲机尝试在不允许的站点注册，对讲机将接收到站点被拒的提示。然后对讲机会搜索其他网络站点。

遇到站点限制时，LED 黄灯双闪，以指示站点搜索。

4.6.8

站点集群

站点集群仅适用于 Capacity Max 系统。站点必须能够与要被视为系统集群的集群控制器通信。

如果站点无法与系统中的集群控制器通信，对讲机将进入“站点集群”模式。处于“站点集群”模式时，对讲机将定期向用户提供声音和视觉指示，以便向用户告知功能受限。

当对讲机处于“站点集群”模式时，将发出重复提示音。

处于“站点集群”模式的对讲机仍然能够发起组呼和个人语音呼叫，并向同一站点中的其他对讲机发送短信。语音控制台、登记记录、电话网关和数据应用程序无法与该站点的对讲机进行通信。

处于“站点集群”模式后，参与多个站点呼叫的对讲机将仅能与位于同一站点中的其他对讲机进行通信。与其他站点之间进行的通信将丢失。

注意:
如果有多个站点覆盖对讲机的当前位置，并且其中一个站点进入“站点集群”模式，则对讲机将漫游到覆盖范围内的另一个站点。

4.7

呼叫

本章介绍了接收、回复、发出和停止呼叫的操作。

在使用以下一种功能选择了信道后，您可以选择一个用户别名或 ID、或通话组别名或 ID：

通讯录列表
此方法用于直接访问通讯录列表。

预设的单键接入按钮
此方法仅用于组呼、单呼和电话呼叫。

通过短按或长按可预设的按钮，您只能将一个 ID 分配给一个**单键接入**按钮。

可预设按钮
此方法仅用于电话呼叫。

4.7.1

组呼

您的对讲机必须配置为通话组的一部分，才能从用户通话组接收呼叫或向用户通话组发起呼叫。

4.7.1.1

发起组呼

要发起对用户组的呼叫，对讲机必须配置为属于该通话组。

1 执行以下操作之一：
   - 选择具有活动通话组别名或 ID 的信道。请参阅选择呼叫类型， 页 36。
   - 按预设的**单键接入**按钮。

2 按 **PTT** 按钮发起呼叫。
   LED 红灯亮起。

3 释放 **PTT** 按钮接听。

当目标对讲机做出响应时，LED 红灯闪烁。

4 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。

在预定时间内无语音活动时，呼叫结束。
呼叫发起者可按预设的**取消**按钮，以结束组呼。

4.7.1.2
回复组呼

当您接收组呼时：

- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 执行以下操作之一：

- 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。
- 如果语音中断功能已启用，则按**通话按键**中止来自发射对讲机的音频，以释放信道供您做出应答。

LED 红灯亮起。

2 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

在预定时间内无语音活动时，呼叫结束。

4.7.2
广播呼叫

广播呼叫是从任何用户到整个通话组的单向语音呼叫。

广播呼叫功能仅允许呼叫发起用户传输至通话组，而呼叫接收者无法回复。

广播发起者还可结束广播呼叫。要接收来自用户组的呼叫或呼叫用户组，对讲机必须配置为属于该通话组。

4.7.2.1
发起广播呼叫

1 执行以下操作之一：
   - 选择具有活动通话组别名或 ID 的信道。请参阅选择呼叫类型， 页 36。
   - 按预设的**单键接入**按钮。

2 旋转信道选择旋钮选择组别名或 ID。（仅适用于 PMUE4424A 和 PMUE4426A）

3 按 **PTT** 按钮发起呼叫。

   LED 红灯亮起。

4.7.2.2
接收广播呼叫

按照步骤在对讲机上接收广播呼叫。

当您接收广播呼叫时：

- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

注意:
接收用户在广播呼叫期间不允许使用对讲功能。如果在广播呼叫期间按 **PTT** 按钮，会发出一声短暂的对讲禁止提示音。

4.7.3
单呼

单呼是由一台个体对讲机对另一台个体对讲机的呼叫。

有两种单呼设置方法。

- 第一种呼叫类型称为“非占空呼叫建立 (OACSU)”。OACSU 在执行对讲机存在检测后设置呼叫，并自动完成呼叫。
- 第二种类型称为“完全非占空呼叫建立 (FOACSU)”。FOACSU 也在执行对讲机存在检测后设置呼叫。但是，FOACSU 需要用户确认才可完成呼叫，且允许用户接受或拒绝呼叫。

呼叫类型由系统管理员配置。

注意:

4.7.3.1

发起单呼

您的对讲机必须经过预设才能发起单呼。如果未启用此功能，则当您发起呼叫时，您会听到一声否定提示音。

1 执行以下操作之一：

- 选择具有活动用户别名或 ID 的信道。请参阅选择呼叫类型， 页 36。
- 按预设的**单键接入**按钮。

2 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。 显示屏显示**单呼**图标和别名。显示屏显示**单呼**图标、用户别名和呼叫状态。

3 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

4 释放 **PTT** 按钮接听。

5 在预定时间内无语音活动时，呼叫结束。 您将听见一声短提示音。屏将显示呼叫结束。

呼叫发起者和接收者可通过按预设的**取消**按钮，以停止进行中的单呼。

4.7.3.2

使用单键呼叫按钮进行单呼

单键呼叫功能允许您轻松发起对预定义单呼别名或 ID 进行单呼。该功能可指定给可预设按钮的短按或长按操作。

您只能将一个别名或 ID 分配给单键呼叫按钮。对讲机可以有多个预设的单键呼叫按钮。

1 按预设的**单键呼叫**按钮对预定义的单呼别名或 ID 发起单呼。

2 按 **PTT 键**发起呼叫。

LED 绿灯长亮。

屏幕显示单呼别名或 ID。

3 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

4 释放 **PTT** 按钮接听。

当目标对讲机作出响应时，LED 绿灯闪烁。

如果在预定时间内无语音活动，则呼叫终止。

呼叫发起者和接收者可通过按 ，以停止进行中的单呼。呼叫发起者和接收者可通过按预设的**取消**按钮，以停止进行中的单呼。

4.7.3.3

接收单呼

当您接收配置为非占空呼叫建立 (OACSU) 的单呼时：

- 红色 LED 闪烁。
- 第一行文字显示**单呼**图标和呼叫方别名。
- 第二行文字显示**单呼**别名。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

注意:
根据对讲机配置情况，即 OACSU 或“完全非占空呼叫建立 (FOACSU)”，回复单呼可能需要也可能不需要用户确认。

对于 OACSU 配置，您的对讲机将取消静音并自动连接呼叫。

4.7.3.4

接受单呼

当您接收配置为完全非占空呼叫建立 (FOACSU) 的单呼时：

- 红色 LED 闪烁。
- 第一行文字显示**单呼**图标和呼叫方别名。
- 第二行文字显示**单呼**别名。

1 要接受单呼，请执行以下操作：
   - 按任何条目上的 **PTT** 按钮。

   LED 红灯亮起。

2 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

   在预定时间内无语音活动时，呼叫结束。 将发出一声提示音。

   注意:
   呼叫发起者和接收者可通过按预设的**取消**按钮来终止进行中的单呼。

4.7.3.5
拒绝单呼

当您接收配置为完全非占空呼叫建立 (FOACSU) 的单呼时：

- 红色 LED 闪烁。
- 第一行文字显示**单呼**图标。
- 第二行文字显示**单呼**别名。

要拒绝单呼，请执行以下操作：

- 按预设的**取消**按钮。

4.7.4
全呼

全呼是单个对讲机到站点上每个对讲机或站点组每个对讲机的呼叫，具体取决于系统配置。

全呼用于做出需要用户充分注意的重要通告。系统上的用户无法回复全呼。

Capacity Max 支持站点全呼和多站点全呼。系统管理员可在对讲机中配置其中一个或两个。

注意:
用户可支持系统范围内全呼，但 Motorola Solutions 基础设施不支持系统范围内全呼。

4.7.4.1
接收全呼

当您接收全呼时，将发生以下情况：

- 将发出一声提示音。
- LED 红灯亮起。
- 显示屏右上角显示呼叫方 ID 信息。
- 第一行文字显示**组呼**图标和全呼、站点全呼或多站点呼叫中的任一项，具体取决于配置的类型。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

在呼叫结束时，对讲机返回接收全呼前的屏幕。

如果启用“信道空闲提示”功能，则当发射对讲机释放**通话按键**时，您将会听到一声短提示音，表示此信道可供您使用。您无法回复全呼。

注意:
在接收全呼时，如果您切换至另一个信道，则对讲机停止接收该全呼。在全呼期间，您无法继续任何菜单导航或编辑，直至呼叫结束。在全呼期间，您无法继续使用任何预设的按钮功能，直至呼叫结束。

4.7.4.2

发起全呼

您的对讲机必须经过预设才能发起全呼。

1 选择具有活动全呼通话组别名或 ID 的信道。请参阅选择呼叫类型， 页 36 。

2 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。 显示屏显示**组呼**图标和全呼、站点全呼或多站点呼叫之一，具体取决于配置的类型。

3 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

信道上的用户无法回复全呼。
呼叫发起者可按预设的**取消**按钮，以结束全呼。

4.7.5

电话呼叫

电话呼叫是单个对讲机或一组对讲机与电话之间的呼叫。

根据对讲机的配置方式，可能提供也可能不提供以下功能：

- 摘机码
- 双音多频 (DTMF) 提示音
- 取消接入代码
- 在接听电话呼叫时显示主叫方别名或 ID。
- 能够拒绝或接听电话呼叫

通过在该系统上分配和设置电话号码，可启用电话呼叫功能。咨询系统管理员以确定对讲机的预设情况。

4.7.5.1

发出电话呼叫

按照以下过程操作，在对讲机上发出电话呼叫。

如果您在未预配置接入代码和取消接入代码的情况下尝试发起或结束电话呼叫，则尝试将失败，且对讲机会发出一声否定提示音。

1 按预设的**单键接入**按钮显示预设的别名或 ID。

如果**单键接入**按钮的输入为空，将响起一声否定提示音。

如果成功：

- DMTF 提示音将响起。
- 您将听到电话用户的呼叫等待提示音。

如果失败：

- 发出一声否定提示音。
- 电话呼叫失败。重复此步骤。

2 LED 红灯亮起。 显示屏显示**电话呼叫**图标、用户别名和呼叫状态。

如果呼叫成功：

- DTMF 提示音将响起。
- 您将听到电话用户的呼叫等待提示音。

如果呼叫失败：

- 将发出一声提示音。
- 显示屏显示电话呼叫失败，然后显示摘机码：。
- 如果在通讯录列表中预配置了摘机码，则对讲机会返回到您发起呼叫之前所在的屏幕。

3 按 **PTT** 按钮发起呼叫。

4 释放 **PTT** 按钮接听。

5 （仅适用于 PMUE4424A 和 PMUE4426A）按预设的**单键接入**按钮。如果**单键接入**按钮的输入为空，将响起一声否定提示音。

对讲机发出 DTMF 提示音，且屏幕显示正在结束通话。

如果呼叫成功结束：

- 将发出一声提示音。
- 屏幕显示呼叫结束。

如果呼叫无法结束，对讲机将返回到电话呼叫屏幕。重复后两个步骤或等待电话用户结束呼叫。

电话用户结束通话时，会发出一声提示音且显示屏显示呼叫结束。

6 按预设的**电话退出**按钮结束通话。

如果结束通话设置成功：

- 将发出一声提示音。
- 对讲机退出电话呼叫。

如果结束通话设置失败：

- 发出一声否定提示音。
- 对讲机将返回到电话呼叫屏幕。
- 重复此步骤或等待电话用户结束呼叫。

4.7.5.2

使用可预设按钮进行电话呼叫

按照步骤使用可预设按钮进行电话呼叫。

1 按预设的**电话**按钮进入电话条目列表。

2 按 ▲ 或 ▼ 显示所需的别名或 ID。 按 OK 进行选择。

LED 绿灯亮起。 显示屏显示**电话呼叫**图标、用户别名或 ID 和呼叫状态。

如果呼叫设置成功：

- DTMF 提示音将响起。
- 您将听到电话用户的呼叫等待提示音。
- 显示屏显示**电话呼叫**图标、用户别名或 ID、电话呼叫和呼叫状态。

如果呼叫设置失败：

- 将发出一声提示音。
- 显示屏显示电话呼叫失败。
- 对讲机返回到接入代码输入屏幕。如果在通讯录列表中预配置了接入代码，则对讲机会返回到您发起呼叫之前所在的屏幕。

3 按 **PTT** 按钮开始讲话。 释放 **PTT** 按钮接听。

4 按 ⮌ 以结束通话。

如果结束通话设置成功，将发出一声提示音且显示屏显示通话结束。

如果结束通话设置不成功，您的对讲机将返回到电话呼叫屏幕。

如果在“电话通讯录”屏幕中按 **PTT** 按钮，一声提示音响起，且显示屏显示按 OK 键发起呼叫。

当电话用户结束呼叫时，一声提示音响起，且屏幕显示通话结束。

注意:

信道接入期间，按 可取消呼叫尝试并会发出一声提示音。

通话期间，在预配置取消接入代码的情况下按**单键接入**按钮时，或在输入取消接入代码作为其他数字的输入时，对讲机均会尝试结束通话。

4.7.5.3

回复全呼电话呼叫

当您接收全呼电话呼叫时，接收对讲机无法对讲或回复。接收用户也不允许结束全呼。

- LED 红灯亮起。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

4.7.5.4

回复组呼电话呼叫

按照步骤在对讲机上回复组呼电话呼叫。

当您收到组呼电话呼叫时：

- LED 红灯亮起。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 按 **PTT** 按钮来回复该呼叫。

2 释放 **PTT** 按钮接听。

3 如果在预定时间内无语音活动，则呼叫终止。

注意:
对讲机无法作为组呼终止电话呼叫。电话用户必须结束通话。接收用户只能在呼叫过程中使用对讲功能。

您将听见一声短提示音。

4.7.5.5

回复单呼电话呼叫

按照步骤在对讲机上回复单呼电话呼叫。

当您收到单呼电话呼叫时：

- LED 红灯亮起。

- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 按 **PTT** 按钮来回复该呼叫。

2 释放 **PTT** 按钮接听。

3 如果在预定时间内无语音活动，则呼叫终止。

注意:
对讲机无法作为组呼终止电话呼叫。电话用户必须结束通话。接收用户只能在呼叫过程中使用对讲功能。

您将听见一声短提示音。

4.7.6
启动发射中断

当您执行以下操作时，正在进行的呼叫将中断：

- 按**语音 PTT** 按钮。
- 按**紧急呼叫**按钮。

接收对讲机显示呼叫中断。

4.8

高级功能

本章介绍对讲机中可用的功能的操作。

您的经销商或系统管理员可能已经针对您的具体需要对对讲机进行了定制。 请联系您的经销商或系统管理员了解详细信息。

4.8.1
呼叫排队

如果无可用资源处理呼叫，呼叫排队功能可将呼叫请求置于系统队列中，以便等待下个可用资源。

按下 **PTT** 按钮后，您将听到一声呼叫排队提示音，且对讲机屏幕显示呼入队列，这表示对讲机已进入“呼叫排队”状态。听到呼叫排队提示音后，可松开 **PTT** 按钮。

如果呼叫设置成功，则会出现以下情况：

- 红色 LED 闪烁。
- 如果启用，将发出通话许可提示音。
- 屏幕显示呼叫类型图标、ID 或别名。
- 对讲机用户最多具有 4 秒时间按下 **PTT** 按钮，以开始语音传输。

如果呼叫设置失败，则会出现以下情况：

- 如果启用，将发出拒绝提示音。
- 屏幕会短暂显示失败通知屏幕。
- 呼叫终止，且对讲机退出呼叫设置。

4.8.2
优先呼叫

“优先呼叫”允许系统在所有信道都处于繁忙状态时，抢占正在进行的非优先呼叫之一并发起所请求的高优先级呼叫。

如果高优先级呼叫占用了所有信道，则系统不抢占任何呼叫，而是将请求高优先级呼叫置于呼叫队列中。如果系统未能将请求高优先级呼叫置于呼叫队列中，则会声明故障。

优先呼叫的默认设置可预先配置。按可预设按钮可在正常级别和高优先级之间切换。使用以下功能时，呼叫优先级将自动恢复为预配置的设置。

- 所有语音呼叫
- DMR Ⅲ 短信/短信
- 任务
- 远程监听

下面是优先呼叫的类型：

高优先级

对讲机显示“下一个呼叫：高优先级”。

呼叫优先级高图标出现在对讲机显示屏的顶部。

语音提示会发出以下声音：“下一个呼叫：高优先级”。

正常优先级

对讲机显示“下一个呼叫：正常优先级”。

呼叫优先级高图标消失。

语音提示会发出以下声音：“下一个呼叫：正常优先级”。

4.8.3
通话组扫描

此功能允许对讲机监听并加入接收组列表中所定义的通话组的呼叫。

启用扫描时，您的对讲机将对其接收组列表中的所有成员取消静音。

禁用扫描后，对讲机将不会接收接收组列表任意成员的传输，全呼、永久通话组和选定通话组除外。

4.8.3.1

打开或关闭通话组扫描

按照步骤打开或关闭对讲机上的通话组扫描。

按下预设的**扫描**按钮。

如果扫描已启用：

- 显示屏显示扫描开和**扫描**图标。
- 黄色 LED 指示灯闪烁。
- 发出一声确定提示音。

如果扫描被禁用：

- 显示屏显示扫描关。
- **扫描**图标消失。
- LED 熄灭。
- 发出一声否定提示音。

4.8.4

接收组列表

接收组列表是一项功能，使您可以创建和分配通话组扫描列表上的成员。

此列表在预设对讲机时创建，决定可扫描哪些组。您的对讲机最多支持此列表中的 16 个成员。

如果对讲机预设为编辑扫描列表，则可以：

- 添加/删除通话组。
- 使用新的扫描列表更换现有扫描列表。

如果将通话组预设为永久通话组，则无法从扫描列表中编辑通话组。

重要说明:
要将成员添加至列表，必须首先在对讲机中配置通话组。

注意:
接收组列表由系统管理员进行预设。请联系您的经销商或系统管理员了解详细信息。

4.8.5

优先级监听

优先级监听功能允许对讲机在处于某个通话组呼叫中时自动接收具有更高优先级的通话组的传输。

对讲机将离开较低优先级的通话组呼叫，进入较高优先级的通话组呼叫。

注意:
此功能只能在启用通话组扫描功能时才可访问。

优先级监听功能仅适用于接收组列表中的成员。有两个优先级通话组：优先级 1 (P1) 和优先级 2 (P2)。P1 的优先级高于 P2。在 Capacity Max 系统中，对讲机将根据下列优先级顺序接收传输：

1 P1 通话组的紧急呼叫

2 P2 通话组的紧急呼叫

3 接收组列表中非优先级通话组的紧急呼叫

4 全呼

5 P1 通话组呼叫

6 P2 通话组呼叫

7 接收组列表中的非优先级通话组

注意:
此功能由系统管理员进行预设。请联系您的经销商或系统管理员了解详细信息。

4.8.6
多通话组加入

您的对讲机在一个站点最多可配置七个通话组。

在接收组列表的 16 个通话组中，最多可将七个通话组分配为加入通话组。将自动加入选定通话组和优先级通话组。

4.8.7
对讲

对讲功能使您能够在扫描过程中响应传输。

如果对讲机通过在可选通话组扫描列表中扫描呼叫，且在扫描呼叫时按下**通话按键**，则对讲机的操作取决于在对讲机预设过程中对讲是否已启用或禁用。请联系您的经销商或系统管理员了解详情。

对讲已禁用
对讲机放弃扫描呼叫，转而尝试在当前所选信道位置对联系人发射信号。在当前所选联系人的呼叫闲置时间超时后，对讲机返回主信道，并启动扫描闲置时间计时器。对讲机在扫描闲置时间计时器超时后将恢复通话组扫描。

对讲已启用
如果在扫描呼叫的组呼闲置时间内按下**通话按键**，则对讲机尝试向扫描通话组发射信号。

注意:
如果扫描到未分配到当前选定区域信道位置的组呼叫并且呼叫结束，您需要切换到适当区域，然后选择组的信道位置以回复该组。

4.8.8

蓝牙®

该功能允许您通过蓝牙连接将您的对讲机与启用了蓝牙功能的设备（附件）一起使用。您的对讲机支持 Motorola Solutions 提供的以及市场上出售 (COTS) 的带蓝牙功能的设备。

蓝牙的有效直视线距离是 10 米（32 英尺）。该距离是指您的对讲机与已启用蓝牙功能设备之间的无障碍距离。为了实现高度可靠性，Motorola Solutions 建议不要将对讲机和附件分开。

在信号接收范围的边缘区域，您所听到的语音和提示音可能会变得“含混不清”或“断断续续”。要解决这一问题，请将您的对讲机和启用了蓝牙功能的设备彼此靠近一些（使它们在规定的 10 米范围内），以便重新接收能够提供清晰音频的较强信号。对讲机的蓝牙功能在 10 米范围内的最大功率为 2.5 mW (4 dBm)。

您的对讲机最多可同时与三个不同类型的蓝牙设备建立蓝牙连接。例如，同时与一个耳机、一个扫描仪、一个传感器设备和一个仅具备 PTT 功能的设备 (POD) 连接。

请参阅相应蓝牙设备的用户手册，以了解更多支持蓝牙设备的全部功能。

您的对讲机会与蓝牙工作范围内信号最强的蓝牙设备建立连接或与在先前会话中曾经连接过的蓝牙设备建立连接。在执行查找和连接操作的过程中不要关闭您的蓝牙设备或按主页返回按钮，否则会导致操作被取消。

4.8.8.1

连接到蓝牙设备

按照步骤连接至蓝牙设备。

打开您的蓝牙设备，并将其设置为配对模式。

按预设的**蓝牙连接**按钮。

您的蓝牙设备可能需要您执行其他步骤以完成配对过程。有关详细信息，请参阅启用蓝牙设备的用户手册。

- 将发出一声提示音。
- 黄色 LED 指示灯闪烁。

等待确认。
如果成功：

- 发出一声确定提示音。

如果失败：

- 发出一声否定提示音。

4.8.8.2

断开与蓝牙设备的连接

按照步骤断开蓝牙设备。

按预设的**蓝牙断开**按钮。

设备已断开连接时，对讲机会发出一声确定提示音。

4.8.8.3

在对讲机内部扬声器和蓝牙设备之间切换音频路由

按照步骤在对讲机内部扬声器和外部蓝牙设备之间切换音频路由。

按预设的**蓝牙音频切换**按钮。

切换音频路由后，一声提示音响起。

4.8.8.4

蓝牙永久可发现模式

蓝牙永久可发现模式必须由经销商或系统管理员启用。

其他启用蓝牙功能的设备可以找到对讲机，但设备无法连接到对讲机。在基于蓝牙的定位过程中，蓝牙永久可发现模式使专用设备能够使用对讲机的位置。

4.8.9

室内定位

注意:
室内定位功能适用于具有最新软件和硬件的型号。请联系您的经销商或系统管理员了解详细信息。

室内定位用于跟踪对讲机用户的位置。启用室内定位时，对讲机处于受限制可发现模式。专用的信标用于定位对讲机并确定其位置。

4.8.9.1

打开或关闭室内定位

- 使用预设按钮访问此功能。
  a. 长按预设的**室内定位**按钮，打开室内定位。

     您会听到一声确定提示音。
     会发生以下情况之一。
     - 如果成功，室内定位打开。
     - 如果失败，您将听到一声否定提示音。

b. 按预设的**室内定位**按钮，关闭室内定位。

您会听到一声确定提示音。
会发生以下情况之一。

- 如果成功，室内定位关闭。
- 如果失败，您将听到一声否定提示音。

4.8.10

多站点控制

将当前对讲机信道配置为 Capacity Max 系统时，这些功能适用。

4.8.10.1

启用手动站点搜索

按预设的**手动站点漫游**按钮。

- 将发出一声提示音。
- LED 红灯亮起。

如果对讲机找到新站点，对讲机会显示以下指示：

- 设备会发出一声确定提示音。
- LED 指示灯熄灭。

如果对讲机未找到新站点，则会显示以下指示：

- 设备会发出一声否定提示音。
- LED 指示灯熄灭。

4.8.10.2

站点锁定开/关

切换为打开时，对讲机只搜索当前站点。切换为关闭时，对讲机将搜索当前站点和其他站点。

按预设的**站点锁定**按钮。

如果**站点锁定** 功能切换为开启：

- 您将听到确定提示音，表示对讲机已锁定到当前站点。

如果**站点锁定** 功能切换为关闭：

- 您会听到否定提示音，表示对讲机已解锁。

4.8.11

主信道提醒

此功能在对讲机一段时间内未设置为主信道时提供一个提醒。

如果启用了此功能，当对讲机一段时期内未设置为主信道时，将定期发生以下现象：

- 主信道提醒和提示音响起。
- 显示屏显示非主信道。

4.8.11.1

使主信道提醒静音

发出主信道提醒时，您可以暂时将提醒静音。

按预设的**静音主信道提醒**按钮。

显示屏显示 HCR 已静音。

4.8.11.2

设置新的主信道

发生主信道提醒时，您可以设置新的主信道。

1 按**重置主信道**可预设按钮，以将当前信道设置为新的主信道。

2 执行以下操作之一：

- 按**重置主信道**可预设按钮，以将当前信道设置为新的主信道。跳过以下步骤。
  显示屏的第一行显示信道别名，第二行显示新主信道。

4.8.12

远程监听

此功能用于打开具有用户别名或 ID 的目标对讲机的麦克风。您可以使用该功能远程监听目标对讲机四周的任何声音活动。

您的对讲机和目标对讲机必须进行预设才允许您使用该功能。

如果已发起，目标对讲机上的绿色 LED 闪烁一次。在预设的持续时间后或者当目标对讲机上执行了任何用户操作时，该功能将自动停止。

4.8.12.1

开始远程监听

按照步骤在对讲机上启动远程监听。

1 按预设的**远程监听**按钮。

2 等待确认。

如果成功：

- 发出一声确定提示音。
- 显示屏显示确定性的小型通知。
- 开始在预设持续时间内播放来自被监听对讲机的音频，并且显示屏显示远程监听。计时器超时后，对讲机发出一声提示音，且 LED 指示灯熄灭。

如果失败：

- 发出一声否定提示音。
- 显示屏显示否定性的小型通知。

4.8.13

呼叫提醒设置

此功能允许您配置呼叫或短信铃声。

4.8.13.1

渐强警报音

对讲机可预设为当对讲机呼叫尚未回复时，不断提醒。这由警报音量随时间自动增强来实现。此功能称为渐强提示音。

4.8.14

呼叫提示操作

呼叫提醒使您可以提示一个具体的对讲机用户在可能的时间回呼您。

您可使用预设的**单键接入**按钮访问此功能。

在 Capacity Max 中，呼叫提示功能允许对讲机用户或调度员向其他对讲机用户发送提示，从而请求对讲机用户在可用时回拨发起呼叫的用户。此功能中未涉及语音通信。

呼叫提示操作由经销商或系统管理员配置，允许用户按 **PTT** 按钮，以通过发起单呼直接响应呼叫发起者。

“非占空呼叫建立 (OACSU)”单呼允许用户立即响应，而“完全非占空呼叫建立 (FOACSU)”单呼需要用户确认呼叫。因此，建议将 OACSU 类型呼叫用于呼叫提示功能。请参阅单呼，页 40 。

4.8.14.1

发起呼叫提示

按照步骤在对讲机上发起呼叫提示。

1 按预设的**单键接入**按钮。

显示屏显示呼叫提示及用户别名或 ID。 LED 红灯亮起。

2 等待确认。

如果接收到呼叫提示确认，对讲机会发出两声啁啾音。

如果没有接收到呼叫提示确认，对讲机将发出一声否定提示音。

4.8.14.2

对呼叫提示做出响应

当您接收呼叫提示时：

- 将发出一声重复音。
- 黄色 LED 指示灯闪烁。

在接到呼叫提示寻呼的 4 秒钟内按 **PTT** 按钮可回复单呼。

4.8.15

静音模式

静音模式可提供一个将对讲机上的所有音频指示器静音的选项。

启用“静音模式”后，所有音频指示器都将静音，优先级更高的功能除外（如紧急呼叫操作）。

退出“静音模式”后，您的对讲机将恢复播放正在进行的提示音并恢复音频传输。

重要说明:
您一次只能启用“正面朝下”或“倒地警报”中的其中一种功能。无法同时启用两种功能。

4.8.15.1

打开静音模式

按照以下步骤打开静音模式。

执行以下操作之一：

- 使用预设的**静音模式**按钮访问此功能。
- 通过将对讲机短暂置于正面朝下的位置来访问此功能。

根据对讲机型号的不同，正面朝下功能可通过对讲机菜单或系统管理员启用。请联系您的经销商或系统管理员了解详情。

重要说明:
用户一次只能启用倒地警报或正面朝下中的其中一种功能。无法同时启用两种功能。

启用静音模式时，将发生以下情况：

- 发出一声确定提示音。
- 显示屏将显示静音模式开。
- 红色 LED 灯开始闪烁，直至退出静音模式。
- 显示屏主屏幕上显示**静音模式**图标。
- 对讲机处于静音状态。
- 静音模式计时器开始倒数配置的持续时间。

4.8.15.2

退出静音模式

静音计时器到时后，此功能会自动退出。

执行以下任一操作手动退出静音模式：

- 按预设的**静音模式**按钮。
- 按任何条目上的 **PTT** 按钮。
- 将对讲机短暂置于正面朝上的位置。

禁用静音模式时，将发生以下情况：

- 发出一声否定提示音。
- 显示屏将显示静音模式关。
- 闪烁的红色 LED 指示灯关闭。
- **静音模式**图标将从主屏幕上消失。
- 您的对讲机将取消静音并恢复扬声器状态。
- 如果计时器未到时，则静音模式计时器将被暂停。

注意:
如果用户传输语音或切换至未预设的信道，则将退出静音模式。

4.8.16

紧急操作

紧急警报用于表示紧急状况。您可以在任何时候，甚至在当前信道上有活动的情况下，发起紧急呼叫。

在 Capacity Max 中，接收对讲机一次仅可支持一个紧急警报。如果已发起，第二个紧急警报将覆盖第一个警报。

当接收到紧急警报时，接收者可通过按 **PTT** 按钮并发送非紧急语音信号来选择删除警报和退出报警列表，或对紧急警报作出响应。

您的经销商或系统管理员可以设置预设**紧急呼叫**按钮的按下持续时间（除了长按，长按的持续时间与所有其他按钮类似）：

短按
持续时间介于 0.05 秒至 0.75 秒之间。

长按
持续时间介于 1.00 秒到 3.75 秒之间。

紧急呼叫按钮设有紧急呼叫开/关功能。有关**紧急呼叫**按钮所设置的操作功能，请联系您的经销商。

注意:
如果短按**紧急呼叫**按钮被设置为开启紧急模式，那么长按**紧急呼叫**按钮则设置为退出紧急模式。

如果长按**紧急呼叫**按钮被设置为开启紧急模式，那么短按**紧急呼叫**按钮则设置为退出紧急模式。

您的对讲机支持三种紧急报警：

- 紧急警报
- 带呼叫的紧急警报
- 带语音跟随的紧急警报

此外，每种警报有以下类型：

常规
对讲机发送警报信号并显示语音和/或视觉提示。

静音
对讲机发送警报信号，无任何语音或视觉提示。对讲机接收不通过扬声器发出提示音的呼叫，直到预设的*紧急麦克风*传输周期结束，并且/或者按 **PTT** 按钮。

带话音的静音
对讲机发送没有任何语音或视觉指示的警报信号，但允许呼入电话通过扬声器发出声音。如果已启用*紧急麦克风*，在预设的*紧急麦克风*传输周期结束时，呼入电话会

通过扬声器发出声音。仅当您按 **PTT** 按钮时，这些提示才会出现。

注意:
仅可将上述紧急警报中的一种分配给预设的**紧急呼叫**按钮。

4.8.16.1
发送紧急警报

该功能允许您发送非语音的紧急警报信号，它可以启动一组对讲机上的警报指示。按照步骤在对讲机上发送紧急警报。

当设置为“静音”时，您的对讲机在紧急呼叫模式下不会显示任何语音或视觉提示。

1 按预设的**紧急呼叫开**按钮。
   - 显示屏显示发射警报和目标别名。

   LED 红灯亮起。 **紧急呼叫**图标出现。

2 等待确认。

   如果成功：
   - 紧急呼叫提示音将响起。
   - 红色 LED 闪烁。

   如果在已达到最大重试次数后仍不成功：
   - 将发出一声提示音。
   - 显示屏显示警报失败。

   对讲机退出紧急警报模式并返回主屏幕。

注意:
当配置为“仅紧急警报”时，紧急呼叫过程只包括紧急警报送达。当从系统接收到确认时或信道接入的尝试次数已用尽时，紧急呼叫结束。

作为“仅紧急警报”运行时，没有语音呼叫和紧急警报发送关联。

4.8.16.2
发送带呼叫的紧急警报

该功能允许您向一组对讲机或调度员发送带呼叫的紧急警报。经该组中的基础设施确认后，这一组对讲机可以通过预设的紧急信道进行通信。

对讲机必须配置“紧急警报”和“呼叫”，以在警报过程后执行紧急呼叫。

1 按预设的**紧急呼叫开**按钮。

LED 红灯亮起。

注意:
如果对讲机已预设，紧急搜索音将响起。对讲机发射或接收语音时，此提示音为静音，对讲机退出紧急呼叫模式，此提示音将停止。

如果成功接收到紧急警报确认：

- 紧急呼叫提示音将响起。
- LED 红灯亮起。

如果未成功接收到紧急警报确认：

- 所有重试次数用完后。
- 一声低音调提示音响起。
- 对讲机退出紧急警报模式。

2 按 **PTT** 按钮以发起语音传输。

LED 红灯亮起。

3 释放 **PTT** 按钮接听。

4 按 **PTT** 来回复该呼叫。

如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。

5 按**紧急呼叫关**按钮退出紧急呼叫模式。

注意:
您可能听到或听不到通话许可音，具体取决于对讲机的预设情况。对讲机的经销商或系统管理员可以提供关于对讲机针对紧急情况如何预设的更多信息。

紧急呼叫发起者可按预设的**取消**按钮来结束正在进行的紧急呼叫。对讲机返回到呼叫空闲状态。

4.8.16.3
发送带语音跟随的紧急警报

该功能允许您向一组对讲机发送带语音跟随的紧急警报。对讲机的麦克风会自动激活，您无需按 **PTT** 按钮即可与该组对讲机进行通信。这种激活的麦克风状态又称为*紧急麦克风*。

如果对讲机已启用紧急循环模式，则会在预设的持续时间内重复*紧急麦克风*和接收时间段。在紧急循环模式期间，通过扬声器收到呼叫音。

如果在预设的接收时间段内按 **PTT** 按钮，您将听到一声禁止提示音，指示您应释放 **PTT** 按钮。对讲机将忽略 **PTT** 按钮按下操作并保持紧急呼叫模式。

如果您在**紧急麦克风**期间按 *PTT* 按钮，并在*紧急麦克风*持续时间结束后继续按该按钮，则对讲机继续发射直至您释放 **PTT** 按钮。

如果紧急警报请求发送失败，对讲机不会再尝试发送请求，而会直接进入*紧急麦克风*状态。

注意:
一些附件可能不支持*紧急麦克风*。 请联系您的经销商或系统管理员了解详细信息。

按照步骤在对讲机上发送带语音跟随的紧急警报。

1 按预设的**紧急呼叫开**按钮。
   - 显示屏显示发射警报和目标别名。
   - 显示屏显示发射电报和目标别名。

   LED 红灯亮起。 **紧急呼叫**图标出现。

2 显示屏显示已发警报后，对着麦克风清晰地讲话。

   在启用*紧急麦克风*时，对讲机自动发射信号，无需按 **PTT**，直至*紧急麦克风*持续时间结束。在发射时，红色 LED 亮起。

   对讲机将在以下情况下自动停止发射：
   - 在启用了紧急循环模式时，*紧急麦克风*和接收呼叫之间的循环持续时间结束。
   - 在禁用紧急循环模式时，*紧急麦克风*的持续时间结束。

3 按下**紧急呼叫关**按钮退出紧急呼叫模式。

   对讲机将返回主屏幕。

4.8.16.4
接收紧急警报

接收对讲机一次仅可支持一个紧急警报。如果已发起，第二个紧急警报将覆盖第一个警报。按照步骤在对讲机上接收和查看紧急警报。

当您收到紧急警报时：

- 将发出一声提示音。

- 红色 LED 闪烁。

4.8.16.5

退出紧急呼叫模式

按预设的**紧急呼叫关**按钮。

对讲机会显示以下指示：

- 提示音已停止。
- 红色 LED 指示灯熄灭。
- 接收到确认时，发射对讲机的显示屏会显示取消紧急呼叫成功。如果未收到确认，显示屏会显示取消紧急呼叫失败。

注意:
如果在发射对讲机上启用了取消紧急呼叫配置，则接收对讲机中的紧急警报将停止，该状态将添加到接收对讲机的警报列表中。

4.8.17

Status Message

此功能允许用户向其他对讲机发送状态信息。

快速状态列表可使用 CPS-RM 配置，最多可包含 99 个状态。

每个状态信息的最大字符长度为 16。

注意:
每个状态都有一个介于 0-99 的对应数值。可为每个状态指定一个别名，以便于参考。

4.8.17.1

发送状态信息

按照以下步骤发送状态信息。

按预设的**单键接入**按钮。

如果成功：

- 发出一声确定提示音。
- LED 熄灭。
- 在返回快速状态屏幕之前，显示屏短暂显示确定性的小型通知。
- 显示屏在已发送的状态信息旁边显示 ✓。

如果失败：

- 发出一声否定提示音。
- LED 熄灭。
- 在返回快速状态屏幕之前，显示屏短暂显示失败通知。

4.8.18

短信发送

您的对讲机可以接收数据，例如来自另一对讲机或短信应用程序的短信。

提供两种类型的短信，即数字车载台对讲机 (DMR) 短信和普通短信。一条 DMR 短信的最大长度为 23 个字符。一条普通短信的最大长度为 280 个字符，包括主题行。仅当从电子邮件应用程序收到消息时，主题行才会出现。

注意:
最大字符长度仅适用于具有最新软件和硬件的型号。对于具有较旧软件和硬件的对讲机型号，一条普通短信的最大长度为 140 个字符。有关详细信息，请联系您的经销商。

4.8.18.1

预制短信

通过经销商预设，您的对讲机支持预制短信。

4.8.18.1.1

发送预制短信

按照步骤在对讲机上向预定义别名发送预制短信。

1 按预设的**单键接入**按钮。

2 等待确认。

如果成功：

- LED 红灯亮起。
- 发出两声嗣啾音，确认正在发送短信。
- 发出一声确定提示音。

如果失败：

- 一声低音调提示音表示短信无法发送。
- 发出一声否定提示音。

4.8.19

加密

此功能有利于防止信道上未经授权的用户利用软件加密解决方案进行窃听。发射的信令和用户识别部分未加密。

对讲机必须启用信道的加密功能才能发送加密发射信号，虽然这不是接收发射的必需要求。在启用加密的信道上，对讲机仍能接收清晰或未加密的传输信号。

您的对讲机仅支持增强型加密。要对加密呼叫或数据发射信号进行解密，您的对讲机必须进行预设，以便与发射对讲机拥有相同的密钥值和密钥 ID（对于增强型加密）。

如果您的对讲机收到具有不同密钥值和密钥 ID 的加密呼叫，您将什么也听不到（对于增强型加密）。

您的对讲机可在加密信道上接收清晰或未加密的呼叫，具体取决于对讲机的设定方式。此外，根据设定方式，您的对讲机还可发出警告音。

当对讲机传输信号时，红色 LED 指示灯亮起，而当对讲机接收传入的加密传输信号时，红色 LED 指示灯则会双闪。

注意:
一些对讲机型号可能不提供此加密功能，或可能会有不同的配置。请联系您的经销商或系统管理员了解详细信息。

4.8.19.1
打开或关闭加密

按照步骤打开或关闭对讲机上的加密。

按预设的**加密**按钮。

4.8.20
响应抑制

此功能有助于防止对讲机响应任何呼入传输。

注意:
联系经销商以确定对讲机的预设情况。

如果启用此功能，则您的对讲机将不会生成任何呼出传输，以响应呼入传输，如对讲机检测、呼叫提示、对讲机遥毙、远程监听、自动注册服务 (ARS)、响应私人消息和发送 GNSS 定位报告。

如果启用此功能，则您的对讲机无法接收已确认单呼。但是，您的对讲机可以手动发送传输。

4.8.20.1
打开或关闭响应抑制

按照步骤启用或禁用对讲机上的响应抑制。

按预设的**响应抑制**按钮。

如果成功：

- 发出一声确定提示音。
- 显示屏显示确定性的小型瞬间通知。

如果失败：

- 发出一声否定提示音。

- 显示屏显示否定性的小型瞬间通知。

4.8.21

临时关闭/恢复

此功能允许您启用或禁用系统中的任何对讲机。例如，经销商或系统管理员可能想要禁用被盗的对讲机以防止未经授权的用户使用，并在对讲机恢复后启用它。

对讲机可通过控制台或另一台对讲机发起的命令禁用（临时关闭）或启用（恢复）。

对讲机禁用后，将发出否定提示音并且主屏幕将显示信道被拒绝。

当对讲机临时关闭时，对讲机无法在执行临时关闭程序的系统上请求或接收任何用户发起的服务。但是，对讲机可切换为另一系统。在临时关闭时，对讲机可继续发送 GNSS 定位报告以及进行远程监听。

注意:
经销商或系统管理员可以永久禁用对讲机。有关详细信息，请参阅对讲机终止， 页 66。

4.8.22

对讲机终止

此功能是限制对对讲机进行未经授权访问的增强型安全措施。

对讲机终止会导致对讲机无法正常工作。例如，经销商可能想要终止失窃或放置不当的对讲机运行，以防未经授权的使用。

打开后，被终止的对讲机将在屏幕上短暂显示对讲机已终止，以表示当前处于终止状态。

注意:
被终止的对讲机只能在 Motorola Solutions 维修点恢复。有关详细信息，请联系您的经销商。

4.8.23

单独工作者

如果在预定义的时间内没有用户活动（例如按任何对讲机按钮或激活信道选择器），此功能将提示用户需要发出紧急警报。

在一段预设的持续时间内没有用户活动之后，一旦不活动计时器到期，对讲机就使用语音提示向您发出预先警告。

如果在预定义的提醒计时器到期前您仍没有确认，对讲机将启动由经销商预设的紧急条件。

4.8.24

密码锁定

可以设置密码以限制对对讲机的访问。每次打开对讲机时，都需要输入密码。

您的对讲机支持 4 位密码输入。

输入密码时，这些按钮可充当数字键盘：

信道选择旋钮

位置 1–9：数字 1–9

位置 10：数字 10

侧面按钮

侧面按钮 1–3：数字 1–3。

在锁定状态下，您的对讲机无法接收呼叫。

4.8.24.1

使用密码访问对讲机

关闭对讲机。

1 输入一个四位数密码。

   a 要输入密码的第一位数，请使用**信道选择旋钮**。

   b 要输入密码剩余三位数的每一位，请按侧面按钮 1、2 或 3。

   c 要输入密码剩余三位数的每一位，请按侧面按钮 1 或 2。

   每输入一位数时，您都会听到一声确定提示音。

2 输入密码的最后一位数后，对讲机会自动检查密码的有效性。

如果密码输入正确，对讲机将开机。

如果前两次密码输入错误，对讲机将显示以下指示：

- 将发出连续的提示音。
- 显示屏显示错误密码。

重复步骤 1。

如果在第三次尝试后输入了错误的密码，对讲机将显示以下指示：

- 将发出一声提示音。
- 黄色 LED 指示灯双闪。
- 显示屏显示密码错误，然后显示对讲机已锁定。
- 对讲机进入锁定状态持续 15 分钟。

等待 15 分钟的锁定状态计时器结束，然后重复步骤 1。

注意:
如果关闭对讲机并再次打开，则 15 分钟计时器会重新开始。

4.8.24.2

解除对讲机锁定状态

在锁定状态下，您的对讲机无法接收呼叫。按照步骤解锁处于锁定状态的对讲机。

执行以下操作之一：

- 如果对讲机已开机，请等待 15 分钟，然后重复 使用密码访问对讲机，页 67 中的步骤以访问对讲机。
- 如果对讲机已关机，请将对讲机开机。您的对讲机将重新启动计时器，锁定 15 分钟。
  将发出一声提示音。 黄色 LED 指示灯双闪。显示屏将显示对讲机已锁定。

  等待 15 分钟，然后重复 使用密码访问对讲机，页 67 中的步骤以访问对讲机。

4.8.25

自动范围应答机系统

自动范围应答机系统 (ARTS) 是一种仅限模拟的功能，专用于在对讲机超出其他配备 ARTS 的对讲机的范围时通知您。

配备 ARTS 的对讲机定期传输或接收信号，以确认对讲机位于彼此范围之内。

您的对讲机提供如下指示状态：

首次提示
将发出一声提示音。

ARTS 在范围中提示
发出提示音（如果预设）。

ARTS 不在信号区提示
将发出一声提示音。 LED 红灯快速闪烁。

注意:
请联系您的经销商或系统管理员了解详细信息。

4.8.26

无线编程

您的经销商可使用不带物理连接的无线编程 (OTAP) 远程更新您的对讲机。此外，某些设置还可使用 OTAP 配置。

当对讲机进行 OTAP 时，红色 LED 闪烁。

当对讲机接收大批量数据时：

- 信道变得繁忙。
- 如果您按 **PTT** 按钮，将发出一声否定提示音。

当对讲机在自动重新启动后通电：

- 如果成功，显示屏显示软件更新完成。
- 如果程序更新失败，系统将发出一声提示音，红色 LED 指示灯闪烁一次，同时显示屏显示软件更新失败。

注意:
如果编程更新未成功，每次打开对讲机时都会显示“软件更新失败”的指示。请联系您的经销商，使用最新软件对您的对讲机进行重新编程，以消除软件更新失败的指示。

4.8.27

Wi-Fi 操作

此功能允许您设置和连接至 Wi-Fi 网络。Wi-Fi 支持更新对讲机固件、Codeplug 和资源，例如语言包和语音提示。

Wi-Fi® 是 Wi-Fi Alliance® 的注册商标。

对讲机支持 WEP/WPA/WPA2-个人和 WPA/WPA2-企业 Wi-Fi 网络。

WEP/WPA/WPA2-个人 Wi-Fi 网络

使用基于预共享密钥（密码）的身份验证。

预共享密钥可使用菜单或 CPS/对讲机管理输入。

WPA/WPA2-企业 Wi-Fi 网络

使用基于证书的身份验证。

对讲机必须预配置有证书。

注意:
要连接到 WPA/WPA2-企业 Wi-Fi 网络，请咨询经销商或系统管理员。

预设的**打开或关闭 Wi-Fi** 按钮由您的经销商或系统管理员分配。咨询经销商或系统管理员以确定对讲机的预设情况。

预设的**打开或关闭 Wi-Fi** 按钮的语音提示可以根据用户要求，通过 CPS 自定义。请联系您的经销商或系统管理员了解详情。

4.8.27.1

打开或关闭 Wi-Fi

按预设的**或关闭 Wi-Fi** 按钮。语音提示会发出：打开或关闭 Wi-Fi。

4.8.27.2

连接到网络接入点

当您打开 Wi-Fi 时，对讲机扫描并连接到网络接入点。

注意:
WPA-企业 Wi-Fi 网络接入点可预配置。咨询经销商或系统管理员以确定对讲机的预设情况。

4.8.27.3

检查 Wi-Fi 连接状态

按预设的 **Wi-Fi 状态查询**按钮，使用语音提示了解连接状态。语音提示发出：Wi-Fi 关闭、Wi-Fi 打开但未建立连接，或 Wi-Fi 打开并建立连接。

- 关闭 Wi-Fi 时，显示屏显示 `WiFi 关`。
- 对讲机连接至网络时，显示屏显示 `WiFi 开，已连接`。
- Wi-Fi 打开但对讲机未连接至任何网络时，显示屏显示 `WiFi 开，连接断开`。

  Wi-Fi 状态查询结果的语音提示可以根据用户要求，通过 CPS 自定义。请联系您的经销商或系统管理员了解详情。

注意:
预设的 **Wi-Fi 状态查询**按钮由您的经销商或系统管理员分配。咨询经销商或系统管理员以确定对讲机的预设情况。

4.8.28

动态通话组号码分配 (DGNA)

动态通话组号码分配 (DGNA) 这项功能允许控制台以无线方式向对讲机分配或从中删除新通话组。

当控制台将 DGNA 分配到您的对讲机时，对讲机将处于 DGNA 模式：

- 将发出一声提示音。
- 显示屏短暂显示 `<DGNA 通话组别名 > 已分配`，然后再返回到主屏幕。
- DGNA 图标出现在状态栏上。
- 主屏幕显示 DGNA 通话组别名。

当控制台从您的对讲机删除 DGNA 时，对讲机会返回到此前的通话组。

- 将发出一声提示音。
- 显示屏短暂显示 `<DGNA 通话组别名 > 已删除`，然后再返回到主屏幕。
- 状态栏中的 DGNA 图标消失。

- 主屏幕显示此前的通话组别名。

根据您的对讲机的预设情况，您可以查看、编辑和收听原来的扫描列表信道和非 DGNA 通话组。

当您的对讲机处于 DGNA 模式时，按 PTT 按钮可以只与当前的 DGNA 通话组通信。要与以前的非 DGNA 通话组通信，请预设**单键接入**按钮。请参阅发起非 DGNA 呼叫，页 71。

注意:
咨询经销商或系统管理员以确定对讲机的预设情况。

4.8.28.1

发起 DGNA 呼叫

当对讲机处于 DGNA 模式时，按下 **PTT** 按钮发起呼叫。

- DGNA 提示音响起。
- 显示屏显示 DGNA 图标和 DGNA 通话组别名。

注意:
如果对讲机未处于 DGNA 模式，而您按下**单键接入**按钮，则对讲机会发出提示音，指示出现错误。显示屏保持不变。

4.8.28.2

发起非 DGNA 呼叫

1 按预设的**单键接入**按钮。
   - 设备会发出一声确定提示音。
   - 对讲机发出语音提示音：单键替换呼叫。
   - 显示屏短暂显示 <通话组别名> 和按 PTT。

   注意:
   如果对讲机未处于 DGNA 模式，而您按下**单键接入**按钮，则对讲机会发出否定提示音，指示出现错误。显示屏保持不变。

2 在否定提示音响起之前按下 **PTT** 按钮，对讲机会返回到主屏幕。

   注意:
   当对讲机处于主屏幕时，按下 PTT 会向 DGNA 通话组发起呼叫。

4.8.28.3

接收和响应 DGNA 呼叫

当您接收 DGNA 呼叫时：

- DGNA 提示音响起。

- 显示屏显示 DGNA 图标、DGNA 通话组别名和对讲机别名。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 按 **PTT** 来回复该呼叫。

2 释放 **PTT** 按钮接听。

4.9

实用工具

本章介绍对讲机中可用的实用功能操作。

4.9.1

文本转语音

文本转语音功能仅能由您的经销商启用。如果文本转语音已启用，则语音提示功能会自动被禁用。如果语音提示已启用，那么将自动禁用文本转语音功能。

此音频指示器可根据客户需求进行自定义。

4.9.1.1

设置文本转语音

按照步骤设置文本转语音功能。

4.9.2

打开或关闭回声抑制器功能

通过此功能可以最小化您在接听电话时遇到的回声。
按预设的**回声抑制器**按钮。

您会听到一声确定提示音，表示现在已启用回声抑制器。

您会听到一声否定提示音，表示对讲机无法激活回声抑制器。

4.9.3

打开或关闭全球导航卫星系统

全球导航卫星系统 (GNSS) 是一种卫星导航系统，用于确定对讲机的精确位置。GNSS 包括全球定位系统 (GPS) 和 BeiDou 导航卫星系统 (BDS)。

注意:
所选型号的对讲机可提供 GPS 和 BDS。GNSS 卫星群可使用 CPS 配置。咨询经销商或系统管理员以确定对讲机的预设情况。

按预设的 **GNSS** 按钮以在对讲机上打开或关闭 GNSS。

4.9.4

打开或关闭对讲机音调/提示

如果需要，您可以启用和禁用所有对讲机提示音和提示，但呼入紧急呼叫提示音除外。按照步骤打开或关闭对讲机上的音调和提示。

按预设的**全部音调/提示**按钮。

如果成功：

- 发出确定提示音。
- 全部音调和提示均打开。

如果失败：

- 发出否定提示音。
- 全部音调和提示均关闭。

4.9.5

功率级别

您可以将每个信道的功率设置自定义为高或低。

高

该设置用于与距离相对较远的对讲机进行通信。

低

该设置用于与较近处的对讲机进行通信。

4.9.5.1

设置功率级别

按照步骤在对讲机上设置功率级别。

按下预设的**功率级别**按钮。

如果成功：

- 发出确定提示音。
- 对讲机以低功率传输。

如果失败：

- 发出否定提示音。
- 对讲机以高功率传输。

4.9.6

打开或关闭选件板

可将每个信道中的选件板功能分配给可预设按钮。一个信道可以支持多达 6 个选件板功能。按照步骤打开或关闭对讲机上的选件板。

按下预设的**选件板**按钮。

4.9.7

打开或关闭语音提示

此功能使对讲机可以通过语音方式指示用户刚刚分配的当前区域或信道或者用户刚按下的可编程按钮。

可根据客户需求对此语音提示进行自定义。按照步骤打开或关闭对讲机的语音提示。

按预设的**语音提示**按钮。

如果成功：

- 发出确定提示音。
- 全部音调和提示均打开。

如果失败：

- 发出否定提示音。
- 全部音调和提示均关闭。

4.9.8

在对讲机内部扬声器和有线附件之间切换音频路由

按照步骤在对讲机内部扬声器和有线附件之间切换音频路由。

您可以在对讲机内部扬声器和有线附件扬声器之间切换音频路由，前提是：

- 连接带扬声器的有线附件。

按预设的**音频切换**按钮。

切换音频路由后，一声提示音响起。

关闭对讲机或拆卸附件会将音频重置路由重置为内部对讲机扬声器。

4.9.9

打开或关闭智能音频

您的对讲机会自动调整音量以克服环境中当前存在的背景噪音（包括静态和非静态噪音源）。此功能只对接收的音频有效，不会影响发射的音频。

按预设的**智能音频**按钮。

注意:
此功能在进行蓝牙会话时不适用。

4.9.10

打开或关闭颤音增强功能

当您以包含许多唇齿抖音（卷舌“R”）发音的语言说话时，可以启用此功能。按照步骤打开或关闭对讲机上的抖音增强。

按预设的**颤音增强功能**按钮打开或关闭此功能。

如果成功：

- 发出确定提示音。
- 全部音调和提示均打开。

如果失败：

- 发出否定提示音。
- 全部音调和提示均关闭。

Connect Plus

Connect Plus 是基于 DMR 技术的 FULL 集群解决方案。Connect Plus 使用专用控制信道进行信道请求和分配。

5.1

在 Connect Plus 模式下的附加对讲机控件

本章介绍通过预设的方法向对讲机用户提供的附加对讲机控件，如可预设按钮和可分配对讲机功能。

5.1.1

通话按键 (PTT)

对讲机侧面的**通话按键**有两个基本用途：

- 正在进行呼叫时，**通话按键**可让对讲机向该呼叫中的其他对讲机发射信号。

  按住**通话按键**进行通话。释放**通话按键**接听。

  按下**通话按键**时，可激活麦克风。

- 当不进行呼叫时，**通话按键**用于发起一次新呼叫（请参阅发起对讲机呼叫，页 83）。

如果激活了通话许可音功能，等待短提示音结束后即可开始通话。

5.1.2

可预设按钮

经销商可以对可预设按钮进行预设，根据按下按钮时间的长短，可预设按钮可用作对讲机功能的快捷方式：

短按
快速按下并释放。

长按
按住然后保持预设的时间。

注意:
按钮的预设持续时间适用于所有可分配对讲机/实用功能或设置。请参阅紧急操作，页 93详细了解*紧急呼叫*按钮的预设持续时间。

5.1.2.1

可分配的对讲机功能

信标开/关
在打开或关闭信标功能之间切换。需要购买 Connect Plus 倒地警报功能。

信标重置
重置（取消）信标提示音，但不会关闭信标功能。需要购买 Connect Plus 倒地警报功能。

蓝牙® 音频切换
在内部对讲机扬声器和已启用蓝牙功能的外部附件之间切换音频路由。

繁忙队列取消
在繁忙队列中发起非紧急呼叫时退出繁忙模式。接受进入繁忙队列后，紧急呼叫无法取消。

信道通知
播放当前信道的区域和信道语音通知信息。

打开/关闭紧急呼叫
根据预设，发起或取消紧急呼叫。

智能音频
打开或关闭智能音频。

倒地警报开/关
在打开或关闭所有配置的倒地警报之间切换。需要购买 Connect Plus 倒地警报功能。

倒地警报重置
如果播放倒地功能提示音时按下，则取消提示音，功能计时器重置，但是不会关闭倒地警报。需要购买倒地警报功能。

单键接入
直接发起预定义的单呼、呼叫提示、预制短信或复原返回。

加密
打开或关闭加密。

重置主信道
设置新的主信道。

铃声提示类型
提供对铃声提示类型设置的直接访问。

漫游请求
请求搜索其他站点。

扫描
打开或关闭扫描。

静音主信道提醒
静音主信道提醒。

站点锁定开/关
切换为打开时，对讲机只搜索当前站点。切换为关闭时，对讲机将搜索当前站点和其他站点。

振动类型
配置振动类型。

语音提示开/关
打开或关闭语音提示。

Wi-Fi

打开或关闭 Wi-Fi。

5.1.2.2

可分配的设置或实用功能

5.1.3

在 Connect Plus 模式中识别状态指示灯

5.1.3.1

LED 指示灯

LED 指示灯显示对讲机的工作状态。

红灯闪烁	电池不匹配、对讲机正在低电池电量状态下发射、接收紧急呼叫发射信号或开机后自检失败，或者已移至范围以外（如果对讲机配置了自动范围应答器系统）。
红灯快速闪烁	对讲机正在接收无线文件传输（选件板固件文件、网络频率文件或选件板 Codeplug 文件）或正在升级到新的选件板固件文件。
绿灯和黄灯闪烁	对讲机正在接收呼叫提示、接收到短信或扫描已启用并且正在接收活动。
黄灯长亮	对讲机处于蓝牙可发现模式。
黄灯双闪	对讲机正在主动搜索新站点。
黄灯闪烁	对讲机正在接收呼叫提示或扫描已启用并且待机（对讲机将对任何活动保持静音）。
绿灯长亮	对讲机正在开机或正在发射信号。
绿灯闪烁	对讲机正在开机、接收呼叫或数据。
绿灯双闪	对讲机正在接收加密呼叫。

5.1.3.2

提示音

以下是通过对讲机扬声器发出的提示音。

高音调提示音	□	低音调提示音	■

在采取执行任务的操作后，提示音为您提供状态的声音提示。

	确定提示音
	否定提示音

5.1.3.3

提示音

提示音通过声音向您发出有关对讲机状态或对讲机对所接收的数据进行的响应的提示。

连续音	发出单调音。连续发音直至终止。
周期音	根据对讲机设定的持续时间周期发音。铃音自我启动、停止和重复。
重复音	自我重复的单音，直至用户将其终止。
瞬间音	仅短时发音一次，时间长短由对讲机定义。

5.1.4

在 Connect Plus 和非 Connect Plus 模式之间切换

如果经销商或系统管理员已经进行预设，则要切换到非 Connect Plus 模式时，您必须更改至另一区域。咨询经销商或系统管理员以检查对讲机是否预设非 Connect Plus 区域以及在非 Connect Plus 区域中工作时可以使用的功能。

5.2

在 Connect Plus 模式下发起和接收呼叫

本节介绍对讲机上可用的常规对讲机操作和呼叫功能。

5.2.1

选择站点

站点会覆盖特定区域。Connect Plus 站点具有站点控制器和最多 15 台中继器。在多站点网络中，Connect Plus 对讲机会在当前站点的信号等级降低至无法接受的等级时自动搜索新站点。

5.2.1.1

漫游请求

漫游请求会使对讲机搜索其他站点，即使当前站点的信号可接受。

如果无站点可用：

注意:
该功能已由经销商进行预设。

按预设的**漫游请求**按钮。

您将听到提示音，表示对讲机已切换到新站点。

5.2.1.2

站点锁定开/关

切换为打开时，对讲机只搜索当前站点。切换为关闭时，对讲机将搜索当前站点和其他站点。

按预设的**站点锁定**按钮。

如果**站点锁定** 功能切换为开启：

- 您将听到确定提示音，表示对讲机已锁定到当前站点。

如果**站点锁定** 功能切换为关闭：

- 您会听到否定提示音，表示对讲机已解锁。

5.2.2

选择区域

对讲机最多可预设 16 个 Connect Plus 区域并且每个 Connect Plus 区域最多包含 16 个可分配的位置。

每个可分配的位置可用于发起以下语音呼叫类型的一种：

- 组呼
- 多组呼
- 站点全呼
- 单呼

通过执行以下操作访问区域功能：

5.2.3

使用多个网络

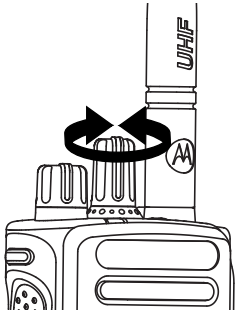
如果对讲机预设为使用多个 Connect Plus 网络，您可以通过切换至分配到所需网络的 Connect Plus 区域选择其他网络。这些网络到区域的分配由经销商通过对讲机编程配置。

5.2.4

选择呼叫类型

选择呼叫类型。呼叫类型可以是组呼、多组呼、站点全呼或单呼，具体取决于对讲机的预设情况。如果，这样会导致对讲机在 Connect Plus 站点重新注册。对讲机使用新呼叫类型预设的注册组 ID 注册。

如果选择未分配呼叫类型的位置，对讲机会发出连续提示音并且。由于选定未预设的信道时对讲机不工作，所以需要使用选择预设的信道。



所需区域后（如果对讲机中有多个区域），以选择呼叫类型。

5.2.5

接收和回复对讲机呼叫

在信道、用户 ID 或呼叫类型后，您可以接收并回复呼叫。

当对讲机发射时 LED 绿灯长亮，对讲机接收时为绿灯闪烁。

注意:
当对讲机发射时 LED 绿灯长亮，当对讲机接收加密呼叫时，LED 绿灯快闪。要对加密呼叫进行解密，您的对讲机必须拥有与发射对讲机（您从其接收呼叫的对讲机）相同的加密密钥，或相同的密钥值和密钥 ID（经销商进行了预设）。

有关详细信息，请参阅加密， 页 99 。

5.2.5.1

接收和回复组呼

要接收来自用户组的呼叫，对讲机必须配置为属于该通话组。

您的对讲机取消静音，有对讲机呼入时对讲机会通过扬声器发出声音。

1 垂直握住对讲机，并与嘴保持 1 到 2 英寸（2.5 到 5.0 厘米）的距离。

LED 绿灯长亮。

2 等待一个通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

如果在预定时间内无语音活动，则呼叫终止。

注意:
有关组呼的详细信息，请参阅发起组呼， 页 84。

5.2.5.2
接收和回复单呼

单呼是由一台个体对讲机对另一台个体对讲机的呼叫。

当您接收单呼时，LED 绿灯闪烁。 对讲机取消静音，呼入电话会通过对讲机的扬声器发出提示音。

1 垂直握住对讲机，并与嘴保持 1 到 2 英寸（2.5 到 5.0 厘米）的距离。

2 按 **PTT** 来回复该呼叫。

LED 绿灯长亮。

3 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

4 释放 **PTT** 按钮接听。

如果在预定时间内无语音活动，则呼叫终止。

您将听见一声短提示音。

有关单呼的详细信息，请参阅发起单呼， 页 84。

5.2.5.3
接收站点全呼

站点全呼是单个对讲机到站点上每部对讲机的呼叫。用于发布需要用户特别关注的重要通告。

当您接收站点全呼时，发出一声提示音，且 LED 绿灯闪烁。

您的对讲机取消静音，有对讲机呼入时对讲机会通过扬声器发出声音。

站点全呼不会等待预定时间，会直接终止。

您无法回复站点全呼。

注意:
在接收站点全呼时，如果您切换至另一个信道，则对讲机停止接收该站点全呼。站点全呼期间，您将无法使用任何预设的按钮功能，直至呼叫结束。

5.2.5.4

接收入站单呼电话

当接收到入站单呼电话时，

1. 按住**通话按键**进行通话。释放 **PTT** 按钮接听。
2. 结束通话。

5.2.5.5

接收入站电话通话组呼叫

当接收入站通话组电话呼叫时，

按 **PTT** 按钮进行通话，释放可接听。

5.2.5.6

入站电话多组呼

当接收到入站电话多组呼时，对讲机将取消静音，有呼入的多组呼时会通过对讲机扬声器发出声音。

5.2.6

发起对讲机呼叫

选择信道后，您可以使用以下方式选择用户别名或 ID/通话组别名或 ID：

- 信道选择旋钮。
- 预设的**单键接入**按钮 - 单键接入功能使您可以轻松地对预定义 ID 发起单呼。该功能可指定给可预设按钮的短按或

长按操作。您只能将一个 ID 分配给一个**单键接入**按钮。对讲机可以有多个预设的**单键接入**按钮。

注意:
您的对讲机必须激活信道上的“加密”功能才能发送加密发射信号。只有目标对讲机具有与您的对讲机相同的密钥值和密钥 ID 时，才能解密传输。

有关详细信息，请参阅加密， 页 99 。

5.2.6.1

进行呼叫

此功能允许对讲机用户发起不同的呼叫类型：组呼、单呼、站点全呼、多组呼。

5.2.6.1.1

发起组呼

要发起对用户组的呼叫，对讲机必须配置为属于该通话组。

1 选择具有活动的通话组别名或 ID 的信道。请参阅选择呼叫类型， 页 81 。

2 垂直握住对讲机，并与嘴保持 1 到 2 英寸（2.5 到 5.0 厘米）的距离。

3 按 **PTT 键**发起呼叫。

LED 绿灯长亮。

4 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

5 释放 **PTT** 按钮接听。

当目标对讲机回复时，LED 绿灯闪烁。

如果在预定时间内无语音活动，则呼叫终止。

5.2.6.1.2

发起单呼

虽然您可以接收和/或回复由授权的单个对讲机发起的单呼，然而您的对讲机必须进行预设才能发起单呼。

如果未启用此功能，当您使用**单键接入**按钮发起单呼时，您将听到一声否定提示音。

使用短信或呼叫提醒功能与单个对讲机联系。有关详细信息，请参阅短信发送， 页 64 或呼叫提醒操作， 页 91 。

1 执行以下操作之一。

- 选择具有有效用户别名或 ID 的信道。请参阅选择呼叫类型， 页 81 。

- 按预设的**单键接入**按钮。

2 垂直握住对讲机，并与嘴保持 1 到 2 英寸（2.5 到 5.0 厘米）的距离。

3 按 **PTT 键**发起呼叫。

LED 绿灯长亮。

4 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

5 释放 **PTT** 按钮接听。

当目标对讲机回复时，LED 绿灯闪烁。

如果在预定时间内无语音活动，则呼叫终止。 您将听见一声短提示音。

5.2.6.1.3

进行站点全呼

此功能允许向站点上所有当前未进行其他呼叫的用户发射信号。您的对讲机必须进行预设才允许您使用该功能。

信道/站点上的用户无法回复站点全呼。

1 选择具有活动的站点全呼组别名的信道。请参阅选择呼叫类型， 页 81。

2 垂直握住对讲机，并与嘴保持 1 到 2 英寸（2.5 到 5.0 厘米）的距离。

3 按 **PTT 键**发起呼叫。

LED 绿灯长亮。

4 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

5.2.6.1.4

发起多组呼

该功能允许向多组中的所有用户发射信号。您的对讲机必须进行预设才允许您使用该功能。

注意:
组中的用户无法回复多组呼叫。

1

2 按 **PTT 键**发起呼叫。

LED 绿灯长亮。

等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

5.2.6.1.5

使用单键呼叫按钮进行单呼

单键呼叫功能允许您轻松发起对预定义单呼别名或 ID 进行单呼。该功能可指定给可预设按钮的短按或长按操作。

您只能将一个别名或 ID 分配给单键呼叫按钮。对讲机可以有多个预设的单键呼叫按钮。

1 按预设的**单键呼叫**按钮对预定义的单呼别名或 ID 发起单呼。

2 垂直握住对讲机，并与嘴保持 1 到 2 英寸（2.5 到 5.0 厘米）的距离。

3 按 **PTT 键**发起呼叫。

LED 绿灯长亮。

4 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

5 释放 **PTT** 按钮接听。

当目标对讲机作出响应时，LED 绿灯闪烁。

如果在预定时间内无语音活动，则呼叫终止。

5.3

在 Connect Plus 模式下的高级功能

本章介绍对讲机中可用的功能的操作。

5.3.1

主信道提醒

此功能在对讲机一段时间内未设置为主信道时提供一个提醒。

您可以通过执行以下操作之一回复提醒：

- 返回主信道。
- 使用可预设按钮使提醒暂时静音。
- 使用可预设按钮设置一个新主信道。

5.3.1.1

使主信道提醒静音

出现主信道提醒时，您可以通过执行以下操作暂时使提醒静音。

按**静音主信道提醒**预设按钮。

5.3.1.2

设置新的主信道

- 按**重置主信道**预设按钮。

5.3.2

自动降级

自动降级是一项系统功能，它允许在 Connect Plus 系统发生某些类型故障的情况下，继续对选定组联系人发起或接收非紧急呼叫。

如果发生这些故障中的某一种，对讲机会尝试漫游到其他 Connect Plus 站点。该搜索过程的结果可能是对讲机找到可工作的 Connect Plus 站点，也可能是对讲机找到“降级信道”（如果对讲机已启用自动降级）。

降级信道是一个中继器，通常是可工作的 Connect Plus 站点的一部分，但此时无法与站点控制器或 Connect Plus 网络进行通信。在降级模式下，中继器作为单个数字中继器工作。自动降级模式仅支持非紧急组呼。自动降级模式不支持其他呼叫类型。

5.3.2.1

自动降级模式指示

对讲机使用降级信道时，大约每 15 秒钟您会听到间歇性的“降级提示音”（发射时除外）。对讲机只允许选定组联系人的 PTT（组呼、多组呼或站点全呼）。它不允许进行其他类型的呼叫。

5.3.2.2
在降级模式下发起/接收呼叫

注意:
呼叫只能由正在监控相同降级信道并且选定到相同组的对讲机接收。呼叫不会通过网络传输给其他站点或其他中继器。
降级模式下无法使用紧急语音呼叫或紧急报警。如果在降级模式下按紧急呼叫按钮，对讲机会发出无效按键提示音。

降级模式下无法使用单呼（对讲机到对讲机）和电话呼叫。如果尝试进行单呼，您将听到拒绝提示音。此时您应该选择所需的组联系人。其他不支持的呼叫包括远程监控、呼叫提示、对讲机检测、对讲机激活、对讲机遥毙、短信、位置更新和分组数据呼叫。

降级模式不支持增强流量信道访问 (ETCA)。如果两名或多名对讲机用户同时按**通话按键**（或几乎同时），两部对讲机会在松开**通话按键**时进行传输。在此情况下，接收对讲机无法识别传输。

在降级模式下发起呼叫与正常工作情况下类似。只需选择要使用的组联系人（使用对讲机正常信道选择方法），然后按**通话按键**开始呼叫。该信道有可能正在被其他组使用。如果信道正在使用，您将收到忙音并且。您可以使用对讲机的正常信道选择方法选择组、多组或站点全呼联系人。对讲机在降级信道工作时，多组与其他组工作方式相同。呼叫只能被当前选定到相同多组的对讲机接收。

5.3.2.3
返回正常操作

如果站点在您处于降级中继器范围内时返回正常集群操作，对讲机将自动退出自动降级模式。您听到一声注册“蜂鸣声”时，对讲机即注册成功。如果处于可操作站点（未处于降级模式）范围内，可以按漫游请求按钮（如果对讲机已预设）强制对讲机搜索可用站点并注册。如果无其他可用站点，对讲机将在搜索完成后返回自动降级模式。如果离开降级中继器覆盖范围，对讲机将进入搜索模式。

5.3.3
扫描

此功能允许对讲机监听并加入预设扫描列表中所定义的通话组的呼叫。启用扫描时，扫描图标出现在状态栏中，且 LED 在待机时黄灯闪烁。

5.3.3.1

开始和停止扫描

注意:
此过程将为所有具备与您当前所选区域相同网络 ID 的 Connect Plus 区域打开或关闭扫描功能。

您可以通过按预设的**扫描**按钮开始和停止扫描。

5.3.3.2

在扫描期间响应发射信号

扫描时，您的对讲机停在检测到活动的通话组。在控制信道上处于待机状态时，对讲机将持续监听是否存在扫描列表中的任何成员。

1 垂直握住对讲机，并与嘴保持 1 到 2 英寸（2.5 到 5.0 厘米）的距离。

2 在闲置时间内，按**通话按键**。

LED 绿灯长亮。

3 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

4 释放 **PTT** 按钮接听。

如果您在闲置时间内未做出响应，对讲机返回扫描其他通话组。

5.3.4

了解扫描操作

注意:

在某些情况下，您会错过扫描列表中的组发起的呼叫。如果出于以下某一原因错过呼叫，则不表示对讲机存在问题。这是 Connect Plus 的正常扫描操作。

- 扫描功能未开启。
- 您正在参与呼叫。
- 扫描的组中成员都未在您所在站点注册（仅限多站点系统）。

5.3.5

扫描对讲

如果对讲机通过在可选通话组扫描列表中扫描呼叫，且在扫描呼叫时按下 **PTT** 按钮，则对讲机的操作取决于在对讲机预设过程中扫描对讲是否已启用或禁用。

扫描对讲已禁用

对讲机放弃扫描呼叫，转而尝试在当前所选信道位置对联系人发射信号。在当前所选联系人的呼叫闲置时间超时后，对讲机返回主信道，并启动扫描闲置时间计时器。对讲机在扫描闲置时间计时器超时后将恢复通话组扫描。

扫描对讲已启用

如果在扫描呼叫的组呼闲置时间内按下 **PTT** 按钮，则对讲机尝试向扫描通话组发射信号。

注意:
如果扫描到未分配到当前选定区域信道位置的组呼叫并且错过了呼叫的闲置时间，您需要切换到适当区域，然后选择组的信道位置以回复该组。

5.3.6
编辑通话组的优先级

优先级监听功能允许对讲机在处于某个呼叫中时自动接收具有更高优先级的通话组的传输。当对讲机切换到具有更高优先级的呼叫时，将发出一声提示音。

注意:
如果在 MOTOTRBO Connect Plus 选件板 CPS 中配置默认紧急恢复组 ID，则提供三种通话组优先级：P0、P1 和 P2。P0 是永久紧急恢复组 ID 和最高优先级。请联系您的经销商或系统管理员了解详情。

5.3.7
呼叫提醒设置

此功能允许对讲机用户配置呼叫或短信铃声。

5.3.7.1
选择铃声提示类型

注意:
预设的**铃声提示类型**按钮由您的经销商或系统管理员分配。咨询经销商或系统管理员以确定对讲机的预设情况。

您可以将对讲机呼叫预设为预定的振动呼叫。

如果铃声为瞬间铃声类型，则对讲机会振动一次。如果铃音为重复铃音类型，则对讲机会重复振动。设置为“响铃并振动”时，如果有任何呼入的对讲机事务（例如呼叫提醒或信息），对讲机将发出特定的铃音。该铃音听起来像确定提示音或未接听呼叫。

5.3.7.2

配置振动类型

注意:
预设的**振动类型**按钮由您的经销商或系统管理员分配。咨询经销商或系统管理员以确定对讲机的预设情况。

5.3.7.3

渐强警报音

您可将对讲机设置为当对讲机呼叫尚未回复时，不断提醒您。这由警报音量随时间自动增强来实现。此功能称为渐强提示音。

5.3.8

呼叫提醒操作

呼叫提醒使您可以提示一个具体的对讲机用户在可能的时间回呼您。

此功能可使用来使用。

5.3.8.1

对呼叫提示做出响应

当您接收呼叫提示时：

- 将发出一声重复音。
- 黄色 LED 指示灯闪烁。

在接到呼叫提示寻呼的 4 秒钟内按 **PTT** 按钮可回复单呼。

5.3.8.2

使用单键接入按钮发出呼叫提醒

按下预设的**单键接入**按钮，向预定义的别名发出呼叫提示。

当对讲机发送呼叫提醒时，LED 绿灯长亮。

如果接收到呼叫提示确认，。

如果没有接收到呼叫提示确认，。

5.3.9

静音模式

静音模式可提供一个将对讲机上的所有音频指示器静音的选项。

启用“静音模式”后，所有音频指示器都将静音，优先级更高的功能除外（如紧急呼叫操作）。

退出“静音模式”后，您的对讲机将恢复播放正在进行的提示音并恢复音频传输。

重要说明:
您一次只能启用“正面朝下”或“倒地警报”中的其中一种功能。无法同时启用两种功能。

5.3.9.1

打开静音模式

按照以下步骤打开静音模式。

执行以下操作之一：

- 使用预设的**静音模式**按钮访问此功能。
- 通过将对讲机短暂置于正面朝下的位置来访问此功能。

根据对讲机型号的不同，正面朝下功能可通过对讲机菜单或系统管理员启用。请联系您的经销商或系统管理员了解详情。

重要说明:
用户一次只能启用倒地警报或正面朝下中的其中一种功能。无法同时启用两种功能。

启用静音模式时，将发生以下情况：

- 发出一声确定提示音。
- 显示屏将显示静音模式开。
- 红色 LED 灯开始闪烁，直至退出静音模式。
- 显示屏主屏幕上显示**静音模式**图标。
- 对讲机处于静音状态。
- 静音模式计时器开始倒数配置的持续时间。

5.3.9.2

退出静音模式

静音计时器到时后，此功能会自动退出。

执行以下任一操作手动退出静音模式：

- 按预设的**静音模式**按钮。

- 按任何条目上的 **PTT** 按钮。
- 将对讲机短暂置于正面朝上的位置。

禁用静音模式时，将发生以下情况：

- 发出一声否定提示音。
- 显示屏将显示静音模式关。
- 闪烁的红色 LED 指示灯关闭。
- **静音模式**图标将从主屏幕上消失。
- 您的对讲机将取消静音并恢复扬声器状态。
- 如果计时器未到时，则静音模式计时器将被暂停。

注意:
如果用户传输语音或切换至未预设的信道，则将退出静音模式。

5.3.10

紧急操作

注意:
如果对讲机预设为“静音”或“带话音的静音”紧急呼叫发起，大多数情况下它都会在紧急呼叫或紧急提示结束后自动退出静音操作。此规则的例外情况是紧急呼叫模式配置为“紧急提示”并且紧急类型配置为“静音”。如果对讲机按上述方法预设，静音操作将持续到按**通话按键**或配置为“紧急呼叫关闭”的按钮取消操作。

在 Connect Plus 自动降级模式下操作时，不支持紧急语音呼叫和紧急报警。有关详细信息，请参阅 自动降级， 页 87 。

您的经销商可以设置预设**紧急呼叫**按钮的按下持续时间（除了长按，长按的持续时间与所有其他按钮类似）：

短按
0.05 秒至 0.75 秒之间。

长按
1.00 秒到 3.75 秒之间。

紧急呼叫按钮设有紧急呼叫开/关功能。有关**紧急呼叫**按钮所设置的操作功能，请联系您的经销商。

- 如果短按**紧急呼叫**按钮被设置为开启紧急呼叫模式，则长按**紧急呼叫**按钮被设置为退出紧急呼叫模式。

- 如果长按**紧急呼叫**按钮被设置为开启紧急呼叫模式，则短按**紧急呼叫**按钮被设置为退出紧急呼叫模式。

对讲机选定到 Connect Plus 区域时，它支持 3 种紧急呼叫模式：

紧急呼叫
您必须按**通话按键**在指定的紧急时隙通话。

带语音跟随的紧急呼叫
第一次在指定的紧急时隙传输时，麦克风会自动取消静音，无需按**通话按键**即可通话。麦克风将保持该状态，持续对讲机预设的时间。相同紧急呼叫中的后续传输必须按**通话按键**。

紧急提示
紧急提示不是语音呼叫。它是紧急通知，将发送给配置为接收这些提示的对讲机。对讲机会使用当前注册站点的控制信道发送紧急提示。紧急提示会由 Connect Plus 网络中预设为接收这些提示的对讲机接收（无论其注册的网络站点情况如何）。

每个区域只能为紧急按钮分配一种紧急呼叫模式。此外，紧急呼叫模式有以下类型：

常规
对讲机发起紧急呼叫并显示语音和/或视觉提示。

静音
对讲机发起紧急呼叫，但不显示任何语音或视觉提示。对讲机将抑制所有紧急的语音或视觉提示，直到按**通话按键**开始语音传输。

带话音的静音
与静音操作相同，不同之处是对讲机还将为某些语音传输取消静音。

5.3.10.1 回复紧急呼叫

5.3.10.2 忽略紧急恢复呼叫

此增强功能为您的对讲机提供一个可忽略正在进行的紧急恢复呼叫的选项。

要启用“忽略紧急恢复呼叫”，必须通过 Connect Plus 客户编程软件 (CPCPS) 配置您的对讲机。

请联系您的经销商了解详细信息。

5.3.10.3

发起紧急呼叫

注意:
如果对讲机设置为静音，它在紧急呼叫模式期间不会显示任何声音或可视指示，直到按**通话按键**发起语音传输。
如果对讲机设置为带话音的静音，则对讲机处于紧急呼叫模式下时不会显示任何声音或可视指示。但是对讲机会为回复紧急呼叫的对讲机传输取消静音。紧急指示只会在按**通话按键**从对讲机发起语音传输时出现一次。

对于“静音”和“带话音的静音”操作，对讲机都将在紧急呼叫结束后自动退出静音操作。

1 按预设的**紧急呼叫**按钮。

2 按**通话按键**可对紧急呼叫组发起语音传输。

松开**通话按键**键时，紧急呼叫会持续分配给紧急呼叫闲置的时间。

如果在此期间按**通话按键**，紧急呼叫将继续。

5.3.10.4

发起带语音跟随的紧急呼叫

对讲机必须为此操作类型进行预设。

启用此操作时，按预设的**紧急呼叫**按钮并且对讲机接收时隙分配，无需按**通话按键**，麦克风就会自动激活。这种激活的麦克风状态又称为“紧急麦克风”。“紧急麦克风”适用于紧急呼叫期间从对讲机发出的第一次语音传输。相同紧急呼叫中的后续传输必须按**通话按键**。

1 按预设的**紧急呼叫**按钮。

2 麦克风将保持“紧急麦克风”状态，保持时长在对讲机的 Codeplug 预设时指定。

在此期间，LED 绿灯亮起。

3 按住**通话按键**进行比预设期间更长时间的通话。

5.3.10.5

发起紧急提示

注意:
如果对讲机预设为“静音”或“带话音的静音”，则对讲机在发送紧急报警时不会提供任何声音或视觉指示。如果预设为“静音”，静音操作将一直持续，直到按 PTT 或配置为“紧急呼叫关”的按钮。如果预设为“带话音的静音”，对讲机会在站点控制器广播紧急报警时自动取消静音操作。

按橙色的**紧急呼叫**按钮。

5.3.10.6

退出紧急呼叫模式

注意:
如果紧急呼叫由于紧急呼叫闲置时间超时结束，但是紧急条件未结束，可按**紧急呼叫**按钮重新启动流程。

如果您通过按预设的**紧急呼叫**按钮发起紧急报警，对讲机在接收到来自 Connect Plus 系统的回复后将自动退出紧急呼叫模式。

如果按预设的**紧急呼叫**按钮发起紧急呼叫，对讲机将在信道可用时自动获得分配。对讲机已经发送表示紧急的消息后，无法取消紧急呼叫。但是，如果意外按下按钮或紧急情况不再存在，您可通过指定信道说出此情况。松开**通话按键**时，紧急呼叫将在紧急呼叫闲置时间超时后终止。

如果对讲机配置为紧急语音，可使用“紧急麦克风”期间解释错误，然后按下并松开**通话按键**终止传输。紧急呼叫会在紧急呼叫闲置超时后终止。

5.3.11

倒地警报

注意:
在降级模式下工作时，对讲机不支持倒地警报。有关详细信息，请参阅 自动降级， 页 87 。

本部分介绍 Connect Plus 倒地功能。这是可购买功能，可能适用或不适用于您的对讲机。

Connect Plus 便携式对讲机可启用和预设一个或多个倒地警报。经销商或对讲机系统管理员可以告知此功能是否适用于您的对讲机以及哪些特定倒地警报已开启和预设。

如果对讲机预设以下倒地警报中的一个或多个，那么您有必要了解警报如何工作、对讲机会提供什么指示（提示音）以及应采取的措施。

倒地警报的目的在于当您处于危险中时警告其他人。这一目的可通过编辑对讲机以检测某一倾斜角度、未移动或移动，具体取决于启用的倒地警报。如果对讲机检测到不允许的移

动类型并且条件未在特定时间内恢复正常，对讲机将开始播放警报提示音（如果这样预设）。此时您应立即采取以下讨论的改正措施，具体取决于对讲机启用倒地警报的情况。如果未在特定时间内采取改正措施，对讲机将自动发起紧急呼叫（紧急呼叫或紧急提示）。

- **倾斜警报** – 对讲机倾斜大于或等于特定角度达到特定时间后，会播放警报提示音（如果这样预设）。为了避免对讲机自动发起紧急呼叫或紧急报警，应立即将对讲机恢复到垂直位置。
- **忌移警报** – 对讲机在特定时间段内未移动，会播放警报提示音（如果这样预设）。为了避免对讲机自动发起紧急呼叫或紧急报警，应立即车载台对讲机。
- **移动警报** – 对讲机移动特定时间段时，会播放警报提示音（如果这样预设）。为了避免对讲机自动发起紧急呼叫或紧急报警，应立即停止移动对讲机。

经销商或对讲机系统管理员会告诉您已通过对讲机预设启用了哪些警报（如已启用）。可同时启用倾斜和忌移警报。在此情况下，警报提示音会在对讲机检测到第一次违背条件移动时播放。

除采取上述改正措施外，如果对讲机已配置了此方法，则还可以使用可预设按钮避免对讲机发起紧急呼叫或紧急报警。该方法将在以下两部分中讨论。

5.3.11.1

打开和关闭倒地警报

打开和关闭倒地警报过程取决于对讲机的预设情况。如果使用倒地警报开启/关闭按钮预设，则可使用该按钮开启和关闭倒地警报。该方法适用于对讲机启用的所有倒地警报。

使用可预设按钮开启倒地警报时，对讲机会播放音高逐渐增大的提示音。

要在开启和关闭倒地警报时听到上述提示音，必须同时为 MOTOTRBO 对讲机和 Connect Plus 选件板启用键盘提示音。

5.3.11.2

重置倒地警报

该操作将停止当前正在播放的倒地警报提示音并且还会重置警报计时器。但是仍需要采取倒地警报部分中所述的更正措

施以改正违背条件的移动。如果在特定时间内违背条件的移动未改正，则警报提示音会再次播放。

5.3.12

信标功能

信标是可购买功能，是 Connect Plus 倒地功能的一部分。经销商或对讲机系统管理员可以告知信标功能是否适用于您的对讲机。

如果对讲机已启用并且预设了一个或多个倒地警报，则此对讲机也可以启用信标功能。

如果对讲机因为一个倒地警报自动发起紧急呼叫或紧急报警并且对讲机已启用信标功能，则对讲机会大约每 10 秒钟间歇性地发出一声高音调提示音。间隔可根据是否在对讲机上通话改变。信标提示音的目的在于帮助搜寻人员找到您。如果对讲机已启用“可视信标”，则对讲机的背光会在信标提示音播放时亮起几秒钟。

如果对讲机已配置此方法，则您可以使用可预设按钮停止对讲机播放信标提示音。该方法将在以下两部分中讨论。如果对讲机无可预设按钮或菜单选项，则可以通过关闭并再次打开对讲机或更改到其他区域（如果对讲机预设了多个区域）以停止信标提示音。

5.3.12.1

开启和关闭信标

开启和关闭信标的过程取决于对讲机的预设情况。如果使用信标开启/关闭按钮预设，则可使用该按钮开启和关闭信标。

- 使用可预设按钮开启信标时，对讲机会播放音高逐渐增大的提示音。
- 使用可预设按钮关闭信标时，对讲机会播放音高逐渐减小的提示音。

要在开启和关闭信标时听到上述提示音，必须同时为 MOTOTRBO 对讲机和 Connect Plus 选件板启用键盘提示音。

5.3.12.2

重置信标

如果对讲机预设信标重置按钮，则可以重置信标。该操作会在不关闭信标功能的情况下停止信标提示音。

5.3.13

短信发送

您的对讲机可以接收数据，例如来自另一对讲机或短信应用程序的短信。

提供两种类型的短信，即数字车载台对讲机 (DMR) 短信和普通短信。一条 DMR 短信的最大长度为 23 个字符。一条

普通短信的最大长度为 280 个字符，包括主题行。仅当从电子邮件应用程序收到消息时，主题行才会出现。

注意:
最大字符长度仅适用于具有最新软件和硬件的型号。对于具有较旧软件和硬件的对讲机型号，一条普通短信的最大长度为 140 个字符。有关详细信息，请联系您的经销商。

5.3.13.1

使用单键接入按钮发送预制短信

要将预定义的预制短信发送到预定义的别名，请按预设的**单键接入**按钮。

如果信息发送成功，对讲机会显示以下指示：

- 设备会发出一声确定提示音。

如果信息发送失败，对讲机会显示以下指示：

- 设备会发出一声否定提示音。
- 显示屏显示信息发送失败。

如果短信发送失败，对讲机将返回到重发选项屏幕。

5.3.14

加密

假如启用此功能，有利于防止信道上的其他用户利用软件加密的方法未经授权而进行窃听。发射的信令和用户识别部分未加密。

对讲机必须在当前信道选择器位置启用加密功能才能发送加密发射信号，虽然这不是接收发射的必需要求。同时在启用了加密功能的信道选择器位置上，对讲机仍然可以接收到清晰的（解密）发射信号。

您的对讲机支持增强型加密。

要对加密呼叫发射信号进行解密，您的对讲机必须进行预设，以便与发射对讲机拥有相同的密钥值和密钥 ID（对于增强型加密）。

如果您的对讲机收到具有不同密钥值和密钥 ID 的加密呼叫，您将什么也听不到（增强型加密）。

在对讲机处于发送状态时，LED 绿灯长亮；而当对讲机正在接收启用加密功能的发射信号时，绿色指示灯会急速闪烁。

您可以通过执行以下操作之一访问此功能：

- 按预设的**加密**键打开或关闭加密。按预设的**加密**键打开或关闭加密。

注意:
某些对讲机型号可能不提供加密功能。请联系您的经销商或系统管理员了解详情。

5.3.14.1
发起启用加密（已加密）的呼叫

使用预设的加密按钮打开加密。对讲机必须为当前选定的信道位置启用加密功能以进行加密传输。当前选定信道位置启用加密时，对讲机发起的所有语音传输都将加密。这包括组呼、多组呼、扫描呼叫期间回复、站点全呼、紧急呼叫和单呼。只有接收对讲机具有与您的对讲机相同的密钥值和密钥 ID 时才能解密传输。

5.3.15
蓝牙操作

注意:
如果通过 CPS 禁用，所有蓝牙相关功能都将禁用，并且蓝牙设备数据库将被擦除。

该功能允许您通过无线蓝牙连接将您的对讲机与激活了蓝牙功能的设备（附件）一起使用。您的对讲机支持 Motorola Solutions 提供的以及市场上出售 (COTS) 的带蓝牙功能的设备。

蓝牙的有效直视线距离是 10 米（32 英尺）。该距离是指您的对讲机与已启用蓝牙功能设备之间的无障碍距离。

如果您将对讲机放在离激活了蓝牙功能的设备较远的地方，则因为二者之间相隔较远，蓝牙设备可能无法提供较高的工作可靠性。

在信号接收范围的边缘区域，您所听到的语音和提示音可能会变得“含混不清”或“断断续续”。要解决这一问题，只需将您的对讲机和激活了蓝牙功能的设备彼此靠近一些（使它们在规定的 10 米/32 英尺范围内），以便重新接收能够提供清晰音频的较强信号。您的对讲机的蓝牙功能在 10 米/32 英尺范围内的最大功率为 2.5 mW (4 dBm)。

您的对讲机最多可同时与四个不同类型的蓝牙设备建立蓝牙连接。例如，耳机和一个仅具备 PTT 功能的设备 (POD)。

要详细了解启用了蓝牙功能的设备的全部功能，请参阅各个设备的用户手册。

5.3.15.1
查找和连接到蓝牙设备

在执行查找和连接操作的过程中不要关闭您的蓝牙设备，否则会导致操作被取消。

1 打开您的蓝牙设备，并将其设置为配对模式。请参阅相应的蓝牙设备用户手册。

2 在对讲机上按 。

如果成功，音响起，

如果失败，。

5.3.15.2

断开与蓝牙设备的连接

在对讲机上按预设的**蓝牙断开**按钮 。

对讲机发出一声确定提示音（断开连接时）。

5.3.15.3

在对讲机内部扬声器和蓝牙设备之间切换音频路由

您可以在对讲机内部扬声器和启用了蓝牙功能的外部附件之间切换音频路由。

按预设的**蓝牙音频切换**按钮。

切换音频路由后，一声提示音响起。

5.3.15.4

蓝牙永久可发现模式

注意:
蓝牙永久可发现模式只能使用 MOTOTRBO CPS 启用。如果启用，您将**无法**使用任何蓝牙可编程按钮功能。

其他启用蓝牙功能的设备可以找到对讲机，但设备无法连接到对讲机。在基于蓝牙的定位过程中，它启用专用设备使用对讲机的位置。

打开您的蓝牙设备，并将其与您的对讲机配对。有关详细信息，请参阅启用蓝牙设备的相关用户手册。

5.3.16

Wi-Fi 操作

此功能允许您设置和连接至 Wi-Fi 网络。Wi-Fi 支持更新对讲机固件、Codeplug 和资源，例如语言包和语音提示。

Wi-Fi® 是 Wi-Fi Alliance® 的注册商标。

对讲机支持 WEP/WPA/WPA2-个人和 WPA/WPA2-企业 Wi-Fi 网络。

WEP/WPA/WPA2-个人 Wi-Fi 网络

使用基于预共享密钥（密码）的身份验证。

预共享密钥可使用菜单或 CPS/对讲机管理输入。

WPA/WPA2-企业 Wi-Fi 网络

使用基于证书的身份验证。

对讲机必须预配置有证书。

注意:
要连接到 WPA/WPA2-企业 Wi-Fi 网络，请咨询经销商或系统管理员。

预设的**打开或关闭 Wi-Fi** 按钮由您的经销商或系统管理员分配。咨询经销商或系统管理员以确定对讲机的预设情况。

预设的**打开或关闭 Wi-Fi** 按钮的语音提示可以根据用户要求，通过 CPS 自定义。请联系您的经销商或系统管理员了解详情。

5.3.16.1
打开或关闭 Wi-Fi

按预设的**或关闭 Wi-Fi** 按钮。语音提示会发出：打开或关闭 Wi-Fi。

5.3.16.2
连接到网络接入点

当您打开 Wi-Fi 时，对讲机扫描并连接到网络接入点。

注意:
WPA-企业 Wi-Fi 网络接入点可预配置。咨询经销商或系统管理员以确定对讲机的预设情况。

5.4
实用工具

本章介绍对讲机中可用的实用功能操作。

5.4.1
打开或关闭对讲机提示音/提示

如果需要，您可以启用和禁用所有对讲机提示音和提示（紧急呼入提示音除外）。

5.4.2
设置功率级别

您可以为每个 Connect Plus 区域将对讲机功率级别自定义为高或低。

用于与距离相对较远的对讲机塔站（Connect Plus 模式下）进行通信。用于与较近处的对讲机塔站（Connect Plus 模式下）进行通信。

5.4.3

语音提示

该功能使得对讲机可以通过语音方式指示用户刚刚分配的当前区域或信道或者指示所按的可预设按钮。此音频指示器可根据客户需求进行自定义。

5.4.4

设置文本转语音功能

注意:
文本转语音功能只能使用 MOTOTRBO CPS 启用。如果启用，将自动禁用语音提示功能，反之亦然。请联系您的经销商或系统管理员了解详情。

- 按预设的**语音提示**按钮打开或关闭此功能。

5.4.5

智能音频

您的对讲机可以自动调整音量以克服环境中存在的背景噪音（包括所有静态和非静态噪音源）。此功能只对接收的音频有效，不会影响发射的音频。

5.4.6

打开或关闭回声抑制器功能

通过此功能可以最小化您在接听电话时遇到的回声。
按预设的**回声抑制器**按钮。

您会听到一声确定提示音，表示现在已启用回声抑制器。

您会听到一声否定提示音，表示对讲机无法激活回声抑制器。

5.4.7

打开或关闭 GNSS

全球导航卫星系统 (GNSS) 是一种卫星导航系统，用于确定对讲机的精确位置。GNSS 包括全球定位系统 (GPS)、全球导航卫星系统 (GLONASS) 和北斗导航卫星系统 (BDS)。

注意:
所选对讲机型号可提供 GPS、GLONASS 和 BDS。GNSS 卫星群可使用 CPS 配置。咨询经销商或系统管理员以确定对讲机的预设情况。

按预设的 **GNSS** 按钮打开或关闭此功能。

其他系统

本章说明对讲机用户在本系统中可以使用的功能。

6.1

通话按键

通话按键 **(PTT)** 按钮有两个基本用途：

- 正在进行呼叫时，**PTT** 按钮可让对讲机向该呼叫中的其他对讲机发射信号。按下 **PTT** 按钮时，可激活麦克风。
- 当不进行呼叫时，**PTT** 按钮用于发起一次新呼叫。

如果启用了通话许可音或 PTT 侧音，则等待短提示音结束后即可开始通话。

如果您的对讲机激活了“信道空闲提示”功能（经销商进行了预设），则当目标对讲机（接收您呼叫的对讲机）释放 **PTT** 时，您将会听到一声短提示音，表示此信道空闲，等待您回答。

如果呼叫中断，您将听到一声连续的通话禁止提示音。如果您听到连续的通话禁止提示音，您应该释放 **PTT** 按钮。

6.2

可预设按钮

根据按下按钮的持续时间，您的经销商可将可预设按钮设置为对讲机功能的快捷键。

短按

快速按下并释放。

长按

按住然后保持预设的时间。

注意:
请参阅紧急操作，页 137 详细了解**紧急呼叫**按钮的预设持续时间。

6.2.1

可分配的对讲机功能

可将以下对讲机功能分配到可编程的按钮。

音频切换

在内部对讲机扬声器和有线附件扬声器之间切换音频路由。

电池电量强度

使用 LED 指示灯显示电池电量强度。

蓝牙® 音频切换
在内部对讲机扬声器和已启用蓝牙功能的外部附件之间切换音频路由。

蓝牙连接
启动蓝牙查找并连接操作。

蓝牙断开
终止您的对讲机和任何已启用蓝牙的设备之间的所有现有蓝牙连接。

蓝牙可发现
使对讲机进入蓝牙可发现模式。

呼叫转移
打开或关闭呼叫转移。

信道通知
播放当前信道的区域和信道语音通知信息。

紧急呼叫
根据预设，发起或取消紧急呼叫。

室内定位
打开或关闭室内定位。

智能音频
打开或关闭智能音频。

手动站点漫游 [2]
启动手动站点搜索。

麦克风 AGC
打开或关闭内部麦克风自动增益控制 (AGC) 功能。

监听
监听所选信道中的任何活动。

通知
提供对通知列表的直接访问。

无用信道删除 [2]
除选定信道外，从扫描列表中暂时删除一个无用信道。选定信道是指发起扫描的用户所选的区域或信道的组合。

单键接入
直接发起预定义的单呼、电话呼叫或组呼、呼叫提示、预制短信或复原返回。

选件板功能
在支持选件板功能的信道上打开或关闭选件板功能。

永久监听 [2]
监听一个选定信道的所有对讲机通信，直至禁用该功能。

[2] 在智能信道共享中不适用。

电话退出
结束电话呼叫。

加密
打开或关闭加密。

中继器/脱网
在使用中继器和直接与其他对讲机通信之间切换。

重置主信道
设置新的主信道。

静音主信道提醒
静音主信道提醒。

扫描 [3]
打开或关闭扫描。

站点信息
启用语音提示时，播放当前站点的站点提示语音消息。

站点锁定
切换为打开时，对讲机只搜索当前站点。切换为关闭时，对讲机将搜索当前站点和其他站点。

发射中断远程停止
中止进行中的可中断呼叫以释放信道。

遥感遥测控制
控制本地或远程对讲机上的输出引脚。

[3] 在智能信道共享--单站点中不适用。

颤音增强功能
打开或关闭颤音增强功能

语音提示开/关
打开或关闭语音提示。

声控发射 (VOX)
打开或关闭 VOX。

Wi-Fi
打开或关闭 Wi-Fi。

区域切换
允许对讲机用户在区域 1 和区域 2 之间切换。

6.2.2
可分配的设置或实用功能

可将以下对讲机设置或实用功能分配到可编程的按钮。

音调/提示
打开或关闭全部音调和提示。

显示模式
在日间/夜间显示模式之间进行切换。

电量级别
在高低功率之间切换发射功率级别。

6.3

状态指示灯

本章介绍对讲机中使用的状态指示灯和音频提示音。

6.3.1

图标

以下是出现在对讲机显示屏上的图标。

表 8 ： 显示屏图标

以下图标出现在对讲机显示屏顶部的状态栏中。图标按出现或使用顺序排列在最左侧，并为信道特定图标。

	电池 电量条的数量 (0–4) 表示电池中的剩余电量。电池电量低时图标将闪烁。
	蓝牙已连接 蓝牙功能已启用。当连接了一个远程蓝牙设备时，此图标将保持亮起状态。
	未连接蓝牙 蓝牙功能已启用，但尚未连接远程蓝牙设备。
	通话记录 对讲机通话记录。
	紧急呼叫 对讲机处于紧急呼叫模式。
	灵活接收列表 灵活接收列表已启用。
	GNSS 可用 GNSS 功能已启用。定位可用时，该图标亮起。
	GNSS 不可用 GNSS 功能已启用，但未接收到卫星数据。
	大批量数据 对讲机正在接收大批量数据，信道处于繁忙状态。
	任务通知 通知列表中包含可查看的项目。
	监听 正在监听所选信道。

	静音模式 静音模式已启用，扬声器已静音。
	选件板 选件板已启用。（仅已激活选件板的机型）
	选件板不工作 选件板已禁用。
	无线编程延迟计时器 表示自动重新启动对讲机之前剩余的时间。
	接收信号强度指示器 (RSSI) 显示的信号强度柱数目表示对讲机信号强度。四个信号强度柱表示信号的强度最强。只有在接收时才显示该图标。
	响应抑制 响应抑制已启用。
	仅响铃 已激活响铃模式。

	扫描 [4] 扫描功能已启用。
	扫描-优先级 1[4] 对讲机检测指定为优先级 1 的信道/通话组上的活动。
	扫描-优先级 2[4] 对讲机检测指定为优先级 2 的信道/通话组上的活动。
	安全 加密功能已启用。
	登录 对讲机已登录到远程服务器。
	登出 对讲机已从远程服务器注销。
	静音 已激活静音模式。

[4] 在智能信道共享中不适用。

	站点漫游 [5] 已启用站点漫游功能。
	脱网 [4] 在无中继器时，对讲机配置为对讲机到对讲机的通信。
	不安全 加密功能已禁用。
	振动 已激活振动模式。
	振动和响铃 已激活振动和响铃模式。
	投票扫描 投票扫描功能已启用。

表 9 ： 高级菜单图标

以下图标显示在菜单项旁边，这些图标供用户在两个选项之间进行选择或者向用户表明有一个可提供两个选项的子菜单。

	复选框（选中） 表示已选择选项。
	复选框（未选中） 表示未选择选项。
	实心黑框 表示为包含子菜单的菜单项所选择的选项。

表 10 ： 蓝牙设备图标

以下图标显示在可用的已启用蓝牙功能的设备列表中的列表项旁边，用于指示设备类型。

	蓝牙音频设备 已启用蓝牙功能的音频设备，例如耳机。
	蓝牙数据设备 已启用蓝牙功能的数据设备，例如扫描器。

[5] 在智能信道共享--单站点中不适用

	蓝牙 PTT 设备 已启用蓝牙功能的 PTT 设备，例如仅具备 PTT 功能的设备 (POD)。
	蓝牙传感器设备 已启用蓝牙功能的传感器设备，例如气体传感器。

表 11 ： 呼叫图标

以下图标在呼叫过程中出现在显示屏上。这些图标也出现在通讯录列表中，表示别名或 ID 类型。

	蓝牙 PC 呼叫 表示正在进行蓝牙 PC 呼叫。 在“通讯录”列表中，它表示蓝牙 PC 呼叫别名（名称）或 ID（编号）。
	单呼 表示正在进行单呼。在“通讯录”列表中，它表示用户别名（名称）或 ID（编号）。
	组呼/全呼 表示正在进行组呼或全呼。 在“通讯录”列表中，它表示通话组别名（名称）或 ID（编号）。

表 12 ： 小型通知图标

在采取执行任务的操作后，显示屏上会短暂显示以下图标。

	发射失败（否定） 操作执行失败。
	发射成功（确定） 操作执行成功。
	正在发射（发射中） 正在发射。在指示发射成功或发射失败时显示。

表 13 ： 已发信息图标

以下图标显示在显示屏右上角的已发信息文件夹中。

或	**进行中** 至某一用户别名或 ID 的短信正在等待发送，然后等待确认。至某一通话组别名或 ID 的短信正在等待发送。

 或 	**发送失败** 短信无法发送。
 或 	**发送成功** 短信已经成功发送。

6.3.2

LED 指示灯

LED 指示灯显示对讲机的工作状态。

稳定红色

对讲机正在传输所有类型的语音呼叫。

呈红色闪烁

对讲机指明电池不匹配。

开机后对讲机自检失败。

对讲机正通过无线方式检测活动或者检索无线编程传输活动。

对讲机正在接收紧急发射信号。

对讲机正在低电池电量状态下发射。

如果配置了自动范围应答机系统，对讲机已移至范围以外。

对讲机出现充电错误。

已启用静音模式。

对讲机正在升级到新的选件板固件文件。

对讲机预设失败。

对讲机正在接收呼叫或数据。

稳定绿色

对讲机正在开机。

呈绿色闪烁

对讲机正在扫描活动。

稳定黄色

对讲机正在监听某个传统信道。

呈黄色闪烁

对讲机尚未响应呼叫提示。

对讲机已启用灵活接收列表。

正在进行对讲机预设。

对讲机正在扫描活动。

对讲机尚未响应呼叫提示。

所有智能信道共享--多站点的信道均处于繁忙状态。

黄灯双闪

对讲机已启用自动漫游功能。

对讲机正在主动搜索新站点。

对讲机尚未响应组呼提示。

对讲机被锁定。

智能信道共享模式下，对讲机不与中继器连接。

所有智能信道共享模式的信道均处于繁忙状态。

6.3.3
提示音

以下是通过对讲机扬声器发出的提示音。

高音调提示音

低音调提示音

6.3.3.1
提示音

在采取执行任务的操作后，提示音为您提供状态的声音提示。

确定提示音

否定提示音

6.3.3.2
音频提示音

音频提示音通过声音向您发出有关对讲机状态或对讲机对所接收的数据进行的响应的提示。

连续音

发出单调音。连续发音直至终止。

周期音

根据对讲机设定的持续时间周期发音。铃音自我启动、停止和重复。

重复音

自我重复的单音，直至用户将其终止。

瞬间音

根据对讲机设定的短持续时间发出一次。

6.4

区域和信道选择

本章介绍了在对讲机上选择区域或信道的操作。区域是一个信道组。

此款非显屏对讲机最多支持 32 个信道和 2 个区域，每个区域最多 16 个信道。而显屏对讲机最多支持 1000 个信道和 251 个区域，每个区域最多 160 个信道。

每个信道均可使用不同的功能预设和/或支持不同的用户组。在选择相关区域之后，选择用于传送或接收信号所需的相关信道。

6.4.1

选择区域

按照步骤在对讲机上选择所需的区域。

按预设的**区域切换**按钮。

6.4.2

使用别名搜索选择区域

按照步骤使用别名搜索在对讲机上选择所需的区域。

1 按 OK 访问菜单。

2 按 ▲ 或 ▼ 显示区域。 按 OK 进行选择。

显示屏显示 ✓ 和当前区域。

3 输入所需别名的第一个字符。

显示屏显示一个闪烁的光标。

4 输入所需别名的其余字符。

别名搜索不区分大小写。如果有两个或两个以上名称相同的条目，对讲机将显示列表中首先列出的条目。

第一行文字显示您输入的字符。接下来的几行文字显示筛选后的搜索结果。

5 按 OK 进行选择。

屏幕短暂显示<区域>已选择，然后返回所选区域屏幕。

6.4.3

选择信道

按照步骤在对讲机上选择所需的信道。

，旋转**信道选择**旋钮选择信道、用户 ID 或组 ID。

注意:
对于显屏对讲机，如果启用了**虚拟信道停止**功能，您的对讲机会在跨越第一个或最后一个信道后停止，而且您会听到提示音。

6.5

呼叫

本章介绍了接收、回复、发出和停止呼叫的操作。

在使用以下一种功能选择了信道后，您可以选择一个用户别名或 ID、或通话组别名或 ID：

通讯录列表
此方法用于直接访问通讯录列表。

预设的单键接入按钮
此方法仅用于组呼、单呼和电话呼叫。

通过短按或长按可预设的按钮，您只能将一个 ID 分配给一个**单键接入**按钮。

可预设按钮
此方法仅用于电话呼叫。

6.5.1

组呼

您的对讲机必须配置为通话组的一部分，才能从用户通话组接收呼叫或向用户通话组发起呼叫。

6.5.1.1

回复组呼

要接收来自用户组的呼叫，对讲机必须配置为属于该通话组。按照步骤在对讲机上回复组呼。

当您接收组呼时：

- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 执行以下操作之一：

- 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。按 **PTT** 按钮来回复该呼叫。

- 如果语音中断功能已启用，则按 **PTT** 按钮中止来自发射对讲机的音频，以释放信道供您应答。

LED 红灯亮起。

2 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

在预定时间内无语音活动时，呼叫结束。

6.5.1.2
发起组呼

按照步骤在对讲机上发起组呼。

1 执行以下操作之一：

- 选择具有活动通话组别名或 ID 的信道。
- 按预设的**单键接入**按钮。

2 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。显示屏显示**组呼**图标和别名。

3 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

4 释放 **PTT** 按钮接听。

当目标对讲机做出响应时，LED 红灯闪烁。

5 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。按 **PTT** 按钮来回复该呼叫。

在预定时间内无语音活动时，呼叫结束。对讲机将返回至发起呼叫前的屏幕。

6.5.2
单呼

单呼是由一台个体对讲机对另一台个体对讲机的呼叫。

有两种单呼设置方法。第一种是在执行对讲机存在检测后设置呼叫，第二种是立即设置呼叫。经销商只可将其中的一种预设到对讲机中。

6.5.2.1
回复单呼

按照步骤在对讲机上回复单呼。

当您接收单呼时：

- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 执行以下操作之一：

- 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。按 **PTT** 按钮来回复该呼叫。
- 如果发射中断远程停止功能已启用，则按 **PTT** 按钮停止进行中的可中断呼叫以释放信道供您做出响应。

LED 红灯亮起。

2 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

在预定时间内无语音活动时，呼叫结束。

6.5.2.2
发起单呼

您的对讲机必须经过预设才能发起单呼。如果未启用此功能，则当您发起呼叫时，会发出一声否定提示音。按照步骤在对讲机上发起单呼。

1 执行以下操作之一：

- 选择具有活动用户别名或 ID 的信道。
- 按预设的**单键接入**按钮。

2 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。

3 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

4 释放 **PTT** 按钮接听。

当目标对讲机做出响应时，LED 红灯闪烁。

5 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。

在预定时间内无语音活动时，呼叫结束。 将发出一声提示音。 屏幕显示呼叫结束。

6.5.3

全呼

全呼是由一台个体对讲机对信道上所有对讲机的呼叫。全呼用于做出需要用户充分注意的重要通告。信道上的用户无法回复全呼。

6.5.3.1

接收全呼

当您接收全呼时：

- 将发出一声提示音。
- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

在呼叫结束时，对讲机返回接收全呼前的屏幕。

全呼不会等待预定时间，会直接终止。

如果启用“信道空闲提示”功能，则当发射对讲机释放**通话按键**时，您将会听到一声短提示音，表示此信道可供您使用。

您无法回复全呼。

注意:
在接收全呼时，如果您切换至另一个信道，则对讲机停止接收该全呼。 您**无法**继续使用任何预设的按钮功能，直至全呼结束。

6.5.3.2

发起全呼

您的对讲机必须经过预设才能发起全呼。按照步骤在对讲机上发起全呼。

1 选择具有活动全呼通话组别名或 ID 的信道。

2 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。 显示屏将显示**全呼**图标和全呼。

3 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

信道上的用户无法回复全呼。

6.5.4

选择呼叫

选择性呼叫是由一台个体对讲机对另一台个体对讲机的呼叫。它是在模拟系统中进行的单呼。

6.5.4.1

回复选择呼叫

按照步骤在对讲机上回复选择呼叫。

当您接收选择性呼叫时：

- 红色 LED 闪烁。
- 显示屏右上角显示**单呼**图标。
- 第一行文字显示呼叫方别名、选择性呼叫或呼叫提醒。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 按 **PTT** 按钮来回复该呼叫。

LED 红灯亮起。

2 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

在预定时间内无语音活动时，呼叫结束。 将发出一声提示音。屏幕显示呼叫结束。

6.5.4.2

发起选择呼叫

对讲机必须经过预设才能发起选择呼叫。按照步骤在对讲机上发起选择呼叫。

1 选择具有活动用户别名或 ID 的信道。

2 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。 显示屏显示**单呼**图标、用户别名和呼叫状态。

3 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

4 释放 **PTT** 按钮接听。

当目标对讲机做出响应时，LED 红灯闪烁。

5 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。

在预定时间内无语音活动时，呼叫结束。

6 屏幕显示呼叫结束。

6.5.5

电话呼叫

电话呼叫是从单个对讲机到电话的呼叫。

如果对讲机中未启用电话呼叫功能：

- 显示屏显示不可用。
- 对讲机会使呼叫静音。
- 呼叫结束时，对讲机将返回到前一屏幕。

在电话呼叫过程中，如果发生以下情况，对讲机将尝试结束呼叫：

- 在预配置取消接入代码的情况下，按**单键接入**按钮。
- 在输入额外数字时，输入取消接入代码。

在信道接入、摘机码或取消接入代码或其他数字传输期间，对讲机仅对**开/关**、**音量控制**和**信道选择器**按钮或旋钮作出响应。每次无效输入均会发出提示音。

在信道接入时，请按 取消呼叫尝试。 将发出一声提示音。

注意:
请联系您的经销商或系统管理员了解详细信息。

6.5.5.1
回复单呼电话呼叫

按照步骤在对讲机上回复单呼电话呼叫。

当您收到单呼电话呼叫时：

- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

如果对讲机中未启用电话呼叫功能，则对讲机会将呼叫静音。

在预定时间内无语音活动时，呼叫结束。

将发出一声提示音。

6.5.5.2
回复组呼电话呼叫

按照步骤在对讲机上回复组呼电话呼叫。

当您收到组呼电话呼叫时：

- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

如果对讲机中未启用电话呼叫功能，则对讲机会将呼叫静音。

在预定时间内无语音活动时，呼叫结束。

将发出一声提示音。

6.5.5.3
回复全呼电话呼叫

当您收到全呼电话呼叫时，仅当全呼类型已分配至该信道时您才可回复或结束呼叫。按照步骤在对讲机上回复全呼电话呼叫。

如果对讲机中未启用电话呼叫功能，则对讲机会将呼叫静音。

6.5.5.4

发出电话呼叫

按照以下过程操作，在对讲机上发出电话呼叫。

如果您在未预配置接入代码和取消接入代码的情况下尝试发起或结束电话呼叫，则尝试将失败，且对讲机会发出一声否定提示音。

1 按预设的**单键接入**按钮显示预设的别名或 ID。

如果**单键接入**按钮的输入为空，将响起一声否定提示音。

如果成功：

- （双音多频）DMTF 提示音响起。
- 您将听到电话用户的拨号提示音。

如果失败：

- 发出一声否定提示音。
- 电话呼叫失败。重复此步骤。

2 LED 红灯亮起。显示屏右上角显示**电话呼叫**图标。第一行文字显示用户机别名。第二行文字显示呼叫状态。
如果呼叫成功：

- DTMF 提示音将响起。
- 您将听到电话用户的拨号提示音。

如果呼叫失败：

- 将发出一声提示音。
- 显示屏显示电话呼叫失败，然后显示摘机码：。
- 如果在通讯录列表中预配置了摘机码，则对讲机会返回到您发起呼叫之前所在的屏幕。

3 按 **PTT** 按钮发起呼叫。 释放 **PTT** 按钮接听。

4 执行以下操作之一：

- 如果未预配置取消接入代码，则在显示屏显示取消接入代码：时输入取消接入代码，然后按 OK 继续。
对讲机返回到前一屏幕。
- 按预设的**单键接入**按钮。
如果**单键接入**按钮的输入为空，将响起一声否定提示音。

对讲机发出 DTMF 提示音，且屏幕显示正在结束通话。
如果呼叫成功结束：

- 将发出一声提示音。
- 屏幕显示呼叫结束。

如果呼叫无法结束，对讲机将返回到电话呼叫屏幕。重复后两个步骤或等待电话用户结束呼叫。

5 按预设的**电话退出**按钮结束通话。

如果结束通话设置成功：

- 将发出一声提示音。
- 对讲机退出电话呼叫。

如果结束通话设置失败：

- 发出一声否定提示音。
- 对讲机将返回到“电话呼叫”屏幕。
- 重复此步骤或等待电话用户结束呼叫。

6.5.6

启动发射中断

An ongoing call is interrupted, when you perform the following actions:

- 按**语音 PTT** 按钮。
- 按**紧急呼叫**按钮。
- 执行数据发射。
- 按已预设的 **TX 中断远程停止**按钮。

接收者的对讲机显示呼叫中断。

6.5.7

广播语音呼叫

广播语音呼叫是从任何用户到整个通话组的单向语音呼叫。

广播语音呼叫功能仅允许呼叫发起用户传输至通话组，而呼叫接收者无法响应（无呼叫闲置时间）。

您的对讲机必须进行预设才允许您使用该功能。请联系您的经销商或系统管理员了解详细信息。

6.5.7.1

发起广播语音呼叫

设置对讲机以发起广播语音呼叫。

1 选择具有活动通话组别名或 ID 的信道。

2 执行以下操作之一：

- 选择具有活动通话组别名或 ID 的信道。

- 按预设的**单键接入**按钮。

3 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。 显示屏显示广播呼叫、**组呼**图标和别名。

4 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

注意:
信道上的用户无法响应广播语音呼叫。

呼叫结束时，对讲机将返回到前一菜单。

6.5.7.2
使用别名搜索发起广播语音呼叫

6.5.7.3
接收广播语音呼叫

当您接收广播语音呼叫时：

- 将发出一声提示音。
- 红色 LED 闪烁。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

当呼叫结束时，对讲机会返回到前一屏幕。

广播呼叫不会等待预定义的时间，会直接终止。

您无法响应广播语音呼叫。

注意:
在接收广播呼叫时，如果您切换至另一个信道，则对讲机停止接收该站点全呼。 您**无法**继续任何预设的按钮功能，直至广播呼叫结束。

6.5.8
无地址呼叫

无地址呼叫是对 16 个预定义组 ID 的组呼。

此功能通过 CPS-RM 进行配置。需要一个预定义 ID 的联系人才能发起和/或接收无地址呼叫。 请联系您的经销商或系统管理员了解详细信息。

6.5.8.1

发起无地址呼叫

1 选择具有活动通话组别名或 ID 的信道。

2 执行以下操作之一：
- 选择具有活动通话组别名或 ID 的信道。
- 按预设的**单键接入**按钮。

3 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。

4 释放 **PTT** 按钮接听。

当目标对讲机做出响应时，LED 红灯闪烁。 将发出一声瞬间音。

5 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。

在预定时间内无语音活动时，呼叫结束。
呼叫发起者可按预设的**取消**按钮，以结束组呼。

6.5.8.2

响应无地址呼叫

当您接收到无地址呼叫时：

- 红色 LED 闪烁。
- 将发出一声瞬间音。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

1 执行以下操作之一：
- 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。
- 如果语音中断功能已启用，则按 **PTT** 按钮中止来自发射对讲机的音频，以释放信道供您应答。

LED 红灯亮起。

2 执行以下操作之一：
- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

在预定时间内无语音活动时，呼叫结束。

6.5.9

开放语音信道模式 (OVCM)

在开放语音信道模式 (OVCM) 下，未预配置为在特定系统中工作的对讲机也可以进行个呼和组呼的接收和发送。

OVCM 组呼也支持广播呼叫。预设您的对讲机以使用此功能。 请联系您的经销商或系统管理员了解详细信息。

6.5.9.1

发起 OVCM 呼叫

您的对讲机必须经过预设才能发起 OVCM 呼叫。按照以下过程操作，在对讲机上发起 OVCM 呼叫。

1 选择具有活动通话组别名或 ID 的信道。

2 执行以下操作之一：
- 选择具有活动通话组别名或 ID 的信道。
- 按预设的**单键接入**按钮。

3 按 **PTT** 按钮发起呼叫。

LED 红灯亮起。

显示屏显示 OVCM、呼叫类型图标和别名。这表示对讲机已进入 OVCM 状态。

4 执行以下操作之一：
- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

6.5.9.2

响应 OVCM 呼叫

当您接收 OVCM 呼叫时：

- 红色 LED 闪烁。
- 屏幕显示 OVCM、呼叫类型图标和别名。
- 对讲机取消静音，呼入电话会通过扬声器发出声音。

注意:
接收用户在广播呼叫期间不允许使用对讲功能。如果在广播呼叫期间按下了 **PTT** 按钮，会发出一声短暂的对讲禁止提示音。

1 执行以下操作之一：

- 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。
- 如果语音中断功能已启用，则按 **PTT** 按钮中止来自发射对讲机的音频，以释放信道供您应答。

LED 红灯亮起。

2 执行以下操作之一：

- 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
- 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

3 释放 **PTT** 按钮接听。

在预定时间内无语音活动时，呼叫结束。

6.6

高级功能

本章介绍对讲机中可用的功能的操作。

您的经销商或系统管理员可能已经针对您的具体需要对对讲机进行了定制。 请联系您的经销商或系统管理员了解详细信息。

6.6.1

蓝牙®

该功能允许您通过蓝牙连接将您的对讲机与启用了蓝牙功能的设备（附件）一起使用。您的对讲机支持 Motorola Solutions 提供的以及市场上出售 (COTS) 的带蓝牙功能的设备。

蓝牙的有效直视线距离是 10 米（32 英尺）。该距离是指您的对讲机与已启用蓝牙功能设备之间的无障碍距离。为了实现高度可靠性，Motorola Solutions 建议不要将对讲机和附件分开。

在信号接收范围的边缘区域，您所听到的语音和提示音可能会变得“含混不清”或“断断续续”。要解决这一问题，请将您的对讲机和启用了蓝牙功能的设备彼此靠近一些（使它们在规定的 10 米范围内），以便重新接收能够提供清晰音频的较强信号。对讲机的蓝牙功能在 10 米范围内的最大功率为 2.5 mW (4 dBm)。

您的对讲机最多可同时与三个不同类型的蓝牙设备建立蓝牙连接。例如，同时与一个耳机、一个扫描仪、一个传感器设备和一个仅具备 PTT 功能的设备 (POD) 连接。

请参阅相应蓝牙设备的用户手册，以了解更多支持蓝牙设备的全部功能。

您的对讲机会与蓝牙工作范围内信号最强的蓝牙设备建立连接或与在先前会话中曾经连接过的蓝牙设备建立连接。在执行查找和连接操作的过程中不要关闭您的蓝牙设备或按主页返回按钮，否则会导致操作被取消。

6.6.1.1
连接到蓝牙设备

按照步骤连接至蓝牙设备。

打开您的蓝牙设备，并将其设置为配对模式。

按预设的**蓝牙连接**按钮。

您的蓝牙设备可能需要您执行其他步骤以完成配对过程。有关详细信息，请参阅启用蓝牙设备的用户手册。

- 将发出一声提示音。
- 黄色 LED 指示灯闪烁。

等待确认。
如果成功：

- 发出一声确定提示音。

如果失败：

- 发出一声否定提示音。

6.6.1.2
断开与蓝牙设备的连接

按照步骤断开蓝牙设备。

按预设的**蓝牙断开**按钮。

设备已断开连接时，对讲机会发出一声确定提示音。

6.6.1.3
在对讲机内部扬声器和蓝牙设备之间切换音频路由

按照步骤在对讲机内部扬声器和外部蓝牙设备之间切换音频路由。

按预设的**蓝牙音频切换**按钮。

切换音频路由后，一声提示音响起。

6.6.1.4

蓝牙永久可发现模式

蓝牙永久可发现模式必须由经销商或系统管理员启用。

其他启用蓝牙功能的设备可以找到对讲机，但设备无法连接到对讲机。在基于蓝牙的定位过程中，蓝牙永久可发现模式使专用设备能够使用对讲机的位置。

6.6.2

室内定位

注意:
室内定位功能适用于具有最新软件和硬件的型号。请联系您的经销商或系统管理员了解详细信息。

室内定位用于跟踪对讲机用户的位置。启用室内定位时，对讲机处于受限制可发现模式。专用的信标用于定位对讲机并确定其位置。

6.6.2.1

打开或关闭室内定位

- 使用预设按钮访问此功能。
  a. 长按预设的**室内定位**按钮，打开室内定位。
     您会听到一声确定提示音。
     会发生以下情况之一。
     - 如果成功，室内定位打开。
     - 如果失败，您将听到一声否定提示音。
  b. 按预设的**室内定位**按钮，关闭室内定位。
     您会听到一声确定提示音。
     会发生以下情况之一。
     - 如果成功，室内定位关闭。
     - 如果失败，您将听到一声否定提示音。

6.6.3

多站点控制

当信号较弱或对讲机无法检测到来自当前站点的任何信号时，它可以搜索站点并在站点之间切换。

当信号较强时，对讲机会留在当前站点。

如果当前的对讲机信道是 IP 站点连接或“智能信道共享--多站点”配置的一部分，则此设置适用。

您的对讲机可以执行以下任一站点搜索：

- 自动站点搜索

- 手动站点搜索

如果当前信道是具有附加漫游列表的多站点信道并超出范围，且站点处于解锁状态，则对讲机还会执行自动站点搜索：

6.6.3.1

启动自动站点搜索

6.6.3.2

停止自动站点搜索

您的对讲机正在主动搜索新站点时，按照步骤停止自动站点搜索。

按预设的**站点锁定开/关**按钮。

- 将发出一声提示音。
- LED 指示灯关闭。

6.6.3.3

启用手动站点搜索

按预设的**手动站点漫游**按钮。

- 将发出一声提示音。
- LED 红灯亮起。

如果对讲机找到新站点，对讲机会显示以下指示：

- 设备会发出一声确定提示音。
- LED 指示灯熄灭。

如果对讲机未找到新站点，则会显示以下指示：

- 设备会发出一声否定提示音。
- LED 指示灯熄灭。

6.6.3.4

站点锁定开/关

切换为打开时，对讲机只搜索当前站点。切换为关闭时，对讲机将搜索当前站点和其他站点。

按预设的**站点锁定**按钮。

如果**站点锁定** 功能切换为开启：

- 您将听到确定提示音，表示对讲机已锁定到当前站点。

如果**站点锁定** 功能切换为关闭：

- 您会听到否定提示音，表示对讲机已解锁。

6.6.4

脱网

此功能可让您在下列情况下继续通信：中继器不工作时，或对讲机超出中继器范围但位于其他对讲机的通话范围内时。

即使在关机后，仍保持脱网设置。

6.6.4.1

在中继器和脱网模式之间切换

按照步骤在对讲机的中继器和脱网模式之间切换。

按预设的**中继器/脱网**按钮。

响起以下一种提示音：

确定提示音
对讲机处于脱网模式。

否定提示音
对讲机处于中继器模式。

如果启用，已启用旁出现 ✔。 如果禁用，已启用旁的 ✔ 消失。

6.6.5

监听功能

使用该功能，可以确保发射之前信道空闲。

6.6.5.1

监听信道

按照步骤监听信道。

1 长按预设的**监听**按钮。

如果信道正在使用：

- 显示屏显示**监听**图标。
- 您会听到对讲机活动或没有声音。
- 黄色 LED 指示灯亮起。

信道繁忙时 LED 呈黄色双闪。

2 按 **PTT** 按钮开始讲话。释放 **PTT** 按钮接听。

6.6.5.2

永久监听

使用永久监听功能来持续监听所选信道的活动。

6.6.5.2.1

打开或关闭永久监听

按照步骤打开或关闭对讲机上的永久监听。

按下预设的**永久监听**按钮。

当对讲机进入模式时：

- 发出一声提示音。
- 黄色 LED 指示灯亮起。
- 显示屏显示永久监听开和**监听**图标。

当对讲机退出模式时：

- 发出一声提示音。
- 黄色 LED 指示灯关闭。
- 显示屏显示永久监听关。

6.6.6

主信道提醒

此功能在对讲机一段时间内未设置为主信道时提供一个提醒。

如果通过 CPS 启用了此功能，当对讲机一段时期内未设置为主信道时，将定期发生以下现象：

- 主信道提醒和提示音响起。

6.6.6.1

使主信道提醒静音

发出主信道提醒时，您可以暂时将提醒静音。

按预设的**静音主信道提醒**按钮。

显示屏显示 HCR 已静音。

6.6.6.2

设置新的主信道

发生主信道提醒时，您可以设置新的主信道。

1 按**重置主信道**可预设按钮，以将当前信道设置为新的主信道。

2 执行以下操作之一：

- 按**重置主信道**可预设按钮，以将当前信道设置为新的主信道。跳过以下步骤。
  显示屏的第一行显示信道别名，第二行显示新主信道。

6.6.7
远程监听

此功能用于打开具有用户别名或 ID 的目标对讲机的麦克风。您可以使用该功能远程监听目标对讲机四周的任何声音活动。

有两种类型的远程监听：

- 无身份验证的远程监听
- 带身份验证的远程监听。

带身份验证的远程监听是一项可购买功能。在身份验证远程监听中，当对讲机打开目标对讲机的麦克风时，需要验证。

当您的对讲机利用用户身份验证在目标对讲机上发起此功能时，需要口令。该口令通过 CPS 预设到目标对讲机中。

您的对讲机和目标对讲机必须进行预设才允许您使用该功能。

在预设的持续时间后或者当目标对讲机上执行了任何用户操作时，该功能将停止。

6.6.7.1
开始远程监听

按照步骤在对讲机上启动远程监听。

1 按预设的**远程监听**按钮。

2 等待确认。

如果成功：

- 发出一声确定提示音。
- 显示屏显示确定性的小型通知。
- 开始在预设持续时间内播放来自被监听对讲机的音频，并且显示屏显示远程监听。计时器超时后，对讲机发出一声提示音，且 LED 指示灯熄灭。

如果失败：

- 发出一声否定提示音。
- 显示屏显示否定性的小型通知。

6.6.8

扫描列表

创建扫描列表并分配给单个信道或通话组。通过循环扫描列表中的指定信道或通话组序列以查找当前信道或通话组，对讲机可扫描是否有语音活动。

您的对讲机可支持多达 250 个扫描列表，每个列表最多 16 个成员。

每个扫描列表支持模拟和数字条目的混合。

6.6.9

扫描

在启动扫描时，对讲机循环当前信道的预设扫描列表来查看是否有语音活动。

有两种方法启动扫描：

主信道扫描（手动）

对讲机可扫描您的扫描列表中的所有信道或通话组。在进入扫描时，根据设置不同，对讲机可自动从最后一个被扫描的活动信道或通话组开始或从开启扫描的信道开始。

自动扫描（自动）

当您选择一个已经激活自动扫描的信道或通话组时，对讲机自动开始扫描。

6.6.9.1

开启或关闭扫描

按照步骤开启或关闭对讲机上的扫描。

执行以下操作之一：

- 按预设的**扫描**按钮开始或停止扫描。

如果扫描已启用：

- 黄色 LED 指示灯闪烁。
- 发出一声确定提示音。

如果扫描被禁用：

- LED 熄灭。
- 发出一声否定提示音。

6.6.9.2

在扫描期间对发射做出响应

在扫描过程中，若检测到活动的信道或通话组，对讲机将停止。对讲机在预设的时限内保持在该信道，该时限被称为“闲置时间”。按照步骤在扫描期间对发射做出响应。

1 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。在闲置时间内，按**通话按键**。

   LED 红灯亮起。

2 释放 **PTT** 按钮接听。

   如果在闲置时间内未做出响应，对讲机将返回以扫描其他信道或通话组。

6.6.9.3

删除无用信道

如果某个信道连续出现无用呼叫或噪声（称为“无用”信道），您可以暂时将无用信道从扫描列表中删除。该功能不适用于指定为所选信道的信道。按照步骤删除对讲机上的无用信道。

1 当对讲机“锁住”一个无用信道时，按预设的**无用信道删除**按钮，直到您听到一声提示音。

2 释放预设的**无用信道删除**按钮。

   无用信道被删除。

6.6.9.4

恢复无用信道

按照步骤在对讲机上恢复无用信道。

执行以下操作之一：

- 关闭并重新打开对讲机。
- 使用预设的**扫描**按钮扫描停止并重启扫描。
- 使用**信道选择旋钮**更改信道。

6.6.10

投票扫描

如果某个区域具备多个在不同模拟信道发射相同信息的基站，投票扫描可以为您提供较大的覆盖范围。

您的对讲机将扫描多个基站的模拟信道，然后执行投票过程，以选择最强的接收信号。选择了最强的信号后，您的对讲机将接收来自该基站的发射信号。

投票扫描期间，黄色 LED 指示灯闪烁。

要在投票扫描期间响应发射信号，请参见在扫描期间对发射做出响应，页 134。

6.6.11

呼叫提醒设置

此功能允许您配置呼叫或短信铃声。

6.6.11.1

渐强警报音

对讲机可预设为当对讲机呼叫尚未回复时，不断提醒。这由警报音量随时间自动增强来实现。此功能称为渐强提示音。

6.6.12

呼叫提醒操作

呼叫提示使您可以提示一个具体的对讲机用户回呼您。

您可使用预设的**单键接入**按钮访问此功能。

6.6.12.1

对呼叫提示做出响应

当您接收呼叫提示时：

- 将发出一声重复音。
- 黄色 LED 指示灯闪烁。

在接到呼叫提示寻呼的 4 秒钟内按 **PTT** 按钮可回复单呼。

6.6.12.2

发起呼叫提示

按照步骤在对讲机上发起呼叫提示。

1 按预设的**单键接入**按钮。

显示屏显示呼叫提示及用户别名或 ID。 LED 红灯亮起。

2 等待确认。

如果接收到呼叫提示确认，对讲机会发出两声啁啾音。

如果没有接收到呼叫提示确认，对讲机将发出一声否定提示音。

6.6.13

静音模式

静音模式可提供一个将对讲机上的所有音频指示器静音的选项。

启用“静音模式”后，所有音频指示器都将静音，优先级更高的功能除外（如紧急呼叫操作）。

退出“静音模式”后，您的对讲机将恢复播放正在进行的提示音并恢复音频传输。

重要说明:
您一次只能启用“正面朝下”或“倒地警报”中的其中一种功能。无法同时启用两种功能。

6.6.13.1

打开静音模式

按照以下步骤打开静音模式。

执行以下操作之一：

- 使用预设的**静音模式**按钮访问此功能。
- 通过将对讲机短暂置于正面朝下的位置来访问此功能。

根据对讲机型号的不同，正面朝下功能可通过对讲机菜单或系统管理员启用。请联系您的经销商或系统管理员了解详情。

重要说明:
用户一次只能启用倒地警报或正面朝下中的其中一种功能。无法同时启用两种功能。

启用静音模式时，将发生以下情况：

- 发出一声确定提示音。

- 显示屏将显示静音模式开。
- 红色 LED 灯开始闪烁，直至退出静音模式。
- 显示屏主屏幕上显示**静音模式**图标。
- 对讲机处于静音状态。
- 静音模式计时器开始倒数配置的持续时间。

6.6.13.2

退出静音模式

静音计时器到时后，此功能会自动退出。

执行以下任一操作手动退出静音模式：

- 按预设的**静音模式**按钮。
- 按任何条目上的 **PTT** 按钮。
- 将对讲机短暂置于正面朝上的位置。

禁用静音模式时，将发生以下情况：

- 发出一声否定提示音。
- 显示屏将显示静音模式关。
- 闪烁的红色 LED 指示灯关闭。
- **静音模式**图标将从主屏幕上消失。
- 您的对讲机将取消静音并恢复扬声器状态。
- 如果计时器未到时，则静音模式计时器将被暂停。

注意:
如果用户传输语音或切换至未预设的信道，则将退出静音模式。

6.6.14

紧急操作

紧急警报用于表示紧急状况。您可以在任何时候，甚至在当前信道上有活动的情况下，发起紧急呼叫。

您的经销商可以设置预设**紧急呼叫**按钮的按下持续时间（除了长按，长按的持续时间与所有其他按钮类似）：

短按
持续时间介于 0.05 秒至 0.75 秒之间。

长按
持续时间介于 1.00 秒到 3.75 秒之间。

紧急呼叫按钮设有紧急呼叫开/关功能。有关**紧急呼叫**按钮所设置的操作功能，请联系您的经销商。

注意:
如果短按**紧急呼叫**按钮发起紧急模式，则长按相同按钮将让对讲机可退出紧急模式。

如果长按**紧急呼叫**按钮发起紧急模式，则短按相同按钮将让对讲机可退出紧急模式。

您的对讲机支持三种紧急报警：

- 紧急警报
- 带呼叫的紧急警报
- 带语音跟随的紧急警报

注意:
仅可将上述紧急警报中的一种分配给预设的**紧急呼叫**按钮。

此外，每种警报有以下类型：

常规
对讲机发送警报信号并显示语音和/或视觉提示。

静音
对讲机发送警报信号，无任何语音或视觉提示。对讲机接收不通过扬声器发出提示音的呼叫，直到预设的*紧急麦克风*传输周期结束，并且/或者按 **PTT** 按钮。

带话音的静音
对讲机发送没有任何语音或视觉指示的警报信号，但允许呼入电话通过扬声器发出声音。如果已启用*紧急麦克风*，在预设的*紧急麦克风*传输周期结束时，呼入电话会通过扬声器发出声音。仅当您按 **PTT** 按钮时，这些提示才会出现。

6.6.14.1

发送紧急警报

该功能允许您发送非语音的紧急警报信号，它可以启动一组对讲机上的警报指示。当设置为“静音”时，您的对讲机在紧急呼叫模式下不会显示任何语音或视觉提示。

按照步骤在对讲机上发送紧急警报。

1 按预设的**紧急呼叫开**按钮。

   您将看到下列结果之一：

   - 显示屏显示发射警报和目标别名。
   - 显示屏显示发射电报和目标别名。

   LED 红灯亮起。 **紧急呼叫**图标出现。

2 等待确认。

   如果成功：

   - 紧急呼叫提示音将响起。
   - 红色 LED 闪烁。
   - 显示屏显示已发警报。

   如果在已达到最大重试次数后仍不成功：

   - 将发出一声提示音。
   - 一声低音调提示音响起。

- 显示屏显示警报失败。

对讲机退出紧急警报模式并返回主屏幕。

对讲机退出紧急警报模式。

6.6.14.2
发送带呼叫的紧急警报

该功能允许您向一组对讲机发送带呼叫的紧急警报。经该组中的对讲机确认后，这一组对讲机可以通过预设的紧急信道进行通信。
按照步骤在对讲机上发送带呼叫的紧急警报。

1 按预设的**紧急呼叫开**按钮。
   - 显示屏显示发射警报和目标别名。
   - 显示屏显示发射电报和目标别名。

   LED 红灯亮起。

   注意:
   如果已预设，紧急搜索提示音将响起。对讲机发射或接收语音时，此提示音为静音，对讲机退出紧急呼叫模式，此提示音将停止。紧急搜索提示音可由您的经销商或系统管理员预设。

2 等待确认。

   如果成功：
   - 紧急呼叫提示音将响起。
   - 红色 LED 闪烁。
   - 显示屏将显示已发警报。

3 按 **PTT** 按钮发起呼叫。

   LED 红灯亮起。

4 执行以下操作之一：
   - 等通话许可提示音结束后（启用该功能时）对着麦克风清楚地讲话。
   - 等 **PTT** 侧音结束后（启用该功能时）对着麦克风清楚地讲话。

5 释放 **PTT** 按钮接听。

6 如果启用“信道空闲提示”功能，则当发射对讲机释放 **PTT** 按钮时，您将会听到一声短的提示音，表示此信道空闲，您可以应答。 按 **PTT** 按钮来回复该呼叫。

7 要在呼叫结束后退出紧急呼叫模式，请按**紧急呼叫关**按钮。

6.6.14.3

带语音跟随的紧急警报

该功能允许您向一组对讲机发送带语音跟随的紧急警报。对讲机的麦克风会自动激活，您无需按 **PTT** 按钮即可与该组对讲机进行通信。这种激活的麦克风状态又称为*紧急麦克风*。

如果对讲机已启用紧急循环模式，则会在预设的持续时间内重复*紧急麦克风*和接收时间段。在紧急循环模式期间，通过扬声器收到呼叫音。

如果在预设的接收时间段内按 **PTT** 按钮，您将听到一声禁止提示音，指示您应释放 **PTT** 按钮。对讲机将忽略 **PTT** 按钮按下操作并保持紧急呼叫模式。

如果您在**紧急麦克风**期间按 *PTT* 按钮，并在*紧急麦克风*持续时间结束后继续按该按钮，则对讲机继续发射直至您释放 **PTT** 按钮。

如果紧急警报请求发送失败，对讲机不会再尝试发送请求，而会直接进入*紧急麦克风*状态。

注意:
一些附件可能不支持*紧急麦克风*。请联系您的经销商或系统管理员了解详细信息。

6.6.14.4

发送带语音跟随的紧急警报

1 按预设的**紧急呼叫开**按钮。
   - 显示屏显示发射警报和目标别名。

   LED 红灯亮起。**紧急呼叫**图标出现。

2 显示屏显示警报已发送后，对着麦克风清晰地讲话。

   在启用*紧急麦克风*时，对讲机自动发射信号，无需按 **PTT**，直至*紧急麦克风*持续时间结束。在发射时，红色 LED 亮起。

   对讲机将在以下情况下自动停止发射：
   - 在启用了紧急循环模式时，*紧急麦克风*和接收呼叫之间的循环持续时间结束。
   - 在禁用紧急循环模式时，*紧急麦克风*的持续时间结束。

3 按**紧急呼叫关**按钮退出紧急呼叫模式。

   对讲机将返回主屏幕。

6.6.14.5

接收紧急警报

当您收到紧急警报时：

- 将发出一声提示音。
- 红色 LED 闪烁。
- 显示屏显示**紧急呼叫**图标和紧急呼叫方别名，或如果存在多个警报，警报列表中显示所有紧急呼叫方别名。

注意:
您的对讲机会自动确认紧急警报（如果已启用）。

要返回主屏幕，请执行以下操作：

a 按 。

b 按 ▲ 或 ▼ 显示是。

c 按 OK 进行选择。

对讲机将返回主屏幕，且显示屏显示“紧急呼叫”图标。

6.6.14.6

接收紧急报警后退出紧急呼叫模式

执行以下操作以在接收紧急警报后退出紧急模式：

- 更改信道。
- 按**紧急呼叫关**按钮。
- 删除警报项目。

6.6.14.7

重新启动紧急呼叫模式

执行下列其中一项操作：

- 当对讲机处于紧急呼叫模式时更改信道。

  注意:
  在新通道上启用紧急警报后，才能重新启动紧急呼叫模式。

- 在紧急呼叫发起或传输状态下，按预设的**紧急呼叫开**按钮。

对讲机将退出紧急呼叫模式，然后重新启动紧急呼叫。

6.6.14.8

退出紧急呼叫模式

该功能仅适用于发送紧急报警信号的对讲机。

在下列情况下，对讲机退出紧急呼叫模式：

- 收到确认（仅适用于紧急警报）。
- 已达到发送警报的最大尝试次数。

注意:
当对讲机再次打开时，将不会自动重新启动紧急呼叫模式。

按照步骤在对讲机上退出紧急呼叫模式。

按预设的**紧急呼叫关**按钮。

6.6.15

倒地警报

如果对讲机的运动状态发生变化（例如对讲机在预定义的时间内倾斜、运动或静止），此功能将提示发出紧急呼叫。

对讲机在预定义的时间内运动状态发生变化之后，对讲机将使用语音提示向用户发出预先警告，表示检测到运动状态发生变化。

如果在预定义的提醒计时器到期前仍没有用户确认，对讲机将启动紧急警报或紧急呼叫。您可以使用 CPS 编程提醒计时器。

6.6.15.1

打开或关闭倒地警报功能

注意:
预设的**倒地警报**按钮和倒地警报设置可使用 CPS 配置。咨询经销商或系统管理员以确定对讲机的预设情况。

如果禁用倒地警报功能，会反复响起预设的提示音，直到启用了倒地警报功能。如果开机时倒地警报功能失效，则会响起设备故障提示音。设备故障提示音会一直播放，直到对讲机恢复正常操作。

- 按预设的**倒地警报**按钮打开或关闭此功能。

6.6.16

短信发送

您的对讲机可以接收数据，例如来自另一对讲机或短信应用程序的短信。

提供两种类型的短信，即数字车载台对讲机 (DMR) 短信和普通短信。一条 DMR 短信的最大长度为 23 个字符。一条

普通短信的最大长度为 280 个字符，包括主题行。仅当从电子邮件应用程序收到消息时，主题行才会出现。

注意:
最大字符长度仅适用于具有最新软件和硬件的型号。对于具有较旧软件和硬件的对讲机型号，一条普通短信的最大长度为 140 个字符。有关详细信息，请联系您的经销商。

6.6.16.1
预制短信

通过经销商预设，您的对讲机支持预制短信。

6.6.16.1.1
发送预制短信

按照步骤在对讲机上向预定义别名发送预制短信。

1 按预设的**短信**按钮。按预设的**单键接入**按钮。

2 等待确认。

如果成功：

- LED 红灯亮起。
- 发出两声调啾音，确认正在发送短信。
- 发出一声确定提示音。

如果失败：

- 一声低音调提示音表示短信无法发送。
- 发出一声否定提示音。

6.6.17
加密

此功能有利于防止信道上未经授权的用户利用软件加密解决方案进行窃听。发射的信令和用户识别部分未加密。

对讲机必须启用信道的加密功能才能发送加密发射信号，虽然这不是接收发射的必需要求。在启用加密的信道上，对讲机仍能接收清晰或未加密的传输信号。

一些对讲机型号可能不提供加密功能，或可能会有不同的配置。请联系您的经销商或系统管理员了解详细信息。

您的对讲机支持两种类型的加密，但只有一种类型可被分配给您的对讲机。它们分别是：

- 基本加密
- 增强型加密

要对启用加密的呼叫或数据传输进行解密，必须对您的对讲机进行预设，以与发射对讲机具有相同的密钥（基本加密）或具有相同的密钥值和密钥 ID（增强型加密）。

如果对讲机接收到加密密匙不同或密钥值和密钥 ID 不同的加密呼叫，您要么将听到混乱不清的传输信号（基本加密），要么什么都听不到（增强型加密）。

您的对讲机可在加密信道上接收清晰或未加密的呼叫，具体取决于对讲机的设定方式。此外，根据设定方式，您的对讲机还可发出警告音。

当对讲机传输信号时，红色 LED 指示灯亮起，而当对讲机接收传入的加密传输信号时，红色 LED 指示灯则会双闪。

6.6.17.1
打开或关闭加密

按照步骤打开或关闭对讲机上的加密。

按预设的**加密**按钮。

6.6.18
响应抑制

此功能有助于防止对讲机响应任何呼入传输。

注意:
联系经销商以确定对讲机的预设情况。

如果启用此功能，则您的对讲机将不会生成任何呼出传输，以响应呼入传输，如对讲机检测、呼叫提示、对讲机遥毙、远程监听、自动注册服务 (ARS)、响应私人消息和发送 GNSS 定位报告。

如果启用此功能，则您的对讲机无法接收已确认单呼。但是，您的对讲机可以手动发送传输。

6.6.18.1
打开或关闭响应抑制

按照步骤启用或禁用对讲机上的响应抑制。

按预设的**响应抑制**按钮。

如果成功：

- 发出一声确定提示音。
- 显示屏显示确定性的小型瞬间通知。

如果失败：

- 发出一声否定提示音。
- 显示屏显示否定性的小型瞬间通知。

6.6.19

安保

此功能允许您启用或禁用系统中的任何对讲机。

例如，您可能想要禁用被盗的对讲机以防止未经授权的用户使用，并在对讲机恢复后启用它。

启用或禁用对讲机的方法有两种：利用身份验证或不利用身份验证。

身份验证对讲机遥毙是一项可购买功能。在身份验证对讲机遥毙中，当您启用或禁用对讲机时，需要进行验证。当您的对讲机利用用户身份验证在目标对讲机上发起此功能时，需要口令。该口令已通过 CPS 在目标对讲机中预设。

如果在对讲机激活或对讲机遥毙操作期间按 ，您将不会收到确认。

注意:
请联系您的经销商或系统管理员了解详细信息。

6.6.19.1

禁用对讲机

按照步骤禁用对讲机。

1 按预设的**对讲机遥毙**按钮。

2 等待确认。

如果成功：

- 发出一声确定提示音。
- 显示屏显示确定性的小型通知。

如果失败：

- 发出一声否定提示音。
- 显示屏显示否定性的小型通知。

6.6.19.2

激活对讲机

按照步骤激活对讲机。

1 按预设的**对讲机激活**按钮。

2 等待确认。

如果成功：

- 发出一声确定提示音。
- 显示屏显示确定性的小型通知。

如果失败：

- 发出一声否定提示音。
- 显示屏显示否定性的小型通知。

6.6.20

单独工作者

如果在预定义的时间内没有用户活动（例如按任何对讲机按钮或选择信道），此功能将提示用户需要发出紧急警报。

在一段预设的持续时间内没有用户活动之后，一旦不活动计时器到期，对讲机就使用语音提示向您发出预先警告。

如果在预定义的提醒计时器到期前您仍没有确认，对讲机将启动紧急警报。

只能将以下紧急警报之一分配给此功能：

- 紧急警报
- 带呼叫的紧急警报
- 带语音跟随的紧急警报

对讲机一直处于紧急状态，允许语音信息继续，直到用户采取操作为止。有关退出紧急状态的方式的更多信息，请参阅紧急操作，页 137。

注意:
请联系您的经销商或系统管理员了解详细信息。

6.6.21

自动范围应答机系统

自动范围应答机系统 (ARTS) 是一种仅限模拟的功能，专用于在对讲机超出其他配备 ARTS 的对讲机的范围时通知您。

配备 ARTS 的对讲机定期传输或接收信号，以确认对讲机位于彼此范围之内。

您的对讲机提供如下指示状态：

首次提示
将发出一声提示音。

ARTS 在范围中提示
发出提示音（如果预设）。

ARTS 不在信号区提示
将发出一声提示音。红色 LED 指示灯快速闪烁。

注意:
请联系您的经销商或系统管理员了解详细信息。

6.6.22

密码锁定

可以设置密码以限制对对讲机的访问。每次打开对讲机时，都需要输入密码。

您的对讲机支持 4 位密码输入。

输入密码时，这些按钮可充当数字键盘：

信道选择旋钮

位置 1–9：数字 1–9

位置 10：数字 10

侧面按钮

侧面按钮 1–3：数字 1–3。

在锁定状态下，您的对讲机无法接收呼叫。

6.6.22.1

使用密码访问对讲机

关闭对讲机。

1 输入一个四位数密码。

   a 要输入密码的第一位数，请使用**信道选择旋钮**。

   b 要输入密码剩余三位数的每一位，请按侧面按钮 1、2 或 3。

   c 要输入密码剩余三位数的每一位，请按侧面按钮 1 或 2。

   每输入一位数时，您都会听到一声确定提示音。

2 输入密码的最后一位数后，对讲机会自动检查密码的有效性。

如果密码输入正确，对讲机将开机。

如果前两次密码输入错误，对讲机将显示以下指示：

- 将发出连续的提示音。
- 显示屏显示错误密码。

重复步骤 1。

如果在第三次尝试后输入了错误的密码，对讲机将显示以下指示：

- 将发出一声提示音。
- 黄色 LED 指示灯双闪。
- 显示屏显示密码错误，然后显示对讲机已锁定。
- 对讲机进入锁定状态持续 15 分钟。

等待 15 分钟的锁定状态计时器结束，然后重复步骤 1。

注意:
如果关闭对讲机并再次打开，则 15 分钟计时器会重新开始。

6.6.22.2

解除对讲机锁定状态

在锁定状态下，您的对讲机无法接收呼叫。按照步骤解锁处于锁定状态的对讲机。

执行以下操作之一：

- 如果对讲机已开机，请等待 15 分钟，然后重复 使用密码访问对讲机，页 67 中的步骤以访问对讲机。
- 如果对讲机已关机，请将对讲机开机。您的对讲机将重新启动计时器，锁定 15 分钟。
  将发出一声提示音。 黄色 LED 指示灯双闪。显示屏将显示对讲机已锁定。

  等待 15 分钟，然后重复 使用密码访问对讲机，页 67 中的步骤以访问对讲机。

6.6.23

无线编程

您的经销商可通过不带任何物理连接的无线编程 (OTAP) 远程更新您的对讲机。此外，某些设置还可使用 OTAP 配置。

当对讲机进行 OTAP 时，红色 LED 闪烁。

当对讲机接收大批量数据时：

- 信道变得繁忙。
- 如果您按 **PTT** 按钮，将发出一声否定提示音。

当对讲机在自动重新启动后通电：

- 如果成功，显示屏显示软件更新完成。
- 如果程序更新失败，系统将发出一声提示音，红色 LED 指示灯闪烁一次，同时显示屏显示软件更新失败。

注意:
如果编程更新未成功，每次打开对讲机时都会显示“软件更新失败”的指示。请联系您的经销商，使用最新软件对您的对讲机进行重新编程，以消除软件更新失败的指示。

6.6.24

禁止发射

“禁止发射”功能允许用户阻止来自对讲机的所有发射。

注意:
蓝牙功能可用于“禁止发射”模式。

6.6.24.1

启用禁止发射

按照步骤启用禁止发射。

按预设的**禁止发射**按钮。

- 发出一声确定提示音。
- 屏幕显示禁止发射打开。

注意:
发射禁止状态在对讲机打开前不更改。

6.6.24.2

禁用禁止发射

按照步骤禁用禁止发射。

按预设的**禁止发射**按钮。

- 发出一声否定提示音。 发射返回至正常操作模式。

6.6.25

Wi-Fi 操作

此功能允许您设置和连接至 Wi-Fi 网络。Wi-Fi 支持更新对讲机固件、Codeplug 和资源，例如语言包和语音提示。

Wi-Fi® 是 Wi-Fi Alliance® 的注册商标。

对讲机支持 WEP/WPA/WPA2-个人和 WPA/WPA2-企业 Wi-Fi 网络。

WEP/WPA/WPA2-个人 Wi-Fi 网络
使用基于预共享密钥（密码）的身份验证。

预共享密钥可使用菜单或 CPS/对讲机管理输入。

WPA/WPA2-企业 Wi-Fi 网络
使用基于证书的身份验证。

对讲机必须预配置有证书。

注意:
要连接到 WPA/WPA2-企业 Wi-Fi 网络，请咨询经销商或系统管理员。

预设的**打开或关闭 Wi-Fi** 按钮由您的经销商或系统管理员分配。咨询经销商或系统管理员以确定对讲机的预设情况。

预设的**打开或关闭 Wi-Fi** 按钮的语音提示可以根据用户要求，通过 CPS 自定义。请联系您的经销商或系统管理员了解详情。

6.6.25.1

打开或关闭 Wi-Fi

按预设的**或关闭 Wi-Fi** 按钮。语音提示会发出：打开或关闭 Wi-Fi。

6.6.25.2

连接到网络接入点

当您打开 Wi-Fi 时，对讲机扫描并连接到网络接入点。

注意:
WPA-企业 Wi-Fi 网络接入点可预配置。咨询经销商或系统管理员以确定对讲机的预设情况。

6.7

实用工具

本章介绍对讲机中可用的实用功能操作。

6.7.1

灵活接收列表

灵活接收列表是一项功能，使您可以创建和分配接收通话组列表上的成员。您的对讲机最多支持列表中的 16 个成员。此功能在智能信道共享模式下受支持。

6.7.1.1

打开或关闭灵活接收列表

按照步骤打开或关闭灵活接收列表。

6.7.2

文本转语音

文本转语音功能仅能由您的经销商启用。如果文本转语音已启用，则语音提示功能会自动被禁用。如果语音提示已启用，那么将自动禁用文本转语音功能。

此音频指示器可根据客户需求进行自定义。

6.7.2.1

设置文本转语音

按照步骤设置文本转语音功能。

6.7.3

打开或关闭回声抑制器

此功能可以最小化您在接听电话时遇到的回声。按照步骤打开或关闭对讲机的回声抑制器。

按预设的 **AF 抑制器**按钮。

响起以下一种提示声：

确定提示音

回声抑制器已激活。

否定提示音

回声抑制器未激活。

6.7.4

打开或关闭全球导航卫星系统

全球导航卫星系统 (GNSS) 是一种卫星导航系统，用于确定对讲机的精确位置。GNSS 包括全球定位系统 (GPS) 和 BeiDou 导航卫星系统 (BDS)。

注意:

所选型号的对讲机可提供 GPS 和 BDS。GNSS 卫星群可使用 CPS 配置。咨询经销商或系统管理员以确定对讲机的预设情况。

按预设的 **GNSS** 按钮以在对讲机上打开或关闭 GNSS。

6.7.5

打开或关闭对讲机音调/提示

如果需要，您可以启用和禁用所有对讲机提示音和提示，但呼入紧急呼叫提示音除外。按照步骤打开或关闭对讲机上的音调和提示。

按预设的**全部音调/提示**按钮。

如果成功：

- 发出确定提示音。
- 全部音调和提示均打开。

如果失败：

- 发出否定提示音。
- 全部音调和提示均关闭。

6.7.6

功率级别

您可以将每个信道的功率设置自定义为高或低。

高

该设置用于与距离相对较远的对讲机进行通信。

低

该设置用于与较近处的对讲机进行通信。

6.7.6.1

设置功率级别

按照步骤在对讲机上设置功率级别。

按下预设的**功率级别**按钮。

如果成功：

- 发出确定提示音。
- 对讲机以低功率传输。

如果失败：

- 发出否定提示音。
- 对讲机以高功率传输。

6.7.7

声控发射

声控发射 (VOX) 允许您在预设的信道上发起免提语音激活的呼叫。只要具备声控发射功能的附件上的麦克风检测到语音，对讲机就会自动发射，并在预设的时间内保持发射。

通过执行以下一项操作可启用或禁用声控发射：

- 关闭并重新打开对讲机可启用声控发射。
- 使用**信道选择**旋钮更改信道以启用声控发射。
- 在对讲机操作过程中按 **PTT** 按钮可禁用声控发射。

注意:
打开或关闭此功能仅限于已启用此功能的对讲机。请联系您的经销商或系统管理员了解详细信息。

6.7.7.1

打开或关闭声控发射

按照步骤开启或关闭对讲机上的 VOX。

按预设的 **VOX** 按钮打开或关闭此功能。

注意:
如果已启用通话许可提示音，使用触发词语可发起呼叫。等待通话许可提示音结束，然后对着麦克风清晰地讲话。有关详细信息，请参阅打开或关闭通话许可提示音。

6.7.8

打开或关闭选件板

可将每个信道中的选件板功能分配给可预设按钮。一个信道可以支持多达 6 个选件板功能。按照步骤打开或关闭对讲机上的选件板。

按下预设的**选件板**按钮。

6.7.9

打开或关闭语音提示

此功能使对讲机可以通过语音方式指示用户刚刚分配的当前区域或信道或者用户刚按下的可编程按钮。

可根据客户需求对此语音提示进行自定义。按照步骤打开或关闭对讲机的语音提示。

按预设的**语音提示**按钮。

如果成功：

- 发出确定提示音。
- 全部音调和提示均打开。

如果失败：

- 发出否定提示音。
- 全部音调和提示均关闭。

6.7.10

在对讲机内部扬声器和有线附件之间切换音频路由

按照步骤在对讲机内部扬声器和有线附件之间切换音频路由。

您可以在对讲机内部扬声器和有线附件扬声器之间切换音频路由，前提是：

- 连接带扬声器的有线附件。

按预设的**音频切换**按钮。

切换音频路由后，一声提示音响起。

关闭对讲机或拆卸附件会将音频重置路由重置为内部对讲机扬声器。

6.7.11

打开或关闭智能音频

您的对讲机会自动调整音量以克服环境中当前存在的背景噪音（包括静态和非静态噪音源）。此功能只对接收的音频有效，不会影响发射的音频。

按预设的**智能音频**按钮。

注意:
此功能在进行蓝牙会话时不适用。

6.7.12

打开或关闭颤音增强功能

当您以包含许多唇齿抖音（卷舌“R”）发音的语言说话时，可以启用此功能。按照步骤打开或关闭对讲机上的抖音增强。

按预设的**颤音增强功能**按钮打开或关闭此功能。

如果成功：

- 发出确定提示音。
- 全部音调和提示均打开。

如果失败：

- 发出否定提示音。
- 全部音调和提示均关闭。

授权附件列表

Motorola Solutions 提供以下认可的附件以提高数字手持式双向对讲机的性能。

天线

- UHF，403–450 MHz，短型天线 (PMAE4069_)
- UHF，440–490 MHz，短型天线 (PMAE4070_)
- UHF，470–527 MHz，短型天线 (PMAE4071_)
- UHF，403–527 MHz，细鞭天线 (PMAE4079_)

电池

- IMPRES 2300 mAh 高容量锂离子电池 (FM) (NNTN8129_)
- Impres 2500 mAh IP57 高容量锂离子电池，2300M 2500T (NNTN8560_)
- 电池标准 IP67 锂离子，1500M 1600T (PMNN4406_R)
- IMPRES 2250 mAh 高容量锂离子电池 (PMNN4409_R)
- 2750 mAh 超高容量锂离子电池（PMNN4409_ 的替代品）(PMNN4454_)
- IP68 锂离子电池（PMNN4463_ 的替代品）(PMNN4543_)
- IMPRES 锂离子电池，3000 mAh IP68，用于振动皮带夹 (PMNN4488_)
- IMPRES 2900 mAh TIA 4950 HAZLOC IP68 锂离子电池 (PMNN4489_)
- IMPRES 超薄锂离子电池，2100 mAh IP68 (PMNN4491_)
- IMPRES 锂离子电池，3000 mAh IP68，低电压 (PMNN4493_)
- 核心锂离子电池，2450 mAh IP68 (PMNN4543_)
- IMPRES 锂离子电池，2450 mAh IP68 (PMNN4544_)

携带设备

- 2 英寸皮带宽度皮带夹 (PMLN4651_)
- 2.5 英寸可更换旋转裤耳 (PMLN5610_)
- 3 英寸可更换旋转皮裤耳 (PMLN5611_)
- 全键盘对讲机带 3 英寸固定裤耳的硬皮套 (PMLN5838_)
- 带 3 英寸固定裤耳、用于无显屏对讲机的硬皮套 (PMLN5839_)
- 全键盘对讲机带 3 英寸旋转裤耳的硬皮套 (PMLN5840_)

- 全键盘和有限键盘对讲机带 2.5 英寸旋转裤耳的硬皮套 (PMLN5842_)
- 带 2.5 英寸旋转裤耳、用于无显示屏对讲机的硬皮套 (PMLN5843_)
- 全键盘和有限键盘对讲机带 3 英寸固定裤耳的尼龙套 (PMLN5844_)
- 带 3 英寸固定裤耳、用于无显屏对讲机的尼龙套 (PMLN5845_)
- 带 3 英寸旋转裤耳、用于无显示屏对讲机的硬皮套 (PMLN5846_)
- 2.5 英寸皮带宽度皮带夹 (PMLN7008_)
- 2.5 英寸皮带宽度振动皮带夹 (PMLN7296_)
- 皮革对讲机手提带 (RLN6486_)[6]
- 皮革对讲机手提带，XL 尺寸 (RLN6487_)[6]
- 消摆皮革对讲机手提带 (RLN6488_)[6]

充电器

- 充电器，带开关模式电源，包含 2571886T01，欧式插头 (EPNN9286_)
- IMPRES 电池组管理许可证密钥 (HKVN4036_)
- 适用于 IMPRES 多座充电器的墙壁安装支架 (NLN7967_)[7]
- IMPRES 电池读取器 (NNTN7392_)
- IMPRES 车载充电器 (NNTN7616_)
- IMPRES 电池组管理多座充电器接口装置 (NNTN7677_)[7]
- IMPRES 电池组管理单座充电器接口装置 (NNTN8045_)[7]
- 核心单座充电器，仅带底座 (NNTN8117_)
- 旅行充电器、已调节电压的快速车载充电器适配器、自定义充电器基座、安装支架和螺旋线 (NNTN8525_)[7]
- 微型 USB 开关式电源，中式插头 (PMPN4008_)
- 电源适配器，壁式电源插座，14 W，207–253 V，中式插头 (PS000037A05)
- IMPRES 多座充电器，仅带底座 (WPLN4211_)
- 带显示屏的 IMPRES 多座充电器，仅带底座 (WPLN4218_)
- IMPRES 单座充电器，中式插头 (WPLN4245_)

[6] 您的对讲机与此处所列附件兼容。有关详细信息，请咨询您的经销商。
[7] 您的对讲机与此处所列附件兼容。有关详细信息，请咨询您的经销商。

- IMPRES 单座充电器，1.25 A，230 VAC，澳大利亚/新西兰/APME 插头 (WPLN4256_)
- 变压器，15 W，Waris，中式插头 (2564060M01)

耳塞和耳机

- 单收耳塞 (AARLN4885_)
- 带音量控制的耳机 (BDN6666_)
- 带音量控制的单收耳机，黑色 (BDN6728_)
- D 字形单收耳机 (PMLN4620_)
- D 字形耳机 (PMLN5096_)
- 带线控通话按键的 IMPRES 太阳穴传导器 (PMLN5101_)
- 带线控麦克风/PTT 的耳塞听筒耳机，MagOne (PMLN5973_)
- 带麦克风/PTT 的旋转耳机，MagOne (PMLN5975_)
- 带悬臂式麦克风和线控 PTT 的耳机，MagOne (PMLN5976_)
- 带线控麦克风/PTT 的耳塞，MagOne (PMLN6069_)
- 带悬臂式麦克风的灵活旋转耳机 (PMLN7181_)[8]
- 带悬臂式麦克风和多件包装的灵活旋转耳机 (PMLN7203_)[8]
- 绝对极简型耳机套件 (PMLN7696_)[8]
- 关键作业无线耳机 PTT (PMLN7851_)
- 单收耳机 (RLN4941_)
- 单收噪音监听套件，黑色 (RLN5313_)
- 单收噪音监听套件，浅褐色 (RLN5314_)
- 标准耳机，黑色 (RLN6279_)
- 标准耳机，浅褐色 (RLN6280_)
- 可更换泡沫耳垫和防风罩 (RLN6283_)
- 带传声管组件的耳机，浅褐色 (RLN6284_)
- 带传声管组件的耳机，黑色 (RLN6285_)
- 带高噪音套件的耳机，浅褐色 (RLN6288_)
- 带高噪音套件的耳机，黑色 (RLN6289_)
- 清晰的 EP7-小型听力保护器 [Sonic 护耳器] 超级耳塞，降噪 = 28 dB (RLN6511_)[8]
- 清晰的 EP7-中型听力保护器 [Sonic 护耳器] 超级耳塞，降噪 = 28 dB (RLN6512_)[8]

[8] 您的对讲机与此处所列附件兼容。有关详细信息，请咨询您的经销商。

- 清晰的 EP7-大型听力保护器 [Sonic 护耳器] 超级耳塞，降噪 = 28 dB (RLN6513_)[8]
- 带线控麦克风的旋转耳机，适用于蓝牙附件套件，3 件装 (RLN6550_)[8]
- 单线耳塞，29 厘米电源线，黑色 (NNTN8294_)
- 单线耳塞，116 厘米电源线，黑色 (NNTN8295_)
- 无线私密套件，包括两套双线耳塞（1 个黑色和 1 个白色），单线耳塞（黑色）和一个 3.5 毫米适配器，可插入任何现有耳机 (NNTN8296_)
- 关键作业无线耳塞的耳帽（NNTN8294_ 和 NNTN8295_ 的更换件）(NNTN8299)
- 远程扬声器麦克风耳上接收器 (WADN4190_)
- 无线颈环 Y 形适配器和保持钩，适用于绝对极简型套件 (NNTN8385_)[8]

头戴式耳机和耳机附件

- 12 英寸电缆的耳机（用于 NNTN8125_ 的更换件）(NTN2572_)
- 非加密无线耳机和带有 PPT 音频的 PTT 设备，12 英寸电缆 (NNTN8189_)
- PTT 模块，不带充电器 (NNTN8191_)
- Ultra-Lite 头戴式耳机 (PMLN5102_)
- 带悬臂式麦克风和 PTT 的轻型头戴式耳机，MagOne (PMLN5974_)
- 带悬臂式麦克风和 PTT 的超轻型耳机，MagOne (PMLN5979_)
- 企业无线附件包 (PMLN6463_)
- 下一代后戴式重型头戴式耳机 GCAI (PMLN6852_)
- 下一代后戴式重型头戴式耳机 GCAI TIA 4950 (PMLN6853_)
- 头戴式重型耳机，带 GCAI (PMLN7466_)
- 头戴式重型耳机/TIA，带 GCAI (PMLN7467_)
- XBT 颈带式非加密无线重型耳机 (RLN6490_)
- XBT 头戴式非加密无线重型耳机 (RLN6491_)
- 超轻型头戴式耳机 (RMN5058_)

远程扬声器麦克风

- IMPRES 远程扬声器麦克风，IP57 (NNTN8382_)
- IMPRES 远程扬声器麦克风，带耳机接口 (NNTN8383_)
- 远程扬声器麦克风 (PMMN4024_)
- IMPRES 远程扬声器麦克风 (PMMN4025_)
- 远程扬声器麦克风，防水 (IP57) (PMMN4040_)

- IMPRES 带声音的远程扬声器麦克风，IP57 (PMMN4046_)
- IMPRES 远程降噪扬声器麦克风，带耳机接口 (PMMN4050_)
- IMPRES 大型远程扬声器麦克风，APX IP68 Delta T (GCAI) (PMMN4083_)[9]
- IMPRES IP68 重型远程扬声器麦克风 (PMMN4099_)
- IMPRES 降噪远程扬声器麦克风，3.5 mm 插孔，长卷线缆，带 Nexus 连接器 (PMMN4102_)
- IMPRES 降噪远程扬声器麦克风，3.5 mm 插孔，长卷线缆，带 Nexus 连接器（绿色外壳）(PMMN4102B_GRN)
- IMPRES OMNI 远程扬声器麦克风，3.5 mm 插孔，长卷线缆，带 Nexus 连接器 (PMMN4113_)
- 远程扬声器麦克风可更换螺旋线套件（与 PMMN4024_ 和 PMMN4040_ 一同使用）(RLN6074_)
- 远程扬声器麦克风可更换螺旋线套件（与 PMMN4025_、PMMN4046_ 和 PMMN4050_ 一同使用）(RLN6075_)
- 关键作业无线 RSM (RLN6561_/MDRLN6561_)

监听附件

- 单线监听套件，带透明管，黑色 (NNTN8459_)
- 带舒适型透明传声管的 IMPRES 3 线监听，黑色 (PMLN6123_)
- 带舒适型透明传声管的 IMPRES 3 线监听，浅褐色 (PMLN6124_)
- 单收监听附件，黑色（单线）(PMLN6125_)
- 单收监听附件，浅褐色（单线）(PMLN6126_)
- IMPRES 2 线监听套件，黑色 (PMLN6127_)
- IMPRES 2 线监听套件，浅褐色 (PMLN6128_)
- 带舒适型透明传声管的 IMPRES 双线监听套件，黑色 (PMLN6129_)
- 带舒适型透明传声管的 IMPRES 2 线监听套件，浅褐色 (PMLN6130_)
- 关键作业无线单线监听套件，带透明管 (PMLN7052_)[10]
- 用于监听套件的小型定制耳机，右耳 (RLN4760_)
- 用于监听套件的中型定制耳机，右耳 (RLN4761_)
- 用于监听套件的大型定制耳机，右耳 (RLN4762_)

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[9] 您的对讲机与此处所列附件兼容。有关详细信息，请咨询您的经销商。
[10] 您的对讲机与此处所列附件兼容。有关详细信息，请咨询您的经销商。

- 用于监听套件的小型定制耳机，左耳 (RLN4763_)
- 用于监听套件的中型定制耳机，左耳 (RLN4764_)
- 用于监听套件的大型定制耳机，左耳 (RLN4765_)
- 可更换泡沫耳塞，每包 50 个（用于 RLN5886_）(RLN6281_)
- 可更换透明耳帽，每包 50 个（用于 RLN5887_）(RLN6282_)

其他附件

- 防尘罩组件 (15012157001)
- 用于 RLN4570_ 和 HLN6602_ 胸包的可更换肩带 (1505596Z02)
- 天线识别频段 – 灰色 (32012144001)
- 天线识别频段 – 黄色 (32012144002)
- 天线识别频段 – 绿色 (32012144003)
- 天线识别频段 – 蓝色 (32012144004)
- 天线识别频段 – 紫色 (32012144005)
- 皮带 (4200865599)
- 通用 RadioPAK 延长带 (4280384F89)
- SMA 至 BNC 适配器，改进型 (5880348B33)
- 屏幕保护膜，透明（单包包含一件）(AY000267A01_) [11]
- 通用胸袋 (HLN6602_)
- 带大携行带的防水袋 (HLN9985_)
- 肩带（固定在对讲机套的 D 型环上）(NTN5243_)
- DMR 便携编程电缆 (PMKN4012_)
- 用于编程的测试和校准电缆 (PMKN4013_)
- DMR 便携遥感遥测电缆 (PMKN4040_)
- IMPRES 便携式非 PC 适配器 (PMKN4071_)
- TTR 和编程电缆，用于测试校准 (PMKN4126_)
- 战术式 GCAI PTT/VOX 接口模块 (PMLN6765_)
- 战术远程主体 PTT (PMLN6767_)
- PTT 通接口模块 (PMLN6827_)
- 战术远程环形 PTT (PMLN6830_)
- 战术重型太阳穴传导器，带降噪悬臂式麦克风 (PMLN6833_)
- 小夹子，肩带 (RLN4295_)
- Break-A-Way 胸包 (RLN4570_)

[11] 您的对讲机与此处所列附件兼容。有关详细信息，请咨询您的经销商。

- 通用对讲机袋和工具包 (Fanny Pack) (RLN4815_)

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无线电发射设备型号核准代码会在设备标签上注明。