

Mobile Release 5.14.10



MTP850

FEATURE USER GUIDE

详细用户手册



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Chapter 1

General Information

Safety Information

RF Energy Exposure and Product Safety Guide For Two-Way Radios

ATTENTION!

Before using this product, read the RF Energy Exposure and Safety Guide that ships with the radio which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable standards and regulations.

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European Union (EU) Waste of Electrical and Electronic Equipment (WEEE) directive



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

As defined by the WEEE directive, this cross-out trashbin 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.

Open Source Software (OSS) Legal Notices

For details on OSS Legal Notices visit Motorola Online (emeaonline.motorolasolutions.com) or browse the CPS Plus disc.

Icon Conventions

The following graphic icons, which help identify situations or settings crucial to proper radio operation and user safety, are used throughout this document:



Danger: The signal word DANGER with the associated safety icon indicates information that, if disregarded, will result in death or serious injury.



Warning: The signal word WARNING with the associated safety icon indicates information that, if disregarded, could result in death or serious injury, or serious product damage.



Caution: The signal word CAUTION with the associated safety icon indicates information that, if disregarded, may result in minor or moderate injury, or serious product damage.

Caution: The signal word CAUTION may be used without the safety icon to state potential damage or injury that is not related to the product.



Important: IMPORTANT statements contain information that is crucial to the discussion at hand, but is not CAUTION or WARNING. There is no warning level associated with the IMPORTANT statement.



Note: NOTE contains information more important than the surrounding text, such as exceptions or preconditions. They also refer the reader elsewhere for additional information, remind the reader how to complete an action (when it is not part of the current procedure, for instance), or tell the reader where something is located on the screen. There is no warning level associated with a note.



Suggestion: SUGGESTION indicates a recommendation from Motorola that does not require to be followed, but might be helpful. There is no warning level associated with SUGGESTION.

Using this Guide

The following special notations are used throughout the text to highlight certain information or items:

Table 1: Special Notations

Example	Description
MENU key or EMERGENCY button	Capital letters indicate a name of a key or button.
<i>Entering TMO tone</i>	Italic words indicate a name of the tone.
Powering Off	Bold words indicate the soft menu items, MMI strings, or messages displayed on the radio.
Setup → Tones → All Tones	Bold words with the arrow between indicate navigation structure in the menu items.

Feature and Service Availability

This guide describes all available radio features and services. Your service provider may have customized your radio to optimize its use for your individual needs. Check with you service provider to find out the differences from this guide.

Chapter 2

Getting Started

This chapter contains basic information on how to use the radio.

Product Technical Information

Table 2: Product Technical Information

Description	Value		
Maximum Voltage	4.2 V		
Maximum Current	0.5 A		
Maximum RF Power	1 or 1.8 W (switchable)		
Maximum Speaker Load	0.5 W at 8 Ω		
Antenna Impedance	50 Ω		
Operating Temperature Range	-25 °C to +60 °C		
Operating Time	Duty Cycle	Class 4 (1 W)	Class 3L (1.8 W, 380–430 MHz only)
	05/05/90	> 23 h	> 20.5 h
	05/35/60	> 17 h	> 15.5 h
	Talk Time	3.5 h	2.5 h



Note: The communication system determines the radio transmit and receive time (operating cycle time). During overload, or beyond the systems specifications at high ambient temperatures, the thermal control cuts down the RF power output, which reduces the radio coverage range.

Before Power On

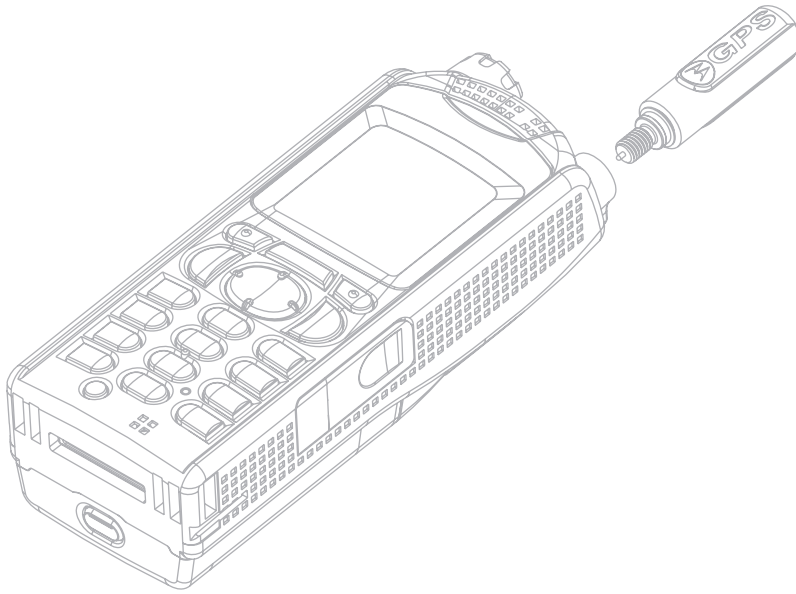
Read this section before you power on your radio for the first time.

Attaching the Antenna

Procedure:

- 1 Insert the screw-in base of the antenna into the antenna terminal on the top of the radio.

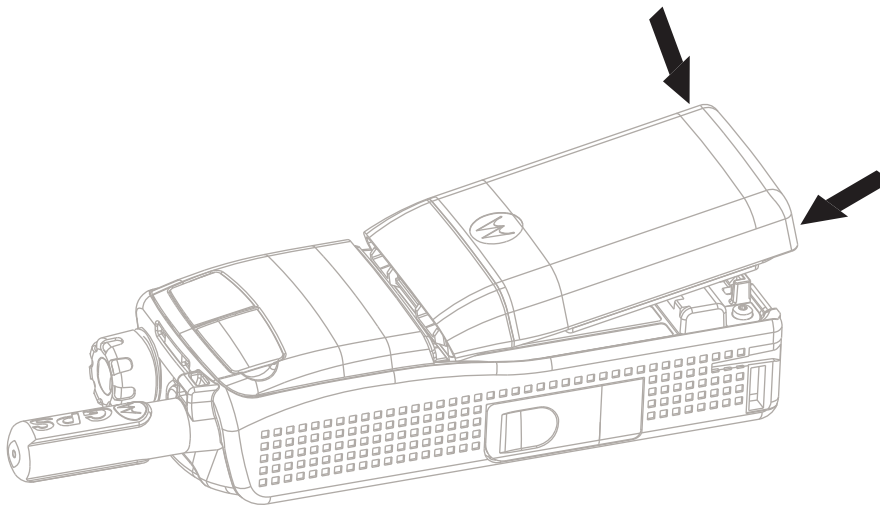
- 2 Turn clockwise until snug.



Installing the Battery

Procedure:

- 1 Remove the battery from its protective case.
- 2 Insert the battery top into the compartment as illustrated.



- 3 Carefully press the battery bottom downward until it clicks into place.



Note:

- Your service provider can configure the radio to turn on automatically after you insert the battery.
- Your radio always powers up, if you remove the battery for a period shorter than 3-5 seconds.

Related Links

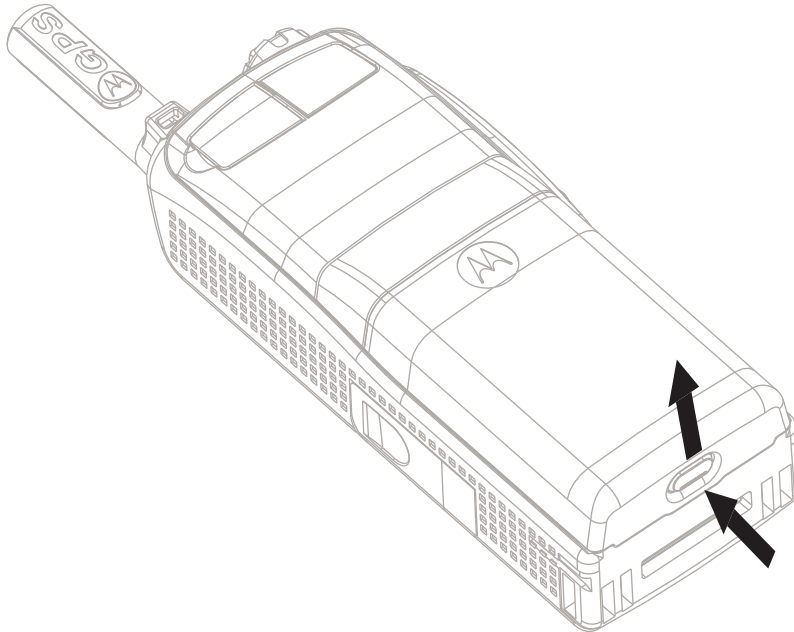
[Removing the Battery](#) on page 21

Removing the Battery

Prerequisites: Turn off the radio.

Procedure:

- 1 Push the latch.
- 2 Lift the battery out.



Related Links

[Installing the Battery](#) on page 20

Charging the Battery

Depending on a charger type, you can charge a battery alone or/and a battery attached to a radio.

Charging a battery attached to a radio can be done with the radio either turned on or off. Charging with the radio turned off is recommended since this is more efficient (the battery charges faster).



Important: Motorola approved chargers provide optimum performance. Other chargers may not fully charge your Motorola Lithium-Ion battery or may reduce the life of the battery.

Prerequisites:

Do not charge the battery in a hazardous area.

Procedure:

- 1 Connect the charger to an appropriate power source (100–240 V, 12 V), according to the specification of the charger.
- 2 Perform one of the following actions:
 - Desktop chargers – insert the battery or the radio with the battery attached into the appropriate socket of the charger. Ensure that the battery/radio made good connection with the charger and that the LED on the charger is indicating that charging is in progress
 - Travel chargers and car chargers – connect the charger to the radio with the battery attached. Ensure that the charger is firmly connected to the radio and that the radio display is indicating that charging is in progress.



Note: If the radio cannot detect the charger and displays the **Detecting Charger** or **Reconnect Radio to the Charger** messages, ensure that the charger is connected correctly and that the pins on the radio and the charger are clean.









Post requisites: The battery may heat up during charging. After charging, make sure that the battery and the radio are within the operating temperature range before using the radio.

Charging Indicators

When your radio is turned on while charging, it displays an icon of the battery in charging.

When your radio is turned off while charging, it displays the icon of the battery in charging and backlights the display.

Table 3: Battery Icons

Battery Capacity				Battery Charge Progress			
							
Empty	Low	Middle	Full	Empty	Low	Middle	Full
5%–10%	10%–20%	20%–90%	90%–100%	5%–10%	10%–20%	20%–90%	90%–100%

Low Battery Indication

The radio indicates low battery level by playing an audible alert when the battery charge falls to a preset level. The low battery alert can be programmed by your service provider to 5, 10, or 20 per cent of remaining capacity. The default setting is 5 per cent. The service provider also configures how frequently the alert repeats.

Controls and Indicators

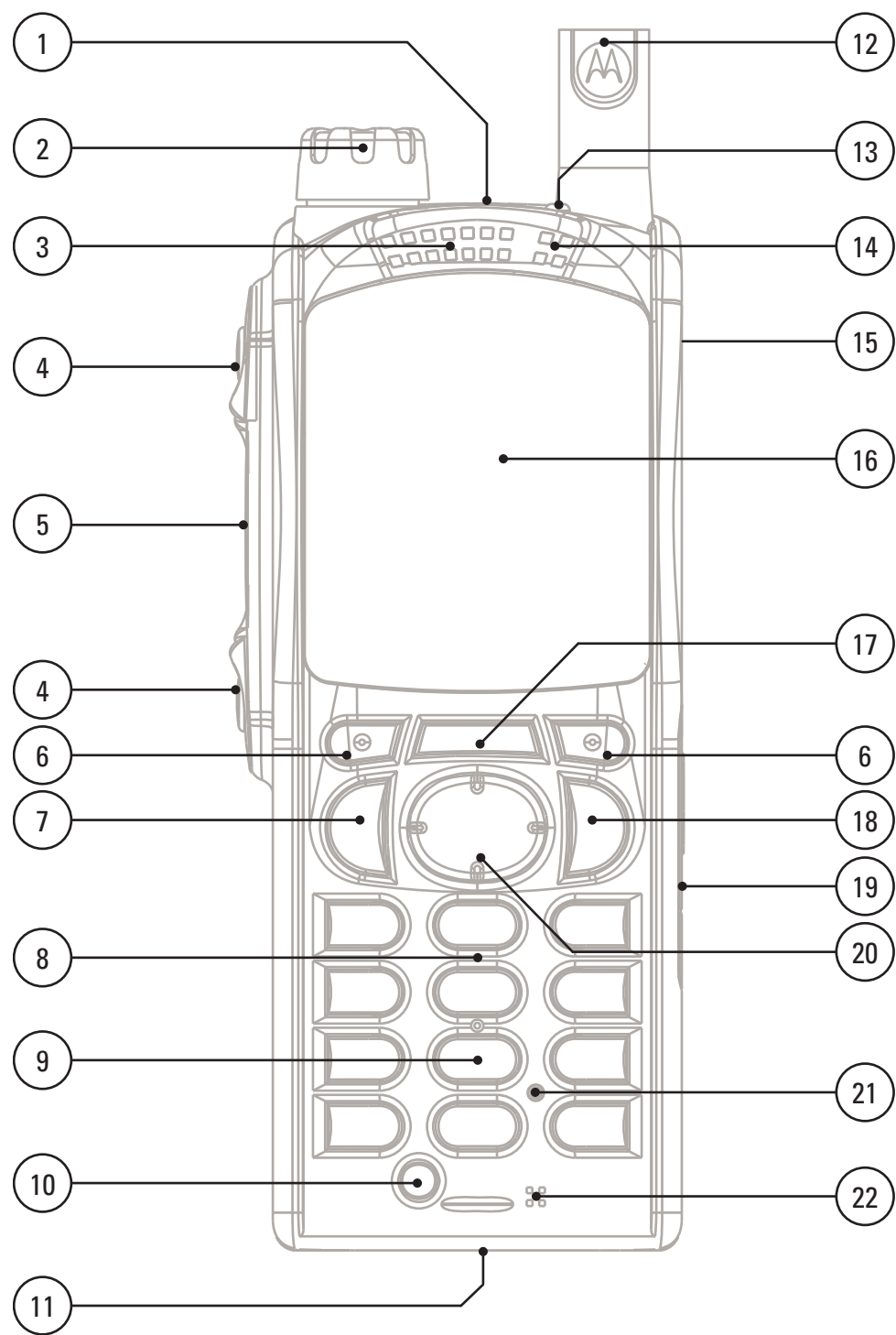


Table 4: Controls and Indicators

Annotation	Description
1	EMERGENCY button

Table continued...




Annotation	Description
	Press and hold EMERGENCY button to enter Emergency operation. When your radio is off, press and hold to power on in Emergency Mode.
2	ROTARY KNOB <ul style="list-style-type: none"> • Rotate to set the volume. • Press and rotate to select a different talkgroup. • Press and hold the ROTARY KNOB to lock/unlock it. Powering off also unlocks a locked ROTARY KNOB.
3	EARPIECE
4	SIDE button <p>The ROTARY KNOB and SIDE buttons programming are paired. When the ROTARY KNOB is set to Volume or Dual, the SIDE buttons support the One-Touch Button feature. By default, the upper SIDE button is set to Backlight feature and the lower SIDE button is set to Screen Saver feature.</p> <div>  <p>Note: The required time to press and hold SIDE button to activate an One-Touch Button feature is set as default to 0,1 second.</p> </div>
5	PTT (Push-To-Talk) <ul style="list-style-type: none"> • Press and hold to talk in simplex calls or to initiate a group call, release it to listen. • Press to send status and text messages.
6	SOFT key <p>Press left or right SOFT key, to select the option that appears on the screen directly above the them.</p>
7	SEND key <p>Press to initiate or answer duplex calls, or send messages.</p>
8	SPEAKER
9	KEYPAD <p>Use the keypad to enter alphanumeric characters for dialing, contact entries, and text messages.</p> <p>Your radio supports the One-Touch Button feature that allows you to activate commonly used features by pressing and holding assigned key (0-9, * and #).</p> <div>  <p>Note: The required time to press and hold assigned key to activate an One-Touch Button feature is set as default to 1 second.</p> </div>
10	SPEAKER CONTROL key <p>Press the SPEAKER CONTROL key to activate the earpiece Speaker LOW or speaker Speaker HIGH.</p> <div>  <p>Note: In an Emergency Group Call, the speaker is activated regardless of the speaker setting.</p> </div>
11	ACCESSORY CONNECTOR

Table continued...



Annotation	Description
	<p>Provides connection for accessories and cable for data transfer.</p> <p> Note: It is recommended to turn off the radio before connecting accessories.</p>
12	ANTENNA
13	LED
14	<p>TOP MICROPHONE</p> <p>Activated during Simplex, high audio calls such as Group Calls.</p>
15	<p>EXTERNAL ANTENNA CONNECTOR</p> <p>Used with the digital car kit to connect the RF signal to the external antenna.</p>
16	<p>DISPLAY</p> <p>Provides alphanumeric text and images within 65,536 colors and 130 x 130 pixels with backlight, scalable fonts, and contrast.</p>
17	<p>MENU key</p> <ul style="list-style-type: none"> • From the home screen, press to enter the main menu. • Used to enter the context-sensitive menu.
18	<p>ON/OFF/END/HOME key</p> <ul style="list-style-type: none"> • Press and hold to turn on/off your radio. • Press to end calls. • Press to return to the home screen.
19	<p>AUDIO ACCESSORY CONNECTOR</p> <p>Provides connection for audio accessories.</p> <p> Note: It is recommended to turn off the radio before connecting accessories.</p>
20	<p>NAVIGATION key</p> <p>Press up, down, left or right NAVIGATION key for list scrolling, while moving around the menu hierarchy, or for alphanumeric text editing.</p> <p>From the home screen, press to activate one of the following:</p> <ul style="list-style-type: none"> • down NAVIGATION key — enters Recent Calls menu item. • up NAVIGATION key — changes My Groups talkgroup folder. • left and right NAVIGATION key — toggles through the talkgroups.
21	<p>BACKLIGHT SENSOR</p> <p>Your radio keypad can be illuminated whenever the backlight is on. The keypad backlight sensor determines whether there is a need to light up the keypad backlight, by measuring the ambient light intensity. This feature can improve power saving. When the radio is in the battery charger, the keypad backlight remains illuminated and the BACKLIGHT SENSOR is ignored.</p>

Table continued...

Annotation	Description
22	BOTTOM MICROPHONE



Note: A detailed list of compatible accessories is included in *Accessory Leaflet*, part number: 6866537D83. To obtain the document, contact your service provider.

Display

This section presents the radio's default home screen elements.



Table 5: Display

Annotation	Description
1	Status icon area
2	Text display area
3	SOFT key area
4	MENU/Context sensitive icon

The color of the SOFT key area changes according to the mode the radio is in.

Table 6: Colors of the SOFT Key Area

Color	Mode or State
Light blue	Normal TMO and DMO Modes
Light red	Emergency Mode or Disaster Alert Call
Olive	Local Site Trunking Mode
Yellow	Call Out — Standby
Red	Call Out — Alert
Green	Call Out — Accepted
Blue	Radio Messaging Service (RMS)
Grey	Radio User Assignment (RUA) — Limited service

Related Links

[Display](#) on page 87

[Display](#) on page 87

[Setting Time and Date on the Display](#) on page 89

Configurable Idle Screen

Your service provider can configure the information that is displayed on the home screen below the status icon area. Depending on the radio configuration and services supported, the following information can be displayed:

- Network alias
- Range alias
- Talkgroup alias
- Time and date
- Home mode display
- RMS/FMS
- ISSI
- Radio status
- Audio profile name
- Radios supporting SIM Card End-to-End Encryption: OPTA, BSI registration status

Status Icons

Status icons appear when your radio is engaged in certain activities or when you have activated certain features.

The icons can appear in normal or large size. To manually enable/disable large status icons, go to **Menu** → **Setup** → **Display** → **Extended Status Icons**.

Table 7: Status Icons









Icon	Description
Trunked Mode Operation	
	In Service
	No Service
	Signal Strength – The more bars, the stronger the signal.
	RF Power — Indicates the High RF Power is enabled. Shows the signal strength. The more bars, the stronger the signal.
	Migration — Displayed when your radio is registered to the foreign network.
	Broadcast Call — Displayed when the radio is in the Broadcast Call.
	Scan — Indicates talkgroup scanning is activated in the radio.
	Priority Scan — Indicates that priority scanning is activated in the radio.

Table continued...




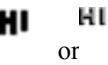










Icon	Description
	Data Connected — Displayed when the data connection is idle (standby).
	Data Transmit/Receive — Displayed when the data connection is active. Number 1, 2, 3, or 4 indicates how much bandwidth is used during transmission (25%, 50%, 75%, or 100%).
Direct Mode Operation	
	Direct Mode Call — Displayed when the radio is receiving a Direct Mode call. The more bars, the stronger the signal.
 or	High RF Power: idle or transmitting — Displayed when the High RF Power option is enabled and the radio is either in the idle mode or transmitting a call.
	High RF Power: receiving — Displayed when the High RF Power option is enabled and the radio is receiving a call.
	Direct Mode — Displayed when the radio is in Direct Mode (radio-to-radio communication).
	DMO Gateway Communication Mode — Indicates that gateway is selected. The icon has the following states: <ul style="list-style-type: none"> • Solid — while the radio is synchronized with the gateway. • Blinking — while the radio is not synchronized or during attachment. • No icon — during a radio to radio and repeater call.
	DMO Repeater Communication Mode — Displayed when the Repeater or GW + Rep option in DMO Mode is selected. This icon has the following states: <ul style="list-style-type: none"> • Solid — while the radio has detected the repeater (for example when the radio receives a presence signal). • Blinking — while the radio has not detected the repeater or during attachment. • No icon — during a radio to radio and gateway call.
General Icons	
	All Tones Off and Duplex and Simplex Ring Muted — Indicates that all alert tones are off and both duplex and simplex ring volume is set to 0. <ul style="list-style-type: none"> • Volume is set to 0 (when Volume Adj. Mode is set to Common). • Both simplex and duplex ring volume is set to 0 (when Volume Adj. Mode is set to Individual).
	Simplex Ring Muted — Indicates that simplex ring volume is set to 0 and duplex ring volume is set to more than 0.
	Duplex Ring Muted — Indicates that duplex ring volume is set to 0 and simplex ring volume is set to more than 0.
	Vibrate On — Indicates that the radio vibrates to alert you of an incoming call.
	Vibrate then Ring — Indicates that the radio vibrates and rings to alert you of an incoming call.
	Low Audio — Indicates that the audio mode is changed to low.

Table continued...




















Icon	Description
	High Audio — Indicates that the audio mode is changed to high.
	Audio Profile Selected — Indicates that an audio profile associated with a particular icon is active. The icons can be either solid or blinking. For details on audio profiles available on the radio, contact your service provider.
	Earpiece Connected — Indicates that the earpiece is connected.
	GPS Icon <ul style="list-style-type: none"> • Solid - the radio has a location fix • Blinking - the radio is acquiring a location fix. This is an optional setting and may not be enabled on your radio.
	RUI Logged on — Indicates that you are logged on into the radio.
	RUI Pseudo Log On — Indicates that you are in pseudo logged on state.
	RUI Packet Data — Indicates Pseudo Log On state when the Packet Data feature is activated and active data session is in progress.
	RUI Packet Data — Indicates Pseudo Log On state when the Packet Data feature is activated and the external device sets up data connection with the radio.
	Battery Strength — Shows the charge of your battery.
	Battery Charging — Indicates that the battery is charging.
	Emergency — Appears while the radio is in Emergency Operation.
	Disaster Alert Call — Appears while the radio is in the Disaster Alert Call.
	List Scrolling — Displayed to indicate that the ROTARY KNOB is in list scrolling mode.
	New Message Has Arrived — Indicates a new message just arrived.
	New Message(s) in Inbox — Indicates that you have unread messages in your Inbox .
	Unread (New) WAP Message — Indicates that new page was loaded to the browser.
	Call-Out — Indicates Call-Out alert.
	Call-Out Alert Arrived — Indicates a receipt of a new Call-Out message.
	Call-Out Alert Unread — Indicates unread alert in the CO Box .

Table continued...













Icon	Description
	<p>End-to-End Encryption (E2EE)</p> <p>Solid, when the E2EE is enabled</p> <ul style="list-style-type: none"> • for the selected talkgroup, • for the highlighted private number, • for the manually entered private number, • when transmitting voice in Group Calls, • when transmitting voice in Simplex Private Calls. <p>Blinking, when the End-to-End Encryption is enabled</p> <ul style="list-style-type: none"> • when receiving voice in Group Calls, • when receiving voice in Simplex Private Calls, • during encrypted Duplex Private Calls.
	<p>SDS End-to-End Encryption</p> <p>Solid, when the E2E status of an SDS message, or the E2E status of a message recipient address.</p> <p>In High Security mode, when your radio processes only the encrypted information, this icon is always visible in when you are in the messages menu (for example, Inbox).</p>
	Unread (New) WAP Message — Indicates that you have not entered WAP Box since last WAP message was received (Blinks when the priority is high).
	WAP Message Icon — Displayed next to the priority in the message list view.
	WAP Message Time — Displayed next to the create date in the message list view.
	WAP Message Expiration — Displayed next to the expiry date in the message list view.
	WAP Message Title Icon — Displayed next to the title along with the text in the message list view.
	Keys Locked — Indicates that keys are locked.
	<p>Non Secured Call — Air Encryption Unavailable</p> <p>Blinking, indicates that Air Encryption is not available when the radio:</p> <ul style="list-style-type: none"> • Is in the Local Site Trunking Mode. • Attempts to connect to a gateway.
	<p>Not Secured Call — Air Encryption Unavailable</p> <p>Alternately blinking, indicates that Air Encryption is not available when the radio:</p> <ul style="list-style-type: none"> • Is in TMO Mode. • Communicates through a gateway.
	<p>Not Secured Call — Air Encryption Unavailable</p> <p>Blinking, indicates that Air Encryption is not available in DMO Mode. The icon appears after the PTT button is pressed.</p>

Table continued...

Icon	Description
	<p>Remote Control</p> <p>Indicates that the radio is being remotely controlled and some commands are being executed in the background. For example, when the radio is controlled via special SDS messages or triggered to send a GPS location report.</p> <p>The icon is not visible in the Extra Zoom Mode.</p>

Related Links

[Air Encryption](#) on page 78

Powering On the Radio

Procedure:

- 1 Press and hold ON button.
- 2 Your radio performs a self-check and registration routine.
- 3 After successful registration, your radio is in service.



Note: Your radio powers on without visible and audible notification if Covert Mode is activated.

Unlocking Your Radio

Your radio may be locked at power up. To unlock it after powering on, enter the code at the prompt. Your radio enters the default home display.



Note: The unlock code is originally set to 0000. Your service provider may change this number before you receive your radio.

Related Links

[PIN Protect](#) on page 76

[Changing PIN Codes](#) on page 77

[Writing Text](#) on page 38

Unlocking Your Radio

Prerequisites: You blocked your radio by entering incorrect PIN code for three times (by default).

Procedure:

- 1 Radio displays **Unit Blocked** Enter PUK.
- 2 Enter 8-digit PUK (Personal Unblocking Key) number.



Note: The PUK is an eight-digit master code provided by your service provider.

- 3 Enter the new PIN code twice.

Locking/Unlocking the Keys/Buttons

Press MENU key and * key.



Note: The EMERGENCY button is not locked. Entering Emergency Mode unlocks all keys.

Related Links

[Keylock Setup](#) on page 77

Holding Your Radio

The radio has two microphones: a top microphone for simplex dispatcher/private calls and a bottom microphone for duplex telephone-like calls.

Also, the radio is equipped with an internal speaker for high audio (located at the middle of the unit) and an internal earpiece for low audio (located at the top of the unit). The audio can be routed either to the speaker or the earpiece using the Audio Toggle menu (MENU → **Setup** → **Audio** → **Audio Toggle**) or the assigned One-Touch Button.



Note: When possible, it is recommended to speak into the top microphone.

Simplex Calls

When using high audio, hold the radio a vertical position with its top microphone 5 centimeters to 10 centimeters away from your mouth. Speak into the top microphone. Listen through the internal speaker. Keep the antenna at least 2.5 centimeters from your head and body.



Duplex Calls

When using low audio, hold your radio as you would a telephone. Speak into the bottom microphone. Listen via the earpiece. Keep the antenna at least 2.5 centimeters from your head and body.



Lapel/Shoulder Use

For Group and Private Calls turn your head towards your shoulder/lapel, and speak directly into the top microphone. Listen through the internal speaker.

Speakerphone Use

Place your radio 30 centimeters to 60 centimeters away from you. In a noisy environment, you move the radio closer to you for better transmission.

Setting Flip Display

When and where to use:

The feature is useful for a user who has to wear the radio on a shoulder, belt, or lapel and at the same time wishes to read the display upside down.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Flip Display**.
- 3 Select one of the following:
 - **On** – to activate this feature.
 - **Off** – to deactivate this feature.

Entering TMO / DMO Mode

Procedure:

- 1 From the home screen, press **Optns**.
- 2 Select **Trunked Mode** / **Direct Mode**.

Related Links

[Selecting Network Operation Mode](#) on page 101

[Networks](#) on page 101

Transmit Inhibit Mode

The Transmit Inhibit Mode is a mode in which the radio sends no radio transmissions. It is recommended to activate the mode in RF sensitive areas, for example hospitals, airplanes, where safety can be jeopardized due to transmission radiation.

To activate, select **MENU** → **More . . .** → **Networks** → **TXI Mode** → **Activate**.

In this mode, the radio does not transmit under any circumstances except for the Emergency Calls. All the functions and keys which cause transmission, for example registration to the network, changing talkgroup or folder, sending SDS messages, or pressing the PTT button are disabled. Any transmission trial causes the radio to display **Not Allowed In TXI Mode** notification and to play a tone.

Your radio can still receive:

- Group calls.
- Messages — stored in the **Inbox**.
- Private call attempts — stored in the **Missed Calls** list, without the option to respond.

When no danger to safety exists anymore (for example, you leave the RF sensitive area), you can deactivate the Transmit Inhibit Mode and the radio returns to standard operation.

You can deactivate the mode by selecting **MENU** → **More . . .** → **Networks** → **TXI Mode** → **Deactivate**, pressing One-Touch button, or implicitly when initiating an Emergency Call.



Note: RF Transmissions from the radio are prevented under the following conditions:

- TXI Mode is activated.
- Battery is removed.
- The radio is turned off.

On entering or exiting the transmit inhibit mode, when the radio is camped on a cell, it sends a specially designated SDS status message. This SDS message indicates to the SwMI that the radio is entering or exiting transmit inhibit mode.

Mobility procedures that do not require the radio to send an uplink transmission are performed except for cell reselection.

In transmit inhibit mode the radio joins group calls for any group that the radio is monitoring, but the transmitting on that call is still prohibited.

The radio also displays any incoming SDS messages to the user. The missed call feature is active in the transmit inhibit mode and allows checking what calls were missed. However, the radio attempts to prevent call setup retransmission from being recorded as separate calls.

If you initiate an emergency call, the radio immediately leaves transmit inhibit mode and attempts to start the emergency call if the radio is in service.

If the radio is turned off in the transmit inhibit mode, on turning on the radio asks whether to exit the transmit inhibit mode. If you choose **No**, the radio turns off.

Selecting Talkgroups

From the home screen, use one of the following methods:

- Press left or right NAVIGATION key. Press **Select** to confirm.
- Select **Optns** → **TG by abc**. Enter a talkgroup name and select the talkgroup name from the list.
- Select **Optns** → **TG by Folder**. Select a folder and then a talkgroup name.
- Press ROTARY KNOB and rotate it until the required talkgroup name is displayed. Press **Select** to confirm.



Note: If the ROTARY KNOB mode is set to **Scroll**, then you do not need to press it to enter the scrolling mode.



Note: Your radio can have an access up to three levels of the folder structure.

Talkgroup Icon Selection

Table 8: Talkgroup Icon

Icon	Description
	Displayed when the talkgroup is from a different network than the one currently selected.

Using Timed Talkgroup Change

This feature allows you to switch a selected talkgroup between the currently selected talkgroup and a predefined talkgroup (TMO or DMO), making the predefined talkgroup the selected talk group for a predefined time by using a One-Touch button. After the timer expires, your radio returns to the previously selected talkgroup.

Prerequisites: Timed Talkgroup Change is assigned to a One-Touch button.

Procedure:

- 1 Press and hold and hold the One-Touch button.
- 2 Your radio switches the selected talkgroup to the predefined talkgroup for a predefined amount of time.

During the predefined time the radio initiates or joins group communication (SDS, status SDS, or call) on the predefined talkgroup as the selected talkgroup.

Your service provider can assign a function to the second press of the One-Touch button to:

- Return to previously selected talkgroup
 - Restart the predefined time
 - No action
- 3 When the timer expires (potentially after being restarted a number of times) the radio switches to the previously selected talkgroup.

Activating Talkgroup Scanning

When and where to use: If you want to monitor any TMO Group Call in the defined talkgroup list.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Group Setup** → **Scan** → **Scanning**.
- 3 Select **Select List** and then a list name.

Your radio displays list name **Selected**.

- 4 Select **Scanning** → **On**.

Your radio is scanning on the predefined scan list.

Related Links

[Scan](#) on page 94

Broadcast Call

The Broadcast Group Call (also called Site Wide Call) is a high-priority group call from the console operator (or dispatcher) to all users located at one or more sites. The radios are configured to monitor a Broadcast Call, but you cannot talk back. The call can be received as a normal Broadcast Call or an Emergency Broadcast Call. The Broadcast Call preempts an ongoing Group Call that has the same or lower call priority.

Ambience Listening (AL) Call

This feature allows a dispatcher to make a special call that allows listening to the conversations and background noises within the range of a particular radio's microphone. The call is set up without any indication to the affected radio, and any lower priority ongoing voice call may be preempted.

After accepting the call, the radio transmits in a simplex call without any action from or indication to the user. The Ambience Listening Call automatically ends when you initiate any voice call, switch to Emergency or TXI Mode, or send Emergency Alarm.

One-Touch Button Feature

The One-Touch Button feature allows for quick activation of functions by pressing and holding keys or buttons assigned to those functions.

Table 9: One-Touch Button Features

Feature	Description
Backlight Toggle	Toggles the backlight settings.
Change Audio Profile	Change to the specific audio profile.
Change Talkgroup	Changes the talkgroup to the programmed one by your service provider.
Covert Mode	Turns on/off the Covert Mode.
Display Time	Displays universal time on the home screen.
Double Push PTT	Sends the D- PTT tone to the currently used talkgroup.
Enable/Disable Howling Suppression	Turns on/off Howling Suppression.
Extra Zoom On/Off	Turns on/off Extra Zoom.
Flip Display	Rotates the display by 180 degrees.
GPS Report	Sends a message with the radio's GPS location to a dedicated address.
Hi/Low Audio	Toggles high/low audio.
Initiate Call-Out Fallback Alert	Sends Call-Out Fallback Alert.
PABX Call	Initiates a PABX call to a predefined entry in the contact list.
Phone Call	Initiates a phone call to a predefined entry in the contact list.
Previous Talkgroup	Changes the selected talkgroup of the radio to the talkgroup (DMO or TMO) that was selected previously.
Private Call	Initiates a private call (simplex or duplex) to a predefined entry in the contact list or to the last group call originator.
Rotary Switches Lock/Unlock	Locks/unlocks the Rotary Switches.
RUA/RUI Log On/Off	Asks for the credential or logs off the radio.

Table continued...

Feature	Description
Screen Saver Activation	Turns on/off the Screen Saver feature.
Scroll Audio Profiles	Scrolls through all available audio profiles.
Sending Predefined Message	Sends a predefined message to a dedicated address.
Sending Status	Sends a dedicated status message to a dedicated address.
Sending User Defined Message	Sends a user defined message to a dedicated address.
Speaker Enable/Disable Per Call	Enables the loudspeaker for a duration of the ongoing call..
Timed Talkgroup Change	Makes a predefined talkgroup the selected talk group for a specified amount of time. While using the predefined talkgroup, the second press of the One-Touch Button results in: returning to the previously selected talkgroup, restarting the predefined time, or no action (depending on configuration). After the timer expires, the radio returns to the previously selected talkgroup.
TMO / DMO Switch	Toggles between TMO and DMO modes.
TMO Talkgroup Scan	Turns on/off the Talkgroup Scan feature in TMO Mode.
Toggle RF Power Class	Toggles the RF Power Class between High and Normal.
Transmit Inhibit Mode (TXI)	Turns on/off the Transmit Inhibit Mode.
Turn On/Off Repeater Mode	Turns on/off the Repeater Mode.
Volume Down	<ul style="list-style-type: none"> Press to decrease the volume by one level. Press and hold to continuously decrease the volume to its minimum level.
Volume Up	<ul style="list-style-type: none"> Press to increase the volume by one level. Press and hold to continuously increase the volume to its maximum level.

Your service provider can assign one-touch functions only to the side buttons and keypad keys.



Note: If the One-Touch Button feature is enabled, the One-Touch Dial is disabled. If no feature is assigned to a button, your radio displays an **Unassigned Button** message.

Terminal Temporary Disable/Enable

Your radio is provided with a feature that allows your service provider to disable it temporarily in case it is stolen. When your radio is disabled or is powered up in disabled state, it looks and acts like it is turned off.

If your radio is found, your service provider can enable it again over the air. After your radio is enabled, you may resume normal operation.

Terminal Permanent Disable

Your radio is provided with a feature that allows your service provider to disable it permanently in case it is stolen or lost. When your radio is disabled permanently, it becomes inoperable. After a Permanent Disable your service

provider cannot enable your radio. It is recommended to Permanent Disable your radio only when you do not expect to recover it. If it is recovered then a Permanent Disable radio can be reactivated by returning it to Motorola.



Note: This is a selling feature.

High/Low Audio Toggle

The user is able to switch from the external earpiece to the main speaker using **SPEAKER CONTROL** key and is not required to disconnect the external earpiece or PHF.

The states of the routed audio are:

- **Speaker HIGH** — indicates that audio is routed to the main speaker.
- **Speaker LOW** — indicates that audio is routed to the earpiece or PHF earpiece, and not to the main speaker.

Using High Audio

When and where to use: Use it when placing and receiving a Group, Phone and Private calls.

Procedure:

- 1 Hold your radio in a vertical position with its top microphone 5–10 centimeters away from your mouth.
 - 2 Speak into the top microphone and listen through the internal speaker.
- Keep the antenna at least 2,5 centimeters from your head and body.

Using Low Audio

When and where to use: Use it when placing and receiving a Phone, PABX, and Duplex Private calls.

Procedure:

- 1 Hold your radio as you would a telephone.
 - 2 Speak into the bottom microphone and listen through the earpiece.
- Keep the antenna at least 2,5 centimeters from your head and body.

During the Call

During the call, label of the right **SOFT** key indicates the next possible change. Accessory default setup is:

Table 10: During the Call

Soft Key Label	Audio Setting
Spkr	Audio goes to the main speaker (Speaker HIGH is displayed)
Erpce	Audio goes to the earpiece (Speaker LOW is displayed)
PHF	Audio goes to the Personal Hands Free (Speaker LOW is displayed)

Writing Text

Every time that you see text entry screen, refer to this section.

Related Links

[Unlocking Your Radio](#) on page 31

Selecting Text Entry Modes

Prerequisites: Your radio displays the text entry screen.

Procedure:

- 1 Press MENU → **Entry Mode**.
- 2 Select one of the following:
 - **Primary** — for entering alphanumeric characters.
 - **Numeric** — for entering numbers only.
 - **Symbol** — for entering symbols only.
 - **Secondary** — for entering alphanumeric characters (this mode is optional and you have to add it to the list). It is convenient when you use one language, and sometimes wish to switch to another one.



Note: In the text entry screen, you can also press # key repeatedly to toggle through the entry modes.

Selecting Text Entry Methods and Languages

Prerequisites: Your radio displays the text entry screen.

Procedure:

- 1 Press MENU → **Entry Setup**.
- 2 Select one of the following:
 - **TAP** — Enter letters, numbers, and symbols by pressing an alphanumeric key one or more times.
 - **iTAP** — Let the radio predict each word as you press an alphanumeric key.



Note: You can use these methods in the languages programmed in the radio.

Text Entry Icons





In the text entry screen, icons tell you which text entry mode and method you are using. A character counter displayed on the text entry icon, indicates the amount of characters that can be entered.

Press the # key to toggle through the text entry modes.

Table 11: Text Entry Screen Icons

Primary Icon	Secondary Icons	Description
abc1	abc2	TAP — no capitals
Abc1↑	Abc2↑	TAP — capitalise first letter only
ABC1↑	ABC2↑	TAP — all capitals
abc1□	abc2□	iTAP — no capitals
Abc1↑□	Abc2↑□	iTap — capitalise first letter only

Table continued...

Primary Icon	Secondary Icons	Description
		iTap — all capitals
Numeric Icon	Description	
	Enter numbers.	
Symbolic Icon	Description	
	Enter punctuation and symbols.	

Keys Usage

List of keys and characters in Alphanumeric Mode (TAP/iTAP).

Table 12: Keys Usage

Key	Alphanumeric Mode (TAP/iTAP)	Symbol Mode
0 to 9 keys	Numeric Mode: <ul style="list-style-type: none"> Press to enter digit at insertion point. Press and hold any numeric key to enter TAP alphanumeric mode. To exit TAP alphanumeric mode, press and hold any numeric key. 	
0 key	Press to cycle through single shift, caps lock, and lower case.	+ - * /\ [] = < > \$ #
1 key	. , ? ! 0 1 @ ' " - () / : _ ; + & % × * = < > € £ \$ ¥ ¤ [] { } \ ~ ^ ¸ i \$ #	
2 key	A B C 2 a b c 2	@ _ \
3 key	D E F 3 d e f 3	/ , ;
4 key	G H I 4 g h i 4	" & '
5 key	J K L 5 j k l 5	()[]{}
6 key	M N O 6 m n o 6	¸ i ~
7 key	P Q R S 7 p q r s 7	= < >

Table continued...

Key	Alphanumeric Mode (TAP/iTAP)	Symbol Mode
8 key	T U V 8 t u v 8	€ £ \$ ¥ □
9 key	W X Y Z 9 w x y z 9	# % *

Table 13: Other Keys

Key	Description
Any numeric key	<ul style="list-style-type: none"> In TAP press any key to reject word completion and continue with text entry. A new completion will be displayed, if available, after the time-out for TAP expires. Press and hold to enter Numeric mode from TAP or iTAP alphanumeric.
* key	<ul style="list-style-type: none"> Press to insert a space. In TAP press to dismiss a word completion and insert a space. Enter a newly created word into the user dictionary. Press and hold to enter a carriage return.
# key	<ul style="list-style-type: none"> Press once to cycle through all entry modes (Symbol, Numeric, Primary, and Secondary (if configured)). Press and hold to return to the default entry mode.
Select	Press to select the highlighted choice and place it in the main text area.
Delete	<ul style="list-style-type: none"> Press once to delete the last entered character. Press and hold to clear the entire main text area.
Up NAVIGATION key	<ul style="list-style-type: none"> In TAP press to reject word completion and scroll up. In TAP press to change previously entered small letter to capital.
Down NAVIGATION key	<ul style="list-style-type: none"> In TAP press to reject word completion and scroll within the text area. In TAP press to change previously entered capital letter to small.
Left NAVIGATION key	<ul style="list-style-type: none"> Press to navigate to the left. Press and hold to repeat. In TAP, if a word completion is available, press to reject the completion.
Right NAVIGATION key	<ul style="list-style-type: none"> Press to navigate to the right. Press and hold to repeat. In TAP if a word completion is available, press to accept the word.
MENU	If a context-sensitive menu is active, opens the Context Sensitive Menu.

Writing in iTAP Alphanumeric

Prerequisites: Your radio displays the text entry screen.

When and where to use: It allows you to write quicker. For example, try to write **David 232!**

Procedure:

- 1 Press MENU → **Entry Setup** → **Prim.**
- 2 Select **iTAPEnglish** and press **Back**.

- 3 Press **MENU** → **Entry Mode**.
- 4 Select **Primary**.
- 5 Press 3 key.

The alternative row opens and shows **D E F 3**.

- 6 Continue entering the letters by pressing one key for each letter. Press 2, 8, 4, and 3 keys.



Note: Automatic shift to upper case is used at the beginning of a message, after punctuation followed by space, or for the first letter of a word created as a new contact entry.

The alternative row highlights **David**.

- 7 Press * key.
- 8 Press 2 key and scroll the alternative row by pressing right **NAVIGATION** key to reach **2**.

It automatically changes the entry mode to **Numeric**.

- 9 Press 3 and 2 keys.
- 10 Press and hold 1 key until **0** at the end changes to **..**

The alternative row highlights **232..**

- 11 Scroll the alternative row by pressing the right **NAVIGATION** key to reach the required symbol.
- 12 Press **Select**.

You have entered **David 232!**.

Writing in TAP Alphanumeric

Prerequisites: Your radio displays the text entry screen.

Procedure:

- 1 Press **MENU** → **Entry Setup** → **Seco..**
- 2 Select **TAPEnglish** and press **Back**.
- 3 Press **MENU** → **Entry Mode**.
- 4 Select **Secondary**.
- 5 Press the key labeled with the desired character, once for the first character, twice for the second, and so on.

Example:

To enter letter s, press 7 key four times. To enter number 7, press the 7 key five times. If you do not press a key for a few seconds, the character is accepted, and the cursor moves to the next position.

Word Locking

Prerequisites: Your radio displays the text entry screen.

When and where to use: To add the words that are not in the dictionary.

Procedure:

- 1 Press **MENU** → **Entry Setup**.
- 2 Select **iTAPEnglish**.
- 3 Try to enter the word. Scroll the alternate line for a word option. Each option is successively highlighted and partially locked.
- 4 Enter the second part of the word. The first part remains unchanged (locked). The newly entered letters are highlighted and then locked while you scroll to the next word option.
- 5 Press * key. The word is placed in the text area with a space and automatically added to the dictionary.

Adding Words to the Dictionary

Each language comes with its own dictionary. You can create words (including alphanumeric abbreviations). Once you enter a word followed by space, it is automatically stored in the dictionary and appears as a choice whenever you press the same key combination in the future.

Home Display Text Message

Your radio is provided with a feature that allows your service provider to send special text messages to the display. The message stays on the home screen until a new message is received. Power cycle your radio to replace the Home Display message to the predefined one.

Chapter 3

Modes

This chapter contains information on available modes that the radio can operate in.

Using Networks

Procedure:

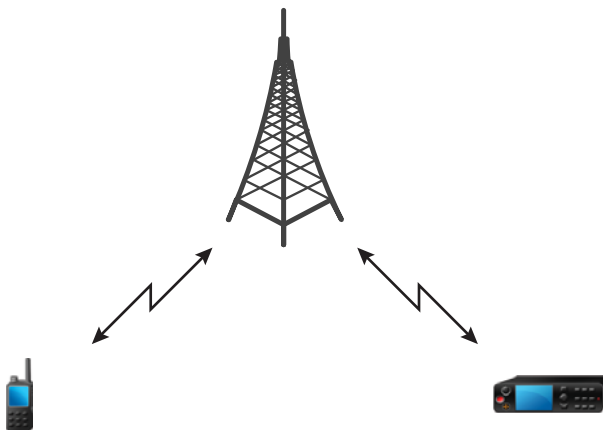
- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Networks**.
- 3 Select one of the following:
 - **Trunked Mode**
 - **Direct Mode**
 - **TXI Mode**

Your radio switches to the selected mode.

Trunked Mode Operation

Trunked Mode Operation requires the switching and management infrastructure. This operation mode enables various voice and data communication types (for example, group calls, short data service messages) and access to the infrastructure-related features (for example, packet data).

Figure 1: Trunked Mode Operation



Entering TMO Mode

Procedure:

- 1 From the home screen, press **Optns**.
- 2 Select **Trunked Mode**.

Selecting Talkgroups

From the home screen, use one of the following methods:

- Press left or right NAVIGATION key. Press **Select** to confirm.
- Select **Optns** → **TG by abc**. Enter a talkgroup name and select the talkgroup name from the list.
- Select **Optns** → **TG by Folder**. Select a folder and then a talkgroup name.
- Press ROTARY KNOB and rotate it until the required talkgroup name is displayed. Press **Select** to confirm.



Note: If the ROTARY KNOB mode is set to **Scroll**, then you do not need to press it to enter the scrolling mode.



Note: Your radio can have an access up to three levels of the folder structure.

Making Group Calls in TMO

The Group Call is received by all members of the selected group who have their units turned on and are in range.

Procedure:

- 1 Press and hold the PTT button.
- 2 Wait for the *Talk Permit* tone (if configured) and then speak into the microphone. Release the PTT button to listen.



Note: To cancel making a group call, do one the following actions before the talk permit is granted (depending on your service provider's settings):

- Release the PTT button.
- Press the END key (default).

When the call is canceled, your radio displays **Call Cancelled** message (if configured by your service provider).

Receiving Group Calls in Idle

Procedure:

- 1 The radio receives a Group Call.



Note: The incoming Group Call is signalled by a *Receiving Group Call* tone.

- 2 To respond, press and hold the PTT button.

Receiving Group Calls during Ongoing Group Calls

While in active Group Call, your radio receives a Group Call with a higher priority.

One of the following occurs:

- Your radio is forced to end the current group call and automatically join the incoming one.
- Your radio displays incoming group call screen with options:
 - **Join** — ends current Group Call and starts the incoming one.

- **End** — cancels the incoming Group Call.

Dynamic Group Number Assignment (DGNA)

DGNA allows the network operator to dynamically manage talkgroups on your radio over the air interface. Using DGNA, the network operator can:

- Add talkgroups.
- Attach or select newly added talkgroups.
- Delete talkgroups.
- Modify parameters of existing talkgroups.

All the above operations are performed by transmitting data to your radio.

DGNA Reception

When a DGNA message is received, your radio plays a tone and displays a message **Talkgroup list updated**. If enabled by your service provider, your radio displays all added and deleted talkgroup list.

When your service provider deletes (de-assigns) the currently selected talkgroup, depending on the settings, the radio can perform one of the following actions:

- Enter the “No Group” state – the radio does not attach to any talkgroup automatically.
- Attach to the last selected TMO talkgroup. If the last selected TMO talkgroup is not available (it was deleted), the radio enters the “No Group” state.
- Attach to a default talkgroup configured by your service provider. If the default talkgroup is not available (it was deleted), the radio enters the “No Group” state.

At each talkgroup change, an appropriate notification is shown on the display.

If the DGNA message is received to delete all talkgroups, your radio displays **All Talkgroups Deleted**. To exit the DGNA display, you can use the **BackSoft** key or the **END** key.

DGNA Auto Select Group

If the DGNA Auto Select is configured, whenever your radio receives a DGNA, it switches to the added talkgroup.

DGNA Auto Reselect Group

If the DGNA Auto Reselect is configured, whenever a talkgroup assigned by the network operator via DGNA is deassigned without the user action, the radio returns to the previously selected group.

Viewing DGNA Talkgroups

Prerequisites: Your radio receives the DGNA message.

Procedure:

- 1 To view the added talkgroups details press **View**.
- 2 Scroll through the list to select required talkgroup.
- 3 To select the DGNA group, press **Attach**.

Broadcast Calls Initiated by Users

This feature allows you to make a Broadcast Call from the radio that is initiated on the predefined talkgroup. Your service provider predefines the alias and the priority of the Broadcast Call.



Note: If the type of the encryption is defined by the SIM Card, the Broadcast Call is always clear. Otherwise if the radio uses other encryption service the type of the encryption used for that Call is up to the encryption settings of that service.



Note: This feature is not supported on the Dimetra infrastructure.

Initializing Broadcast Calls

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Services** → **Broadcast**.

Your radio displays the predefined alias and the Broadcast Call icon.

- 3 To start the call press the PTT button.

Phone and PABX Calls

The Phone Call allows you to call a landline telephone number or a cellular mobile phone number. The Private Automatic Branch Exchange (PABX) Call allows you to call local (office) extension numbers.

Private Call

The Private Call, also called point-to-point, or individual call, enables calling between two individuals. No other radio can hear the conversation. This call type can be carried out in two ways:

- Duplex call (if the system allows), in TMO Mode. Both parties can speak at the same time.
- Simplex call, in TMO or DMO Mode. Only one party can speak at a time.

When a DMO Private Call takes place, radios not involved in this call receive the channel busy indication. The radios are identified using its radio numbers.

Related Links

[Emergency Individual Calls \(Private or MS-ISDN\)](#) on page 56

Making Private Calls

Procedure:

- 1 From the home screen, enter a number.
- 2 If **Private** is not the first type of call presented, press **Ctype** repeatedly to select it.
- 3 When you are in the following mode:
 - a TMO — For simplex calls, press and release the PTT button. You hear a ringing tone. Otherwise, press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen. For duplex calls, press and release the **SEND** key. You hear a ringing tone.
 - b DMO — Only simplex calls are available. Press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen.
- 4 To end the call, press the **END** key.

Assistance Call

This feature allows you make a private call to ask for assistance during normal and non-critical situations.



Note: Your service provider can configure the number, priority, and the type of the call (simplex or duplex).

You can start an Assistance Call in one of the following way:

- Dial a predefined number and press **SEND** key.
- **Menu** → **More . . .** → **Services** → **Assistance Call**

Call Modification

Call Modification is a feature that allows your service provider to modify the call in order to optimize it and adjust to a current situation.

Modification can cover:

- Call priority — modified during call setup.
- Call type — modified during call setup.
- Call encryption — modified during an ongoing call (but not in the transmission phase).

When the call is modified, your radio displays **Call Modified** message.

When a recently modified call requires the PTT button to transmit, your radio displays **Call Modified Use PTT**.

All modifications are made by your service provider and the radio only follows them. You have no influence on ongoing call modifications.

When call priority is changed to emergency:

- The display indicates that an Emergency Group Call has been received.
- The radio plays a special audio alert.



Note: If a Group Call is modified into an Emergency Group Call, no emergency related features are triggered.

If call modification requested by your service provider cannot be followed by the radio (due to its settings), the radio rejects it and displays **Service Not Available** message.

Local Site Trunking

This mode is also called as Fallback Mode and it allows more than one radio from the same site to communicate when the link between the site and the network central controller fails. Entering and exiting Local Site Trunking (that is, returning to System Wide Services) is done automatically. In this mode some services are unavailable.



Note: Your service provider can disable this mode.

Entering Local Site Trunking

When your radio receives a Local Site Trunking indication from the system, the following occurs:

- Your radio plays an Entering Local Site Trunking tone.
- Display shows the **Local Area Service** message.
- Display icons and soft keys turn olive.



Note: Noticeable only on the color display.

- Any call in progress is dropped upon entering Local Site Trunking Mode.

If configured by your service provider, this message/alert is periodically repeated to remind you that your radio is still operating in Local Site Trunking Mode. The following features are available:

- Registration
- Attachment
- Group Call
- Emergency Call
- Emergency Alarm



Note: Your service provider can turn on/off all the visual and audio indications, when you enter Local Site Trunking Mode.

Exiting Local Site Trunking

When the link with the central network controller is reestablished, your radio exits Local Site Trunking, and the following occurs:

- Your radio plays an Exiting Local Site Trunking tone.
- Any call in progress during Local Site Trunking is dropped.
- Display icons and soft keys turn blue.

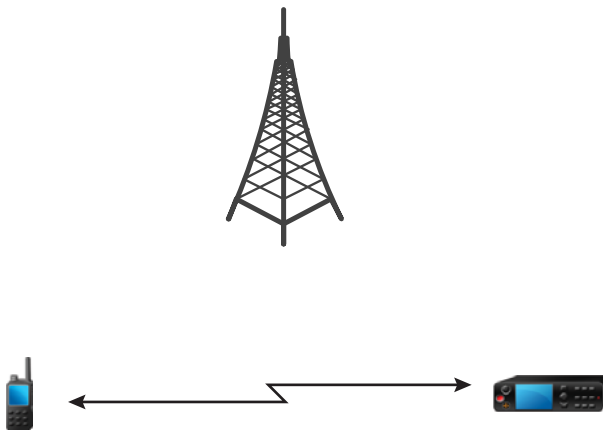


Note: Your service provider can turn on/off all the visual and audio indications, when you exit Local Site Trunking Mode.

Direct Mode Operation

Direct Mode Operation is a mode of simplex operation where radios communicate directly.

Figure 2: Direct Mode Operation



Entering DMO Mode

To enter the DMO Mode:

- From the home screen, press the **MENU** key. Select **More . . .** → **Networks** → **Direct Mode**.
- From the home screen, select **Optns** → **Direct Mode**.

Selecting Talkgroups

From the home screen, use one of the following methods:

- Press left or right **NAVIGATION** key. Press **Select** to confirm.
- Select **Optns** → **TG by abc**. Enter a talkgroup name and select the talkgroup name from the list.
- Select **Optns** → **TG by Folder**. Select a folder and then a talkgroup name.
- Press **ROTARY KNOB** and rotate it until the required talkgroup name is displayed. Press **Select** to confirm.



Note: If the ROTARY KNOB mode is set to **Scroll**, then you do not need to press it to enter the scrolling mode.



Note: Your radio can have an access up to three levels of the folder structure.

Making Group Calls in DMO

The Group Call is received by all members of the selected group who have their units turned on and are in range.

Procedure:

- 1 Press and hold the PTT button.
- 2 Wait for the *Talk Permit* tone (if configured) and then speak into the microphone. Release the PTT button to listen.

Receiving Group Calls in Idle

Procedure:

- 1 The radio receives a Group Call.



Note: The incoming Group Call is signalled by a *Receiving Group Call* tone.

- 2 To respond, press and hold the PTT button.

Private Call

The Private Call, also called point-to-point, or individual call, enables calling between two individuals. No other radio can hear the conversation. This call type can be carried out in two ways:

- Duplex call (if the system allows), in TMO Mode. Both parties can speak at the same time.
- Simplex call, in TMO or DMO Mode. Only one party can speak at a time.

When a DMO Private Call takes place, radios not involved in this call receive the channel busy indication. The radios are identified using its radio numbers.

Related Links

[Emergency Individual Calls \(Private or MS-ISDN\)](#) on page 56

Making Private Calls

Procedure:

- 1 From the home screen, enter a number.
- 2 If **Private** is not the first type of call presented, press **Ctype** repeatedly to select it.
- 3 When you are in the following mode:
 - a TMO — For simplex calls, press and release the PTT button. You hear a ringing tone. Otherwise, press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen. For duplex calls, press and release the **SEND** key. You hear a ringing tone.
 - b DMO — Only simplex calls are available. Press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen.
- 4 To end the call, press the **END** key.

Private Call With Presence Check

This feature allows you to see if the calling party is available in DMO. When this feature is enabled, you can only initiate a Private Call if the called radio is present on the same channel and responds with a presence check acknowledgement.

Otherwise your radio displays **Party Not Available**.

Talkgroup for Individual Calls

Talkgroup for Individual Calls is a talkgroup that operates on a separate frequency allocated for individual (private) calls only. Using this talkgroup optimizes frequency resources and helps not to block other talkgroups. The only supported call types are: private calls and emergency calls (both private and group). Use this talkgroup each time you need to make a private call.

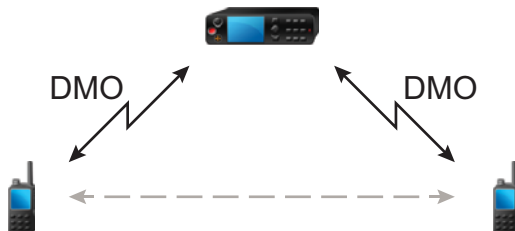
When you select a Talkgroup for Individual Calls, your radio is not able to receive or initiate any group or broadcast calls with priority lower than Emergency.

When you have selected a Talkgroup for Individual Calls and press the PTT button to start a Group Call, the radio:

- Rejects the call
- Plays a tone
- Displays the **Individual Calls Only** message

Communication through Repeaters

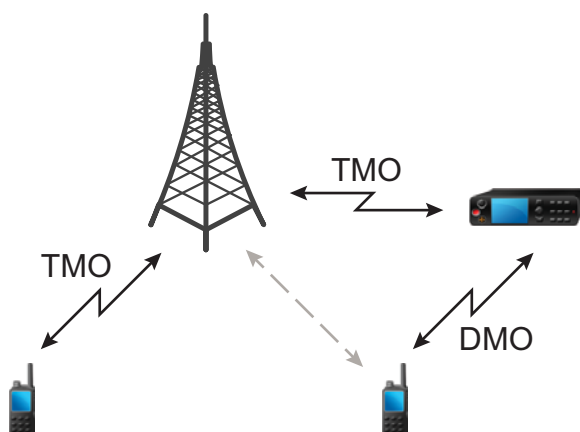
Radios that are out of range and cannot communicate directly one with another in DMO Mode can do it through the repeater. The repeater is a radio that repeats all communication on a chosen channel, and as a result increases radios' DMO range.



When the radio connects to a repeater, it plays a tone, displays the **Repeater available** message, and shows an appropriate icon. When the radio loses connection with the repeater, it plays a tone, displays the **Repeater not available** message, and the repeater icon is blinking.

Communication through Gateways

Gateway provides connectivity between radios operating in DMO Mode and the TETRA network, so that the DMO radios can communicate with the TMO radios.



When the radio connects to a gateway, it plays a tone, displays the **Gateway available** message and shows an appropriate icon. When the radio loses connection with the gateway, it plays a tone, displays the **Gateway not available** message, and the gateway icon is blinking.

Selecting DMO Group Call Options

When and where to use: Helps to communicate with other radio users on the same talkgroup through the Gateway or Repeater.

Procedure:

- 1 From the home screen, press **Optns**.
- 2 Press **Config**.
- 3 Select one of the following:
 - **MS - MS** — Your radio can communicate only with other radios within its range.
 - **Gateway** — Your radio uses a gateway to communicate with the infrastructure.
 - **Automatic** — Your radio uses the first available gateway for that talkgroup.
 - **Specific** — Your radio uses only the Gateway with the specified Gateway address for that talkgroup. If your radio displays **Selected Gateway:None**, press **Edit** to enter the current gateway address.
 - **Repeater** — Uses the first available repeater for that talkgroup.
 - **GW + Rep** — Uses the first available gateway or repeater for that talkgroup.
 - **Automatic** — Uses the first available gateway for that talkgroup.
 - **Specific** — Uses only the Gateway with the specified Gateway address for that talkgroup. If your radio displays **Selected Gateway:None**, press **Edit** to enter the current Gateway address.



Note: When the Gateway and the Repeater cannot be communicated even though a talkgroup to use them is configured, the radio attempts the direct MS-MS communication.

When your radio detects the appropriate Gateway and/or the Repeater, the Gateway and/or Repeater icons turn solid, respectively.

Transmit Inhibit Mode

The Transmit Inhibit Mode is a mode in which the radio sends no radio transmissions. It is recommended to activate the mode in RF sensitive areas, for example hospitals, airplanes, where safety can be jeopardized due to transmission radiation.

To activate, select MENU → **More . . .** → **Networks** → **TXI Mode** → **Activate**.

In this mode, the radio does not transmit under any circumstances except for the Emergency Calls. All the functions and keys which cause transmission, for example registration to the network, changing talkgroup or folder, sending SDS messages, or pressing the PTT button are disabled. Any transmission trial causes the radio to display **Not Allowed In TXI Mode** notification and to play a tone.

Your radio can still receive:

- Group calls.
- Messages — stored in the **Inbox**.
- Private call attempts — stored in the **Missed Calls** list, without the option to respond.

When no danger to safety exists anymore (for example, you leave the RF sensitive area), you can deactivate the Transmit Inhibit Mode and the radio returns to standard operation.

You can deactivate the mode by selecting MENU → **More . . .** → **Networks** → **TXI Mode** → **Deactivate**, pressing One-Touch button, or implicitly when initiating an Emergency Call.



Note: RF Transmissions from the radio are prevented under the following conditions:

- TXI Mode is activated.
- Battery is removed.
- The radio is turned off.

On entering or exiting the transmit inhibit mode, when the radio is camped on a cell, it sends a specially designated SDS status message. This SDS message indicates to the SwMI that the radio is entering or exiting transmit inhibit mode.

Mobility procedures that do not require the radio to send an uplink transmission are performed except for cell reselection.

In transmit inhibit mode the radio joins group calls for any group that the radio is monitoring, but the transmitting on that call is still prohibited.

The radio also displays any incoming SDS messages to the user. The missed call feature is active in the transmit inhibit mode and allows checking what calls were missed. However, the radio attempts to prevent call setup retransmission from being recorded as separate calls.

If you initiate an emergency call, the radio immediately leaves transmit inhibit mode and attempts to start the emergency call if the radio is in service.

If the radio is turned off in the transmit inhibit mode, on turning on the radio asks whether to exit the transmit inhibit mode. If you choose **No**, the radio turns off.

Emergency Operations

Emergency Operations are used in critical situations.

Pressing and holding the EMERGENCY button, or entering the Emergency Number and pressing the SEND key, activates one or more services (depending on your service provider settings):

- Emergency Alarm
- SDS Status
- Silent Emergency
- Hot Microphone operation
- Emergency Individual Call (Private or MS-ISDN)
- GPS location information



Note: It is possible to turn on the radio by pressing the EMERGENCY button. Depending on the service provider settings, the radio can start Emergency Operations automatically. If the radio is PIN-protected (except for SIM PIN), Emergency Operations will bypass the PIN lock for the duration of the Emergency Operations.

When starting Emergency Operations, any ongoing voice call is aborted or cleared down, and any packet data transfer in progress is aborted. However, the session is kept open.

During Emergency Operations, the radio rejects phone, PABX, and private calls, and does not monitor the talkgroups in the selected scan list.

To terminate Emergency Operations, press the rightSOFT key.

Emergency Group Call

The Emergency Group Call has the highest communication priority that means it is the pre-emptive kind of call. Emergency Group Call is available in both TMO and DMO. During Emergency Operations, Emergency Group Call can be started by pressing the EMERGENCY button. The radio can also support Hot Microphone operation, which allows the Emergency Call to be conducted without pressing the PTT button.

If the radio receives an incoming group call with emergency priority, the display shows that an emergency call has been received, and a special audio alert is played.

An emergency group call can be configured as:

- A non-tactical call – initiated on a talkgroup preprogrammed by your service provider. When in non-tactical emergency mode, you cannot switch talkgroups.
- A tactical call – initiated on the currently selected talkgroup.

In TMO, if the radio enters Emergency Operations while the Emergency Broadcast Call is active, the radio continues on the call without initiating any calls and sends the Emergency Alarm.

When the Emergency Group Call you participate in terminates, your radio can behave in several ways, depending on your service provider settings:

- If you are the call initiator, the radio can either stay in the Emergency Mode, or return to TMO.
- If you are not the call initiator, the radio always returns to TMO.

Making Emergency Group Calls

Prerequisites: Ensure that your radio is in Emergency Mode.

Procedure:

- 1 Press and hold the PTT button.
- 2 Wait for the talk permit tone (if configured) and talk.
- 3 Release the PTT button to listen.



Note: It is possible to cancel making an emergency group call in TMO. To do this, perform one of the following actions before the talk permit is granted (depending on your service provider settings):

- Release the PTT button.
- Press the END key (default).

When the call is canceled, your radio displays **Call Cancelled** message (if configured by your service provider).

Receiving Emergency Group Calls

The radio receives an Emergency Group Call from a selected pre-programmed group. An incoming call is indicated by an appropriate tone, status icon, and red color of the display.

Non-Tactical Emergency

In Non-Tactical Emergency, the radio switches to a designated Emergency talkgroup when starting Emergency Operations. This talkgroup is used for the complete duration of the Emergency Operations (you cannot change the talkgroup).

In TMO, it is possible to configure the radio to make Emergency Non-Tactical Group Calls without sending attachment. If this is set, the radio assumes implicit attachment after receiving a temporary address.

In DMO, the Non-Tactical Emergency proceeds on the same frequency as the previously selected talkgroup. The service provider can designate any ITSI address to be used for Emergency Operations, (this can be an Open Group – broadcast address).

After exiting from Non-Tactical Emergency, the radio goes back to the previously selected talkgroup.

Emergency Individual Calls (Private or MS-ISDN)

The Emergency Individual Calls are Simplex or Duplex Calls with emergency priority. On pressing the EMERGENCY button, the radio initiates an Individual Call to the provisioned address (private or MS-ISDN). During this kind of call all user indications are unavailable and all other services are rejected. Emergency Operation ends as soon as the Emergency Individual Call is ended.

Related Links

[Private Call](#) on page 48

Emergency Alarm

The Emergency Alarm is a special status message sent to the infrastructure while starting the Emergency Operations. The radio can wait for infrastructure acknowledgment for this alarm and attempts retries.

Each time the radio enters the Emergency Operation, it sends the Emergency Alarm. When the Emergency Alarm is sent successfully, the respective audible tone sounds.

In addition, once the radio is in the Emergency Operation on pressing the EMERGENCY button, an additional emergency alarm is sent (exception: during Hot Microphone transmission).

The message can be dispatched both in TMO and DMO.

Emergency SDS Status

Radio sends a status message with a preprogrammed value to the destination address set by your service provider. Emergency SDS Status is available in TMO only. If no status acknowledgment or negative acknowledgment is received, the radio retries sending the message. Status is not resend if Emergency Alarm or Hot Microphone is configured.

Emergency Hot Microphone

The Hot Microphone allows you to talk without pressing the PTT button during Emergency Operations. The transmission continues for a provisioned amount of time. Pressing the PTT button before the Hot Microphone time expires ends the Hot Microphone operation. Then normal PTT operation in Emergency group call takes over (that is, the transmission is ongoing for the time the PTT button is held).

Subsequent EMERGENCY button presses during the Emergency Operation restarts the Hot Microphone transmission.

If a talk permit is granted to another member of the group, the Emergency Call received tone is played. If configured, the radio automatically attempts to get talk permit again.

Pressing **EndSOFT** key or END key ends the Hot Microphone operation.

Alternating Hot Microphone

The Alternating Hot Microphone is an enhancement of the Hot Microphone. After activation, the radio alternately enters transmission phases (your microphone is active) and reception phases (you can only listen) for an amount of time precisely determined by your service provider.

If this feature is enabled, you can initiate the Alternating Hot Microphone by pressing the **EMERGENCY** button. If you want to finish earlier or skip the transmission phase, press the **END** key.

The Alternating Hot Microphone terminates when one of the following conditions is met:

- The radio exits the Emergency Mode.
- The Alternating Hot Microphone timer expires.
- The **PTT** button is pressed.
- The right **SOFT** key is pressed (only during the transmission phase).



Note: When the radio goes out of the service, it enters the reception phase and the Alternating Hot Microphone is on hold. When the radio is back to the service, the Hot Microphone transmission and the Alternating Hot Microphone resume.



Note: When you are in the Emergency Mode, pressing the **EMERGENCY** button restarts the Alternating Hot Microphone.

Silent Emergency Mode

The Silent Emergency Mode is a type of emergency services that provides no audible indications and no keypad tones at the entrance. All the display indications are as in the home mode. However, the radio cannot use any services except for:

- Receiving Ambience Listening
- Sending Silent Emergency Alarms
- Sending GPS location reports



Note: If you try to activate any other feature, it is blocked.

If the Silent Emergency feature is enabled, the radio enters Silent Emergency Mode on pressing the **EMERGENCY** button. After entering this Mode the radio stays in TMO or switches to it, depending on the actual state. Once in TMO, the radio sends Silent Emergency Alarm.



Note: If the radio is in a private or group call, the radio waits until the call ends and then enters the Silent Emergency Mode.

The radio keeps re-sending the alarm until successful sending is confirmed. After the alarm is successfully delivered, the radio stays in Silent Emergency Mode and waits for the Ambience Listening.

Your radio exits the Silent Emergency Mode, under the following conditions:

- Press **MENU** and then **#** key within 3 seconds.
- Press **MENU** simultaneously with right **NAVIGATION** key.
- Press both **SOFT** keys simultaneously.
- No success in sending the Silent Emergency Alarm and the maximum number of retries has been reached.
- The control room terminates the Silent Ambience Listening.
- The Ambience Listening is disconnected due to another reason.

If you turn off the radio in the Silent Emergency Mode, the radio switches to pseudo power off state. In this state, the radio appears to be turned off. However, the radio is still on and in the Silent Emergency Mode. On turning the radio on during the pseudo power off state, the radio acts as during turning on and still is in the Silent Emergency Mode.

Invisible Emergency

It is possible for the service provider to disable visual and audible indications of performing Emergency Operations on the radio. The purpose of this feature is to hide the fact of using Emergency Operations in a critical situation (e.g. direct attack on the user) and thus to provide additional layer of safety.

Emergency Mode by Dialing

This feature allows you to trigger Emergency Mode by dialing a predefined number. It initiates the same Emergency services as you would use the EMERGENCY button. Your radio can store up to eight Emergency numbers.



Note: If this Emergency Mode was triggered by Emergency number (not by EMERGENCY button), you can press the END key to exit the Emergency Mode.

Disaster Alert

Disaster Alert call is a broadcast emergency call initiated by the radio, with emergency pre-emptive priority that everyone in a broadcast area can hear. This feature is specifically designed for catastrophic situations, such as earthquakes, and has the highest priority over other calls. All radios under Disaster Alert display emergency notification on their screens. The alert message, its duration and destination talkgroup can be configured in the codeplug.

In order to initiate Disaster Alert, switch the radio to Disaster Alert mode and press PTT button. When the call ends, the radio will exit the Disaster Alert state.

During Disaster Alert, other functionality is impacted:

- When Disaster Alert begins, any other ongoing services are terminated.
- No other services can interrupt this type of call.
- Hot Mic functionality cannot be used.
- Speech can only be in Clear mode, even if any of the encryption services are enabled. The only exception is E2E Encryption.



Note: Not all infrastructures support this feature. Please consult with your service provider before enabling this feature.

Initializing Disaster Alert Calls

Procedure:

- 1 From the home screen, press the MENU key.
- 2 Select **More . . .** → **Services** → **Disaster Alert**.

Your radio enters Disaster Alert Mode and it displays Disaster Alert icon.

- 3 To start the call press PTT.

Your radio displays **Disaster AlertIn Use**.

Exiting Emergency Operations

Prerequisites: Make sure that your radio is engaged in Emergency Operations.

Procedure:

- 1 If your radio screen displays **Emergency Mic On**, press **End**.
- 2 Press and hold **Exit**.



Note: If an Emergency Operation was triggered by Emergency number (not by EMERGENCY button), you can press the END key to exit the Emergency Operation.

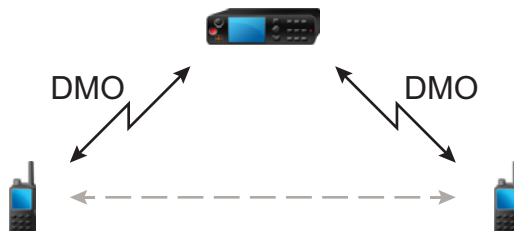
3 If your radio displays **Do you want to exit?**, press **Yes** to exit.

Your radio exits Emergency Operations.

Repeater Mode

The Repeater Mode provides repeater connectivity between radios operating in the DMO Mode.

Figure 3: Repeater Mode Operation



A DMO repeater is used to extend the DMO range by retransmitting received information from one radio to another. It retransmits group calls, private calls and data on a given frequency.

The repeater sends presence signal periodically on a free channel to allow other radios to synchronize on a given frequency.

Only the radios on the same talkgroup can communicate with each other through the repeater.



Note: This is a selling feature.

Entering the Repeater Mode

To enter Repeater Mode, use one of the following ways:

- From the home screen, select **Optns** → **Repeater Mode**.
- From the home screen, press MENU key. Select **More . . .** → **Networks** → **Repeater Mode**.

Setting Monitor Option

Procedure:

- 1 From the home screen, press **Optns**.
- 2 Press **Monitor**.
- 3 Select one of the following:
 - **Off** — Your radio works as a repeater only, no operation is available.
 - **Receive Only** — Allows you to listen.
 - **Receive&Transmit** — Allows you to listen and transmit by pressing PTT.

Encryption in the Repeater Mode

While in the Repeater Mode, the radio supports Air Encryption and is able to repeat encrypted calls and messages.

If SCK keys installed on the radio are invalid:

- The radio transfers calls and messages without deciphering them (provided that the encryption level is not the highest).
- The LED indicator turns orange.
- On pressing the PTT button, **Channel Busy** or **DMSCK is Invalid** message appears.
- You cannot make any call.

Chapter

4

GPS Location Service

The GPS Location Service feature uses information from Global Positioning System (GPS) satellites orbiting the Earth to determine the approximate geographical location of your radio.

The GPS Location Service availability, accuracy, and the position calculation time vary depending on the environment in which you use the radio. The GPS Location Service can assist your dispatcher or colleagues in many ways such as more efficient deployment of resources or locating your radio when you trigger your emergency service.

The radio can display the location information directly on the screen or send it over the air to your dispatcher to display it in the control center. Check your radio configuration details with your service provider.



Important: Where the signals from satellites are not available, the GPS Location Service does not work. This situation usually happens when your radio cannot establish a view of a wide area of open sky, for example, when the GPS antenna is covered or facing the ground. Such situations include being:

- In underground locations
- Inside buildings, trains, or other covered vehicles
- Under any other metal or concrete roof or structure
- Near a powerful radio or television tower
- In extreme temperature outside the operating limits of your radio

Even if your location information can be calculated in such situations, it may take longer to do so. Therefore, in any emergency situation, always report your location to your dispatcher. Where adequate signals from multiple satellites are available, your GPS Location Service feature provides a location, most probably near to your actual location.

The radio can be triggered to send Location Reports in various circumstances, for example:

- Upon a request
- Entering Emergency Mode
- At specified time intervals
- At specified distance intervals

The Location Reports can be sent both in TMO and DMO by using:

- SDS messages
- Packet Data

The radio can be configured to give audio-visual notifications upon sending the Location Reports.

Depending on the radio settings, viewing the radio position and the status of the visible satellites is available. The position may consist of longitude and latitude, UK, or Irish grid coordinates.



Note: This is a selling feature.

Related Links

[Location](#) on page 103

Enhancing GPS Performance

Sometimes the GPS feature is unable to complete a location calculation successfully. You hear an audible tone indicating that your radio cannot see the satellites.

To maximize the ability of your radio to determine a location fix please note the following guidelines:

- Stay in the open — The GPS feature works best where there is nothing between your radio and a large amount of open sky. If possible, go outside, away from tall buildings and foliage. While the performance in a building is improved by moving closer to windows, glass with certain sun shielding films may block satellite signals.
- Position your radio to enhance reception — Signals from GPS satellites are transmitted to your GPS antenna, which is in your radio antenna. Hold your radio away from your body, giving the antenna clear access to satellite signals. Do not cover the antenna area with your fingers or anything else.
- Stand still — If possible, stand still until your radio is finished determining your location. Moving your radio at a walking pace while your radio is calculating your approximate location may substantially decrease GPS performance.

Enabling GPS


Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Location** → **Interface**.
- 3 Select **On**.



Note: Your service provider can enable this feature.

GPS Icon

When GPS is enabled, the following icon is displayed in the status icon area:  Depending on the current GPS state, the icon can be solid – GPS has a fix, or blinking – GPS is searching for a fix. The blinking GPS icon can be disabled/enabled by your service provider.

GPS Different Location Displays

Table 14: Different Location Displays

Latitude / Longitude	UK Coordinates	Irish Coordinates	UTM Coordinates	MGRS Coordinates
Time	Time	Time	Time	Time
Latitude	2–Letter Code	1–Letter Code	3–Letter Code	3–Letter Code and 2–Letter Code
Longitude	Easting and Northing Coordinate	Easting and Northing Coordinate	Easting and Northing Coordinate	Easting and Northing Coordinate
Altitude	Altitude	Altitude	Altitude	Altitude

Table continued...

Latitude / Longitude	UK Coordinates	Irish Coordinates	UTM Coordinates	MGRS Coordinates
Satellites	Satellites	Satellites	Satellites	Satellites

- Time — indicates when the last time the location was calculated. The time is provided in Universal Time Coordinated.
- Letter Code — grid zone or square on the map for different coordinate standard
- Latitude — expressed in degrees, minutes, and seconds.
- Longitude — expressed in degrees, minutes, and seconds.
- Number of satellites — used to calculate the location. In general, more satellites make for better accuracy. The maximum is 12 satellites.
- Easting — refers to the eastward-measured distance expressed in meters.
- Northing — refers to the northward-measured distance expressed in meters.



Note: Skipping each digit of easting and northing coordinates decreases the accuracy by the factor of 10.

Viewing Your Position

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Location** → **Position**.
- 3 Scroll to view the results about the last time your location was calculated.



Note: To refresh your position:

- Select **Position** — the radio refreshes its position automatically
- Press **Refresh**

Changing GPS Accuracy

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Location** → **Accuracy**.
- 3 Select one of the following:
 - **Medium** (default) — Power consumption optimization is combined with less position accuracy.
 - **High** — Better position accuracy is combined with less power consumption optimization.



Note: If connected to an external charging device, the radio automatically enters the **High** mode.

GPS – Things to Keep in Mind

Where adequate signals from multiple satellites are not available, the GPS feature of your radio does not work. Such situations include but are not limited to:

- In underground locations
- Inside of buildings, trains, or other covered vehicles

- Under any other metal or concrete roof or structure
- Near a powerful radio or television tower
- When your GPS antenna is covered (for example, by your hand or other object) or facing the ground
- In temperature extremes outside the operating limits of your radio

Even where location information can be calculated in such situations, it may take longer to do so. Therefore, in any emergency situation, confirm your location with your dispatcher.

Furthermore, please note that even where adequate signals from multiple satellites are available, your GPS feature provides only an approximate location, often within 20–100 meters from your actual location.

Chapter

5

Main Menu

This chapter contains information on items in the main menu.

You can enter the menu items during a call. If you are viewing a menu when a new call starts, the radio exits the menu.



Important: Some menu items are model specific and may not be activated or available on your radio.

Scrolling through the Menu

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Scroll to the required item by pressing **NAVIGATION** keys. Press the **SOFT** key assigned as **Select** or right **NAVIGATION** key to select.

If the menu item contains a further set of menu items, repeat step 2.



Note: You can use shortcuts to access frequently used items.















Menu Icons

The following icons make it easy to identify the menu items at first glance.

Table 15: Menu Icons

Menu Icon	Description
	Main Menu Items / Context Sensitive Menu It is assigned to MENU when the main menu items / context-sensitive menu are active.
	Messages Send status messages, Send text messages (free text or according to user defined or predefined templates), Received messages in Inbox .
	Contacts Add, search, edit, or erase entries in the contact list.

Table continued...

Menu Icon	Description
	Browser Starts the WAP browser.
	Security Lets you turn on/off and verify security features, and change passwords.
	Setup Allows you to customize your radio.
	More... Contains additional setup menu items.
	Group Setup Contains additional menu items for Scanning Talkgroups features.
	Favorites Contains shortcuts to frequently used talkgroups and contact numbers.
	My Info Displays information about your radio and its numbers.
	Recent Calls Contains a list of recent calls.
	Shortcuts Allows you to view and manage shortcuts to menu items.
	RUI Allows you to log in and log out of the radio.
	Networks Allows you to select a network.
	Location Displays location of your radio.
	Packet Data Allows you to send data from your radio to other devices.
	Services Allows you to manage Broadcast, Assistance and Disaster Calls.

Messages

This feature allows you to send and receive text messages. A message can contain up to 1000 characters, depending on your service provider settings.

Pressing the PTT button when a message is highlighted can cause one of the following actions, depending on your service provider settings:

- The radio ignores the PTT button request.
- The radio starts a Private Call with the message sender.
- The radio starts a Group Call on a currently selected talkgroup.

New Message

This menu item allows you to create a new message.

Sending Messages to Private/Phone

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **New Message**.
- 3 Enter your message and press **Send**.
- 4 If needed, select **Private/Phone**.
- 5 Enter recipient number or press **abc** to choose it from your contacts.



Note:

For **Private** target selection, you can enter either Individual Short Subscriber Identity (ISSI) or Group Short Subscriber Identity (GSSI) of the recipient.

ISSI – a unique, individual ID assigned for each radio.

GSSI – in Dimetra called Group ID or Talkgroup ID.

- 6 Press **Send**, or **SEND** key, or the PTT button.

Sending Messages to Groups

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **New Message**.
- 3 Type your message and press **Send**.
- 4 If needed, select **Group**.
- 5 Select a group to send the message.

Sending Store and Forward Messages

Prerequisites: Your service provider enables the Store and Forward feature.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **New Message**.
- 3 Press **MENU** key and select **Message Setup** → **On/Offline users**.
- 4 Enter your message and press **Send**.
- 5 If asked for the **Target selection**, select one of the following:

- **Private** – enter the private number or press **abc** to choose the destination number from the contact list.
- **Phone** – enter the phone number or press **abc** to choose the destination number from the contact list.



Note: Your service provider can enable to send a Store and Forward message to a talkgroup.

6 Select **Send**, or press **SEND** key or **PTT** button.

Delivery Report

Delivery Report is an acknowledgment that the radio can request upon sending a message to an individual recipient. You can define what type of Delivery Report your radio requests, or turn on/off this feature.

If the Delivery Report is received shortly after the message was sent, the radio:

- Displays a pop-up with one of the following messages:
 - **Message Sent** – if no Delivery Report is requested (and when a Store and Forward message has been received at the Store and Forward server)
 - **Message Delivered** – if the Delivery Report is requested and the message has been received by the target radio
 - **Message Read**
 - if the **Consumed** Delivery Report is requested and the message is opened on the target radio
 - **Message Failed** – if the Delivery Report is requested and the message has not been received by the target radio within a defined time period
- Saves the Delivery Report in **Outbox** along with a copy of the message.

If the Delivery Report is received after a longer period of time, the radio:

- Saves the Delivery Report in **Outbox** along with a copy of the message.
- If Delivery Report Notifications functionality is configured by your service provider, the radio also:
 - Temporarily saves a Delivery Report message in **Inbox**. The notification disappears after it is read.
 - Displays **New Message** icon.
 - Displays **New Delivery Status** notification screen (if possible).

Viewing Delivery Reports

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Inbox**.
- 3 Find a required message and select **Read**.
- 4 Press **MENU** key.
- 5 Select **Delivery Status**.

Configuring Delivery Reports

Prerequisites: Your service provider enabled the delivery report configuration.






Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **New Message**.
- 3 Press **MENU** key and select **Delivery Report**.
- 4 Select one of the following:
 - **None** — the radio does not request any delivery report.
 - **Received** — the radio requests reports on your messages that were received.
 - **Consumed** — the radio requests reports on your messages that were read.
 - **Both** — the radio requests reports on your messages that were received and read.

Inbox

It contains up to 100 new or old incoming messages.

Table 16: Inbox Icons

Icon	Description
	Unread (New) Message
	Read (Old) Message
	Sender Information in Message View — name or number
	Time and Date Stamp in Message View — arrival time and date
	Delivery Status Received — delivery status for Store & Forward messages

Messages sub-menu indicates the number of the messages. If the indication is for example 2/4, it means that two unread and four read messages are in the **Inbox**.

Entering the Inbox

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Inbox**.



Note: The status (if any) of the list is displayed for a few seconds:

- **No New or Old Messages** — The screen returns to the previous display within a few seconds.
- **Inbox Full** — Select **Ok**.

Receiving New Messages

Procedure:

- 1 New message received.
Your radio displays an animation and plays a *New Mail Received* tone.
- 2 Select one of the following:
 - **Read** — opens the entire message.
 - **Back** — dismisses the message. You can access the message later from the **Inbox**.

Using Submenus in the Inbox and the Outbox

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Inbox** or **Outbox**.
- 3 Highlight the required message and press **MENU** key.
- 4 Select one of the following:
 - **Store** — Saves a message as a template. Change the default template name and press **Ok**.
 - **Delete** — Deletes the selected message. Press **Yes** to confirm.
 - **Delete All** — Deletes all the messages in the **Inbox/Outbox**. Press **Yes** to confirm.

- **Reply** (only for **Inbox**) — Invokes the edit screen with the old message as default text and the message originator as a recipient. After editing, press **Send**, the PTT button, or the **SEND** key to send.
- **Resend** (only for **Outbox**) — Invokes the edit screen with previously entered text with the same recipient. After editing, press **Send**, the PTT button, or the **SEND** key to send.
- **Forward** — Invokes the edit screen with the old message to send it to a different participant. After editing, press **Send**, the PTT button, or **SEND** key to send.
- **Refresh** — Re-orders the message list and displays the new messages.
- **Delivery Status** (only for **Outbox**) — Shows the date and time of the message when it sent, delivered, read, and expired was not delivered, expired was not read, failed unknown.

Embedded Number

This feature allows you to call a number from a message or to start a group call with the message sender talkgroup.

Storing Numbers from Messages

Prerequisites: Embedded Number feature is enabled by your service provider.

When and where to use: You can save the sender's or embedded number from the message to a new or existing contact.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Inbox**.
- 3 Highlight the required message and select **Read**.
- 4 Press the PTT button.
- 5 Radio displays a list of the numbers (including the senders number).
- 6 Highlight the required number and press **Store**.
- 7 Highlight required contact and press **View**.



Note: To store a number for a new contact, select **[New Contact]** and fill out the required fields. Press **Done** to save it..

- 8 Select **Edit**.
- 9 Choose the **Type** of the new number and press **Done**.

Calling Numbers in Messages

Prerequisites: Embedded Number feature is enabled by your service provider.

When and where to use: You can return a voice call to the sender of a message or to any number that is embedded in the message text.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Inbox**.
- 3 Highlight the required message and select **Read**.
- 4 Press the PTT button.
- 5 Radio displays a list of the numbers (including the senders number).
- 6 To call, highlight to the required number and press the PTT button or the **SEND** key.
- 7 Select **Ctype** to choose the type of call (**Private**, **Phone**, or **PABX**).
- 8 Press the PTT button or the **SEND** key.

Making Group Calls on theTalkgroup of the Message Sender

Prerequisites: Embedded Number feature is enabled by your service provider.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Inbox**.
- 3 Highlight the required message and press the PTT button.

Immediate Message

When the new immediate message is received, radio plays the *New Mail Received* tone and displays the content overlapping your previous screen. All immediate messages are stored in the **Inbox**. If the radio is in PIN Lock state, immediate message is displayed after correct PIN is entered.



Note: This is a selling feature.

Outbox

Outbox stores all sent messages.

Table 17: Outbox Icons

Icon	Description
	Delivery in Progress
	Delivery Accomplished
	Delivery Failed
	Successful Outgoing Message
	Failed Outgoing Message

CO Box

CO Box contains incoming and outgoing Call-Out messages arranged chronologically with the newest at the top of the list. Clicking **Select** on a Call-Out message headline displays more detailed information on the item.

When the radio is in normal mode, you are able to browse through all messages in the **CO Box**. However, if the radio is in the Call-Out mode, you can only browse through the information regarding the currently ongoing Call-Out message.

Related Links

[Call-Out](#) on page 116

RMS Box

RMS Box stores all incoming and outgoing Radio Messaging System (RMS) messages, both Status messages and Free Text messages.

WAP Box

Each WAP Push message can be loaded immediately or stored as a message in **WAP Box**. Then it can be accessed by pressing **MENU** → **Messages** → **WAP Box**. All the WAP Push messages are passed to the browser.

Related Links[WAP](#) on page 109[WAP Push](#) on page 116

Templates

This feature is used to store up to 100 predefined and your message templates. Each of the **Inbox** and **Outbox** message can be stored as a template. Each template name and text can be edited afterwards.

Sending User-Defined Templates

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Templates**.
- 3 Highlight the required template name and press **Send**.
- 4 Do one of the following:
 - Enter the number or press **abc** to select the name from your contact list. Press **Send**.
 - Select required talkgroup from the **TalkGroup List**.

Setting User-Defined Templates

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Templates**.
- 3 Highlight the required template and press **MENU**.
- 4 Select one of the following:
 - **View** — Displays template text.
 - **Delete** — Deletes the template.
 - **Edit Text** — Opens edit screen with the template text. Edit the text and press **MENU**. Select **Save Changes** to save edited template, or **Store** to save the edited template as a new one.
 - **Edit Name** — Opens edit screen with the template name. Press **Ok** to save the template.

Predefined Templates

Predefined message templates are programmed into your radio. You are allowed to perform limited edit operations of the predefined template. You can send it, but you are not able to store the edited template or erase it from the predefined template list.

Viewing Predefined Templates

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Predefined**.
- 3 Highlight the required template and press **MENU** key.
- 4 Select **View**.

Sending Predefined Templates

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Predefined**.

- 3 Highlight the required template and press **Send**, the PTT button, or the **SEND** key.



Note: You can edit the predefined template before you send it. Press the **MENU** key and select **Edit**. Edit screen opens with the template text. You are only allowed to replace the existing text.

Status Messages

The radio allows you to send two types of status messages: statuses and targeted statuses. Your service provider determines which type is enabled on the radio.

Statuses can be sent either to a selected talkgroup or to a private number programmed by your service provider. Targeted statuses can be sent to any talkgroup defined for the radio or to any private number (from the contact list or entered manually).

Viewing a Status Message Number

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Send Status**.
- 3 Press the **MENU** key and select **View**.

Sending Status Messages

This procedure allows you to send status messages to either a selected talkgroup or a programmed private number. Only one option can be enabled at a time.

Prerequisites:

- If sending statuses to talkgroups is enabled: switch to the talkgroup to which you want to send a status message.
- If sending statuses to private numbers is enabled: no action is needed, the private number is set up by your service provider

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Send Status**.
- 3 Do one of the following:
 - Highlight the required status message and press **Select**, the PTT button, or the **SEND** key.
 - If the status list is empty, enter a 5 digit status message number and press **Send**.

Targeted Status Messages

This feature enables sending status messages to user selectable addresses. By default, targeted status messages can be sent to private or talkgroup addresses. Your service provider may restrict valid addresses to numbers stored in **Contacts**.

Sending Targeted Status Messages

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Messages** → **Send Status**.
- 3 Do one of the following:
 - Highlight the required status message and press **Select**, the PTT button, or the **SEND** key.
 - If the status list is empty, enter a 5 digit status message number and press **Send**.
- 4 Do one of the following:
 - Enter the number or press **abc** to select the name from your contact list. Press **Send**.

- Select required talkgroup from the **TalkGroup List**.

The display shows one of the following delivery reports:








- **Status Sent.**
- **Status Failed.**

Contacts

This sub-menu stores all your contact numbers. Each entry requires the following information:

- **Name** — if you store more than one number to one contact, this entry is required.
- **Type** — each contact must be assigned to one of the following types:

Table 18: Contact Types

Contact Icon	Description
	Private Cannot have a speed dial number.
	Mobile
	Home
	Work
	PABX
	Other
	Pickers Indicate more than one number in a contact.

- **# (number)** — each contacts entry must contain a number.
- **Speed #** — accept the default Speed Dial number or change it.

Creating Contacts

Procedure:

- 1 From the home screen, select **Contcs**.
- 2 Select **[New Contact]**.
- 3 Highlight **Name** and press **Change**. Enter the name of your contact and press **Ok**.
- 4 Highlight **Type** and press **Change**. Select the required type of your contact.



Note: You can use the left and right NAVIGATION keys to select the type of your contact from the **Contact Details** screen.

- 5 Highlight **# (number)** and press **Change**. Enter the number of your contact and press **Ok**.
- 6 If needed, highlight **Speed #** and press **Change**. Enter the speed dial number (1– 1000) of your contact and press **Ok**.



Note: If the entered number exist, the radio displays **Overwrite?** message. Press **Yes** to confirm, or **No** to enter the speed dial number again.

7 Press **Done**.

You have create a contact with one number. To add additional number repeat steps 4–6.

Editing Contacts

Procedure:

- 1 From the home screen, press **Contcs**.
- 2 Highlight the contact you want to edit.
- 3 Press the MENU key.
- 4 Press **Edit**.
- 5 Highlight one of the following entries and press **Change** to edit:
 - **Name**
 - **Type**
 - **# (number)**
 - **Speed #**
- 6 Press **Done**.

Deleting Numbers

Procedure:

- 1 From the home screen, press **Contcs**.
- 2 Select a contact you want to edit.
- 3 Use left or right NAVIGATION keys to choose the required number.
- 4 Press MENU.
- 5 Select **Delete number**.



Note: If an entry contains only one number, deleting the number deletes the entry.

- 6 Press **Yes**.

Deleting Contacts

Procedure:

- 1 From the home screen, select **Contcs**.
- 2 Highlight a contact you want to delete.
- 3 Press the MENU key.
- 4 Select **Delete contact**.
- 5 Select **Yes**.

Checking Capacity

When and where to use: To see how many numbers are stored in the radio.

Procedure:

- 1 From the home screen, select **Contcs**.
- 2 Press the MENU key.
- 3 Select **Capacity**.
- 4 Select one of the following:

- **Private**
- **Phone / PABX**
- **Contact**

Dialing through the Contact List

Procedure:

- 1 From the home screen, press **Contcs**.
- 2 To highlight the required contact, use up and down NAVIGATION keys, or enter up to 12 characters of the contact name.
- 3 If the contact has more than one number, use left and right NAVIGATION keys to select the required number.
- 4 Press the PTT button to initiate a simplex call with a **Private** number. Otherwise use the SEND key to initiate a duplex call.

Browser

This menu item activates a WAP browser that allows you to browse the Internet from your radio.

Related Links

[WAP](#) on page 109

Security

This sub-menu stores all your security settings.

PIN Protect

This feature allows you to enable PIN code authentication at the next power on. This code protects your radio against unauthorized use.

If you are unable to unlock the radio, you can only send or receive Emergency Calls and adjust the volume level with the ROTARY KNOB.

Related Links

[Unlocking Your Radio](#) on page 31

[Changing PIN Codes](#) on page 77

Protecting the Radio with a PIN Code

Procedure:

- 1 From the home screen, press MENU → **Security** → **PIN Protect**.
- 2 Select **On**.
- 3 Enter 4-digit PIN code. By default it is 0000 (four zeros).



Suggestion: To increase security, set your own PIN code.

Post requisites: Each time you turn on the terminal, PIN code is required.

Unblocking Your Radio

Prerequisites: You blocked your radio by entering incorrect PIN code for three times (by default).

Procedure:

- 1 Radio displays **Unit Blocked** Enter **PUK**.
- 2 Enter 8-digit PUK (Personal Unblocking Key) number.



Note: The PUK is an eight-digit master code provided by your service provider.

- 3 Enter the new PIN code twice.

Changing PIN Codes

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **Change Code**.
- 3 Radio prompts for the **Old Code**. Enter currently used 4-digit security code (default setting is 0000).
- 4 If the entered code matches the old code, radio prompts for the new code twice.

Your radio displays **Code Accepted**.

Related Links

[Unlocking Your Radio](#) on page 31

[PIN Protect](#) on page 76

Keylock Setup

The keypad lock feature allows locking the keypad to prevent pressing a key accidentally. The keypad lock/unlock can be invoked by using an appropriate option from the radio menu or by using a predefined menu shortcut. By default press **MENU**, and then ***** key.

Your service provider can determine which of the following elements are additionally inoperative while the keypad is locked:

- The PTT button
- Side buttons
- The **ROTARY KNOB**
- The **ON/OFF/END/HOME** key

The **EMERGENCY** button is always operative.

Related Links

[Locking/Unlocking the Keys/Buttons](#) on page 32

Keypad Lock Notification

When the keypad is locked, your service provider can configure one of the following instructions:

- None — no notification is displayed.
- Notification Only — **Keys Locked** is displayed.
- Notification and Instruction — **Press Menu * to lock/unlock keypad** is displayed.

Setting Automatic Keylock Delay

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **Keylock Setup** → **Delay**.
- 3 Use up and down **NAVIGATION** keys to change the minutes and press **Done**.

Setting Keylock on Startup



Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **Keylock Setup** → **Start Locked**.
- 3 Select **On/Off**.

Air Encryption

Air Encryption is a feature that enables encryption of entire communication between the radio and infrastructure, which results in increased security of calls, messages, and data.

If configured by your service provider, the radio plays a sound and displays **Call & Data Not Encrypted** when encryption is on and you receive a clear call (unencrypted). This feature provides service confidentiality between you and the system.

In the TMO Mode, when Air Encryption is enabled on you radio but cannot be supported due to an infrastructure failure, the following icon appears on the display: . When encryption is not available in the DMO Mode, the radio displays: .

This menu item allows you only to view air encryption state.



Note: This is a selling feature.

Related Links

[Status Icons](#) on page 27

Viewing the Air Encryption State

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **AirEncrypt**.
- 3 Your radio displays:
 - a **Air Encryption Is Off**.
 - b **Air Encryption Is On**.

Air Encryption Key Deletion

Please check with your service provider whether the radio is provided with Air interface encryption keys. You can delete the Air interface encryption keys from the radio by entering the following sequence: ****00##**.



Note:

- It takes a minute for this feature to delete all the encryption keys from the radio. During this time, do not remove the battery.
- Deletion is performed in idle TMO/DMO or Emergency Operation.



Caution: Using this feature will disable the radio, and your service provider will need to re-enable the radio.

K Validity

K (Key) is a secret key the infrastructure uses to authenticate the radio in the system. It is part of the authentication that provides service confidentiality between your radio and the system.

Verifying K Validity

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **K Validity**.
- 3 Your radio displays:
 - **K is Valid** — the infrastructure can authenticate your radio.
 - **K is Invalid** — the infrastructure is unable to authenticate your radio. Please call your service provider to restore the key to your radio.

SCK (Air Interface Encryption Class 2)

SCK (Static Cipher Key) is a secret key used for the Air Interface Encryption Class 2. It may be used to encrypt calls and data in TMO and DMO. The SCK air interface encryption provides service confidentiality between radios and infrastructure when in TMO, and between radios when in DMO. A radio is capable of being loaded with up to 32 SCKs. Specific keys are used for encrypting the air interface.

Any mismatch between radios and/or infrastructure impacts communication – only those using the same key as the transmitting party are able to decode and hear the communication.

TMO SCK

Use of SCKs in TMO needs to be enabled by your service provider. The SCKs used in TMO are called TMSCKs.

DMO SCK

Use of SCKs in DMO needs to be enabled by your service provider. The SCKs used in DMO are called DMSCKs.

Changing DMO SCK

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **DMO SCK**.
- 3 Press **Next**.
- 4 Radio displays **Change to version**.
- 5 Select one of the following:
 - **Yes** — to change the key. Your radio displays **Key version changed**.
 - **No** — to leave the key. Your radio displays **Code Not Changed**.

Verifying TMSCK Validity

When and where to use: To ensure that the TMSCKs in the radio are valid and can be used for the air interface encryption.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **TMSCK Validity**.
- 3 The radio displays:
 - **TMSCK is Valid** – the radio can work encrypted in TMO.
 - **TMSCK is Invalid** – the radio cannot work encrypted in TMO. Please contact your service provider to restore SCKs to your radio.

Verifying DMSCK Validity

When and where to use: To ensure that the DMSCKs in the radio are valid and can be used for the air interface encryption.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **DMSCK Validity**.
- 3 The radio displays:
 - **DMSCK is Valid** – the radio can work encrypted in DMO.
 - **DMSCK is Invalid** – the radio cannot work encrypted in DMO. Please contact your service provider to restore SCKs to your radio.

Covert Mode

This feature enables you to completely shut down all visible and audible alerts and notifications making the radio unnoticeable even in a silent and dark environment.

When your radio is in the Covert Mode, you cannot enter the following menu items of the **Setup** menu.

- **Vibrate.**
- **Set Volume**
- **Tones**
- **Backlight** (in **Display** menu item)

When the Covert Mode is turned on:

- All tones are set to **Off** (corresponding to **All Tones** menu entry).
- Group audio is set to **Spkr Cntrl** (corresponding to **Audio Toggle** menu entry).
- The private speaker is set to **Off** (this setting causes all the calls are routed through the earpiece).
- Backlight is set to **Disabled** (corresponding to **Backlight** menu entry).
- The LED indicator is switched off.

The radio powers up in the mode set before turning off. Thus if the Covert Mode was set before turning off, the radio turns on in the Covert Mode .

When the Covert Mode is turned off, all the changed settings are reverted to the previous state.

This feature can be used as the One-Touch Button.

Activating the Covert Mode

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **Covert Mode**.
- 3 Select one of the following:
 - **On** — all tones are set to off, and the backlight and the LED are disabled immediately. The group audio is routed to the earpiece. The radio displays **Covert Mode On**.
 - **Off** — all settings for tones, backlight and audio are restored. The radio displays **Covert Mode Off**.

Setting to Vibrate in the Covert Mode

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **Covert Mode** → **Vibrate**.
- 3 Select one of the following:

- **On** — To restore all vibrations.
- **Off** — To disable all vibrations.

SDS Remote Control

SDS Remote Control is a feature that enables to remotely control behavior and configuration of the radio via special SDS messages. The messages can be sent both in TMO and DMO (including the Repeater Mode) by any radio capable of controlling other radios. During the execution of the Remote Control messages, depending on your service provider settings, the radio can play a tone, vibrate, or display an appropriate icon in the status icon area.



Note: This is a selling feature.

Setting SDS Remote Control

When and where to use: To enable/disable support of special SDS messages that allow remote control of the radio.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Security** → **Remote Control**.
- 3 Select **On** to enable, or **Off** to disable remote control.

Setup

This sub-menu allows you to change your radio configuration.

Vibrate

This sub-menu allows you to determine if your radio vibrates, or rings, or both vibrates and rings when receiving a call.

Setting Default Vibrate

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Vibrate**.
- 3 Select one of the following:
 - **Vibe then Ring**
 - **Vibe Only**
 - **Ring Only**

Setting Detail Vibrate

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Vibrate** → **Details...**
- 3 Select one of the following:
 - **Duplex Calls** — Sets the vibrate settings for Phone, PABX, and Duplex Private calls.
 - **Simplex Calls** — Sets the vibrate settings for Simplex Private Calls.
 - **Group Call** — Sets the vibrate settings for Group Calls.
 - **Messages** — Sets the vibrate settings for status messages and text messages.

- 4 Select the required setting, and press **Select**.



Note: If you choose **Duplex Calls**, **Simplex Calls** or **Messages**, the settings available are **Vibe then Ring** (for messages it is **Vibe & Ring**), **Vibe Only** or **Ring Only**. If you choose **Group Call**, the settings available are **Vibe On** or **Vibe Off** only.

Ring Style

This sub-menu allows you to set the incoming call ring style.

Setting Ring Style

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Ring Style**.
- 3 Select one of the following:
 - **Duplex** — To set the new ring style to all duplex calls.
 - **Simplex** — To set the new ring style to all simplex calls.



Note: Upon entry into this sub-menu, the display shows the current ring style used.

- 4 Scroll to the desired style and press **Select**.



Note: New ring style is played immediately for a few seconds. If necessary, adjust the volume level.

Set Volume

This menu item allows you to adjust the **Simplex**, **Duplex**, **Earpiece**, **Speaker**, and **Keypad** tone volume.

Related Links

[Volume Adjustment Mode](#) on page 84

Setting Volume

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Set Volume**.
- 3 Select one of the following:
 - **Duplex Vol** — sets the volume level for duplex ringtones.
 - **Simplex Vol** — sets the volume level for simplex ringtones.
 - **Earpiece Vol** — sets the volume level for the earpiece.
 - **Speaker Vol** — sets the volume level for the speaker.
 - **Keypad Vol** — sets the volume level for keypad tones.



Note: If the display shows only one option **Volume**, you can adjust all of the above settings at once. You have the option to change the settings individually when the **Volume Adj. Mode** is set to **Individual**.

- 4 Press right or left **NAVIGATION** key to change the value.



Note: When the battery level is low it is not recommended to attach the 4 Ohm speaker to the radio as it can cause reset or shutdown of the radio.

Related Links

[Setting Volume Adjustment Mode](#) on page 85

Language

This sub-menu allows you to change the language of the radio.

Setting Language

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Language**.
- 3 Select desired language.

Data Setup

This menu item allows you to set up your radio to transmit and receive data from the external device.

To connect your radio accessory connector to the external device, use the PMKN4025 cable. The external device must run an application complying with the TETRA standards.



Note:

- Data services are available only in TMO Mode.
- Data services are blocked in TXI Mode.
- When set to **Voice Only**, the built in data modem is disabled to conserve battery power.

Setting Data Function

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Data Setup**.
- 3 Select one of the following:
 - **Voice Only** — Your radio receives and transmits voice calls only.
 - **Data Only** — Your radio acts as a modem. It rejects incoming and outgoing voice calls (except for Emergency Calls), status and text messages.
 - **Voice & Data** — Your radio acts as a modem but voice calls have priority over data calls and can interrupt them.

Audio

This menu item allows you to adjust your radio audio settings.

Audio Profiles

An audio profile is a set of audio parameters, such as the volume of alert tones, that are configured by your service provider to fit a particular operating environment. For example, the audio parameters can be adjusted to situations when the radio operates inside a building or on a noisy street.

If programmed, the radio displays a name of a currently used audio profile (on the home screen) and/or an appropriate icon associated with the profile (in the status icon area).

Your service provider can configure a maximum of ten audio profiles.

For a detailed description of a specific audio profile, contact your service provider.

Setting Audio Profiles

When and where to use: To adjust the audio parameters of the radio its current operating environment.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Audio** → **Audio Profile**.
- 3 Select a required profile.

Howling Suppression

The howling suppression is a mode increasing the stability of the acoustic feedback loop. The radio eliminates howling caused by the feedback loop from the receiving radios to the sending radio in simplex calls. You can toggle the howling suppression during an active call.

To enable this anti-howling function, you can either use the radio menu or the corresponding One-Touch Button.

Setting Howling Suppression

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Audio** → **Howling Suppr..**
- 3 Select required setting.



Note: Your service provider can set up the state of the howling suppression on powering up the radio. Depending on the settings, the radio can either disable the howling suppression or set the last remembered state.

Audio Toggle

You can control audio routing (speaker/earpiece) for any private or group call through the dedicated **SPEAKER CONTROL** key. You can also define through the menu to have all group calls in high audio or controlled by the **SPEAKER CONTROL** key.

Setting Audio Toggle

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Audio** → **Audio Toggle**.
- 3 Select one of the following:
 - a **Always Loud** — The audio sound comes from the speaker (high audio only). **SPEAKER CONTROL** key is disabled.
 - b **Spkr Cntrl** — The audio goes through the earpiece or the speaker. You can switch between low and high audio by pressing **SPEAKER CONTROL** key.

Volume Adjustment Mode

You can set the volume to **Individual** or **Common**. When it is set to **Individual**, the volume level for **Voice**, **Duplex**, **Simplex**, **Earpiece**, **Speaker** and **Keypad** can be set per user preferences. When set to **Common**, the audio has one setting for all items.

Related Links

[Set Volume](#) on page 82

Setting Volume Adjustment Mode

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Audio** → **Volume Adj. Mode**.
- 3 Select one of the following:
 - **Individual** — You can set **Duplex**, **Simplex**, **Earpiece**, **Speaker** and **Keypad** per your preferences in **MENU** → **Setup** → **Set Volume**.
 - **Common** — You can set one value for all the items in **MENU** → **Setup** → **Set Volume**.

Related Links

[Setting Volume](#) on page 82

Tones

This field sets the volume level for the tones set.

Keypad Tone

You can activate/deactivate keypad tone at every key press.

Setting Keypad Tone

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Tones** → **Keypad Tone**.
- 3 Select one of the following:
 - **On** — Activates keypad tone.
 - **Off** — Deactivate keypad tone.

All Tones

You can activate/deactivate all tones.

Setting All Tones

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Tones** → **All Tones**.
- 3 Select one of the following:
 - a **On** — Activates all the tones.
 - b **Off** — Deactivates all the tones.

Talk Permit

You can set a different tone upon pressing the PTT button.

Setting Talk Permit

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Tones** → **Talk Permit**.

3 Select one of the following:

- **No Tone** — No tone heard upon pressing the PTT button.
- **Short Tone** — Short tone heard upon pressing the PTT button.
- **Normal Tone** — Factory-default tone heard upon pressing the PTT button.

Clear to Send

You can activate/deactivate tone for the transmitting radio that the receiving radio is ready to accept the transmission.

Setting Clear to Send

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Tones** → **Clear to send**.
- 3 Select one of the following:
 - **Tone On** — Activate clear to send tone.
 - **Tone Off** — Deactivates clear to send tone.

Periodic Alert

You can activate/deactivate periodic tone indication for the missed calls, the unread messages, and low battery level. For each notification, your radio generates an unread message tone with the amber LED color indication.

Setting Periodic Alert

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Tones** → **Periodic Alert**.
- 3 Select one of the following:
 - **Alert** — Activates/deactivates periodic tone.
 - **Period** — Indicates the time between each periodic tone.

D-PTT Tones

This menu item contains the settings for the Double PTT feature.

The Double PTT feature allows you to send a tone pattern (single, double, or triple) when the radio is in idle or the Group Call mode by pressing the PTT button twice.

After the D-PTT tone is played, the user can press and hold the PTT button once again to get the permission to talk. Otherwise, if the user presses the PTT button while the D-PTT tone is played, it is ignored.

After the D-PTT tone is sent keeping the PTT button pressed, it results in permission to talk. The D-PTT tone is not audible on a sending radio.



Note: This feature needs to be enabled by your service provider.

Setting D-PTT Tones

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Tones** → **D-PTT Tones**.
- 3 Select one of the following:

- **D-PTT Mode** — Activates/deactivates D-PTT tone.
- **Tone Style**— Indicates how many times the D-PTT tone is played.

Display

This menu item allows you to adjust your radio display settings.

Related Links

[Display](#) on page 26

[Display](#) on page 26

[Setting Time and Date on the Display](#) on page 89

Setting Flip Display

When and where to use:

The feature is useful for a user who has to wear the radio on a shoulder, belt, or lapel and at the same time wishes to read the display upside down.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Flip Display**.
- 3 Select one of the following:
 - **On** – to activate this feature.
 - **Off** – to deactivate this feature.

Setting Font Level

When and where to use: To increase/decrease text size so you can adjust the interface readability to existing conditions.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Font Level**.
- 3 Select one of the following:
 - **1** – small font size
 - **2** – medium font size
 - **3** – large font size



Note: In some languages number of available font levels can be limited.

Setting Large Idle Font

When and where to use: To enable/disable large font on the home screen.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Large Idle Font**.
- 3 Select **On** to enable, or **Off** to disable displaying large font on the home screen.



Note: Large Idle Font is not available in some languages.

Setting Extra Zoom

Enabling Extra Zoom simultaneously changes three settings: switches **Font Level** to the largest possible one, activates **Large Idle Font**, and sets **Extended Status Icons** to **Idle Only**

If you modify any of these settings, for example decrease the font level, the radio leaves the Extra Zoom Mode. However, to restore all the three previous settings, you need to manually change the values of **Font Level**, **Large Idle Font**, and **Extended Status Icons**. If you cannot restore a setting, contact your service provider.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Extra Zoom**.
- 3 Select **On** to enable or **Off** to disable extra zoom.



Note: **Extra Zoom** is not available on radios using the SIM card encryption.

Setting Extended Status Icons

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Extended Status Icons**.
- 3 Select one of the following:
 - **Disabled** – the radio always displays icons in normal size.
 - **Idle Only** – the radio displays enlarged icons only on the home screen.
 - **Always** – the radio displays enlarged icons both on the home screen and when browsing through the radio menu.

Setting Screen Saver

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Screen Saver**.
- 3 Select one of the following:
 - **Activate** — To activate/deactivate this feature.
 - **Text** — To set the text on the screen saver when this feature is activated.

Setting Backlight

When and where to use: To save the battery power.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Display** → **Backlight**.
- 3 Select one of the following:
 - **Auto** – backlight is triggered by turning on the radio, by pressing any key on the device or on the accessory that is connected to it. Also charging or getting signal from the services like: Call-Out message, RUA request, DGNA and TX timeout during priority call are going to turn on the backlight.
 - **Semi Auto** – backlight is turning on when you are switching on the radio, pressing assigned button to the backlight feature, or charging.
 - **Disabled** – backlight is disabled and the display is always dimmed.
 - **On** – backlight is always on.



Note: Setting the backlight intensity level by pressing the BACKLIGHT key changes the LED, keypad backlight, and EMERGENCY button backlight intensity.

Setting Wallpaper

When and where to use: To change the look of the home screen.

Procedure:

- 1 From the home screen, press the MENU key.
- 2 Select **Setup** → **Display** → **Wallpaper**.
- 3 Select one of the following:
 - **On** — To activate this feature.
 - **Off** — To deactivate this feature.

Setting Contrast

When and where to use: This feature sets the contract of the display to enhanced visibility of the interface.

Procedure:

- 1 From the home screen, press the MENU key.
- 2 Select **Setup** → **Display** → **Contrast**.
- 3 Use left and right NAVIGATION key to change the value.
- 4 Press **Ok**.

Time and Date

This sub-menu controls the displayed time and date on the home screen.



Note: If the Home Display Text Message feature is enabled, Home Mode Display Text may cover time and date, depending on the Configurable Idle Screen settings.



Note: Infrastructure synchronizes the time and date. When not within the infrastructure signal range you can set the values manually.

Setting Time and Date on the Display

Procedure:

- 1 From the home screen, press the MENU key.
- 2 Select **Setup** → **Time & Date** → **Display**.
- 3 Select one of the following:
 - **Time & Date** — Your radio displays time and date.
 - **Time Only** — Your radio displays time only. **Format Date** sub-menu is disabled.
 - **Date Only** — Your radio displays date only. **Format Time** sub-menu is disabled.
 - **Off** — Your radio does not display time nor date. **Format** menu is disabled.

Related Links

[Display](#) on page 26

[Display](#) on page 87

Setting the Time Format

Prerequisites: If MENU → Setup → Time & Date → Display is set to Time & Date or Time Only.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Time & Date** → **Format** → **Format Time**.
- 3 Select one of the following:
 - **12-Hour** — Displays the time with **am** (before noon) or **pm** (after noon) indication.
 - **24-Hour**.

Setting the Time Manually

When and where to use: If the time cannot update automatically through the infrastructure.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Time & Date** → **Set** → **Set Time**.
- 3 Enter current time using **NAVIGATION** keys or keypad.
- 4 Press **Done**.

Setting the Date Format

Prerequisites: If **MENU** → **Setup** → **Time & Date** → **Display** is set to **Time & Date** or **Date Only**.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Time & Date** → **Format** → **Format Date**.
- 3 Select (D — day, M — month, Y — year):
 - **DD/MM/YY**
 - **MM/DD/YY**
 - **DD-MON-YY**
 - **YY/MM/DD**

Setting the Date Manually

When and where to use: If the time cannot update automatically through the infrastructure.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Time & Date** → **Set** → **Set Date**.
- 3 Enter current time using **NAVIGATION** keys or keypad.
- 4 Press **Done**.

Setting Time Offset

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Time & Date** → **Set** → **Time Offset**.
- 3 Enter time offset using **NAVIGATION** keys.



Note: You can adjust the offset value, with 15 minute steps, up to 14 hours ahead or behind.

- 4 Press **Done**.

Setting Automatic Updates for the Time and Date

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Time & Date** → **System Update**.
- 3 Select one of the following:
 - **Off** — All the infrastructure informations are ignored. The radio uses internal time and offset.
 - **Time Only** — Time displayed is calculated from the offset programmed by your service provider added or subtracted from the infrastructure time.
 - **Time & Offset** — Time and offset are updated after receiving from the infrastructure.

Energy Economy

Energy Economy (EE) is a mode of operation to save battery life. Your radio does not monitor all downlink time slots of the Main Control Channel. If the radio is in the charger, **Energy Economy** mode is not needed.

Enabling Energy Economy

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Energy Economy** → **EE Selection**.
- 3 Select one of the following:
 - **On** — Activates Energy Economy feature.
 - **Off** — Deactivates Energy Economy feature.

Viewing the Energy Economy Status

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Energy Economy** → **EE Status**.
- 3 The Energy Economy status is displayed as:
 - **Energy Econmy Is Supported By System**
 - **Energy Economy Is Currently Not Supported By System**

Transmission Power Class

Transmission Power feature enables your radio to choose whether to transmit with Class 3L or Class 4. The signal strength icon indicates when the radio uses this feature.

Selecting RF Power

When and where to use: If you are entering the area that requires higher signal strength.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **RF Power**.
- 3 Select one of the following:
 - **Hi RF Power** — Activates this feature.
 - **Normal RF Pwr** — Deactivates this feature.

**Note:**

- Changing RF Power Class to **Normal RF Pwr** during calls may result in dropping the call. The power level may be not sufficient to sustain the transmission.
- Battery consumption is higher when **Hi RF Power** is selected.



Note: This is a selling feature.

Book On

This menu item allows you to edit RUA/RUI feature settings to automatically accept or reject book on requests.

Related Links

[RUI](#) on page 101

[RUA/RUI](#) on page 108

Editing Book On Settings

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Book on Setup**.
- 3 Select one of the following:
 - **Book on Accept** — Radio accepts all the book on requests.
 - **Book on Reject** — Radio rejects all the book on requests without any notification.

Rotary Knob

This menu item allows you to set all the related functionality of the **ROTARY KNOB**.

Setting Rotary Knob Mode

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Rotary Knob** → **Rotary Mode**.
- 3 Select one of the following:
 - **Dual** — Both modes are available. Turn the **ROTARY KNOB** to adjust the volume or press and then turn to switch to a different talkgroup.
 - **Volume** — The knob is used only as a volume control. Turn it clockwise to increase the audio volume level.
 - **Scroll** — The knob is used only to change the talkgroup, or in the menu to scroll menu items.



Note: If you choose **Scroll** and the display shows:

- **Scroll Selected** — To adjust volume level go to the main menu, select **Setup** → **Set Volume**.
- **Function Keys are set to Adjust Volume** — You can use your programmable **SIDE** buttons to adjust volume.



Note: The **ROTARY KNOB** and the **SIDE** buttons are paired. When the **ROTARY KNOB** mode is set to **Volume** or **Dual**, the **SIDE** buttons support the One-Touch Button feature.

Related Links

[One-Touch Button Feature](#) on page 36

Setting Rotary Lock

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Rotary Knob** → **Rotary Lock**.
- 3 Select one of the following:
 - **Locked** — Locks **ROTARY KNOB**, you can unlock it by selecting **Unlocked** or by pressing and holding **ROTARY KNOB**.
 - **Unlocked** — Unlocks the **ROTARY KNOB**.
 - **Disabled** — Locking function is unavailable. Your **ROTARY KNOB** is unlocked all the time.

Setting In Keypad Lock

When and where to use: To set behavior of the rotary knob when the keypad is locked.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Rotary Knob** → **In Keypad Lock**.
- 3 Select one of the following:
 - **Lock None** — Scrolling and volume setting functionality is available.
 - **Lock Volume** — **ROTARY KNOB** can be only used for scrolling.
 - **Lock Scroll** — **ROTARY KNOB** can be only used for setting the volume.
 - **Lock Both** — Scrolling and volume setting functionality is unavailable.

Setting Rotary Knob Wrap Around

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Rotary Knob** → **Wrap Around**.
- 3 Select one of the following:
 - **On** — Scrolling through the talkgroup list is looped or is moved to the next folder.
 - **Off** — Scrolling through the talkgroup list stops after reaching first or last talkgroup in the current selected folder.



Note: Only when **Wrap Around** is set to **On** and the **Scroll Range** is set to **Scroll To Next**, you are able to scroll through all the talkgroups and folders.

Setting Rotary Knob Scroll Range

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Rotary Knob** → **Scroll Range**.
- 3 Select one of the following:
 - **Stay In Range** — Scrolling through the talkgroups in the current folder only.
 - **Scroll To Next** — Scrolling through all the talkgroups and folders.



Note: Only when **Wrap Around** is set to **On** and the **Scroll Range** is set to **Scroll To Next**, you are able to scroll through all the talkgroups and folders.

Setting Rotary Knob Talkgroup Selection

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Rotary Knob** → **Confirm TG Sel.**
- 3 Select one of the following:
 - **On** — You need to confirm the talkgroup selection by pressing **Select** or pressing the PTT button to immediately start a call on a new talkgroup.
 - **Off** — Attaches to the selected talkgroup without any additional prompt

Setting Rotary Knob Function Keys

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Rotary Knob** → **Function Keys**.
- 3 Select one of the following:
 - **Auto** — Sets the **SIDE** buttons according to the **Rotary Mode**.



Note: If the **Rotary Mode** is set to:

- **Dual or Volume** — Display shows **Auto Selected (OTB)**, volume can be set only through **ROTARY KNOB**.
- **Scroll** — Display shows **Auto Selected (Volume)**, volume can be set only through **SIDE** buttons.
- **Volume Adjust.** — Sets the **SIDE** buttons to adjust volume level.
- **OTB Feature** — Sets the **SIDE** buttons to the predefined One-Touch Button features.

Group Setup

This sub-menu allows you to set the scanning and my groups folder.

Scan

This menu item allows you to activate/deactivate scanning, view the active scan list, and edit the scan lists. This feature is available only for the TMO Mode. Your radio joins any group call as long as this group is defined in the scan list and scan is turned on.

Related Links

[Activating Talkgroup Scanning](#) on page 35

Activating Talkgroup Scanning

When and where to use: If you want to monitor any TMO Group Call in the defined talkgroup list.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Group Setup** → **Scan** → **Scanning**.
- 3 Select **Select List** and then a list name.
Your radio displays list name **Selected**.
- 4 Select **Scanning** → **On**.

Your radio is scanning on the predefined scan list.

Related Links

[Scan](#) on page 94

Setting Talkgroups in the Active Scan List

When and where to use: If you want to edit talkgroups in the active scan list.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Group Setup** → **Scan** → **Active List**.



Note: If **Scanning is Off** is displayed, go to **More . . .** → **Group Setup** → **Scan** → **Scanning** → **On** to enable scanning.

- 3 Select **View** and highlight the required talkgroup.
- 4 Press **MENU**.
- 5 Select one of the following:
 - **Delete** — Erases this group from the active scan list.
 - **Priority** and select new priority to **Low**, **Medium** or **High**.

Setting Scan Lists

When and where to use: If you want to set up any scan list.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Group Setup** → **Scan** → **Scan Lists**.
- 3 Highlight required scan list and press **MENU** to see additional settings:
 - **Rename** — Enters new name for that scan list.
 - **Capacity** — Displays the number of assigned and unassigned talkgroups for the scan list.
 - **Clear** — Deletes all the talkgroup assigned to that scan list.
 - **Add Group** — Adds a talkgroup to the scan list. Select one talkgroup from your talkgroup folders and assign appropriate priority.
 - **Edit** — Changes the priority of the required talkgroup or deletes it.

Deleting Talkgroups from Scan Lists

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Group Setup** → **Scan** → **Scan Lists**.
- 3 Highlight the required scan list and press **MENU** → **Edit**.
- 4 Highlight the required talkgroup and press **MENU** → **Delete**.

My Groups

My Groups is equivalent to **Favorites** (next section). Both menu items contain shortcuts to favorite talkgroups and contact numbers, as well as allow to perform the same operations. For a detailed description of the feature, please refer to **Favorites**.

Favorites

Favorites contains shortcuts to frequently used talkgroups and contact numbers that are organized in favorite folders.

To quickly access favorite folders, from the home screen press the up **NAVIGATION** key. To scroll through items inside favorite folders, you can either use the **NAVIGATION** keys or the **ROTARY KNOB**.

Favorite Folders

Favorite talkgroups and contact numbers are stored in favorite folders. The folders are common for all types of talkgroups and contact numbers, which means that in one folder you can have items available in different modes. Additionally, to indicate the type of each item, the radio displays a small icon next to it.

By default the radio has one favorite folder that can store up to 128 favorite items. However, you can create two additional folders inside **Favorites** and give them meaningful names reflecting their content.

If **Favorites** contains only one favorite folder and it is empty, the only operations you can perform are adding an item to the folder, renaming the folder, and creating a new folder.

Favorite Talkgroups

You can add any talkgroup programmed in the radio to **Favorites**. The radio adjusts the mode it is in according to the currently selected favorite talkgroup. For example, if the radio is in DMO and you select a TMO talkgroup, the radio switches to TMO, and vice versa.

Scrolling through favorite talkgroups during an ongoing group call does not terminate the call. Also deleting a currently selected talkgroup from **Favorites** during an ongoing call does not lead to the call termination.

If before powering off the last selected talkgroup was a talkgroup from **Favorites**, the radio:

- On powering up in DMO attaches to the last selected favorite DMO talkgroup.
- On powering up in TMO attaches to the last selected favorite TMO talkgroup.

To make a call on a favorite talkgroup, use the standard procedures for group calls described in this document.

Favorite Contact Numbers

You can add any contact number from **Contacts** to **Favorites**. In case of contacts containing more than one contact number, you need to use the right or left **NAVIGATION** key to specify which particular contact number to add. There are no limitations regarding adding single contact numbers assigned to one contact – you can add all contact numbers as separate entries. Removing a single contact number from **Contacts** automatically removes it from **Favorites**. Similarly, removing a contact from **Contacts** automatically removes all the related contact numbers from **Favorites**.

It is impossible to make a call to a favorite contact number during emergency operations.

Making Private Calls to Favorite Contact Numbers

Procedure:

- 1 To select a contact number you want to call, from the home screen do one of the following:
 - Press the right or left **NAVIGATION** key.
 - Go to **Optns** → **TG by Folder**, select the required favorite folder, and highlight the contact number.
- 2 When you are in the following mode:
 - a TMO — For a simplex call, press and release the PTT button. You hear a ringing tone. Otherwise, press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen. For a duplex call, press and release **SEND** key. You hear a ringing tone.
 - b DMO — Only simplex call is available. Press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen.
- 3 To end the call, press the **END** key.

Adding Folders to Favorites

Prerequisites: **Favorites** contains less than three favorite folders.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . . → Favorites**.
- 3 Select **[New Folder]**.
- 4 Enter a name and select **Ok**.

Adding Contact Numbers to Favorites

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Contacts**
- 3 Highlight a contact that you want to add to **Favorites** and using the left or right **NAVIGATION** key select the required number.
- 4 Press the **MENU** key and select **Add to Favorites**.
- 5 Select a folder you want to add the contact number to and press **Select**.

Adding Talkgroups to Favorites

Prerequisites:

To add a DMO talkgroup, ensure that the radio is in DMO.

To add a TMO talkgroup, ensure that the radio is in TMO.

Procedure:

- 1 From the home screen, press the **Optns** key.
- 2 Select one of the following:
 - **TG by Folder** – contains talkgroups arranged by folders.
 - **TG by abc** – contains talkgroups arranged alphabetically.
- 3 Find and highlight a talkgroup that you want to add to **Favorites**.
- 4 Press the **MENU** key and select **Add to Favorites**.
- 5 Select a folder you want to add the talkgroup to and press **Select**.

Related Links

[Entering DMO Mode](#) on page 50

Managing Folders in Favorites

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . . → Favorites**.
- 3 Highlight a required folder.
- 4 Press the **MENU** key.
- 5 Select one of the following:
 - **Rename Folder** – changes the name of the folder. Enter a new folder name and press **Ok**.
 - **Delete Folder** – removes the selected folder from **Favorites**. Press **Yes** to confirm deletion.



Note: You cannot delete the last favorite folder or a folder that contains at least one non-erasable item.

Deleting Items from Favorites Folder

When and where to use: To delete a single contact number or a talkgroup from a favorite folder.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Favorites**.
- 3 Select a folder containing the item you want to remove.
- 4 Highlight the item and select **Delete**. Press **Yes** to confirm deletion.

Deleting All Items from Favorite Folders

When and where to use: To delete all contact numbers and talkgroups stored in a favorite folder.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Favorites**.
- 3 Select a required folder.
- 4 Press the **MENU** key and select **Delete All**. Press **Yes** to confirm deletion.

My Info

This sub-menu allows you to view your own private, phone, and radio info.

Viewing and Modifying Personal Information

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **My Info**.
- 3 Select one of the following:

- **My Private Num** – displays your radio private number.
- **My Phone Num** – displays your radio phone number.



Note: To modify the displayed phone number, select **Edit**. Type the number and press **Ok**.

- **Radio Info** – displays radio information: manufacturer, product type, ISSI, TEI, Serial Number, and OPTA.



Note: OPTA information is optional.

Recent Calls

You can view the history of all calls:

- **Dialed** — calls you initiated.
- **Received** — calls you answered.
- **Missed** — calls you received but not answered or rejected.

Each list of calls may contain up to 50 numbers, the most recent call being at the top of the list. If the number of a recent call is stored in the contact list, the name associated with the number appears in the recent calls list. A number dialed more than once, appears only once in the list.

Viewing Recent Calls

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . . → Recent Calls**.
- 3 Select one of the following:
 - **Dialed**
 - **Received**
 - **Missed**
- 4 Select a required call from the list.
- 5 Press the **MENU** key.
- 6 Select **View**.



Suggestion: Press down **NAVIGATION** key to bypass first two steps.



Note: Call time information is only available if the time and date are set in the radio. Call duration is not available in the missed calls list.

Calling from Recent Calls

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . . → Recent Calls**.
- 3 Select one of the following:
 - **Dialed** (from the home screen press **SEND** key to access **Dialed Calls** list)
 - **Received**
 - **Missed**
- 4 Highlight the required call and press the **PTT** button for private calls or press the **SEND** key to make a phone call.



Note: From the home screen press down **NAVIGATION** key, to access **Recent Calls** menu item.



Note: Phone calls are only available in TMO Mode.

Storing Recent Calls to Contacts

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . . → Recent Calls**.
- 3 Select **Dialed**, **Received** or **Missed**.
- 4 Press **Store**.



Note: If **Store** is not assigned to the left **SOFT** key, the number is already stored in your contact list.

- 5 To store the number as a new entry, select **[New Contact]**. Or, to store the number to an existing entry, select the entry, and press **View** then select **Edit**.
- 6 With the contact type field highlighted, scroll left or right to display the contact type you want to assign the number.
- 7 Select **Done**.

Deleting Recent Calls

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Recent Calls**.
- 3 Select **Dialed**, **Received** or **Missed**.
- 4 Press **MENU** on the required call.
- 5 Select **Delete**.



Note: To erase all the calls, select **Delete All**.

Shortcuts

This sub-menu allows you to set up shortcuts to access frequently used menu items.

Creating Menu Shortcuts

When and where to use: To assign a shortcut for the menu item.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Scroll to the item you want as a shortcut.
- 3 Press and hold **MENU** when the item is highlighted.

Example:

Creating a shortcut to the **All Tones** options.

- 1 From the home screen, press the **MENU** key.
- 2 Select **Setup** → **Tones**.
- 3 Highlight **All Tones** and press and hold **MENU** until **Assign Shortcut for:All Tones** is displayed.
- 4 Select **Yes** and **ShortcutsKey:1** is displayed.
- 5 Press **Done**.



Note: To use this shortcut, from the home screen, press **MENU** and the key 1.

Editing Menu Shortcut Lists

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Shortcuts**.
- 3 Highlight a required shortcut and press **MENU**.
- 4 Select one of the following:
 - **Edit** — Changes the assigned key. Type required number and press **Ok**.



Note: Type a number between 1–20.

- **Delete** — Erases highlighted shortcut. Select **Yes** to confirm.

- **Delete All** — Erases all the shortcuts. Select **Yes** to confirm.

RUI

This menu item allows you to log in/out to the radio.

Related Links

[RUA/RUI](#) on page 108

[Book On](#) on page 92

Logging On

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **RUI** → **Log on**.
- 3 Highlight:
 - **User ID** and press **Select** to enter **User ID List**. If you are a new user on this radio, select **[New User ID]** and enter your user ID. Otherwise select your user ID from the list.
 - Second line and press **Edit**, to enter user ID and press **Ok**.
- 4 Select **User PIN**, enter your credentials, and press **Ok**.
- 5 Logging screen is displayed.

Logging Off

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **RUI** → **Log off**.
- 3 Press **Accept**.

Networks

This menu item allows you to switch between the radio operation modes.

Related Links

[Entering TMO / DMO Mode](#) on page 33

[Selecting Network Operation Mode](#) on page 101

Selecting Network Operation Mode

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Networks**.
- 3 Select one of the following:
 - **Networks Sel** — Selects the network to which the radio is allowed to register.
 - **Trunked Mode** — Switches to the mode using infrastructure.
 - **Direct Mode** — Switches to the mode without using infrastructure.
 - **Repeater Mode** — Switches to the Repeater Mode.
 - **TXI Mode** — Select **Activate** to stop sending any radio transmission.



Note: If the radio is in **TXI Mode**, it is not possible to switch from **Direct Mode** to **Trunked Mode** or **Repeater Mode**.

Related Links

[Entering TMO / DMO Mode](#) on page 33

[Networks](#) on page 101

Selecting Your Network

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Networks** → **Networks Sel** → **Home Only**.
- 3 Your radio registers to the home network. If several home networks are defined, the radio registers to the first available network on the list.

Using the Select Net Registration

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Networks** → **Networks Sel** → **Select Net**.
- 3 Select the required network from the list.

Your radio registers to the selected network.

Using the Foreign Network Registration

When and where to use: Use this feature to migrate to another predefined network, when you are out of the range of your network and your radio displays the **No Service** message.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Networks** → **Networks Sel** → **Foreign Nets**.

Using Any Network

When and where to use: Your radio has lost its home network coverage and can register to any network. Only clear authentication is supported on any network.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Networks** → **Networks Sel** → **Any Network**.
- 3 Your radio selects and registers to the network automatically from the predefined list.

Using the Migrate To Registration

When and where to use: Use this feature to migrate to another predefined network, when you are out of the range of your network and your radio displays the **No Service** message.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Networks** → **Networks Sel** and choose one of the following option:
 - **Migrate to...** — Selects the required network form the list. To view the network ID press **MENU** key then press **Select**.
 - **Auto** — Your radio automatically attaches to the predefined network.

Location

See the GPS Location Service for more information.

Related Links

[GPS Location Service](#) on page 61

Viewing Your Position

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Location** → **Position**.
- 3 Scroll to view the results about the last time your location was calculated.



Note: To refresh your position:

- Select **Position** — the radio refreshes its position automatically
- Press **Refresh**

Changing GPS Accuracy

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Location** → **Accuracy**.
- 3 Select one of the following:
 - **Medium** (default) — Power consumption optimization is combined with less position accuracy.
 - **High** — Better position accuracy is combined with less power consumption optimization.



Note: If connected to an external charging device, the radio automatically enters the **High** mode.

Packet Data

The Packet Data (PD) Service allows you to transfer data in a TETRA system using the Internet Protocol (IP).



Note: To transfer data from a standard computer over the air, connect the computer via the data cable PMKN4025 with your radio. Your service provider has to setup additional applications on your computer.

If set up by your service provider it is possible to accelerate the transmission by using the Multi-Slot Packet Data (MSPD) Service.



Note: This is a selling feature.

Viewing Data Statistics

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Packet Data**.



Note: Data services are only available in TMO Mode. The data option must be set to **Voice & Data** or **Data Only**.

3 Select one of the following:

- **Sent Data** — the number of KBs sent and throughput since current Packet Data activation is displayed.
- **Received Data** — the number of KBs received and throughput since current Packet Data activation is displayed.
- **Bandwidth** — active data session percentage is shown.
- **Failed Transfer** — the percentage of failed sent/received packets.



Note: N.A. — standby packet data session.

Viewing Encryption Status

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **More . . .** → **Packet Data** → **Encryption**.
- 3 The encryption state of the ongoing packet data session is displayed:
 - **Packet Data Channel Clear**
 - **Packet Data Channel Encrypted**
 - **EncryptionN/A** (clear)

Chapter

6

Features

Private Call

The Private Call, also called point-to-point, or individual call, enables calling between two individuals. No other radio can hear the conversation. This call type can be carried out in two ways:

- Duplex call (if the system allows), in TMO Mode. Both parties can speak at the same time.
- Simplex call, in TMO or DMO Mode. Only one party can speak at a time.

When a DMO Private Call takes place, radios not involved in this call receive the channel busy indication. The radios are identified using its radio numbers.

Related Links

[Emergency Individual Calls \(Private or MS-ISDN\)](#) on page 56

Making Private Calls

Procedure:

- 1 From the home screen, enter a number.
- 2 If **Private** is not the first type of call presented, press **Ctype** repeatedly to select it.
- 3 When you are in the following mode:
 - a TMO — For simplex calls, press and release the PTT button. You hear a ringing tone. Otherwise, press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen. For duplex calls, press and release the **SEND** key. You hear a ringing tone.
 - b DMO — Only simplex calls are available. Press and hold the PTT button. Wait for the talk permit tone before talking, and release the PTT button to listen.
- 4 To end the call, press the **END** key.

Radio Messaging System (RMS)

The Radio Messaging System (RMS) feature enables radio to receive and send RMS messages through the TETRA network using the Short Data Service.

There are two types of RMS messages:

- RMS Status – a predefined code that is sent bidirectionally between the radio and the service provider. The radio can have up to ten statuses that are assigned to numeric keys from 0 to 9. The latest received or sent RMS status is kept on the home screen until the next power cycle. A received RMS status is displayed in blue color font on the home screen.

RMS Free Text – a unidirectional message containing free text that is sent to the radio by the service provider. Since this type of message is longer, the radio displays only its beginning on the home screen and to read its

remaining part, you need to go to **Menu** → **Messages** → **RMS Box**. The latest RMS free text is kept on the home screen until the next power cycle.

RMS free text messages and incoming and outgoing RMS statuses (with the exception of RMS statuses sent) are stored in the **RMS Box**. Its capacity is maximum ten entries for incoming and outgoing RMS messages. If the **RMS Box** is full, any new incoming or outgoing RMS message overwrites the oldest message (received or sent).





The radio receives and sends RMS messages only from and to the numbers predefined by your service provider.



Note: This is a selling feature.

RMS Icons

Table 19: RMS Icons

Icon	Description
	RMS Status Received Indicates a new RMS status message just arrived.
	RMS Status Sent
	RMS Box Read Message
	RMS Box Unread Message

Sending an RMS Status

Prerequisites: Your service provider enabled this feature and the radio is in the RMS mode.

When and where to use: To send a predefined RMS status using numeric keys.

Procedure:

- 1 Press and hold a required key. If you press the key for too short, the radio initiates a Private/Phone/PABX call.

One-Touch Dial

This feature allows you to call by pressing and holding one of the keys (1-9).



Note: If the One-Touch Button feature is enabled, One-Touch Dial is disabled. If no feature is assigned to a button, your radio displays an **Unassigned Button** message.

Talkgroup Dialing by Index

This feature allows you to attach to any talkgroup by dialing its index, instead of choosing it from the talkgroup folders and lists.



Note: It is also known as Talkgroup Speed Dial.

Viewing the Talkgroup Speed Number

Procedure:

- 1 From the home screen, press **Optns**.
- 2 Select one of the following:
 - **TG by Folder** then select the folder and highlight the required talkgroup.
 - **TG by abc** enter up to 15 characters to narrow the talkgroup names and highlight the required talkgroup.
- 3 Press **MENU** → **View**.

Example:

Radio displays **SpeedNum1***, which means that this talkgroup speed number is 1.

Selecting Talkgroups by Index

Procedure:

- 1 From the home screen, enter talkgroup speed number and *.
- 2 Press **Attach**.



Suggestion: To start a group call, press the PTT button.

Phone and PABX Calls

The Phone Call allows you to call a landline telephone number or a cellular mobile phone number. The Private Automatic Branch Exchange (PABX) Call allows you to call local (office) extension numbers.

Making Phone or PABX Calls

Procedure:

- 1 From the home screen, enter the number.
- 2 If **Phone** or **PABX** are not the first type of call presented, press **Ctype** repeatedly to select it.
- 3 Press **SEND** key.

Phone/PABX Speed Dial

This feature allows you to dial Phone/PABX by a shortened number of up to three digits instead of the full number. The Phone/PABX **Speed #** number is assigned when the dialed number is added in the contact list.



Note: This feature is available only in TMO Mode.

Using the Phone/PABX Speed Dial

Procedure:

- 1 From the home screen, enter the predefined Phone/PABX speed dial number and # key.
- 2 Press **SEND** key.

DTMF Overdial

This feature allows you to communicate with an automated answering device (for example, the voice mail or answering machine) during an on-going private, phone or PABX call.

While in an on-going private, phone or PABX call, press the DTMF keys (0-9, *, #). When pressed, the DTMF key sounds a tone and the entered digit is displayed on the screen.

Short Number Dial

This feature allows you to dial part of the full number of the person you wish to call. Your radio automatically completes the number.

Your radio number is 4282564.

- 1 Dial 564 (instead of 4282564, the full number).
- 2 To place the call, press the PTT button or the SEND key.

RUA/RUI

Radio User Assignment (RUA) and Radio User Identity (RUI) enables authentication service. Only the successful logon on any temporary radio, provides the full access and your permanent radio functionality, so you can be still reached with your permanent number. A logon failure results in limited service.

You can differentiate the RUA/RUI state by the interface color:

- Blue — you are logged on
- Gray — you are logged off

Radio States

- Full Service — user logon was successful. Your radio has full functionality.
- Limited Service — user not logged on. Specified by the service provider.
- Pseudo Log On — occurs only in the Local Site Trunking (LST). Your radio has full functionality available (depending on the service provider settings) except some services like forwarding calls. The RUI Pseudo Log On icon is displayed.

Book On

Your service provider assigns particular radio to one person for a predefined period of time. You are only going to see the screen with your login and the full service is granted.

Force Off

Your service provider can log you off. Radio displays **Force Off**.



Note: This is a selling feature.

Related Links

[RUI](#) on page 101

[Book On](#) on page 92

WAP

Wireless Application Protocol (WAP) is a standard for application layer network communications in a wireless communication environment such as TETRA network. The protocol is used to access the mobile web from a radio through a WAP browser.



Note: This is a selling feature.

Related Links

[WAP Box](#) on page 71

[WAP Push](#) on page 116

WAP Browser

The Openwave Mobile Browser is a WAP-compliant user agent. The WAP browser provides all of the basic services of a computer-based web browser. Whenever any preemptive display interrupts the browser session, the browser needs manual reactivating to return. The WAP browser does not support right-to-left languages (as Arabic and Hebrew); English is used instead. For the content in these languages, the characters are not displayed.



Note: Depending on the radio configuration and the network conditions, the WAP browser may not display images properly (or may display them with a delay).

Entering the Browser

Prerequisites: From the home screen, press the **MENU** key. Set **Setup** → **Data Setup** to **Data Only** or **Voice & Data**.

Procedure:

- 1 From the home screen, press the **MENU** key.
- 2 Select **Browser**.
- 3 Optional: Exit the browser by pressing and holding the **END** key.

Entering Browser Menu Panes

Prerequisites: You are in the browser.

Procedure:

- 1 Press **Menu** or **MENU** key.
- 2 Usually, it brings up the **Navigate** pane, or the last browser menu pane.



Note: If the web page you navigated to has two or more soft keys/options, the **Options** pane pops up. From here, you may scroll to other panes with the left or right navigation keys Or you may select **Browser Menu** and then scroll to the required pane.

Tips for Browsing

Create and use the following for easy browsing.

Creating Bookmarks through the Navigate Pane

Procedure:

- 1 Enter the browser and browse to the required page.
- 2 Press **Menu** to enter the browser menu.
- 3 Select **Mark Page**.

- 4 The screen displays the title and URL of the marked page.
- 5 To save it:
 - a Press **Save** (or **Select**) to save the page in bookmarks.
 - b Select **Menu** and select an option:
 - **Save** — Confirms the bookmark creation.
 - **Edit** — Allows you to edit the title, folder, choice, and URL of the created bookmark.

Creating Bookmarks through the Bookmarks Pane

Procedure:

- 1 Enter the browser.
- 2 Scroll to **Bookmarks** pane.
- 3 Select **Organise** (if there are no saved bookmarks), or **More...** .
- 4 Select **Menu**.
- 5 Scroll to **New Bookmark**.
- 6 Enter the bookmark title and URL, and select its location.
- 7 Press **Save**.

Using Bookmarks

Procedure:

- 1 Enter the browser.
- 2 Scroll to **Bookmarks** pane.
- 3 Scroll to the required bookmark and select **Go**. The bookmark downloads the selected page from the web.

Creating Hotkeys

Procedure:

- 1 Enter the browser.
- 2 Scroll to **Bookmarks** pane.
- 3 Scroll to the required bookmark.
- 4 Press **MENU**. Select **Hotkeys**.
- 5 Select an unassigned key (0–9).
- 6 Click **Assign**. The display shows the bookmark and its assigned hotkey.

Using Hotkeys

Procedure:

- 1 Enter the browser.
- 2 Press and hold a hotkey to download the corresponding bookmarked page from the web.

Saving Pages

When and where to use: Save a page for off-line browsing.

Procedure:

- 1 Enter the browser and browse to the required page.
- 2 Press **Menu**.
- 3 Scroll to **Tools** pane.
- 4 Select **Save Page**. Edit the proposed page title if required. Scroll down and select **Save**. The page will be saved in the **Bookmarks Saved Pages** folder.

Selecting Saved Pages

Procedure:

- 1 Enter the browser.
- 2 Scroll to **Bookmarks** pane.
- 3 Select **Organise** (if there are no saved bookmarks), or **More...**
- 4 Select **Go** to enter the Saved Pages folder.
- 5 Select a saved page and press **Ok**. The display shows the saved page. Depending on the saved page, you may browse the web from here.

Disabled Packet Data Service

If there is no Packet Data Service, your radio displays **Error:No Network Available** when entering the browser for the first time. Select left **SOFT** key to retry entering, or right **SOFT** key to enter the browser menu.

When re-entering the browser with previously available Packet Data, the radio displays the last browsed page, or the last page to which you navigated off-line.

Disabled Browser Entry

Browser entry is disabled:

- During any type of voice call, except Ambience Listening Call
- In DMO Mode
- During Emergency Mode
- During PIN lock
- Service provider has not configured this feature
- When the radio is disabled



Note:

- Browser entry is enabled during Ambience Listening (AL) Call. If you navigate to previously stored pages, the AL state remains.
- When you activate Packet Data for the first time, AL is disconnected, and you have the same look and feel as if you were not in AL before.

Keys Usage

When the browser is active, the following usage described occurs inside or outside the editor.

Table 20: Browser Keys Usage

Key Press	Action
0–9 key	In the editor: enters a digit and/or character depending on the text entry mode selected. Outside the editor: in a numbered list, selects the required item list.
0–9 key (hold)	In the editor: standard use. Outside the editor: hotkey for navigating to the numbered bookmark.
* key (press or hold)	In the editor, inserts a space.

Table continued...

Key Press	Action
# key (press or hold)	Brings up the Text Input pane, while in editor. Otherwise, sounds a wrong key press.
Left or right SOFT key	Selects the option that appears in the display directly above the left and right soft key (part of the page).
Up NAVIGATION key	While in list of options, moves up one line.
Up NAVIGATION key (hold)	Moves up on page.
Down NAVIGATION key	While in list of options, moves down one line.
Down NAVIGATION key (hold)	Moves down on page.
Left NAVIGATION key	Moves to the previous pane. In the editor: moves left.
Left NAVIGATION key (hold)	Functions as backward.
Right NAVIGATION key	Moves to the next pane. In the editor: moves cursor to the right and inserts space if at the end of the word.
Right NAVIGATION key (hold)	Functions as forward.
Center of NAVIGATION keys (hold)	Auto-repeat.
MENU key	Brings up the browser menu.
END key	Press to deactivate the browser.
SEND key	Disabled in browser active state.
ROTARY KNOB	Used for volume adjustment only.
EMERGENCY button	Deactivates the browser. The radio enters Emergency Mode.

Browser Menu Panes Overview

The browser menu includes the following panes:

Table 21: Browser Menu Panes

Menu Pane	Description
Navigate	Provides access to the home page and commonly used items.
Bookmarks	Provides access, editing, and storage options to stored bookmarks and saved pages.
History	Provides access to recently visited pages and shows the position of the currently loaded page in the history stack.
Tools	Provides access to applications and utilities.

The following panes are displayed according to the context:

Table 22: Additional Menu Panes

Menu Pane	Description
Options	Displayed only when there are additional options for the pane or page.
Image	Displayed only when an image is selected. Provides access to image details, storage, and display use.
Input Text	Displayed only in text entry mode. Provides access to text entry mode (for example: symbol).

Navigate Pane

You can select one of the following items:

- **Home** — for loading the home page.
- **Open Page** — for entering the URL.
- **Search** — item disabled.
- **Mark Page** — for creating (saving) a bookmark for the current document. A title and URL for the bookmark are displayed, and the root folder is chosen for the location.
- **Forward** — for navigating to the document located one step forward in the navigation history. If there is no forward history, this item is disabled.
- **Reload** — for reloading the current document.
- **Advanced...** — see following section.

Advanced...

From the Navigation pane select **Advanced...** to see the following options:

- **Settings...**
 - **Downloads** — for setting download preferences. You may deactivate the downloading of images and objects. The browser displays a special icon instead of the images and objects.
 - **Scroll Mode** — for setting the scrolling mode and speed.
 - **Key Press Timeout** — for setting key press time-out. This time-out is used for text entry.
 - **Set Proxy** — select the WAP Proxy (1, 2, 3). The browser connects to the web via the selected proxy or gateway. The network provider installs and configures the proxy. To establish a secure session, select a secure proxy. Please ask your service provider which proxy is configured for a secure session. Though you can choose your home page, the service provider may decide to force its own home page on your terminal.
 - **Circuit Prompt** — for turning on/off the circuit prompt.
 - **Resend Data Prompt** — for turning on/off the data re-send prompt.
- **Security...**
 - **Secure Prompt** — for enabling/disabling the browser to inform you that it replaced a non-secure connection with a secure connection, and the other way around.
 - **Current Certificate** — for viewing the digital certificate identifying the server that delivers the current document. A Certificate Authority (CA) digitally signs and thus authenticates this certificate. Up to ten additional custom WTLS certificates can be added to the default list of certificates installed. Please ask your service provider if you wish to have these custom WTLS certificates added.
 - **CA Certificates** — for viewing the digital certificates installed in the browser and digitally signed by Certificate Authorities (CA).
 - **Send Referrer** — for turning ON/OFF sending of the HTTP Referrer header as part of HTTP requests. The Referrer header provides the URL of the link source to the server.
 - **Authentication** — for turning ON/OFF the caching of HTTP Authentication credentials. HTTP Authentication protects access to content on the server. If you try to access a protected content, you enter your credentials (user name or password).

- **Clear...** — for clearing of browser data: history, cache cookies, or auto-fill.
- **Restart Browser** — for restarting the browser.
- **About...** — for showing the information about the current version of Openwave Mobile Browser.

Bookmarks Pane

If there are bookmarks in the root folder, select **More...** to access the Options pane. If the root folder is empty, select **Organise...** then press **MENU** key to access the Options pane. The Options pane allows you to manage bookmarks. The **Saved Pages** folder contains snapshots of saved pages.

Working with the Options Pane for Selected Bookmarks

Procedure:

- 1 From the Bookmarks pane select **More...**
- 2 Scroll to a bookmark.
- 3 Press **MENU** to open the Options pane for that bookmark.
- 4 Select one of the following:
 - **Back** — for displaying the page associated with the bookmark (page is downloaded if not available in cache).
 - **Details** — for modifying the bookmark title and URL.
 - **Delete** — for deleting the bookmark.
 - **New Bookmark** — for creating a new bookmark.
 - **New Folder** — for creating a new folder.
 - **Move** — for moving this bookmark to a new folder (or in Bookmarks).
 - **Delete All** — for deleting all bookmarks.
 - **Hotkeys** — for assigning hotkeys to available bookmarks.

Working with the Saved Pages Folder

Procedure:

- 1 From the Bookmarks pane select **Saved Pages** folder.
- 2 The browser displays the page (snapshot) saved using Save Page in Tools pane.
- 3 Scroll to a saved page.
- 4 Press **Menu** to open the Options pane for the saved page.
- 5 Select one of the following:
 - a **Back** — for displaying this page saved on its cache.
 - b **Details** — for modifying the page title and URL of the saved page.
 - c **Update Page** — for replacing the saved version with the current version (to be downloaded from server).
 - d **Delete** — for deleting this page from its cache.
 - e **Delete All** — for deleting all the saved pages from its cache.
 - f **Cancel** — for exiting this pane and returning to the last page displayed.

History Pane

This pane displays the list of recently visited pages (up to nine history entries can be listed). Each history entry shows its title, if present. Otherwise, **No Title** is displayed.

Navigating to Recently Visited URLs

Procedure:

- 1 Select the URL.
- 2 Press **Ok**.

Tools Pane

Procedure:

- 1 From the Tools pane select **More...**
- 2 Scroll to a document.
- 3 Select **MENU** key to open the Options pane for that document.
- 4 Select one of the following:
 - **Show URL** — For displaying the current page URL.
 - **Save Page** — For creating a snapshot for the current document.
 - **Find Text** — For finding a text string in the current document.
 - **Copy Text** — For copying text from the current document to the clipboard.

Options Pane

This pane is specific to the page or pane being displayed.

Image Pane

This pane appears in the browser menu when you enabled the download of images through Navigate pane > **Advanced...** > **Settings...** .

The following items are available:

- **Save** — for saving the image in the terminal.
- **[Send]** — for sending the image to the destination of your choice.
- **Reload** — for reloading the image.
- **Details** — for displaying the image details.
- **Show Image** — for showing the image on its own page.

Text Input Pane

Prerequisites: This pane is visible when the browser menu is opened and text entry field is active.

When and where to use: To input the text for the URL.

Procedure:

- 1 Select the URL.
- 2 Press **abc**.

The text input pane opens up.

- 3 Select **www**.
- 4 Scroll the required extension (for example: **.com**).
- 5 Press **.com**. The screen displays the URL with the selected extension.

Table 23: Browser Text Input Icons

Mode	Soft Key	Action
Alphabetic characters - lower case	abc	Enter text in lowercase.
Alphabetic characters - upper case	ABC	Enter text in uppercase.
Numeric	123	Enter numbers and symbols.
http mode	www	Enter

WAP Push

WAP push allows WAP content to be pushed to a radio. This push is carried out by sending a specially formatted (Push Access Protocol) XML document to the Push Proxy Gateway, that in turn forwards the document to the radio.

A WAP push message is an encoded message including a link to a WAP address. On receiving a WAP push, a WAP enabled radio automatically gives the option to access the WAP content. The implemented WAP push is compliant to WAP 2.0 standard.

The radio supports WAP 2.0 through a proxy only. Proxy-less connections are not supported.

This is a selling feature.

Related Links

[WAP Box](#) on page 71

[WAP](#) on page 109

New WAP Messages

Types of the WAP Messages and their priorities:



Note: Your service provider sets the priority of the message.

- Push Message
 - High — animation and the icon (blinking) are displayed with the New WAP Message tone.
 - Medium — animation and the icon are displayed with the New WAP Message tone.
 - Low — icon is displayed with the New WAP Message tone.
 - Delete — available only if you are in WAP Box, the text **WAP Message deleted remotely** is displayed, otherwise there is no indication.



Note: Animation is not displayed if you are in a call, or in Emergency Mode, or in Call Out, or in message editor, or PIN lock state, or switching to DMO.

- Load Push Message
 - High — browser opens to the user with the New WAP Message tone.
 - Low — the icon is displayed with the New WAP Message tone.



Note: Browser does not open if you are in a call, or in Emergency Mode, or in Call Out, or in message editor, or PIN lock state, or switching to DMO.

Viewing WAP Messages

Procedure:

- 1 From the home screen, press the MENU key.
- 2 Select **Messages** → **WAP Box**.
- 3 Select the required message.
- 4 Select **Go to** to view the message in the browser.

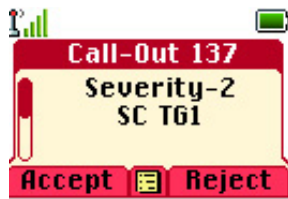
Call-Out

This feature allows you to receive Call-Out alerts. On receiving the Call-Out messages, the radio interrupts current services and attends to the Call-Out alert without any further delay. After call-out alert has been cleared, the radio exits Call-Out mode and reverts to normal mode. During Call-Out mode you are only able to receive Emergency Calls.



Note: To read an entire Call-Out message, scroll down the screen by pressing the down NAVIGATION key. The length of the message is indicated by the vertical red bar on the left of the screen.

Figure 4: Call-Out Message



Note: This is a selling feature.

Related Links

[CO Box](#) on page 71

Types of Call-Out Alerts

There are four types of the Call-Out alerts:

- Normal Call-Out – an alert message that is sent by a dispatcher either to a single radio or to a group of radios.
- Storm Plan – an alert message that is sent by a dispatcher to a group of radios. To raise its reliability, it is sent several times. You are not able to respond to the Call-Out alert and any key press takes you to the information phase.
- Fallback Mode – an alert message that is limited only to voice communication. To initiate this type of Call-Out, press a One-Touch key predefined by your service provider. It can be cleared manually.



Note: Fallback is only possible when the radio is in Local Site Trunking.

- Test Call-Out – a special Call-Out alert that is sent by the dispatcher to test this feature. On receiving the Test Call-Out, the radio plays a tone and displays **Test Call-Out**. To respond and clear the alert, press the **Test OKSOFT** key.

Call-Out Modes Interaction

Call-Out feature operation is different in other modes:

- TXI Mode — you can read the message but you cannot respond to it. You have an option to leave the TXI Mode by pressing soft key or reject the Call-Out message.
- DMO Mode — Call-Out is not supported.
- Emergency Mode — all Call-out alerts are ignored.

Call-Out Service Phases

In the Call-Out mode there are following phases:

- Alerting phase — receives a Call-Out message. The alarm tone indicates the message. Text is displayed and you have following options to use: **Accept**, **Reject** or MENU. If you accept the alert, no other service from this point can interrupt.



Note: You can stop the alert tone by pressing PTT or any of the soft keys.

- Information phase — you are still in the Call-Out mode and you can receive more detailed information about the incident that occurred through subsequent text or the voice message. You can query for more information using

voice group call or Call-Out text function which enables you to send a text message. You can always respond and send back the text or the voice message using voice group call.

Shadow Groups (Address Bundle)

The Shadow Groups feature (also known as Address Bundle) offers a way of sending messages to multiple destinations or recipients simultaneously. Three types of messages are supported by the feature:

- Status messages (including Emergency Alarms)
- GPS LIP (TETRA Location Information Protocol) reports
- RMS/FMS messages

Shadow Groups in TMO

Each Shadow Group may contain up to four target addresses. Each talkgroup may be configured to send status messages, GPS LIP reports, or RMS/FMS messages to a specific Shadow Group.

Shadow Groups in DMO

In DMO, the Shadow Group contains one target address. Each talkgroup may be configured to send status messages or GPS LIP reports to a specific Shadow Group.

Each radio can store up to 255 Shadow Groups (both in TMO and DMO).

The Shadow Groups feature may affect Emergency Calls setup time to be slightly elongated.



Note: This is a selling feature and needs to be enabled by your service provider.

Appendix

A

Tones

Table 24: Radio Tones

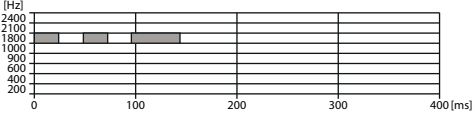
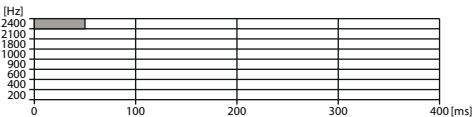
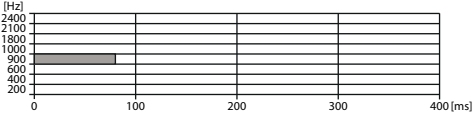
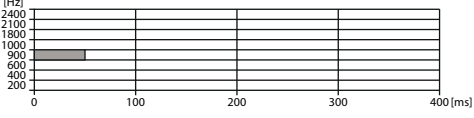
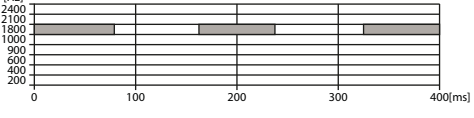
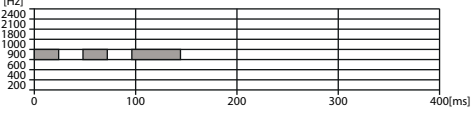
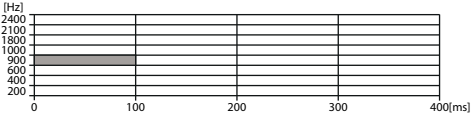
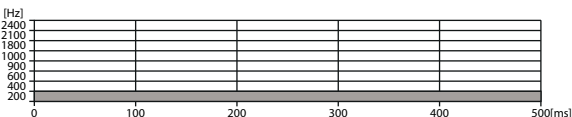
Tone Name	Default Tone Diagram
Back to Coverage Back to Full Service	
Clear-to-send	
Bad Key Pressed	
From Out-of-Service to In Service	
In Emergency	
Talk Permit	
<ul style="list-style-type: none">Talk prohibitSystem busyTime-out timer expireCalled radio not available or busy	
Call Disconnected or Failed Due to Network	

Table continued...

Tone Name	Default Tone Diagram
Toggling Between DMO and TMO	
Entering/Exiting Local Site Trunking	
Receiving/Sending Emergency Alarm	
Emergency Alarm Failed	
Entering Emergency	
Exiting Emergency	
Entering/Exiting TXI	
Low Battery Alert	
Remote Control	



Note: All the audible indications can be disabled by your service provider.

Appendix

B

LED Indications

Table 25: LED Indications

Indication	Status
Solid green	In use
Blinking green	In service
Solid red	Out of service
Blinking red	Connecting to the network Entering DMO
Solid orange	Transmit inhibit in service Channel busy in DMO
Blinking orange	Incoming call
No indication	Idle Radio powered down

Appendix

C

Troubleshooting

Your radio displays the following messages:

Table 26: Displayed Messages

Message	Message Description
...-Received	Call received but not answered, or rejected.
Attachment Failed	Your radio could not perform talkgroup attachment. It keeps on trying. If it does not succeed, try another talkgroup.
Authenticate Failure	Your radio could not register on an authenticated system (for example, the Authentication Key is incorrect, or authentication is disabled).
Battery level too low.	The battery charge level is too low to perform the required operation.
Call Cancelled	You have canceled the call.
Call Ended	<ul style="list-style-type: none">Faulty channel. Please try later.You have ended the call.
Call Forwarding	The radio you are trying to call is not available and the call is being forwarded to another radio.
Call Modified	The call you are participating in has been modified.
Call Preempted	Channel being used for priority.
Decryption Failed:	An error occurred while decrypting a message or call.
Emergency In Use Wait For Mic	The Hot Microphone feature is active, but the channel transmit grant has been given to another Emergency call on the same talkgroup. Your radio microphone is not active during this time, but it automatically tries to regain talk permit after a predetermined time.
Emgcy Mic Ended	The Hot Microphone timer automatically expired, or you pressed the PTT button to cancel the Hot Microphone feature.
Emergency Mic On	The Hot Microphone feature is active, and your radio is automatically transmitting hands free emergency audio.
Empty Entry	The speed number you dialed does not exist, or the number exists but the group is non-selectable.
Faulty Unit Error	Self-test failed. An operational fault has been detected with your radio. Record the error number. Turn your radio off and contact service.
Gateway available	Your radio has connected to a gateway.

Table continued...

Message	Message Description
Gateway not available	Your radio cannot connect to a gateway, or connection has been lost.
This group already exists	The group you are attempting to add exists in the My Groups folder.
Individual Calls Only	You can make only individual (private) calls.
Insufficient visible data	Your radio is in the process of determining your location. This process may take several minutes to complete.
Insufficient visible satellites	Your radio is in the process of determining your location. This process may take several minutes to complete.
Invalid ID	The entered number is not valid.
Invalid Shortcut Position	The entered number is not valid.
Limited Service	Emergency Calls, Emergency Alarms, and mobility operations (for example group attachment) are allowed. All other incoming and outgoing call and data services are blocked.
List Empty	There are no programmed entries in the scrolling list. Type the entry.
List Not Attached	All talkgroups in the scan list are not attached.
List Partially Attached	The scan list is active, but not all talkgroups are attached to it.
Message Delivered	Indicates mail successfully delivered.
Message Failed	Indicates mail delivery failure.
New Delivery Status	You have received a new Delivery Status.
No Service	Your radio is outside coverage. Return to coverage.
Not allowed in repeater mode	The service or feature is not available in the Repeater Mode..
My Groups Is Empty	You cannot view/delete groups when the My Groups folder is empty.
My Groups Is Full	You are not allowed to add a group to the My Groups folder as it already contains the maximum allowed number of groups.
Network Trouble	Network problems. Please try again later.
No Answer	The called party does not answer.
No Entries	This message is displayed when accessing an empty list.
No Group	<ul style="list-style-type: none"> Attachment failed. Your radio detached from current talkgroup. Please wait until it attaches again to the current talkgroup. Displayed when you are out of the normal coverage area of your selected talkgroup. Please select a new talkgroup that is valid for your working location. Indicates a favorite group was removed from the My Groups folder.
No List	The network list is empty.
No New or Old Messages	Indicates there are no new or old messages in the Inbox .

Table continued...

Message	Message Description
No Selected Scan List	You selected an empty network list.
No Service	Your radio is out of coverage.
Not Allowed To Initiate Call	You are not allowed to dial a number which is not in the address book.
Not Allowed To Transmit	Release the PTT button and try again later. You are not allowed to send a text message or a status message to a number which is not in the address book.
Single TalkGroup Only	There is only one programmed entry in the scrolling list.
Overheating, Please Turn Radio Off	Your radio turns off. Keep it turned off for 5 minutes.
Party Busy	Called radio is busy.
Party Not Available	Called radio is out-of-range or turned off. Please try again later.
Please Try Again	You could not call.
Please Wait Connecting	A message during startup.
Reconnect Radio to the Charger	The radio cannot detect the charger. Ensure that the charger is connected correctly and that the pins on the radio and the charger are clean.
Registration Failure	Your radio could not register within the system. Please try again later.
Repeater available	Your radio has connected to a repeater.
Repeater not available	Your radio cannot connect to a repeater, or connection has been lost.
Service Denied	Invalid number. Call your service provider.
Service Not Available	This service is not available on the current network.
Service Restricted	This service or feature is restricted by your service provider, it has not been purchased, or it is not available.
TalkGrp ... cannot be deleted	Your service provider set this group so you cannot delete it from the favorite talkgroup folder.
Try Again Later	The requested service is temporarily unavailable.
Radio Disabled	Check with your service provider.
Unit is OK Warn:	Self-test error. A minor fault has been detected. Your radio is still fully operative. If this error recur, note the error code and contact service.
Unit Not Attached	You radio could not attach to the system. The talkgroup may not be defined in the system. Please try another group.
Unassigned Button	The message is displayed when no feature is assigned to a button.

Appendix

D

Maintenance



Suggestion:

- Before using your radio for the first time, remove the plastic lens protector from the display, and charge the battery until the LED green light appears.
- Battery charging must occur only in non-hazardous areas.
- Clean the connector frequently and before the programming procedure for example, with a soft brush (do not use fluids).

Storage

- Do not store the battery where the temperatures exceed +65 °C or fall below -20 °C.
- New Lithium-Ion batteries may be stored in ventilated, cool and dry areas with some capacity loss in the life cycle.
- It is not recommended to store the batteries when they are fully charged or discharged.

Extending Battery Life

A battery is an expendable part and may need replacing during the life of the radio. To ensure maximum service life of your radio, always replace the battery with a genuine Motorola replacement. In order to ensure maximum life for your battery:

- Do not charge it unless necessary (low battery indication).
- Charge it until full charge indication is on.

Battery Charging Temperature

When the battery is fitted to the radio, it charges within the temperature range of 0 °C to 45 °C. When the battery is charged separately (without the radio), the temperature range of battery operation is from 0 °C to +45 °C in charger mode, and from -10 °C to +60 °C in discharge mode.

If, during charging, the temperature is out of range, the battery might not be fully charged since the charging is temporarily stopped until the temperature becomes suitable.

Battery Charging Rules

Generally, to reduce the number of charge cycles as much as you can, wait for the **Low Battery** message to charge, as it ensures maximum battery life. Do not use your charger as a radio holder or leave your radio and fully charged battery connected to the charger while not charging. Continuous charging shortens the battery life.

Additional Battery Warnings/Cautions

- Battery storage above 60 °C and below -20 °C is not recommended.
- To prevent injury, do not allow metal objects to touch the battery contacts.
- Do not disassemble.
- Do not throw in fire.
- Do not dispose of battery in household waste.

Looking after Your Radio

Never leave your radio or battery in extreme temperatures (over 60 °C), for example, behind a windscreen in direct sunlight.

Do not immerse your radio in water.

To clean your radio, use a moistened or antistatic cloth.

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章节

1

一般信息

安全信息

双向对讲机的射频能量辐射和产品安全手册

注意！

使用本产品前，请阅读对讲机附带的《射频能量辐射和安全手册》，其中包含有关安全使用以及射频能量识别和控制的重要操作说明，以便遵守适用的标准和法规。

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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 EU 成员国的产品必须在产品上（有时是在包装上）张贴带交叉符的垃圾箱标签。

根据 WEEE 指令的定义，此带叉号的垃圾箱符号表示欧盟国家/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，以了解有关各国家/地区废物收集系统的信息。

开源软件 (OSS) 法律声明

有关 OSS 法律声明的详细信息，请访问 Motorola 在线 (emeaonline.motorolasolutions.com) 或浏览 CPS Plus 光盘。

图标约定

本文档全文中使用以下图形图标，帮助确定对正确操作对讲机和用户安全至关重要的情形或设置：



危险: 提示词“危险”及关联的安全图标表示，如果不注意其中的信息，则可能导致死亡或严重的人身伤害。



警告: 提示词“警告”及关联的安全图标表示，如果不注意其中的信息，则可能导致死亡或严重的人身伤害，也可能造成严重的产品损坏。



警告: 提示词“小心”及关联的安全图标表示，如果不注意其中的信息，则可能导致轻微或中等程度的人身伤害，也可能造成严重的产品损坏。

警告: 提示词“小心”也可能单独出现，而没有关联的安全图标，这表示可能发生与本产品无关的产品损坏或人身伤害。



重要说明: “重要”说明包含的信息是有必要马上论述的信息，但它不是“小心”或“警告”级的信息。“重要”说明没有相应的警告级别。



备注: “注意”含有比周围文字更重要的信息，如例外或注意事项。有时还会为读者提供一些其它位置的补充参考信息，提醒读者如何完成操作（例如，当操作不属于当前过程的一部分时），或者告诉读者某些项目在屏幕中的位置。“注意”没有相应的警告级别。



建议: “建议”表示 Motorola 的建议，它们不要求必须遵守，但是会对您有所帮助。“建议”没有相应的警告级别。

使用此手册

以下特殊注解用于整个文本，以重点介绍某些信息或项目：

表 1: 特殊注解

示例	说明
菜单键或 紧急键	大写字母表示某个键或某个按钮的名称。
进入 <i>TMO</i> 模式提示音	斜体字表示提示音的名称。
关机	粗体字表示对讲机上所显示的软菜单项、MMI 字符串或信息。
设置 → 铃声 → 所有提示音	字间有箭头的粗体字表示菜单项中的浏览结构。

功能和服务可用性

此手册将介绍所有可用的对讲机功能和服务。您的服务提供商或许已经将您的对讲机设置进行了定制，以满足您个人的最佳使用需求。请与您的服务提供商联系，以获得与本手册不同设置的信息。

章节 2

使用入门

本章描述了有关如何使用对讲机的基本信息。

产品技术信息

表 2：产品技术信息

说明	值		
最大电压	4.2 V		
最大电流	0.5 A		
最大射频功率	1 W 或 1.8 W（可切换）		
最大扬声器负载	8 Ω 时为 0.5 W		
天线阻抗	50 Ω		
工作温度范围	-25°C 到 +60°C		
操作时间	工作周期	4 级（1 瓦）	3L 级（1.8 瓦，仅限 380 – 430 MHz）
	05/05/90	> 23 小时	> 20.5 小时
	05/35/60	> 17 小时	> 15.5 小时
	通话时间	3.5 小时	2.5 小时



备注：对讲机发射和接收时间（操作周期时间）是由通讯系统决定的。在过载时或在高温环境下的运行时间超过系统规范，热量控制功能将会降低射频功率输出，从而导致对讲机的覆盖范围缩小。

开机之前

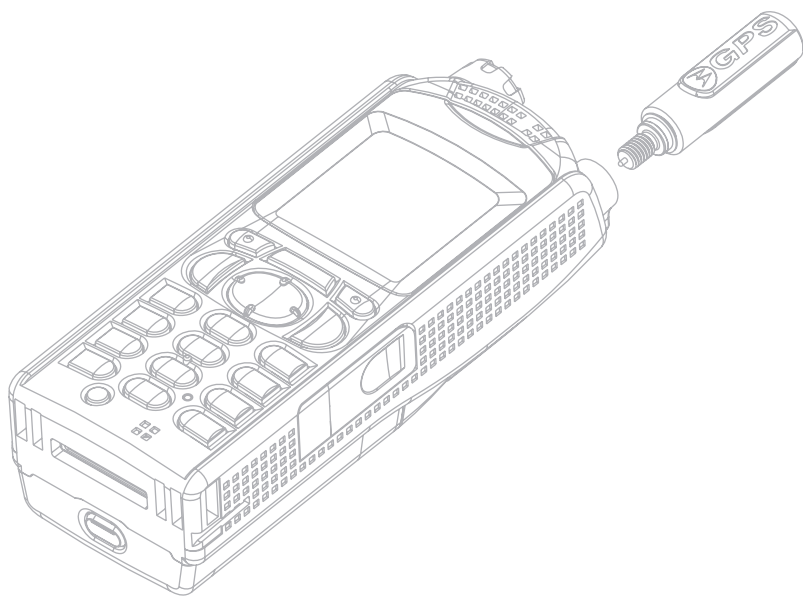
在首次打开您的对讲机之前阅读本节内容。

安装天线

过程：

- 1 将天线的螺纹座插入对讲机顶部的终端天线中。

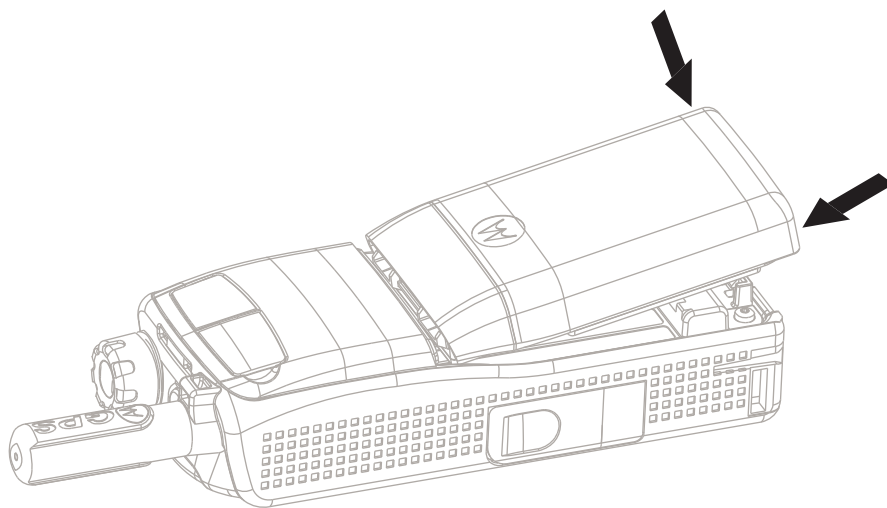
- 2 顺时针旋转天线直到密合为止。



安装电池

过程:

- 1 将电池从保护盒中取出。
- 2 将电池的顶端插入图中所示的电池仓。



- 3 小心地将电池的底部向下按，直到听到一声“咔嗒”声。



备注:

- 服务提供商可配置对讲机在插入电池后自动打开。
- 如果您取下电池的时间少于 3-5 秒，您的对讲机将始终打开。

相关链接

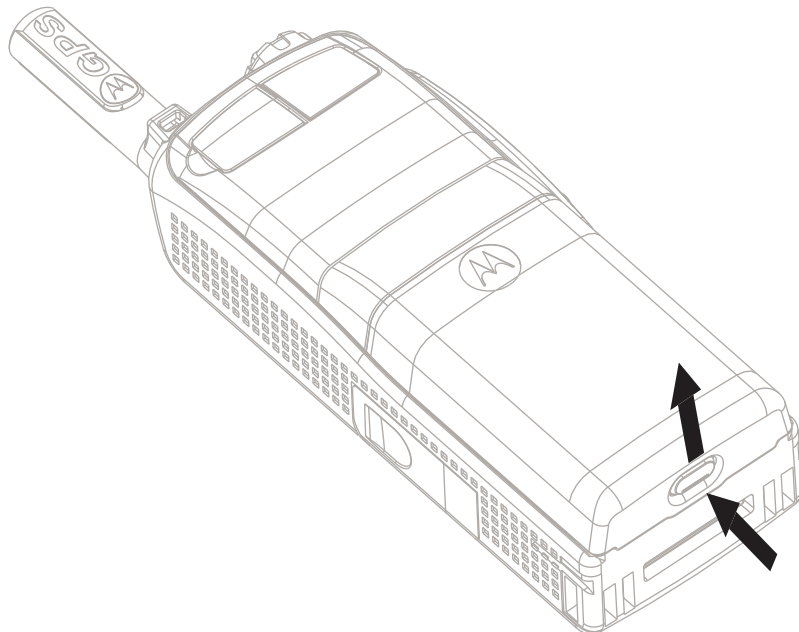
[取出电池](#) 第 21 页

取出电池

先决条件： 关闭对讲机。

过程：

- 1 推动电池锁。
- 2 取出电池。



相关链接

[安装电池](#) 第 20 页

为电池充电

根据充电器类型，您可以单独为电池充电或/和为装入对讲机的电池进行充电。

在对讲机打开或关闭时均可为装入对讲机的电池进行充电。建议在充电时关闭对讲机，因为这样做更高效（电池充电更快）。



重要说明： 经摩托罗拉核准的充电器可以提供最佳的性能。使用其它充电器可能无法将摩托罗拉锂离子电池充满，也可能会缩短电池使用时间。

先决条件：

请勿在危险区域为电池充电。

过程：

- 1 根据充电器的规格，将充电器连接到适当的电源（100 – 240 V，12 V）。
- 2 选择下列某一操作：
 - 桌面充电器 - 将电池或装有电池的对讲机插入适当的充电器插槽中。请确保电池/对讲机与充电器连接良好，充电器上的 LED 指示正在充电。
 - 旅行充电器和车载充电器 - 将充电器与装有电池的对讲机连接。确保充电器与对讲机牢固连接，对讲机显示屏指示正在进行充电。











备注： 如果对讲机无法检测到充电器并显示正在检测充电器或重新将对讲机连接到充电器的信息，请确保充电器已正确连接，对讲机和充电器的引脚清洁。

后置必要条件： 充电时电池可能会发热。 充电后，在使用对讲机之前，请确保电池和对讲机在工作温度范围内。

充电指示灯

当对讲机充电时开机，屏幕会显示电池在充电的图标。
当对讲机充电时关机，屏幕会显示电池充电图标并且屏幕背景灯打开。

表 3：电池图标

电池容量				电池充电进度			
							
空	低	中间	全	空	低	中间	全
5% - 10%	10% - 20%	20% - 90%	90% - 100%	5% - 10%	10% - 20%	20% - 90%	90% - 100%

电池电量低指示

当电量低于预设等级后，对讲机将发出电池电量低的声音提示。服务提供商可将预设剩余电量为 5%、10%、或 20% 时发出电池电量低提示音。默认设置为 5%。服务提供商还将配置提示的重复频率。

控制键和指示灯

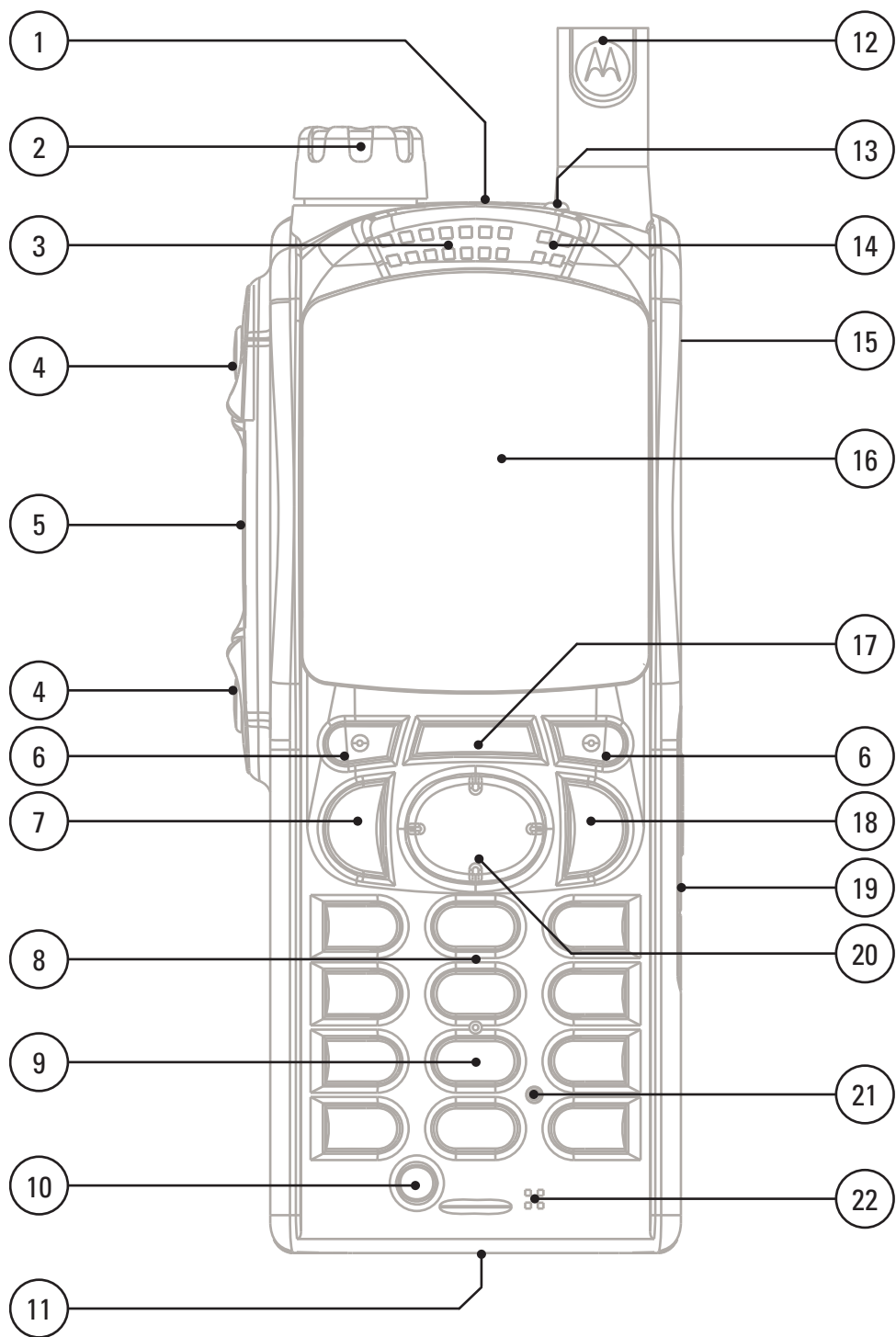


表 4：控制键和指示灯

注解	说明
1	紧急键

表 (续) ...

注解	说明
	按住紧急键可进入紧急操作模式。 如果对讲机为关闭状态，按住此键可以在紧急模式下将其打开。
2	<p>旋钮</p> <ul style="list-style-type: none"> • 旋转可设置音量。 • 按住并旋转可选择不同的通话组。 • 按住旋钮可进行锁定/解锁。 关机也会将锁定的旋钮解锁。
3	耳机
4	<p>侧边按钮</p> <p>旋钮和侧边按钮的预设操作是成对的。 当旋钮设置为音量或双功能时，侧边按钮支持单键功能。 默认情况下，将上方的侧边按钮设置为背景灯功能，将下方的侧边按钮设置为屏幕保护程序功能。</p> <p> 备注: 按住侧边按钮以激活单键功能所需的时间默认为 0.1 秒。</p>
5	<p>通话按键</p> <ul style="list-style-type: none"> • 按住可在单工呼叫中讲话或发起组呼，释放可接听。 • 按此键可发送状态信息和文本信息。
6	<p>软按键</p> <p>按左或右软按键可选择在其正上方屏幕中出现的选项。</p>
7	<p>发送键</p> <p>按下可启动或应答双工呼叫或发送消息。</p>
8	扬声器
9	<p>键盘</p> <p>使用键盘输入字母数字字符可进行拨号、输入联系人条目和文本信息。</p> <p>您的对讲机支持单键按钮功能，通过按住指定的键（0-9、* 和 #），您可以激活常用功能。</p> <p> 备注: 按住指定的键以激活单键按钮功能所需的时间默认为 1 秒。</p>
10	<p>扬声器控制键</p> <p>按扬声器控制键可激活耳机扬声器:低音或扬声器扬声器:高音。</p> <p> 备注: 在紧急组呼中，无论扬声器如何设置，都将激活扬声器。</p>
11	<p>附件接口</p> <p>提供附件与用于传送数据的电缆的连接。</p> <p> 备注: 连接附件前建议关闭对讲机。</p>

表 (续) ...

注解	说明
12	天线
13	LED
14	顶部麦克风 在进行单工呼叫、大声呼叫（例如组呼）时启动。
15	外部天线接口 与数字车载附件配合使用，用于将射频信号引入外部天线。
16	显示 提供 65,536 色和 130 x 130 像素的字符文本和图像，带有背景灯、可缩放字体和对比度设置。
17	菜单键 <ul style="list-style-type: none"> 在主屏上，按下可进入主菜单。 用于进入上下文相关菜单。
18	开/关/结束/初始键 <ul style="list-style-type: none"> 按住可打开/关闭对讲机。 按该键可结束通话。 按下可以返回到主屏。
19	音频附件接口 供连接音频附件使用。  备注: 连接附件前建议关闭对讲机。
20	导航键 当在菜单体系中移动时，按向上、向下、向左或向右浏览键可以滚动列表，也可用于字母数字文本的编辑。 在主屏上，按下可激活以下功能之一： <ul style="list-style-type: none"> 向下浏览键 — 进入最近呼叫号码菜单项。 向上浏览键 — 更改我的通话组通话组文件夹。 向左和向右浏览键 — 切换通话组。
21	背光感应器 只要背光一打开，对讲机按键就会照亮。键盘背光感应器通过测量环境亮度，确定是否要点亮键盘背光。此功能可改善节能。当将对讲机放置在电池充电器中时，键盘背光将一直亮着，背光感应器将被忽略。
22	底部麦克风
	备注: 在 附件手册 （部件号：6866537D83）中列有兼容附件详细信息。联系您的服务提供商获得此文件。

显示

本节介绍对讲机的默认主屏幕元素。



表 5：显示

注解	说明
1	状态图标区
2	文本显示区
3	软按键区域
4	菜单/上下文相关图标

软按键区域的颜色根据对讲机所处模式而改变。

表 6：软按键区域的颜色

颜色	模式或状态
淡蓝	正常 TMO 和 DMO 模式
浅红	紧急模式 或灾难提示呼叫
橄榄色	单站集群模式
黄色	呼出 - 待机
红色	呼出 - 提示
绿色	呼出 - 已接受
蓝色	对讲机通信服务 (RMS)
灰色	对讲机用户分配 (RUA) - 限制服务

相关链接

[显示](#) 第 85 页

[显示](#) 第 85 页

[设置屏幕上的时间和日期](#) 第 88 页

可配置的待机屏幕

您的服务提供商可以配置主屏幕上的状态图标区下方显示的信息。根据对讲机配置和支持的服务，可以显示以下信息：

- 网络别名
- 范围别名
- 通话组别名
- 时间和日期
- 主模式显示
- RMS/FMS
- ISSI
- 对讲机状态
- 音频配置文件名称
- 支持 SIM 卡端到端加密的对讲机：OPTA、BSI 注册状态

状态图标

当您的对讲机在进行某些特定活动时，或当启动了某些特定功能时，屏幕中会显示状态图标。

图标显示为正常或大尺寸。要手动启用/禁用大状态图标，请转到**菜单 → 设置 → 显示屏 → 扩展状态图标**。

表 7：状态图标










图标	说明
集群模式操作	
	在服务区内
	不在服务区
	信号强度 - 格数越多，信号就越强。
	RF 功率 — 表示已启用高 RF 功率模式。显示信号强度。格数越多，信号就越强。
	迁移 — 您的对讲机在外部网络注册后将显示此信息。
	广播呼叫 — 对讲机处于广播呼叫状态时显示此信息。
	扫描 — 表示对讲机中已启动通话组扫描功能。
	优先级扫描 — 表示在对讲机上激活优先级扫描。
	数据已连接 - 在数据连接空闲（待机）时显示。

表 (续) ...

图标	说明
	数据发送/接收 - 当数据连接处于活动状态时显示。编号 1、2、3 或 4 表示在传输期间使用了多少带宽（25%、50%、75% 或 100%）。
直通模式操作	
	直通模式呼叫 - 当对讲机正在接收直通模式呼叫时显示。格数越多，信号就越强。
	高射频功率：待机或发射 - 当高射频功率选项已启用，对讲机处于待机模式或正在发射呼叫时显示。
	高射频功率：接收 - 当高射频功率选项已启用，对讲机正在接收呼叫时显示。
	直通模式 - 当对讲机处于直通模式时显示（对讲机到对讲机的通信）。
	DMO 网关通信模式 — 表示已选择网关。此图标具有以下状态： <ul style="list-style-type: none"> 长亮 — 当对讲机与网关同步时。 闪烁 — 当对讲机未同步或正在进行连接时。 无图标 — 当对讲机与对讲机和中继台进行通信时。
	DMO 转发通信模式 — 当在 DMO 模式下选择了 中继器 或 网关+转发 选项时显示。此图标具有以下状态： <ul style="list-style-type: none"> 长亮 — 当对讲机检测到中继器时（例如对讲机收到信号时）。 闪烁 — 当对讲机未检测到中继器，或在进行连接时。 无图标 — 当对讲机与对讲机和网关进行通信时。
一般图标	
	所有提示音关闭和双工和单工铃声静音 — 表示所有提示音都关闭，双工和单工铃声音量都设置为 0。 <ul style="list-style-type: none"> 音量设置为 0（当音量调节模式设置为通用）。 单工和双工铃声音量设置为 0（当音量调节模式设置为独立）。
	单工铃声静音 — 表示单工铃声音量设置为 0，双工铃声音量设置不为 0。
	双工铃声静音 — 表示双工铃声音量设置为 0，单工铃声音量设置不为 0。
	振动打开 — 表示对讲机振动以提示您有一单呼叫正在呼入。
	振动后响铃 — 表示对讲机振动后响铃以提示您有一单呼叫正在呼入。
	小声模式 — 表示音频模式更改为小声。
	大声模式 — 表示音频模式更改为大声。

表 (续) ...

图标	说明
	选中音频配置文件 - 表示与特定图标相关联的音频配置文件处于活动状态。图标可能常亮或闪烁。有关对讲机的可用音频文件的详细信息，请联系您的服务提供商。
	耳机已连接 — 表示耳机已经连接。
	GPS 图标 <ul style="list-style-type: none">常亮 - 对讲机已定位闪烁 - 对讲机正在获取定位。这是一个可选设置，您的对讲机不一定支持。
	RUI 已登录 — 表示您已登录到对讲机。
	RUI 伪登录 — 表示您处于伪登录状态。
	RUI 分组数据 - 表示当已启用分组数据功能且活动数据会话正在进行时的伪登录状态。
	RUI 分组数据 — 表示当已启动分组数据功能且外部设备已建立与对讲机的数据连接时的伪登录状态。
	电池电量强度 — 显示您的电池中的电量。
	电池充电 — 表示正在对电池充电。
	紧急 — 当对讲机处于紧急操作模式下时出现。
	灾难呼叫提醒 — 当对讲机处于灾难呼叫提醒时显示此信息。
	列表滚动 — 显示此图标说明旋钮处于列表滚动模式下。
	新信息到达 — 表示有一条新信息刚刚到达。
	收件箱中有新信息 — 表示您的 收件箱 中有未读信息。
	未读（新）WAP 信息 — 表示新页面已加载到浏览器中。
	呼出 — 指示呼出提示。
	呼出提示到达 — 指示收到新呼出信息。
	呼出提示未读 — 表示 呼出信箱 中有未读提示。
	端到端加密 (E2EE) 在启用 E2EE 时长亮：

表 (续) ...

图标	说明
	<ul style="list-style-type: none"> 选定的通话组， 突出显示的个人号码， 手动输入的个人号码， 在组呼中发射语音时， 在单工单呼中发射语音时。 <p>在以下情况下启用端到端加密时闪烁</p> <ul style="list-style-type: none"> 在组呼中接收语音时， 在单工单呼中接收语音时， 在加密的双工单呼中。
	<p>SDS 端到端加密</p> <p>在 SDS 信息为 E2E 状态或信息接收者地址为 E2E 状态时长亮。</p> <p>在高安全模式下，如果对讲机仅处理已加密信息，则在信息菜单（例如收件箱）中此图标将始终可见。</p>
	<p>未读（新）WAP 信息 — 表示自收到上一条 WAP 信息以来您尚未进入 WAP 邮箱（优先级为高时闪烁）。</p>
	<p>WAP 信息图标 — 在信息列表视图中显示在优先级的旁边。</p>
	<p>WAP 信息时间 — 在信息列表视图中显示在创建日期的旁边。</p>
	<p>WAP 信息过期 — 在信息列表视图中显示在过期日期的旁边。</p>
	<p>WAP 信息标题图标 — 在信息列表视图中与文本一起显示在标题的旁边。</p>
	<p>键盘已锁定 — 表示键盘已锁定。</p>
	<p>非安全呼叫 - 空中加密不可用</p> <p>闪烁，表示当对讲机处于以下模式时空中加密不可用：</p> <ul style="list-style-type: none"> 处于单站集群模式。 尝试连接至网关。
	<p>非安全呼叫 - 空中加密不可用</p> <p>交替闪烁，表示当对讲机处于以下模式时空中加密不可用：</p> <ul style="list-style-type: none"> 处于 TMO 模式。 通过网关通信。
	<p>非安全呼叫 - 空中加密不可用</p> <p>闪烁，表示当对讲机处于 DMO 时空中加密不可用： 按通话按键后显示图标。</p>
	<p>远程控制</p> <p>表示正在进行远程控制对讲机，一些命令正在后台中执行。例如，当对讲机正在通过特殊的 SDS 消息受控或触发发送 GPS 位置报告时。</p> <p>在额外缩放模式中图标不可见。</p>

相关链接

[空中加密](#) 第 76 页

打开对讲机

过程:

- 1 按住打开按钮。
- 2 您的对讲机会执行自检和登记注册例行程序。
- 3 在成功登记注册之后，您的对讲机将进入工作状态。



备注: 当启动了对讲机的隐蔽模式时，打开对讲机都不会出现可见和可听的提示。

解除对讲机的锁定

您的对讲机在开机时可能处于锁定状态。要在开机后解锁，则根据提示输入密码。您的对讲机将进入默认的初始屏幕。



备注: 解锁码最初设置为 0000。在您收到对讲机之前，您的服务提供商可能会更改此号码。

相关链接

[PIN 保护](#) 第 74 页

[更改 PIN 码](#) 第 75 页

[写入文本](#) 第 38 页

取消对讲机锁定

先决条件: 如果三次输入错误的 PIN 码，对讲机将被锁定（默认值）。

过程:

- 1 对讲机显示**本机已锁定请输入解锁密码**。
- 2 输入 8 位 PUK（个人解锁密码）号码。



备注: PUK 是由服务提供商提供的八位主控密码。

- 3 输入两次新 PIN 码。

锁定/解锁按键/按钮

按菜单键和 * 键



备注: 紧急键是没有锁定的。一旦进入紧急模式，所有键都将被解锁。

相关链接

[键盘锁设置](#) 第 75 页

握持您的对讲机

本对讲机有两个麦克风：顶部的麦克风用于单工调度员呼叫/单呼，底部的麦克风用于双工电话式呼叫。

此外，对讲机为大声模式配备了内置扬声器（位于设备中央），为小声模式配备了内部耳机（位于设备顶部）。使用音频切换菜单（菜单 → **设置** → **音频** → **音频切换**）或指定的单键按钮可将音频送至扬声器或耳机。



备注：如可以，我们推荐您使用顶部的麦克风通话。

单工呼叫

使用“大声”模式时，请垂直握持对讲机，并让顶部麦克风与您的嘴的距离保持在 5 至 10 厘米。对着顶部麦克风讲话。通过内置扬声器接听。使天线与您的头部和身体的距离至少保持为 2.5 厘米。



双工呼叫

使用“小声”模式时，像接听电话呼叫那样握持您的对讲机。对着底部麦克风讲话。通过耳机接听。使天线与您的头部和身体的距离至少保持为 2.5 厘米。



在翻领/肩膀上使用

对于组呼和单呼，将您的头部转向肩膀/翻领，然后对准顶部麦克风讲话。通过内置扬声器接听。

使用扬声器电话

将您的扬声器放在距离您 30 到 60 厘米的地方。在嘈杂的环境中，将对讲机移近您以获得较清晰的话音。

设置反转屏幕

何时何处使用：

当用户必须把对讲机佩带在肩上、皮带或翻领上并希望倒着阅读屏幕时，该功能非常有用。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **反转屏幕**。
- 3 选择下列选项之一：
 - **开** — 启动此功能。
 - **关** — 关闭此功能。

进入 TMO/DMO 模式

过程:

- 1 在初始屏幕上按**选项**。
- 2 选择**集群模式/直通模式**。

相关链接

[选择网络操作模式](#) 第 100 页

[网络](#) 第 100 页

发送抑制模式

发送抑制模式是这样一种模式，在此模式中，对讲机不发送任何无线电传输。建议在射频敏感区域（例如医院、飞机等受到传输辐射而产生危险的地区）内激活该模式。

要激活此功能，请选择菜单 → **更多...** → **网络** → **TXI 模式** → **启动**。

当处于此模式时，对讲机在任何情况下都不会进行发射，但紧急呼叫除外。所有导致传输的功能和按键都将被禁用，如入网登记、更改通话组或文件夹、发送 SDS 信息或按通话按键等。任何传输尝试都将导致对讲机显示**不允许在 TXI 模式**通知并会发出一声提示音。

对讲机仍可以在不选择应答的情况下接收以下内容：

- 组呼。
- 信息 - 存储在**收件箱**中。
- 单呼尝试 - 存储在**未接呼叫**列表中且无回应选项。

当不再有危险时（例如您离开射频敏感区域后），您可以将发送抑制模式关闭，对讲机将返回正常操作模式。

您可以通过选择菜单 → **更多...** → **网络** → **TXI 模式** → **关闭**，按单键按钮或启动紧急呼叫（隐式）关闭该模式。



备注: 下列情况下将阻止对讲机的射频发射：

- 激活 TXI 模式。
- 取出电池。
- 关闭对讲机。

在进入或退出禁止发射模式时，如果对讲机位于某个小区，它将发送一则专门设计的 SDS 状态信息。此 SDS 信息向 SwMI 指示，对讲机将进入或退出禁止发射模式。

将执行不需要对讲机发送上行链路的移动程序，小区重选除外。

在禁止发射模式中，对讲机将它正在监听的任意组加入组呼，但该呼叫上的发射仍被禁止。

对讲机还会向用户显示任何呼入的 SDS 信息。未接呼叫功能在禁止发射模式被激活，并允许查看未接呼叫。但是，对讲机试图阻止呼叫建立重新传输被记录为单独呼叫。

当对讲机在工作时，如果您发起紧急呼叫，则对讲机将立即离开禁止发射模式，并尝试启动紧急呼叫。

如果在禁止发射模式下关闭对讲机，则在打开对讲机时会询问是否要退出禁止发射模式。如果您选择**否**，对讲机将会关闭。

选择通话组

在初始屏幕上使用以下方法之一：

- 按左或右浏览键。按**选择**进行确认。
- 选择**选项** → **TG 通话组列表**。输入一个通话组名称，然后从列表中选择该通话组名称。
- 选择**选项** → **TG 文件夹列表**。选择一个文件夹，然后选择通话组名称。
- 按旋钮并进行旋转，直到显示所需通话组名称。按**选择**进行确认。



备注：如果旋钮模式设置为**滚动**，则无须按旋钮即可进入滚动模式。



备注：您的对讲机最多可访问三层文件夹结构。

通话组图标选择

表 8：通话组图标

图标	说明
	当通话组的来源网络与当前已选的网络不一致时显示通话组图标。

使用计时通话组更改

此功能使您可以在当前选择的通话组和预定义的通话组之间切换选定的通话组（TMO 或 DMO 模式），在预定义的时间内使预定义通话组成为选定通话组，方法是通过使用单键按钮。计时器到期后，对讲机返回到之前选择的通话组。

先决条件： 将计时通话组更改指定给单键按钮。

过程：

- 1 按住单键按钮。
- 2 对讲机将选定的通话组切换到预定义的通话组，且持续预定义时间。

在预定义的时间内，对讲机将在作为选定通话组的预定义通话组上发起或加入群组通信（SDS、SDS 状态或呼叫）。

您的服务提供商可以将第二次按单键按钮分配为：

- 返回至先前选定的通话组
 - 重新开始预定义的时间
 - 无操作
- 3 当此计时器过期时（可能在重启多次后），对讲机将切换到先前选定的通话组。

启动通话组扫描

何时何处使用： 如果您想要监听定义的通话组列表中的任何 TMO 组呼。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **通话组设置** → **扫描** → **扫描**。
- 3 选择**选择列表**和列表名称。
对讲机将显示**已选择**列表名称。
- 4 选择**扫描** → **开**。

对讲机将扫描预定义扫描列表。

相关链接

[扫描](#) 第 93 页

广播呼叫

广播组呼（又称作调度员呼叫）是一个由主控台操作员（调度员）发出给所有在单站或多站对讲机用户的高优先级组呼。对讲机是配置来监听广播呼叫的，但是用户不能对讲。所接收的呼叫可分为普通广播呼叫或是紧急广播呼叫。如果该组呼的优先级是相等（或较低），广播呼叫会先占据一个正在进行中的组呼。

环境监听 (AL) 呼叫

此功能允许调度员发起一个特殊呼叫，允许收听特定对讲机麦克风范围内的对话和背景噪音。不显示任何提示即可在受影响的对讲机上设置呼叫功能，优先级较低的当前语音呼叫可能被取代。

在接受该呼叫后，对讲机在单工呼叫模式下发射，没有任何来自用户的活动或对用户的任何提示。当您发起任何语音呼叫、切换到紧急或 TXI 模式，或者发送紧急警报时，环境监听呼叫会自动结束。

单键按钮功能

单键按钮功能支持快速激活功能，方法是通过按住分配给这些功能的按键或按钮。

表 9：单键按钮功能

功能	说明
背光切换	切换背光设置。
更改音频配置文件	更改为特定音频配置文件。
更改通话组	将通话组更改为服务提供商预设的通话组。
私密模式	打开/关闭隐蔽模式。
显示时间	在主屏幕上显示国际标准时间。

表 (续) ...

功能	说明
双按 PTT	发送 D- PTT 提示音至当前使用的通话组。
启用/禁用啸声抑制	打开/关闭啸声抑制。
开/关额外缩放	打开/关闭额外缩放。
反转屏幕	将显示屏旋转 180 度。
GPS 报告	通过对讲机的 GPS 定位功能发送信息至指定地址。
大/小声	切换高/低音频。
启动呼出降级提示	发送呼出返回提示。
PABX 呼叫	向通讯录中的预定义条目发起 PABX 呼叫。
电话呼叫	向通讯录中的预定义条目发起电话呼叫。
上次通话组	将对讲机的选定通话组更改为以前选择的通话组（DMO 或 TMO）。
单呼	向通讯录中的预定义条目或上一个组呼发起者发起单呼（单工或双工）。
旋转开关锁定/解锁	锁定/解锁旋转开关。
RUA/RUI 登录/注销	要求输入凭据或注销对讲机。
屏幕保护程序激活	打开/关闭屏幕保护程序功能。
滚动音频配置文件	滚动浏览所有可用音频配置文件。
发送预定义信息	向指定的地址发送预定义信息。
发送状态信息	向一个指定的地址发送指定状态信息。
发送用户定义的信息	向一个指定的地址发送用户定义的信息。
每次通话启用/禁用扬声器	在正在进行的呼叫过程中启用扬声器..
计时通话组更改	使预定义通话组成为在指定时间内的选定通话组。在使用预定义通话组时，第二次按单键按钮的结果为：返回到之前选择的通话组，重新启动预定义的时间，或无操作（具体取决于配置）。该计时器到期后，对讲机将返回之前选择的通话组。
TMO / DMO 切换	在 TMO 和 DMO 模式之间切换。
TMO 通话组扫描	打开/关闭 TMO 模式中的通话组扫描功能。
切换射频功率级别	切换射频高功率级别和正常功率级别。
发送抑制模式 (TXI)	打开/关闭发送抑制模式。
打开/关闭中继器模式	打开/关闭中继器模式。
降低音量	<ul style="list-style-type: none"> 按下可降低音量一个级别。 按住此键可连续减少到最小的音量级别。
提高音量	<ul style="list-style-type: none"> 按下可增大音量一个级别。 按住此键可连续增加到最大的音量级别。

您的服务提供商可以将单键功能仅分配给侧边按钮和键盘按键。



备注: 如果启用了单键按钮功能，则禁用单键拨号。如果按钮未分配任何功能，您的对讲机屏幕会显示**未设定按钮**信息。

终端暂时禁用/启用

您的对讲机具有一项功能，即服务提供商可以暂时性的（被偷或丢失时）将它关闭。当您的对讲机处于禁用状态或者在禁用状态下打开时，看上去就像关机一样。

如果您找回了丢失的对讲机，则服务提供商可以通过无线方式重新启用它。当您的对讲机再次被激活之后，您就可以正常使用了。

终端永久禁用

您的对讲机具有一项功能，服务提供商可以永久性地将它关闭（在被盗或丢失时）。对讲机在被永久禁用后将无法再工作。被永久禁用后，您的服务提供商无法重新启用对讲机。建议只在不抱任何找回对讲机的希望的前提下禁用您的对讲机。如果找回了对讲机，则可以通过将其返回给 Motorola 来重新激活已永久禁用的对讲机。



备注: 这是一个收费功能。

大声/小声切换

可从外接耳机切换成主扬声器，只要用户按下 扬声器控制键 不需要断开外接耳机或 PHF。

路由音频的状态包括：

- **扬声器:高音** - 表示音频将通过主扬声器发出。
- **扬声器:低音** - 表示音频将通过耳机或 PHF 耳机（而不是主扬声器）发出。

使用大声模式

何时何处使用: 当发起和接收组呼、电话呼叫和单呼时，可以使用大声模式。

过程:

- 1 垂直握住对讲机，使顶部麦克风与您的嘴保持 5 到 10 厘米远的距离。
- 2 对顶部麦克风讲话，并通过内部扬声器接听。
使天线与您的头部和身体的距离至少保持为 2.5 厘米。

使用小声模式

何时何处使用: 当发起和接收电话呼叫、PABX 呼叫和双工单呼时，可以使用小声模式。

过程:

- 1 像接听电话呼叫那样握持您的对讲机。
- 2 对底部麦克风讲话，并通过耳机接听。
使天线与您的头部和身体的距离至少保持为 2.5 厘米。

在呼叫过程中

在呼叫过程中，右软按键的标签指示下一个可能的更改。附件默认设置为：

表 10：在呼叫过程中

软按键标签	音频设置
扬声器	音频通过主扬声器发出（显示 扬声器:高音 ）
耳机	音频通过耳机发出（显示 扬声器:低音 ）
PHF	音频通过个人免提发出（显示 扬声器:低音 ）

写入文本

每当您查看文本输入屏幕时，请参阅本节。

相关链接

[解除对讲机的锁定](#) 第 31 页

选择文本输入模式

先决条件： 您的对讲机显示文本输入屏幕。

过程：

- 1 按菜单 → **输入模式**。
- 2 选择下列选项之一：
 - **首选** - 用于输入字母数字字符。
 - **数字** - 只用于输入数字。
 - **符号** - 只用于输入符号。
 - **次选** - 用于输入字母数字字符（此模式是可选的，您必须将其添加到列表中）。有时在使用某种语言时要切换到另一种语言，此模式就非常方便。



备注： 还可以在文本输入屏幕中反复按 # 键以切换输入模式。

选择文本输入方法和语言

先决条件： 您的对讲机显示文本输入屏幕。

过程：

- 1 按菜单 → **输入设置**。
- 2 选择下列选项之一：
 - **TAP** - 按字母数字键一次或多次，输入字母、数字和符号。
 - **iTAP** - 对讲机会根据您按的字母数字键预测每个字词。



备注： 在对讲机设置的语言中可以使用这些方法。

文本输入图标

在文本输入屏幕中，图标让您了解正在使用的文本输入模式和方法。文本输入图标上显示的字符计数器表示可输入的字符数。

按 # 键可在各文本输入模式之间切换。

表 11：文本输入屏幕图标

首选图标	辅助图标	说明
		TAP — 没有大写字母
		TAP — 只大写首字母
		TAP — 全部大写
		iTAP — 没有大写字母
		iTap — 只大写首字母
		iTap — 全部大写
数字图标	说明	
	输入数字。	
符号图标	说明	
	输入标点和符号。	

按键的使用

字母数字模式 (TAP/iTAP) 中按键和字符的列表。

表 12：按键的使用

按键	字母数字模式 (TAP/iTAP)	符号模式
0 到 9 键	数字模式： <ul style="list-style-type: none"> 按这些键可在插入点输入数字。 按住任意数字键可进入 TAP 字母数字模式。 要退出 TAP 字母数字模式，请按住任意数字键。 	
0 键	按此键可在单切换、大写锁定和小写中循环。	+ - × * / \ [] = < > \$ #
1 键	。 , ? ! 0 1 @ ' " - () / : _ ; + & % × * = < > € £ \$ ¥ ¢ [] { } \ ~ ^ & i \$ #	
2 键	A B C 2	@ _ \

表 (续) ...

按键	字母数字模式 (TAP/iTAP)	符号模式
	a b c 2	
3 键	D E F 3 d e f 3	/ , ;
4 键	G H I 4 g h i 4	" & '
5 键	J K L 5 j k l 5	()[]{}
6 键	M N O 6 m n o 6	! @ ~
7 键	P Q R S 7 p q r s 7	= < >
8 键	T U V 8 t u v 8	€ £ \$ ¥ □
9 键	W X Y Z 9 w x y z 9	# % *

表 13: 其他按键

按键	说明
任意数字键	<ul style="list-style-type: none">• TAP 模式下按任意键可拒绝文字补全，并继续输入文本。TAP 时间超时后，可能会显示新的补全提示（如果有的话）。• 按住任意数字键可从 TAP 或 iTAP 字母数字模式进入数字模式。
* 键	<ul style="list-style-type: none">• 按此键可插入一个空格。• TAP 模式下按此键可取消文字补全并插入空格。• 在用户词典中输入新建字词。• 按住此键可输入一个回车。
# 键	<ul style="list-style-type: none">• 按此键可在所有输入模式（符号、数字、首选和辅助（如果已配置）模式）间切换。• 按住此键可返回默认输入模式。
选择	按此键可选择突出显示的选项，并将其放入主文本输入区中。
删除	<ul style="list-style-type: none">• 按此键可删除最后输入的字符。• 按住此键可清除整个主文本输入区的内容。
上浏览键	<ul style="list-style-type: none">• TAP 模式下按此键可拒绝文字补全并向上滚动。• TAP 模式下按下此键可将此前输入的小写字母变成大写字母。

表 (续) ...

按键	说明
下浏览键	<ul style="list-style-type: none"> TAP 模式下按此键可拒绝文字补全并在文本输入区内滚动。 TAP 按下此键将此前输入的大写字母变成小写字母。
左浏览键	<ul style="list-style-type: none"> 按此键可向左浏览。按住此键可重复执行此操作。 在 TAP 模式下，如果文字补全可用，则按此键拒绝补全。
右浏览键	<ul style="list-style-type: none"> 按此键可向右浏览。按住此键可重复执行此操作。 在 TAP 模式下，如果文字补全可用，则按此键接受文字。
菜单	如果启动上下文相关菜单，按此键可将其打开。

以 iTAP 字母数字模式写入

先决条件： 您的对讲机显示文本输入屏幕。

何时何处使用： 通过此功能，您可以提高写入速度。例如，尝试写入 **David 232!**

过程：

- 1 按菜单 → 输入设置 → 首选。
- 2 选择 iTAP 英语，然后按返回。
- 3 按菜单 → 输入模式。
- 4 选择首选。
- 5 按 3 键。
选择行被弹出并显示 **D E F 3**。
- 6 按各字母对应的键，继续输入字母。按 2、8、4 和 3 键。



备注： 自动切换为大写的功能用在一条信息的开始、标点后跟一个空格之后，或者作为新的联系人条目所创建单词的首字母。

选择行高亮选中 **David**。

- 7 按 * 键。
- 8 按 2 键，并按右浏览键滚动选择行，以便转至 2。
这会将输入模式自动更改为**数字**。
- 9 按 3 和 2 键。
- 10 按住 1 键，直到末尾的 **0** 变为 **.**。
选择行高亮选中 **232.**。
- 11 按右浏览键滚动选择行，以便转至所需符号。
- 12 请按下**选择**。

您已输入 **David 232!**。

以 TAP 字母数字模式写入

先决条件： 您的对讲机显示文本输入屏幕。

过程：

- 1 按菜单 → 输入设置 → 次选。
- 2 选择 TAP 英语，然后按返回。

- 3 按菜单 → 输入模式。
- 4 选择次选。
- 5 按标有所需字符的键，第一个字符按一次，第二个字符按两次，以此类推。

示例：

要输入字母 s，请按四次 7 键。要输入数字 7，则按五次 7 键。如果数秒钟您都没有按键，表示您接受了该字符，光标会移到下一个位置。

字词锁定

先决条件： 您的对讲机显示文本输入屏幕。

何时何处使用： 添加词典中没有的字词。

过程：

- 1 按菜单 → 输入设置。
- 2 选择 iTAP 英语。
- 3 尝试输入字词。滚动到字词选项的选择行。成功突出显示并部分锁定每个选项。
- 4 输入字词的第二部分。第一部分保持不变（已锁定）。新输入的字母将被突出显示，当滚动至下一字词选项时，刚才输入的内容将被锁定。
- 5 按 * 键。该字词将放入文本输入区并添加一个空格，同时自动添加到词典中。

将字词添加到词典

每种语言本身带有自己的词典。也可以创建字词（包括字母数字缩写）。一旦您输入一个字词并添加空格后，该字词会被自动存储在词典中，以后按下相同的按键组合时，该字词会作为选项显示。

初始屏幕文本信息

您的对讲机具有一项功能，即服务提供商可以向显示屏发送特别文本信息。该信息将保留在初始屏幕上，直到收到新信息为止。关闭然后再次打开对讲机可将初始屏幕信息替换为预定义信息。

章节 3

模式

本章讲述有关对讲机的可用操作模式的信息。

使用网络

过程:

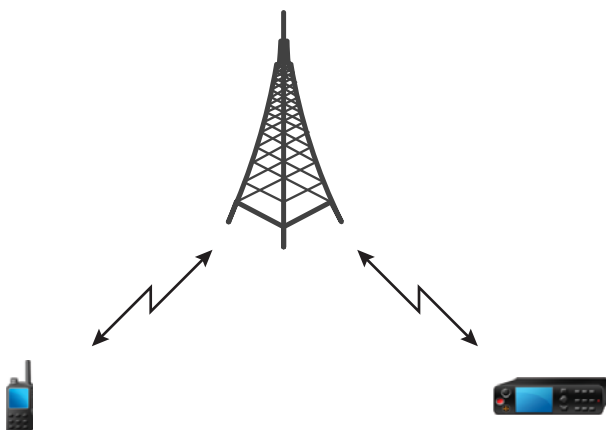
- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **网络**。
- 3 选择下列选项之一：
 - **集群模式**
 - **直通模式**
 - **TXI 模式**

对讲机将切换到所选模式。

集群模式操作

集群模式操作需要切换和管理基础设施。此操作模式支持不同的语音和数据通信类型（例如，组呼、短数据服务信息）和使用基础设施相关功能（例如，分组数据）。

图 1：集群模式操作



进入 TMO 模式

过程:

- 1 在初始屏幕上按**选项**。
- 2 选择**集群模式**。

选择通话组

在初始屏幕上使用以下方法之一:

- 按左或右浏览键。按**选择**进行确认。
- 选择**选项** → **TG 通话组列表**。输入一个通话组名称，然后从列表中选择该通话组名称。
- 选择**选项** → **TG 文件夹列表**。选择一个文件夹，然后选择通话组名称。
- 按旋钮并进行旋转，直到显示所需通话组名称。按**选择**进行确认。



备注: 如果旋钮模式设置为**滚动**，则无须按旋钮即可进入滚动模式。



备注: 您的对讲机最多可访问三层文件夹结构。

在 TMO 模式下发起组呼

选定通话组中已经开机且在信号范围内的所有成员将接收到您的组呼。

过程:

- 1 按住通话按键。
- 2 等到**通话许可**音后（如已配置）再对麦克风讲话。释放通话按键接听。



备注: 获得通话许可授权之前，执行以下某项操作可取消组呼，具体情况取决于您的服务提供商设置:

- 释放通话按键。
- 按结束键（默认）。

取消呼叫后，对讲机屏幕将显示**呼叫取消**信息（如果您的服务提供商已配置）。

在空闲状态下接收组呼

过程:

- 1 对讲机接收到一个组呼。



备注: 呼入的组呼发出**接收组呼**提示音。

- 2 要回应呼叫，请按住通话按键。

正在进行组呼过程中接听其他组呼

在进行组呼时，对讲机接到具有较高优先级的组呼。

出现以下情况之一:

- 对讲机被迫结束当前组呼并自动加入呼入的组呼。
- 对讲机在呼入的组呼屏幕上显示以下选项:
 - **加入** — 结束当前组呼并开始参与呼入的组呼。

- **结束** — 取消呼入的组呼。

动态通话组号码分配 (DGNA)

利用 DGNA 网络服务提供商可通过无线接口动态管理对讲机上的通话组。使用 DGNA，网络服务提供商可以：

- 添加通话组。
- 连接或选择新添加的通话组。
- 删除通话组。
- 修改现有通话组参数。

通过向对讲机传输数据可完成以上所有操作。

DGNA 接收

在接收到 DGNA 信息时，对讲机将发出提示音并显示信息**通话组列表已更新**。如果服务提供商支持，则对讲机将显示所有添加和删除的通话组列表。

当您的服务提供商删除（取消分配）当前选择的通话组时，根据设置，对讲机可能执行以下操作之一：

- 进入“没有通话组”状态 - 对讲机不会自动连接到任何通话组。
- 连接到最后选定的 TMO 通话组。如果最后选定的 TMO 通话组不可用（已被删除），则对讲机将进入“没有通话组”状态。
- 连接到您的服务提供商已配置的默认通话组。如果默认通话组不可用（已被删除），则对讲机将进入“没有通话组”状态。

每个通话组更改时，会在屏幕上显示相应通知。

如果接收到的 DGNA 信息是删除所有通话组，则对讲机将显示**所有通话组已删除**。要退出 DGNA 显示屏，您可以使用**返回**软键或**结束**键。

DGNA 自动选择通话组

如果对“DGNA 自动选择”进行了配置，则无论何时对讲机接收到 DGNA 时，都会切换到添加的通话组。

DGNA 自动重选通话组

如果配置了 DGNA 自动重选，只要网络服务提供商通过 DGNA 分配的通话组取消分配，无需用户操作，对讲机就会返回到先前选定的通话组。

查看 DGNA 通话组

先决条件： 您的对讲机收到一条 DGNA 信息。

过程：

- 1 要查看添加的通话组详情，请按**查看**。
- 2 在列表中滚动并选择所需的通话组。
- 3 要选择 DGNA 组，按**加入**。

用户发起广播呼叫

使用此功能，您可以从预定义通话组上发起的对讲机上发起广播呼叫。您的服务提供商预定义广播呼叫的别名和优先级。



备注: 如果加密类型由 SIM 卡定义，广播呼叫一直为明文。否则，如果对讲机使用其他加密服务，此呼叫所使用的加密类型要取决于服务的加密设置。



备注: Dimetra 基础设施不支持此项功能。

广播呼叫初始化

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **服务** → **广播**。
您的对讲机屏幕会显示预定义别名和“广播呼叫”图标。
- 3 要开始呼叫，请按通话按键。

电话及专用自动交换分机呼叫

电话呼叫 可用于呼叫固定电话号码或移动电话号码。专用自动交换分机 (PABX) 呼叫允许您呼叫本地的（交换局）分机号码。

个呼

单呼，亦称为点对点或个人呼叫，用于在两个个人用户之间进行通话。没有别的对讲机能听到他们的对话。可以通过两种方式进行此类型的呼叫：

- TMO 模式下的双工呼叫（如果系统允许）。呼叫双方可以同时讲话。
- TMO 或 DMO 模式下的单工呼叫。一次只有一方可以讲话。

在发起 DMO 单呼时，不在此呼叫中的对讲机会收到信道忙指示。对讲机使用其对讲机号码进行识别。

相关链接

[紧急个呼（单呼或 MS-ISDN）](#) 第 54 页

发起单呼

过程:

- 1 在初始屏幕上，输入号码。
- 2 如果**单呼**不是所显示的第一种呼叫类型，请反复按**类型**以将其选中。
- 3 如果您正处于以下模式：
 - a TMO — 对于单工呼叫，按下通话按键后再松开。您将听到铃音。否则，按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。对于双工呼叫，按下发送键后再松开。您将听到铃音。
 - b DMO — 只能使用单工呼叫。按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。
- 4 要结束呼叫，请按结束键。

求助呼叫

您可使用此功能在常规和非危机情况下发起单呼寻求帮助。



备注: 您的服务提供商可以配置号码、优先级和呼叫类型（单工或双工）。

您可以用以下方式发起辅助呼叫：

- 拨打预定义号码并按发送键。

- 菜单 → 更多... → 服务 → 辅助呼叫

呼叫修改

您的服务提供商可以使用呼叫修改功能修改呼叫，从而优化呼叫、调整呼叫以适应当前状况。

修改适用于：

- 呼叫优先级 — 在呼叫设置期间可修改。
- 呼叫类型 — 在呼叫设置期间可修改。
- 呼叫加密 — 当前呼叫期间可修改，但在传输阶段不可以。

呼叫修改后，您的对讲机会显示**呼叫类型改变**信息。

当最近修改的呼叫需要按通话按键进行发送时，您的对讲机屏幕会显示**呼叫类型变为使用通话按键**。

您的服务提供商可以做出所有修改，对讲机只遵循此修改。您无法影响到当前呼叫修改。

当呼叫优先级变为紧急呼叫时：

- 显示屏显示已接收紧急组呼。
- 对讲机发出特殊提示音。



备注：如果将组呼修改为紧急组呼，则不能触发紧急呼叫相关功能。

如果对讲机由于设置原因而不能遵循服务提供商所要求的呼叫修改，对讲机会拒绝修改，并会显示**没有这项服务**信息。

单站集群

此模式也称为降级运行模式。当基站与网络的中央控制器之间的链路发生故障时，此模式使得同一个基站的多部对讲机可以互相通信。进入和退出单站集群模式（也就是回到系统级的服务）是自动完成的。在此模式中部分服务将禁用。



备注：您的服务提供商可禁用此模式。

进入单站集群

当对讲机从系统中收到一个单站集群指示时，将发生：

- 对讲机发出“进入单站集群”提示音。
- 屏幕上显示**单站集群服务**信息。
- 显示的图标和软按键转为绿色。



备注：仅在彩色显示屏上明显。

- 当进入单站集群模式时，所有进行中的通话都被挂断。

如果服务提供商已设置好，这个信息/提示会周期性地重复提醒您对讲机仍处于单站集群模式。将提供如下功能：

- 注册
- 通话组连接
- 组呼
- 紧急呼叫

- 紧急警报



备注: 当您进入单站集群模式时，服务提供商可以打开/关闭视觉和声音提示。

退出单站集群

当与通信网络中央控制器的链路重新建立起来时，对讲机将退出单站集群模式，随后：

- 对讲机会发出“退出单站集群”提示音。
- 在单站集群模式下正在进行的任何通话都被挂断。
- 显示的图标和软按键转为绿色。

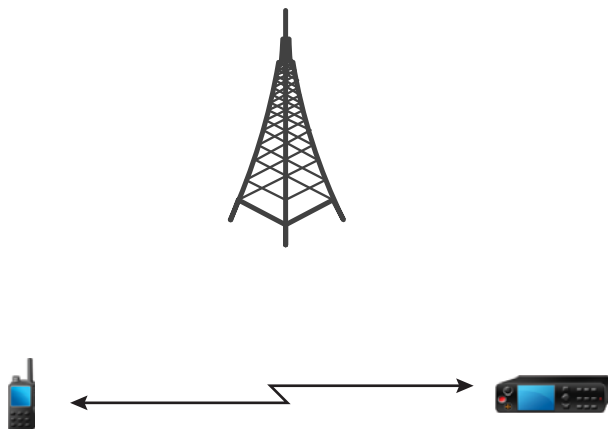


备注: 当您退出单站集群模式时，服务提供商可以打开/关闭视觉和语音提示。

直通模式操作

直通模式操作是允许对讲机直接通信的单工操作的模式。

图 2：直通模式操作



进入 DMO 模式

要进入隐蔽模式：

- 在初始屏幕上，按菜单键。选择**更多...** → **网络** → **直通模式**。
- 在初始屏幕上，选择**选项** → **直通模式**。

选择通话组

在初始屏幕上使用以下方法之一：

- 按左或右浏览键。按**选择**进行确认。
- 选择**选项** → **TG 通话组列表**。输入一个通话组名称，然后从列表中选择该通话组名称。
- 选择**选项** → **TG 文件夹列表**。选择一个文件夹，然后选择通话组名称。

- 按旋钮并进行旋转，直到显示所需通话组名称。按**选择**进行确认。



备注: 如果旋钮模式设置为**滚动**，则无须按旋钮即可进入滚动模式。



备注: 您的对讲机最多可访问三层文件夹结构。

在 DMO 模式下发起组呼

选定通话组中已经开机且在信号范围内的所有成员将接收到您的组呼。

过程:

- 1 按住通话按键。
- 2 等到**通话许可**音后（如已配置）再对麦克风讲话。释放通话按键接听。

在空闲状态下接收组呼

过程:

- 1 对讲机接收到一个组呼。



备注: 呼入的组呼发出**接收组呼**提示音。

- 2 要回应呼叫，请按住通话按键。

个呼

单呼，亦称为点对点或个人呼叫，用于在两个个人用户之间进行通话。没有别的对讲机能听到他们的对话。可以通过两种方式进行此类型的呼叫：

- TMO 模式下的双工呼叫（如果系统允许）。呼叫双方可以同时讲话。
- TMO 或 DMO 模式下的单工呼叫。一次只有一方可以讲话。

在发起 DMO 单呼时，不在此呼叫中的对讲机会收到信道忙指示。对讲机使用其对讲机号码进行识别。

相关链接

[紧急个呼（单呼或 MS-ISDN）](#) 第 54 页

发起单呼

过程:

- 1 在初始屏幕上，输入号码。
- 2 如果**单呼**不是所显示的第一种呼叫类型，请反复按**类型**以将其选中。
- 3 如果您正处于以下模式：
 - a TMO — 对于单工呼叫，按下通话按键后再松开。您将听到铃音。否则，按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。对于双工呼叫，按下发送键后再松开。您将听到铃音。
 - b DMO — 只能使用单工呼叫。按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。
- 4 要结束呼叫，请按结束键。

单呼存在性检查

使用此功能您可以查看 DMO 模式中呼叫方是否可用。启用此功能后，如果被叫对讲机出现在相同信道并回应了存在性检查确认，您可以发起单呼。

否则，对讲机会显示**对方不在系统内**。

个呼的通话组

个呼的通话组是只在个呼（单呼）所分配的单独频率上操作的通话组。利用此通话组优化频率资源，以便阻塞其他通话组。唯一支持的呼叫类型是：单呼和紧急呼叫（适用于单呼和组呼）。每次需要时使用此通话组发起单呼。

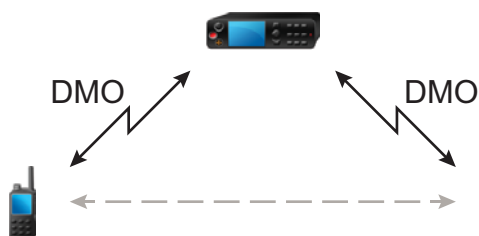
当您选择了个呼的通话组后，对讲机不能接收或发起任何优先级低于紧急呼叫的组呼或广播呼叫。

当您选择个呼的通话组后按通话按键发起组呼，对讲机将：

- 拒绝该呼叫
- 发出提示音
- 显示**仅限个呼**信息

中继器通信模式

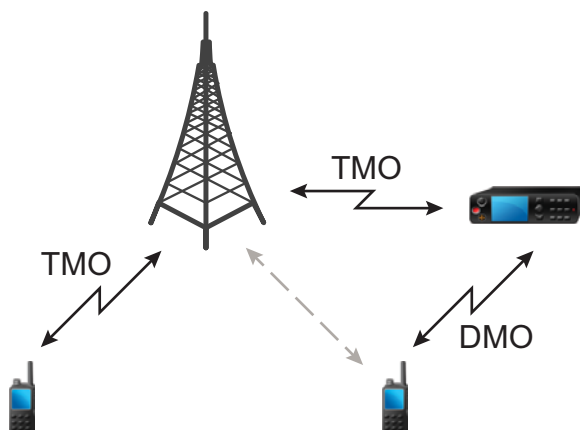
处于 DMO 模式时超出范围并且不能直接通信的对讲机可以凭借中继器通信。中继器是一种对讲机用于在所选信道上转发所有通信，可增大对讲机 DMO 范围。



对讲机连接到中继器时，它将发出提示音，显示**中继器可用**信息，并会显示相应的图标。当对讲机与中继器的连接松脱时，它将发出提示音，显示**中继器不可用**的信息并且中继器图标将闪烁。

网关通信模式

网关模式提供处于 DMO 模式的对讲机与 TETRA 网络之间的连通性，以便 DMO 对讲机可以与 TMO 对讲机通信。



当对讲机与网关连接，它将发出提示音，显示**网关可用**信息，并显示相应的图标。当对讲机与网关的连接松脱时，它将发出提示音，显示**网关不可用**，网关图标闪烁。

选择 DMO 组呼选项

何时何处使用： 有助于通过网关或转发与同一通话组上的其他对讲机用户通信。

过程：

- 1 在初始屏幕上按**选项**。
- 2 按**配置**。
- 3 选择下列选项之一：
 - **移动台 - 移动台** — 对讲机只能与其范围内的其他对讲机通信。
 - **网关** — 对讲机使用网关与基础设施通信。
 - **自动** — 对讲机在该通话组中使用第一个可用的网关。
 - **指定** — 对讲机在该通话组中仅使用具有指定网关地址的网关。如果对讲机显示**选择网关：无**，按**编辑**输入当前网关地址。
 - **中继器** — 在该通话组中使用第一个可用的中继器。
 - **网关 + 中继器** — 在该通话组中使用第一个可用的网关或中继器。
 - **自动** — 在该通话组中使用第一个可用的网关。
 - **指定** — 在该通话组中仅使用具有指定网关地址的网关。如果对讲机显示**选择网关：无**，按**编辑**输入当前网关地址。



备注： 已配置了使用网关和中继器的通话组但网关和中继器仍不能通信时，对讲机将尝试采用移动台到移动台的直接通信。

当对讲机找到合适的网关和/或中继器时，网关和/或中继器图标将变成稳定的，不再闪烁。

发送抑制模式

发送抑制模式是这样一种模式，在此模式中，对讲机不发送任何无线电传输。建议在射频敏感区域（例如医院、飞机等受到传输辐射而产生危险的地区）内激活该模式。

要激活此功能，请选择菜单 → **更多...** → **网络** → **TXI 模式** → **启动**。

当处于此模式时，对讲机在任何情况下都不会进行发射，但紧急呼叫除外。所有导致传输的功能和按键都将被禁用，如入网登记、更改通话组或文件夹、发送 SDS 信息或按通话按键等。任何传输尝试都将导致对讲机显示**不允许在 TXI 模式**通知并会发出一声提示音。

对讲机仍可以在不选择应答的情况下接收以下内容：

- 组呼。
- 信息 - 存储在**收件箱**中。
- 单呼尝试 - 存储在**未接呼叫**列表中且无回应选项。

当不再有危险时（例如您离开射频敏感区域后），您可以将发送抑制模式关闭，对讲机将返回正常操作模式。

您可以通过选择菜单 → **更多...** → **网络** → **TXI 模式** → **关闭**，按单键按钮或启动紧急呼叫（隐式）关闭该模式。



备注: 下列情况下将阻止对讲机的射频发射：

- 激活 TXI 模式。
- 取出电池。
- 关闭对讲机。

在进入或退出禁止发射模式时，如果对讲机位于某个小区，它将发送一则专门设计的 SDS 状态信息。此 SDS 信息向 SwMI 指示，对讲机将进入或退出禁止发射模式。

将执行不需要对讲机发送上行链路的移动程序，小区重选除外。

在禁止发射模式中，对讲机将它正在监听的任意组加入组呼，但该呼叫上的发射仍被禁止。

对讲机还会向用户显示任何呼入的 SDS 信息。未接呼叫功能在禁止发射模式被激活，并允许查看未接呼叫。但是，对讲机试图阻止呼叫建立重新传输被记录为单独呼叫。

当对讲机在工作时，如果您发起紧急呼叫，则对讲机将立即离开禁止发射模式，并尝试启动紧急呼叫。

如果在禁止发射模式下关闭对讲机，则在打开对讲机时会询问是否要退出禁止发射模式。如果您选择**否**，对讲机将会关闭。

紧急操作

紧急操作在紧急情况下使用。

按住紧急键，或输入紧急电话号码，然后按发送键，激活一项或多项服务（取决于您的服务提供商设置）：

- 紧急警报
- SDS 状态
- 静默紧急
- 紧急麦克风操作
- 紧急个呼（单呼或 MS-ISDN）
- GPS 定位信息



备注: 按紧急按钮可以打开对讲机。取决于服务提供商设置，对讲机可以自动开启紧急操作。如果对讲机是 PIN 保护（SIM PIN 除外），紧急操作将绕过 PIN 锁，维持紧急操作的持续时间。

启动紧急操作时，任何当前语音呼叫都将中止或拆线，任何正在进行的分组数据传输也将中止。但是，会话将保持打开。

在紧急操作过程中，对讲机会拒绝电话、PABX 和单呼，并且不会监听所选的扫描列表中的通话组。

要结束紧急操作，请按右侧软按键

紧急组呼

紧急组呼具有最高的通信优先级，这意味着它是先占式类型的呼叫。紧急组呼可在 TMO 和 DMO 模式下使用。紧急操作期间可以启动紧急组呼，方式是按 按紧急键。对讲机也可以支持紧急麦克风操作，不需要按下通话按键便可执行紧急呼叫。

如果对讲机收到具有紧急优先级的呼入组呼，屏幕将显示收到紧急呼叫并播放特殊提示音。

可以将紧急组呼配置为：

- 在由您的服务提供商预设的通话组上发起一个非战术呼叫。在非战术紧急模式下，您将无法切换通话组。
- 在当前选择的通话组上发起一个战术呼叫。

在 TMO 模式下，如果对讲机在紧急广播呼叫启动时进入紧急操作，对讲机将连续发出该呼叫而不发起任何其他呼叫，同时发送紧急警报。

当您参与的紧急组呼终止时，对讲机会依据您的服务提供商设置运行几种操作：

- 如果您是呼叫发起者，对讲机会处于紧急呼叫模式或返回 TMO 模式。
- 如果您不是呼叫发起者，对讲机会返回 TMO 模式。

发起紧急组呼

先决条件： 确保对讲机处于紧急模式中。

过程：

- 1 按住通话按键。
- 2 等待通话许可提示音（如果已配置），然后开始讲话。
- 3 释放通话按键接听。



备注： 可以取消在 TMO 模式下发起紧急组呼。要执行此操作，请执行以下操作之一，然后才能获得通话许可授权（取决于您的服务提供商设置）：

- 释放通话按键。
- 按结束键（默认）。

取消呼叫后，对讲机屏幕将显示**呼叫取消**信息（如果您的服务提供商已配置）。

接收紧急组呼

对讲机从选定的预设通话组接收紧急组呼。通过相应的提示音、状态图标和红色显示屏可指示接收到呼入电话。

非战术紧急模式

在非战术紧急模式中，对讲机在启动紧急操作时将切换到指定的紧急通话组。在紧急操作的完整持续时间内都将使用此通话组（您不能更改通话组）。

在 TMO 模式下，可以配置对讲机发起非战术紧急组呼，不会发送附件。如果这样设置，对讲机在接收临时地址后采用隐式附件。

在 DMO 模式下，非战术紧急呼叫将继续执行与先前选定的通话组相同的频率。服务提供商可以指定任何 ITSI 地址用于紧急操作（这可以是开放组 — 广播地址）。

从非战术紧急模式退出之后，对讲机将返回先前选定的通话组。

紧急个呼（单呼或 MS-ISDN）

紧急个呼是具有紧急优先级的单工或双工呼叫。在按紧急键时，对讲机将向提供的地址启动个呼（单呼或 MS-ISDN）。此类呼叫过程中，所有用户指示不可用并且所有其他服务被拒绝。只要紧急个呼结束，就会立即结束紧急操作。

相关链接

[个呼](#) 第 46 页

紧急警报

紧急警报是一种启动紧急操作时发送到基础设施的特殊状态信息。对讲机可能会等待基础设施确认此警报并尝试重发。

每当对讲机进入紧急操作时，都会发送紧急警报。成功发送紧急警报时，对讲机会发出相应的提示音。

此外，当对讲机处于紧急操作模式时，如果按紧急按钮，就会发送另一个紧急警报（在紧急麦克风发射过程中例外）。

可在 TMO 和 DMO 模式下发送该信息。

紧急 SDS 状态

对讲机发送状态信息，将预先设定值发送到由您的服务提供商设置的目标地址。紧急 SDS 状态仅在 TMO 模式下可用。如果没有接收到状态确认或接收到否定确认，对讲机重试发送消息。如果配置紧急警报或紧急麦克风，状态不会重发。

紧急麦克风

紧急麦克风可以让您在紧急操作过程中无需按通话按键即可通话。发射将持续规定的时间量。在紧急麦克风的时间到期之前，按通话按键可结束紧急麦克风操作。然后在紧急组呼情况下将转为正常的 PTT 操作（即，在按住通话按键的过程中进行发射）。

如果在紧急操作过程中再次按紧急键，将会再次启动紧急麦克风发射。

如果通话组中另一个成员获得通话允许，则将发出“接收到紧急呼叫”提示音。如果已进行了配置，则对讲机将自动再次尝试获得通话允许。

按**结束**软键或结束键结束紧急麦克风操作。

交替紧急麦克风

交替紧急麦克风是一种增强型的紧急麦克风功能。激活后，对讲机交替进入传输阶段（您的麦克风处于活动状态）和接收阶段（您只能接听），持续时间由您的服务提供商准确确定。

如果启用了此功能，您可以按紧急键，启动交替紧急麦克风。如果您要较早完成或跳过传输阶段，请按结束键。

在下列情况下，交替紧急麦克风将终止：

- 对讲机退出紧急模式。
- 交替紧急麦克风计时器超时。
- 按通话按键。
- 按下右侧软键（仅在发射阶段）。



备注：当对讲机处于服务区之外，将会进入接收模式并暂停交替紧急麦克风。当对讲机回到服务区之内，紧急麦克风传输和交替紧急麦克风将恢复。



备注: 您在紧急模式下，按紧急键可重新启动交替紧急麦克风功能。

静默紧急模式

静默紧急模式是一种紧急服务，在该模式下呼入时不提供声音提示和按键音。所有屏幕指示与主模式下相同。但对讲机只能使用以下服务：

- 接收环境监听
- 发送静默紧急警报
- 发送 GPS 位置报告



备注: 如果您尝试激活任何其他功能，则将被阻止。

如果已启用静默紧急功能，则在按紧急键时，对讲机会进入静默紧急模式。进入此模式后，对讲机保持在 TMO 模式下或切换至该模式，具体取决于实际情况。一旦处于 TMO 模式下，对讲机就会发送静默紧急警报。



备注: 如果对讲机正在进行单呼或组呼，则它将等待该呼叫结束，然后再进入静默紧急模式。

对讲机会一直重新发送警报，直到确认成功发送为止。成功发送警报后，对讲机会继续处于静默紧急模式下并等待环境监听。

在下列情况下，对讲机会退出静默紧急模式：

- 按菜单，然后在 3 秒钟内按 # 键。
- 同时按菜单和右浏览键。
- 同时按两个软按键。
- 发送静默紧急警报失败，并已达到最大重试次数。
- 控制室终止了静默环境监听。
- 因其他原因导致环境监听断开。

如果您在静默紧急模式下关闭对讲机，则对讲机将切换到伪关机状态。在此状态下，对讲机看起来已关闭。但是，对讲机仍是打开的并处于静默紧急模式下。在伪关机状态下打开对讲机时，对讲机会像打开时一样工作，并仍处于静默紧急模式下。

隐形紧急呼叫

服务提供商可以禁用在对讲机上执行的紧急操作的可视和声音提示。此功能的目的是在紧急情况下（例如直接攻击用户）隐藏使用紧急操作的事实，因此可提供额外的安全保护层。

紧急拨号模式

此功能允许通过拨打预定义号码触发紧急模式。此功能启动的紧急服务与使用紧急键启动的紧急服务相同。对讲机最多可以存储 8 个紧急呼叫号码。



备注: 如果此紧急模式是通过紧急呼叫号码（而不是紧急键）触发的，则可以按结束键退出紧急模式。

灾难警报

灾难提示呼叫是由对讲机发起的广播紧急呼叫，具有紧急先占式优先权，广播区域中每个人都可以听到。此功能是专为灾难性的情况例如地震而设计，并具有最高优先级，优先于其他呼叫。灾难提示下所有对讲机在屏幕上显示紧急通知。可在 codeplug 中配置提示信息、其持续时间和目标通话组。

若要启动灾难提示，请将对讲机切换至灾难提示模式，然后按通话按键。呼叫结束时，对讲机将退出灾难提示状态。

灾难提示时，会影响其他功能：

- 灾难提示开始时，任何其他持续服务终止。
- 没有其他服务可以中断此类呼叫。
- 紧急麦克风功能无法使用。
- 即使任何加密服务已启用，语音只能为明文模式。E2E 加密是唯一的例外。



备注：并非所有的基础架构都支持此功能。在启用此功能之前，请咨询您的服务提供商。

灾难提示呼叫初始化

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **服务** → **灾难提醒**。
您的手机进入灾难提示模式后屏幕会显示“灾难提示”图标。
- 3 要开始呼叫，请按通话按键。
您的对讲机屏幕显示**正在使用灾难提示**。

退出紧急模式操作

先决条件： 确保对讲机处于紧急模式中。

过程：

- 1 如果对讲机屏幕显示**紧急麦克打开**，请按**结束**。
- 2 按住**退出**。



备注：如果紧急操作是通过紧急呼叫号码（而不是紧急键）触发的，则可以按结束键退出紧急操作。

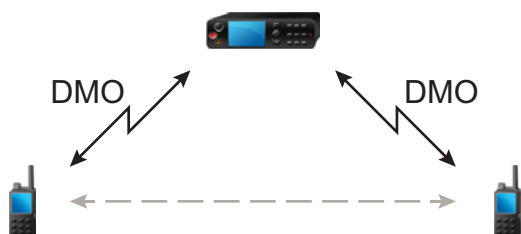
- 3 如果对讲机显示**是否要退出？**，按**是**退出。

对讲机退出紧急操作。

转发模式

中继器模式将提供在 DMO 模式中运行的对讲机之间的中继器连接。

图 3：中继器模式运行



DMO 中继器通过将收到的信息从一台对讲机转发到另一台对讲机，来扩大 DMO 范围。它以指定频率转发组呼、单呼和数据。

中继器定期在空闲信道上发射可用信号，以允许其他对讲机以给定频率进行同步。

只有同一通话组中的对讲机才能通过转发器相互通信。



备注：这是一个收费功能。

进入中继器模式

要进入中继器模式，可用以下方法：

- 在初始屏幕上，选择**选项** → **中继器模式**。
- 在初始屏幕上，按菜单键。选择**更多...** → **网络** → **中继器模式**。

设置监听选项

过程：

- 1 在初始屏幕上按**选项**。
- 2 按**监听**。
- 3 选择下列选项之一：
 - **关** — 对讲机仅用作中继器，无法执行任何操作。
 - **只接收** — 用于接听。
 - **接收和发射** — 通过按 PTT，您可以进行接听和发射。

中继器模式下的加密

在中继器模式中，对讲机支持空中加密，能够转发呼叫和信息。

如果安装在对讲机的 SCK 密钥无效：

- 当加密等级不是最高时，对讲机在未破译呼叫和信息时仍可以进行传输。
- LED 指示灯变成橙色。
- 按通话按键，屏幕将显示**信道繁忙**或**DMSCK 无效**的信息。

- 您不能拨打电话。

章节

4

GPS 定位服务

GPS 定位服务功能从围绕地球轨道的全球定位系统 (GPS) 卫星获得信息，并使用这些信息确定您的对讲机大概的地理位置。

GPS 定位服务的可用性、精度以及位置计算时间会根据您使用对讲机的环境而有所不同。GPS 定位服务能在多方面帮助您的调度员或同事，例如可以更有效地配置资源，以及在启动紧急服务时定位对讲机。

对讲机可以直接在屏幕上显示位置信息，或以无线方式向调度员发送该信息以便在控制中心显示。向您的服务提供商了解对讲机配置详情。



重要说明: 如果无法获得来自卫星的信号，则 GPS 定位服务将不能工作。当您的对讲机未处于视野广阔的环境中时（例如，当 GPS 天线被遮盖或朝向地面时），经常会发生此情况。这类情况还包括：

- 在地下
- 在建筑物、火车或其他封闭的车内
- 在任何其他金属或混凝土屋顶或结构下
- 靠近大功率无线电或电视发射塔
- 温度超出对讲机操作限制温度的情况下

在上述情况下，即使可以计算位置信息，也会需要很长时间。因此，在紧急情况下应不断向您的调度员报告您的位置。如果能获得来自多个卫星的充足信号，GPS 定位服务功能可以提供最接近您实际位置的定位数据。

可触发对讲机以在各种情况下发送位置报告，例如：

- 根据请求
- 进入紧急模式
- 按指定时间间隔
- 按指定的距离间隔

在 TMO 和 DMO 模式下均可使用以下方法发送位置报告：

- SDS 信息
- 分组数据

可配置对讲机在发送位置报告时提供视听通知。

根据对讲机的设置，可以查看对讲机位置和可见卫星的状态。位置可能包含经纬度、英国或爱尔兰网格坐标值。



备注: 这是一个收费功能。

相关链接

[定位](#) 第 102 页

增强 GPS 性能

有时候 GPS 功能无法成功完成位置计算。您会听到提示音，表示您的对讲机无法找到卫星。

若要获得最好的对讲机性能以完成定位，请注意以下几点：

- 在户外使用 - 在视野广阔、没有阻挡物的地方使用对讲机，GPS 功能可以最好地工作。请尽量走到室外，远离高楼和植物茂密的地方。在大楼内使用时，走到靠近窗户的地方性能会得到改善，但是某些具有遮阳膜的玻璃可能会阻挡卫星信号。
- 合理放置对讲机以增强接收效果 - GPS 卫星信号会被传送到您的对讲机天线中的 GPS 天线。不要将对讲机靠近身体，从而使天线可以顺利接收卫星信号。不要让手指或其他任何物体遮盖天线区域。
- 静止站立 — 请尽可能静止站立，直到对讲机完成定位。在对讲机计算您的大致位置的过程中，将对讲机移动一步的距离就可能会大大降低 GPS 性能。

启用 GPS

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **定位** → **接口**。
- 3 选择开。



备注：您的服务提供商可以启用该功能。

GPS 图标

GPS 启用时，在状态图标区显示以下图标： 根据当前 GPS 状态，当 GPS 已定位时，图标长亮，当 GPS 正在搜索定位时，图标闪烁。您的服务提供商可禁用/启用 GPS 图标闪烁。

GPS 不同位置显示

表 14：不同位置显示

纬度/经度	英国坐标	爱尔兰坐标	UTM 坐标	MGRS 坐标
时间	时间	时间	时间	时间
纬度	2 个字母代码	1 个字母代码	3 个字母代码	3 个字母代码和 2 个字母代码
经度	东/北坐标	东/北坐标	东/北坐标	东/北坐标
高度	高度	高度	高度	高度
卫星	卫星	卫星	卫星	卫星

- 时间 — 指示上次计算位置的时间。时间为协调世界时。
- 字母代码 — 不同坐标标准下地图上的网格区域或方块

- 纬度 — 以度数、分、秒表示。
- 经度 — 以度数、分、秒表示。
- 卫星数 — 用于计算位置。通常，卫星越多，精度越高。最多为 12 颗卫星。
- 东 — 指测量的东向距离，用米表示。
- 北 — 指测量的北向距离，用米表示。



备注: 跳过东向和北向坐标的每个数字，准确性基于因子 10 递减。

查看您的位置

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **定位** → **位置**。
- 3 滚动并查看有关上一次计算位置时的结果。



备注: 要刷新您的位置:

- 选择**位置** — 对讲机将自动刷新其位置。
- 按**刷新**

更改 GPS 精度

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **定位** → **精度**。
- 3 选择下列选项之一:
 - **中** (默认值) - 优化耗电量，定位精度较低。
 - **高** - 定位精度较高，耗电量相对较高。



备注: 如果连接到外部充电设备，则对讲机会自动进入**高精度**模式。

GPS - 必须考虑的事项

如果无法获得来自多个卫星的充足信号，则对讲机的 GPS 功能将不能工作。包括但不限于以下情况:

- 在地下
- 在建筑物内，在火车或其他封闭的车内
- 在任何其他金属或混凝土屋顶或结构下
- 靠近大功率无线电或电视发射塔
- GPS 天线被遮盖 (如被手或其他物体遮盖) 或朝向地面。
- 温度超出对讲机操作限制温度的情况下

在上述情况下，即使可以计算位置信息，也会需要很长时间。因此，在任何紧急情况下应不断向您的调度员确认您的位置。

另外，请注意即使在可以从多个卫星获得足够的信号时，您的 GPS 功能也只会提供大概的位置，通常在距您的实际位置 20 到 100 米的范围内。

章节

5

主菜单

本章讲述有关主菜单中的项目的信息。

您可以在呼叫过程中进入菜单项。如果您在查看菜单时有新的呼叫，则对讲机将退出此菜单。



重要说明: 某些特定型号的菜单可能无法在您的对讲机上激活或使用。

滚动浏览菜单

过程:

- 1 在初始屏幕上，按菜单键。
- 2 按浏览键滚动到所需的项目。按指定为**选择**的软按键，或者按右浏览键进行选择。
如果菜单项包含其他菜单项，请重复步骤 2。



备注: 您可以使用快捷方式访问常用项。

菜单图标

以下图标可方便您轻松找到菜单项。

表 15: 菜单图标

菜单图标	说明
	主菜单项/上下文相关菜单 如果启用了主菜单项/上下文相关菜单，则系统会将其分配给菜单。
	信息 发送状态信息， 发送文本信息（自由文本或以用户定义的或预定义的模板为基础的文本）， 在 收件箱 中接收信息。
	通讯录 添加、搜索、编辑或删除通讯录中的条目。

表 (续) ...

菜单图标	说明
	浏览器 打开 WAP 浏览器。
	安全 用于打开/关闭和验证保密功能，以及更改密码。
	设置 用于定制您的对讲机。
	更多... 包含其他设置菜单项。
	通话组设置 包含扫描通话组功能的其他菜单项。
	收藏夹 包含常用通话组和联系人号码的快捷方式。
	我的信息 显示有关您的对讲机和号码的信息。
	最近呼叫 包含最近呼叫的列表。
	快捷键 可以查看和管理菜单项的快捷方式。
	RUI 允许登录和注销对讲机。
	网络 允许可以选择网络。
	定位 显示您的对讲机所在位置。
	分组数据 允许将对讲机中的数据发送至其他设备。
	服务 允许管理广播、辅助和灾难呼叫。

短消息

使用此功能可发送和接收文本信息。一条信息最多可以包含 1000 个字符，具体取决于您的服务提供商设置。

突出显示消息时按下通话按键，可能会导致以下一种操作，具体取决于您的服务提供商设置：

- 对讲机将忽略通话按键请求。
- 对讲机和消息发送者将启动单呼。
- 对讲机将在选择的通话组上开启通话组呼叫。

新编短消息

此菜单项可用于创建新信息。

向单呼/电话发送信息

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **新信息**。
- 3 输入您的信息并按**发送**。
- 4 如果需要，请选择**单呼/电话**。
- 5 键入接收者的号码或按 **abc** 从您的通讯录中选择接收者。



备注：

对于**单呼**目标选择，您可以输入收件人的个人短用户识别码 (ISSI) 或通话组短用户识别码 (GSSI)。

ISSI - 分配给每个对讲机的唯一个人 ID。

GSSI - 在 Dimetra 中称为组 ID 或通话组 ID。

- 6 按**发送**或发送按钮或通话按键。

向通话组发送信息

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **新信息**。
- 3 键入您的信息并按**发送**。
- 4 如果需要，请选择**通话组**。
- 5 选择通话组以发送信息。

发送“储存并转发”信息

先决条件： 您的服务提供商支持“储存并转发”功能。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **新信息**。
- 3 按菜单键，然后选择**信息设置** → **在线/离线用户**。

- 4 输入您的信息并按**发送**。
- 5 如果要求**选择目标**，请选择下列项之一：
 - **单呼** - 输入个人号码或按 **abc** 从通讯录中选择接收方号码。
 - **电话** - 输入电话号码或按 **abc** 从通讯录中选择接收方号码。



备注：您的服务提供商可支持向通话组发送“储存并转发”信息。

- 6 选择**发送**，或按发送键或通话按键。

提交报告

发送报告是对讲机可以在向个人接收者发送消息后请求的确认。您可以定义对讲机请求的发送报告的类型，或打开/关闭此功能。

信息发送后如果马上就接收到发送报告，对讲机会：

- 显示一个弹出窗口，其中包含以下信息之一：
 - **信息已发送** - 如果不需要发送报告（且当存储与转发服务器收到存储和转发消息时）
 - **信息已送达** - 如果需要发送报告，目标对讲机已接收到消息
 - **信息已读**
 - 如果需要**已阅**发送报告，且消息已在目标对讲机上打开
 - **信息失败** - 如果需要发送报告，且目标对讲机在定义时间段内没有收到信息
- 将发送报告和信息副本一起储存在**发件箱**。

信息发送后如果很久才接收到发送报告，对讲机会：

- 将发送报告和信息副本一起储存在**发件箱**。
- 如果您的服务提供商已配置了发送报告通知功能，对讲机也会：
 - 将发送报告信息暂时储存在**收件箱**。阅读后通知消失。
 - 显示**新信息**图标。
 - 显示**新发送状态**通知屏幕（如果可能）。

查看发送报告

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **收件箱**。
- 3 找到所需信息，并选择**阅读**。
- 4 按菜单键。
- 5 选择**发送状态**。

配置发送报告

先决条件：您的服务提供商已启用发送报告配置。

过程：






- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **新信息**。
- 3 按菜单键，选择**发送报告**。
- 4 选择下列选项之一：

- 无 — 对讲机未请求任何发送报告。
- 已接收 — 对讲机请求您已接收信息的报告。
- 已使用 — 对讲机请求您已阅读信息的报告。
- 两者 — 对讲机请求您已接收和已阅读信息的报告。

收件箱

它最多包含 100 条新收到的或以往收到的信息。

表 16: 收件箱图标

图标	说明
	未读（新）信息
	已读（旧）信息
	信息视图中的发送者信息 - 姓名或号码
	信息视图中的时间和日期标记 - 信息到达的时间和日期
	已接收传送状态 - 表示“存储并转发”信息的传送状态

短消息子菜单指示信息数。例如，如果显示 2/4，则表示**收件箱**中有 2 条未读信息和 4 条已读信息。

进入收件箱

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **收件箱**。



备注: 该列表的状态（如有）将显示几秒钟：

- 没有新或旧的信息 - 屏幕在数秒钟内将返回之前的显示状态。
- 收件箱已满 - 选择**确定**。

接收新信息

过程:

- 1 收到新信息。
您的对讲机显示动画并播放 *接收到新邮件* 提示音。
- 2 选择下列选项之一：
 - **阅读** - 打开整条信息。
 - **返回** - 关闭信息。您可以在以后在**收件箱**中访问该信息。

使用收件箱与发件箱中的子菜单

过程:

- 1 在初始屏幕上，按菜单键。

- 2 选择**信息** → **收件箱**或**发件箱**。
- 3 高亮选中所需信息，并按菜单键。
- 4 选择下列选项之一：
 - **储存** — 将信息另存为模板。更改默认模板名称，并按**确定**。
 - **删除** — 删除所选信息。按**是**进行确认。
 - **全部删除** — 删除**收件箱**/发件箱中的所有信息。按**是**进行确认。
 - **回复**（仅限**收件箱**）— 调用编辑屏幕，将旧信息作为默认文本，并将信息发起者作为收件人。编辑之后，按**发送**按钮、通话按键或发送键发送。
 - **重新发送**（仅限**发件箱**）— 调用编辑屏幕，并显示以前输入的文本和相同收件人。编辑之后，按**发送**按钮、通话按键或发送键发送。
 - **转发** — 调用含有旧信息的编辑屏幕，以便将其发送给不同通话方。编辑之后，按**发送**按钮、通话按键或发送键发送。
 - **刷新** — 对信息列表重新排序，并显示新信息。
 - **传送状态**（仅限**发件箱**）— 显示信息处于发送、传送、阅读、过期未传送、过期未阅读和未知故障等状态时的日期和时间。

内嵌号码

使用此功能可呼叫信息中的号码或使用信息发送者通话组开始组呼。

储存信息中的号码

先决条件： 内嵌号码功能由服务提供商启用。

何时何处使用： 您可以将发送者的号码或信息中的内嵌号码保存到新联系人或现有联系人。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **收件箱**。
- 3 高亮选中所需信息，并选择**阅读**。
- 4 按通话按键。
- 5 对讲机显示号码列表（包括发送者的号码）。
- 6 高亮选中所需号码，并按**储存**。
- 7 高亮选中所需联系人，并按**查看**。



备注： 要将号码存储为新的联系人，请选择 **[新增联系人]**，并填写所需字段。按**完成**以保存号码。

- 8 选择**编辑**。
- 9 选择新号码的**类型**，然后按**完成**。

呼叫信息中的号码

先决条件： 内嵌号码功能由服务提供商启用。

何时何处使用： 您可以回拨语音呼叫给信息发送者，或呼叫信息文本中包含的任意号码。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **收件箱**。
- 3 高亮选中所需信息，并选择**阅读**。
- 4 按通话按键。

- 5 对讲机显示号码列表（包括发送者的号码）。
- 6 要发起呼叫，请高亮选中所需号码，然后按通话按键或发送键。
- 7 选择**呼叫类型**以选择呼叫类型（**单呼**、**电话**或**PABX**）。
- 8 按通话按键或发送键。

在信息发送方的通话组中发起组呼

先决条件： 内嵌号码功能由服务提供商启用。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **收件箱**。
- 3 高亮选中所需信息，并按通话按键。

即时信息

当收到新的即时消息时，对讲机会发出*收到新邮件*的提示音并显示相应内容，该内容会覆盖先前的屏幕内容。所有即时信息都存储在**收件箱**中。如果对讲机处于 PIN 锁定状态，即时信息将在用户正确输入 PIN 码后显示。



备注： 这是一个收费功能。

发件箱

发件箱存储所有已发信息。

表 17：发件箱图标

图标	说明
	正在发送
	发送完成
	发送失败
	成功传出信息
	传出信息失败

呼出信箱

呼出信箱包含传入和传出的呼出信息，它们按时间的前后顺序排列，最新信息排列在列表的顶部。单击呼出信息标题上的**选择**，显示项目的更多详细信息。

当对讲机处于正常模式下，您可以浏览**呼出信箱**中的所有消息。但是，如果对讲机处于呼出模式下，您只能浏览有关当前正在进行的呼出信息的信息。

相关链接

[呼出](#) 第 116 页

RMS 邮箱

RMS 信箱存储所有传入和传出的无线通信系统 (RMS) 信息、状态信息和自由文本消息。

WAP 邮箱

每条 WAP 推入式信息均可立即加载或存储为 **WAP 邮箱** 中的信息。然后可通过按菜单 → **短消息** → **WAP 邮箱** 来访问此信息。所有 WAP 推入式信息都已传送到浏览器。

相关链接

[WAP](#) 第 109 页

[WAP 推送](#) 第 116 页

用户模板菜单

此功能用于存储最多 100 个预定义信息模板和您自己的信息模板。每个**收件箱**和**发件箱**中的信息均可存储为模板。每个模板的名称和文本日后均可编辑。

发送用户定义的模板

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **用户模板**。
- 3 高亮选中所需模板名称，并按**发送**。
- 4 执行以下操作之一：
 - 输入相应号码或按 **abc** 从您的地址簿中选择名称。按**发送**。
 - 从**通话组列表**选择所需通话组。

设置用户定义的模板

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **用户模板**。
- 3 高亮选中所需模板，并按菜单。
- 4 选择下列选项之一：
 - **查看** — 显示模板文本。
 - **删除** — 删除模板。
 - **编辑文本** — 打开编辑屏幕，并显示模板文本。编辑文本并按菜单。选择**保存更改**保存已编辑的模板，或者选择**储存**将已编辑的模板另存为新模板。
 - **编辑名称** — 打开编辑屏幕并显示模板名称。按**确定**保存模板。

预定义模板

预定义的消息模板将编程到您的对讲机中。您只能对预定义模板进行有限的编辑操作。您可以发送预定义模板，但不能储存经过编辑的模板，也不能从预定义模板列表中将其删除。

查看预定义模板

过程:

- 1 在初始屏幕上，按菜单键。

- 2 选择**信息** → **预定义模板**。
- 3 高亮选中所需模板，并按菜单键。
- 4 选择**查看**。

发送预定义模板

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **预定义模板**。
- 3 高亮选中所需模板，按**发送**按钮、通话按钮或发送键。



备注: 您可以在发送之前编辑预定义模板。按菜单键并选择**编辑**。编辑屏幕随即打开，并显示模板文本。您只能替换现有文本。

状态信息

对讲机允许您发送两种类型的状态信息：状态和目标状态。您的服务提供商决定在对讲机上启用哪种类型的信息。

可将状态发送至选定通话组或服务提供商设定的个人号码。可将目标状态发送至为对讲机定义的任何通话组或任何个人号码（通过联系人列表或手动输入）。

查看状态信息编号

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **发送状态**。
- 3 按菜单键，然后选择**查看**。

发送状态信息

此过程使您可以将状态信息发送到选定通话组或预设的个人号码。一次只能启用一个选项。

先决条件:

- 如果已启用将状态发送到通话组：请切换到您要发送状态信息的通话组。
- 如果已启用将状态发送到个人号码：无需任何操作，个人号码由您的服务提供商设置

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **发送状态**。
- 3 执行以下操作之一：
 - 高亮选中所需的**状态信息**并按**选择**按钮、通话按钮或发送键。
 - 如果状态列表为空，则输入 5 位状态信息编号，并按**发送**。

目标状态信息

此功能可将状态信息发送到用户可选的地址。默认情况下，可将目标状态信息发送到个人地址或通话组地址。您的服务提供商可能会将有效地址限制为储在**通讯录**中的号码。

发送目标状态信息

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **发送状态**。
- 3 执行以下操作之一：
 - 高亮选中所需的**状态信息**并按**选择**按钮、通话按键或发送键。
 - 如果状态列表为空，则输入 5 位状态信息编号，并按**发送**。
- 4 执行以下操作之一：
 - 输入相应号码或按 **abc** 从您的地址簿中选择名称。按**发送**。
 - 从**通话组列表**选择所需通话组。

屏幕中将显示以下发送报告之一：

- **状态信息已发送**。
- **状态信息发送失败**。

地址簿

此子菜单将存储您所有的联系人号码。每个条目需要以下信息：

- **姓名** - 如果为某个联系人存储多个号码，则需要此条目。
- **类型** - 必须为每个联系人指定下列某种类型：

表 18：联系人类型

联系人图标	说明
	单呼 不能有快速拨号号码。
	移动
	住宅
	工作
	PABX
	其他
	选择箭头 表示某个联系人有多个号码。

- **# (号码)** - 每个联系人条目必须包含一个号码。
- **快速拨号号码** - 接受默认的快速拨号号码，也可以进行更改。

创建通讯录

过程:

- 1 在初始屏幕上选择**通讯录**。
- 2 选择 **[新建联系人]**。
- 3 高亮选中**姓名**，然后按**更改**。输入联系人姓名，并按**确定**。
- 4 高亮选中**类型**，然后按**更改**。选择所需的联系人类型。



备注: 您可以使用左右浏览键从**联系人详情**屏幕中选择联系人类型。

- 5 高亮选中**#（号码）**，然后按**更改**。输入联系人号码，并按**确定**。
- 6 如果需要，高亮选中**快速拨号 #**，然后按**更改**。输入联系人的快速拨号号码 (1 - 1000)，并按**确定**。



备注: 如果输入的号码已存在，对讲机将显示**是否覆盖?** 信息。按**是**以确认，或者按**否**再次输入快速拨号号码。

- 7 按**完成**。

您已创建具有一个号码的联系人。要添加其他号码，请重复步骤 4 - 6。

编辑通讯录

过程:

- 1 在初始屏幕上按**通讯录**。
- 2 高亮选中要编辑的联系人。
- 3 按菜单键。
- 4 按**编辑**。
- 5 高亮选中下列条目之一，并按**更改**进行编辑：
 - 名称
 - 类型
 - #（号码）
 - 快速拨号 #
- 6 按**完成**。

删除号码

过程:

- 1 在初始屏幕上按**通讯录**。
- 2 选择要编辑的联系人。
- 3 使用左/右浏览键选择所需号码。
- 4 按菜单。
- 5 选择**删除号码**。



备注: 如果某条目只包含一个号码，删除该号码的同时会删除该条目。

- 6 按**是**。

删除联系人

过程:

- 1 在初始屏幕上选择**通讯录**。
- 2 高亮选中要删除的联系人。
- 3 按菜单键。
- 4 选择**删除联系人**。
- 5 选择**是**。

检查容量

何时何处使用： 检查对讲机中储存了多少号码。

过程:

- 1 在初始屏幕上选择**通讯录**。
- 2 按菜单键。
- 3 选择**容量**。
- 4 选择下列选项之一：
 - **单呼**
 - **电话/PABX**
 - **联系人**

通过通讯录拨打

过程:

- 1 在初始屏幕上按**通讯录**。
- 2 使用上下浏览键或最多输入联系人姓名的 12 个字符来高亮选中所需联系人。
- 3 如果联系人储存了多个号码，请使用左右浏览键选择所需号码。
- 4 按通话按键发起向**单呼**号码的单工呼叫。 否则使用发送键发起双工呼叫。

浏览器

使用此菜单项可激活 WAP 浏览器，允许您从对讲机浏览互联网。

相关链接

[WAP](#) 第 109 页

保密

此子菜单将存储所有安全设置。

PIN 保护

使用此功能可在下次开机时启用 PIN 代码认证。此代码能避免在未经授权的情况下使用对讲机。

如果您无法解锁对讲机，则只能发送或接收紧急呼叫，并且只能用旋钮调节音量大小。

相关链接

[解除对讲机的锁定](#) 第 31 页

[更改 PIN 码](#) 第 75 页

使用 PIN 码保护对讲机

过程:

- 1 在初始屏幕中按菜单 → 保密 → PIN 保护。
- 2 选择开。
- 3 输入 4 位 PIN 码。默认值为 0000（四个零）。



建议: 增强安全性，设置您自己的 PIN 码。

后置必要条件: 每次打开终端时，都需要输入 PIN 码。

取消对讲机锁定

先决条件: 如果三次输入错误的 PIN 码，对讲机将被锁定（默认值）。

过程:

- 1 对讲机显示**本机已锁定请输入解锁密码**。
- 2 输入 8 位 PUK（个人解锁密码）号码。



备注: PUK 是由服务提供商提供的八位主控密码。

- 3 输入两次新 PIN 码。

更改 PIN 码

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密 → 更改密码**。
- 3 对讲机提示输入**旧密码**。输入当前使用的 4 位保密密码（默认设置为 0000）。
- 4 如果输入的密码与旧密码相同，对讲机将提示重新输入两次新密码。

对讲机显示**密码正确**。

相关链接

[解除对讲机的锁定](#) 第 31 页

[PIN 保护](#) 第 74 页

键盘锁设置

使用键盘锁定功能可锁定键盘以避免意外按下某个键。使用对讲机菜单的相应选项或预定义的菜单快捷方式可以调用键盘锁定/解锁。默认情况下，按菜单，然后按* 键。

您的服务供应商可以确定键盘被锁定后以下哪项元素可以失效：

- 通话按键
- 侧边按钮
- 旋钮
- 开/关/结束/初始键

紧急键一直有效。

相关链接

[锁定/解锁按键/按钮](#) 第 31 页

键盘锁定通知

当键盘已锁定时，您的服务提供商可设置下列提示之一：

- 无 — 不显示任何通知。
- 仅通知 — 显示**键盘锁定**。
- 通知和提示 — 显示**按菜单 * 锁定/解锁键盘**。

设置自动键盘锁定延迟

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **键盘锁设置** → **延迟**。
- 3 使用上下浏览键更改分钟，然后按**完成**。

设置开机键盘锁

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **键盘锁设置** → **启动锁定**。
- 3 选择开/关。


空中加密

空中加密是一种启用对讲机和基础设置之间的整体通信加密的功能，可以增强呼叫、信息和数据的安全性。

如果您的服务提供商进行了配置，则对讲机在加密处于打开状态并且您接收到一个未加密的呼叫时发出声音并显示**呼叫和数据未加密**。此功能服务是在您和系统之间秘密进行的。

在 TMO 模式中，对讲机启用空中加密但由于基础设施故障不支持此功能时，对讲机屏幕显示以下图标：



。当在 DMO 模式中加密不可用时，对讲机显示：。

通过此菜单项，您仅可查看空中加密状态。



备注：这是一个收费功能。

相关链接

[状态图标](#) 第 27 页

查看空中加密状态

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **空中加密**。
- 3 对讲机显示：
 - a **禁用空中加密**。
 - b **启动空中加密**。

空中加密密钥删除

请咨询您的服务提供商，了解此对讲机是否提供了空中接口加密密钥。您可以从对讲机中删除空中接口加密密钥，方法是输入以下顺序的字符：****00##**。



备注：

- 此功能从对讲机中删除所有加密密钥需要一点时间。在此期间，不要取下电池。
- 删除在待机 TMO/DMO 或紧急操作模式下执行。



警告：使用此功能会禁用对讲机，您的服务提供商需要重新启用对讲机。

K 值有效性

K（键）是基础设施用于鉴定系统内的对讲机的密钥。这是鉴定的一部分，可让您的对讲机和系统之间保持信息的机密性。

验证 K 值有效性

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **K 值有效性**。
- 3 对讲机显示：
 - **K 值有效** — 基础设施可以鉴定对讲机。
 - **K 值无效** — 基础设施无法鉴定对讲机。请与您的服务提供商联系，以便恢复您的对讲机的密钥。

SCK（2 级无线接口加密）

SCK（静态密钥）是用于 2 级无线接口加密的密钥。它可用于 TMO 和 DMO 模式下的呼叫和数据加密。

SCK 无线接口加密在 TMO 模式下提供对讲机和无线基础设施之间的加密服务，在 DMO 模式下提供对讲机之间的加密服务。最多可向对讲机加载 32 个 SCK。专用密钥用于无线接口加密。

对讲机和/或基础设施之间的任何不匹配都会影响通信 - 只有与发射方使用相同密钥的情况下才能解码和收听通信。

TMO SCK

在 TMO 模式下使用 SCK 需要服务提供商的支持。在 TMO 模式下使用的 SCK 被称为 TMSCK。

直通密码

在 DMO 模式下使用 SCK 需要服务提供商的支持。在 DMO 模式下使用的 SCK 被称为 DMSCK。

更改直通密码

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **直通密码**。
- 3 按下一步。
- 4 对讲机将显示**新密钥**。
- 5 选择下列选项之一：
 - **是** — 更改密钥。对讲机显示**更换新密钥**。

- 否 — 保留密钥。对讲机显示**密码未更新**。

验证 TMSCK 值有效性

何时何处使用： 用于确保对讲机中的 TMSCK 有效，并且可用于无线接口加密。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **TMSCK 值有效性**。
- 3 对讲机显示：
 - **TMSCK 值有效** - 对讲机可以在 TMO 模式下以加密方式操作。
 - **TMSCK 值无效** - 对讲机无法在 TMO 模式下以加密方式操作。请联系您的服务提供商以便恢复您的对讲机的 SCK。

验证 DMSCK 值有效性

何时何处使用： 用于确保对讲机的 DMSCK 有效，并且可用于无线接口加密。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **DMSCK 值有效性**。
- 3 对讲机显示：
 - **DMSCK 值有效** - 对讲机可以在 DMO 模式下以加密方式操作。
 - **DMSCK 值无效** - 对讲机无法在 DMO 模式下以加密方式操作。请联系您的服务提供商以便恢复您的对讲机的 SCK。

隐蔽模式

使用此功能，可以完全关闭警报和通知的所有显示和音频指示，从而使对讲机在安静和黑暗的环境中不易被察觉。

当对讲机处于隐蔽模式时，无法进入**设置**菜单的以下菜单项。

- **振动**
- **设置音量**
- **提示音**
- **背景灯**（位于**显示**菜单项中）

当隐蔽模式打开时：

- 所有提示音都将设置为**关**（对应于**所有提示音**菜单条目）。
- 通话组音频设置为**扬声器控制**（对应于**音频切换**菜单条目）。
- 个人扬声器设置为**关**（此设置导致所有呼叫都通过耳机发送）。
- 背景灯设置为**禁用**（对应于**背景灯**菜单条目）。
- LED 指示灯关闭。

对讲机在关闭前设置的模式下开机。因此，如果在关闭前设置了隐蔽模式，对讲机将在隐蔽模式下打开。

当隐蔽模式关闭时，所有更改的设置都将恢复为以前的状态。

此功能可用作单键按钮。

启动隐蔽模式

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **隐蔽模式**。
- 3 选择下列选项之一：
 - **开** — 所有提示音都设置为“关”并立即关闭背景灯和 LED。组呼音频被发送到耳机。对讲机显示**隐蔽模式开**。
 - **关** — 恢复提示音、背景灯和音频的所有设置。对讲机显示**隐蔽模式关**。

设置为在隐蔽模式下振动

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**保密** → **隐蔽模式** → **振动**。
- 3 选择下列选项之一：
 - **开** - 恢复所有振动。
 - **关** - 关闭所有振动。

SDS 远程控制

SDS 远程控制是一项功能，允许通过特殊的 SDS 信息远程控制对讲机的行为和配置。信息可以由能够控制其他对讲机的任何对讲机在 TMO 和 DMO 这两种模式（包括中继器模式）下发送。在执行远程控制信息过程中，根据您的服务提供商设置，对讲机可以播放提示音、振动，或在状态图标区域中显示相应的图标。



备注: 这是一个收费功能。

设置 SDS 远程控制

何时何处使用: 启用/禁用特殊的 SDS 信息支持，该信息允许远程控制对讲机。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**安全** → **远程控制**。
- 3 选择**开启**或选择**关**禁用远程控制。

设置

此子菜单可用于更改您的对讲机配置。

振动设置

该子菜单用于确定您的对讲机在接收呼叫时是振动、响铃还是既振动又响铃。

设置默认振动模式

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **振动**。
- 3 选择下列选项之一：
 - **振动后响铃**
 - **仅振动**
 - **仅响铃**

设置振动详情

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **振动** → **详情...**。
- 3 选择下列选项之一：
 - **双工呼叫** — 设置电话呼叫、PABX 呼叫和双工单呼的振动设置。
 - **单工呼叫** — 设置单工单呼的振动设置。
 - **组呼** — 设置组呼的振动设置。
 - **信息** — 设置状态信息和文本信息的振动设置。
- 4 选择所需的设置，然后按**选择**。



备注: 如果您选择**双工呼叫**、**单工呼叫**或**信息**，提供的设置为**振动后响铃**（对于信息则为**振动并响铃**）、**仅振动**或**仅响铃**。如果选择**组呼**，则可用的设置只有**振动打开**或**振动关闭**。

铃音类型

该子菜单用于设置呼入的铃音类型。

设置铃音类型

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **铃音类型**。
- 3 选择下列选项之一：
 - **双工** — 设置所有双工呼叫的新铃音类型。
 - **单工** — 设置所有单工呼叫的新铃音类型。



备注: 当进入该子菜单时，屏幕将显示当前使用的铃音类型。

- 4 滚动屏幕至您想要的振铃类型，并按**选择**。



备注: 几秒钟后就会立即播放新的铃音类型。按需要调节音量。

设置音量

使用此菜单项可调节**单工**、**双工**、**听筒**、**扬声器**和**键盘**提示音的音量。

相关链接

[音量调节模式](#) 第 83 页

设置音量

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **设置音量**。
- 3 选择下列选项之一：
 - **双工音量** — 设置双工铃音的音量大小。
 - **单工音量** — 设置单工铃音的音量大小。
 - **耳机音量** — 设置耳机的音量大小。
 - **扬声器音量** — 设置扬声器的音量大小。
 - **按键音量** — 设置按键音的音量大小。



备注: 如果屏幕只显示**音量**一个选项，您可以一次完成上述所有设置的调整。当将**音量调节模式**设置为**独立**时，您可以选择单独更改设置。

- 4 按右或左浏览键更改相应值。



备注: 当电池电量不足时，建议不要将 4 欧姆的扬声器连接到对讲机，因为该扬声器可导致对讲机重置或关闭。

相关链接

[设置音量调节模式](#) 第 83 页

语言

该子菜单可用于更改对讲机的语言。

设置语言

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **语言**。
- 3 选择所需的语言。

数据设置

使用此菜单项可设置您的对讲机，以传输数据和从外部设备接收数据。

要将您的对讲机附件连接器连接到外部设置，则使用 PMKN4025 电缆。但此外设运行的应用程序必须符合 TETRA 标准。

**备注:**

- 只有在 TMO 模式下才能提供数据服务。
- 在 TXI 模式下数据服务是被锁定的。
- 当设置为**语音**时，内置的数据调制解调器将被关闭以节省电池的电量。

设置数据功能

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **数据设置**。
- 3 选择下列选项之一：
 - **仅语音** — 对讲机仅接收和发送语音呼叫。
 - **仅数据** — 对讲机充当调制解调器。此选项拒绝呼入和呼出语音呼叫（紧急呼叫除外）、状态信息和文本信息。
 - **语音和数据** — 对讲机充当调制解调器，但语音呼叫具有比数据呼叫更高的优先级，语音呼叫可中断数据呼叫。

音频

使用此菜单项可调整您的对讲机音频设置。

音频配置文件

音频配置文件是一组音频参数，例如提示音音量，它由您的服务提供商配置以适合特定的操作环境。例如，音频参数可调整以适合对讲机在建筑物内或嘈杂的街道上运行的环境。

如果已设定，对讲机将显示当前使用的音频配置文件名称（在主屏幕上）和/或与配置文件关联的相应图标（在状态图标区）。

您的服务提供商最多可配置 10 个音频配置文件。

有关特定配置文件的详细描述，请联系您的服务提供商。

设置音频配置文件

何时何处使用： 要根据其当前的操作环境调整对讲机的音频参数。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **音频** → **音频配置文件**。
- 3 选择所需的配置文件。

啸声抑制

啸声抑制是一种增强声反馈回路稳定性的模式。对讲机可消除在单工呼叫中由接收对讲机到发送对讲机的反馈回路导致的啸声。您可以在通话过程中切换啸声抑制功能。

要启用此防啸声功能，您可以使用对讲机菜单或相应的单键按钮。

设置啸声抑制

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **音频** → **啸声抑制**。
- 3 选择所需的设置。



备注： 您的服务提供商可能设置打开对讲机时的啸声抑制状态。根据设置，对讲机可以禁用啸声抑制功能或设置上次记忆的状态。

音频切换

您可以通过专用的扬声器控制键来控制任何单呼或组呼的话音路径（扬声器/耳机）。您还可以通过菜单定义所有组呼为大声模式，或定义为由扬声器控制键来控制。

设置音频切换

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **音频** → **音频切换**。
- 3 选择下列选项之一：
 - a **始终大声** - 音频从扬声器发出（仅限大声模式）。禁用扬声器控制键。
 - b **扬声器控制** — 音频通过耳机或扬声器发出。通过按扬声器控制键，您可以在小声和大声模式之间切换。

音量调节模式

您可以将音量设置为**独立**或**通用**。当将其设置为**独立**时，可根据用户个人喜好设置**语音**、**双工**、**单工**、**听筒**、**扬声器**和**键盘**的音量大小。当设置为**通用**时，音频的所有项都使用同一个设置。

相关链接

[设置音量](#) 第 80 页

设置音量调节模式

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **音频** → **音量调节模式**。
- 3 选择下列选项之一：
 - **独立** - 您可以根据菜单 → **设置** → **设置音量**中的首选项设置**双工**、**单工**、**耳机**、**扬声器**和**键盘**。
 - **通用** - 您可以在菜单 → **设置** → **设置音量**中为所有项目设置一个值。

相关链接

[设置音量](#) 第 81 页

铃声

此字段设置已设置提示音的音量大小。

键盘音

您可以启动/关闭每次按键的键盘音。

设置键盘提示音

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **提示音** → **键盘音**。
- 3 选择下列选项之一：
 - **开** — 启动键盘音。

- **关** — 关闭键盘音。

所有提示音

您可以启动/关闭所有提示音。

设置所有的提示音

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **提示音** → **所有提示音**。
- 3 选择下列选项之一：
 - a **开** - 启动所有提示音。
 - b **关** - 关闭所有提示音。

通话允许

您可以设置按通话按键时的不同提示音。

设置通话许可提示音

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **提示音** → **通话许可**。
- 3 选择下列选项之一：
 - **无提示音** — 当按下通话按键时，不会听到提示音。
 - **短提示音** — 当按下通话按键时，发出一声短提示音。
 - **普通提示音** — 当按下通话按键时，发出出厂设置的默认提示音。

可以发送

您可以启动/关闭发射对讲机的“接收对讲机已准备好接收发射”提示音。

设置可以发送提示音

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **提示音** → **可以发送**。
- 3 选择下列选项之一：
 - **打开提示音** - 启动可以发送提示音。
 - **关闭提示音** - 关闭可以发送提示音。

周期性提示

您可以启动/关闭指示未接听呼叫、未读消息以及电量不足的定期提示音。对于每个通知，您的对讲机都将发出未读信息提示音，并且 LED 指示灯显示黄色。

设置定期提示

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **提示音** → **周期性警报**。
- 3 选择下列选项之一：
 - **提示** - 启动/关闭周期性提示音。
 - **时长** - 指示两次周期性提示音的间隔时间。

D-PTT 铃音

此菜单项包含“两次按下 PTT”功能的设置。

当对讲机处于待机状态或按两次通话按键进入组呼模式时，通过“两次按下通话按键”功能您可以发送提示音模式（单声、双声或三声）。

播放完 D-PTT 提示音后，用户可以再次按住通话按键以获得通话许可。否则，如果用户在播放 D-PTT 提示音时按通话按键，就会不起作用。

发送 D-PTT 提示音后仍然按住通话按键将可获得通话许可。在发送对讲机上听不到 D-PTT 提示音。



备注: 此功能需要服务提供商的支持才能使用。

设置 D-PTT 提示音

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **提示音** → **D-PTT 提示音**。
- 3 选择下列选项之一：
 - **D-PTT 模式** — 启动/关闭 D-PTT 提示音。
 - **提示音类型** — 指示 D-PTT 提示音的播放次数。

显示

使用此菜单项可调整您的对讲机显示设置。

相关链接

[显示](#) 第 26 页

[显示](#) 第 26 页

[设置屏幕上的时间和日期](#) 第 88 页

设置反转屏幕

何时何处使用:

当用户必须把对讲机佩带在肩上、皮带或翻领上并希望倒着阅读屏幕时，该功能非常有用。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **反转屏幕**。
- 3 选择下列选项之一：

- 开 — 启动此功能。
- 关 — 关闭此功能。

设置字体级别

何时何处使用： 增大/减小文本大小，使您可以根据现有条件调整界面的可读性。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **字体级别**。
- 3 选择下列选项之一：
 - 1 - 小号字体大小
 - 2 - 中号字体大小
 - 3 - 大号字体大小



备注： 在一些语言中，可用字体级别数量受限。

设置大号待机字体

何时何处使用： 启用/禁用初始屏幕上的大字体。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **大号待机字体**。
- 3 选择**开**启用或选择**关**禁用主屏幕上显示大号字体。



备注： 大号待机字体在部分语言中不可用。

设置额外缩放

启用额外缩放同时会更改三种设置：切换**字体级别**至最大可能，激活**大型待机字体**，和设置**扩展状态图标**至**仅待机**。

如果您修改任何这些设置，例如减小字体级别，对讲机会退出额外缩放模式。然而，要恢复三个所有的先前设置，您需要手动更改**字体级别**、**大型待机字体**和**扩展状态图标**的值。如果您无法恢复设置，请联系您的服务提供商。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **额外缩放**。
- 3 选择**开**启用或选择**关**禁用额外缩放。



备注： 额外缩放在使用 SIM 卡加密的对讲机上不可用。

设置扩展状态图标

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **扩展状态图标**。

3 选择下列选项之一：

- **禁用** - 对讲机始终显示正常大小的图标。
- **仅待机** - 对讲机仅在初始屏幕上显示放大图标。
- **始终** - 对讲机在初始屏幕上和浏览对讲机菜单时显示放大图标。

设置屏幕保护程序

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **屏幕保护程序**。
- 3 选择下列选项之一：
 - **启动** — 启动/关闭此功能。
 - **文本** — 设置启动此功能时屏幕保护程序上的文本。

设置背景灯

何时何处使用： 节省电池电量。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **背光**。
- 3 选择下列选项之一：
 - **自动** — 打开对讲机，按设备或其连接的附件上的任意键均可触发背景灯。此外，充电 或接收来自服务（如 呼出信息、RUA 请求、DGNA）的信号以及优先呼叫过程中的 TX 超时都会打开背景灯。
 - **半自动** — 当用户打开对讲机、按背景灯功能指定的按键或充电时，将打开背景灯。
 - **禁用** — 已禁用背景灯和屏幕始终呈暗光状态。
 - **开** — 始终打开背景灯。



备注：通过按背景灯键设置背景灯强度级别会更改 LED、键盘背景灯和紧急键的背景灯强度。

设置墙纸

何时何处使用： 更改主屏幕的外观。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **墙纸**。
- 3 选择下列选项之一：
 - **开** — 启动此功能。
 - **关** — 关闭此功能。

设置对比度

何时何处使用： 此功能设置屏幕对比度，以便提高界面的可见性。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **显示** → **对比度**。

- 3 使用左右浏览键更改相应值。
- 4 按**确定**。

时间和日期

此子菜单控制主屏上显示的时间和日期。



备注: 如果启用了初始屏幕文本信息，根据可配置的待机屏幕设置，主模式显示文本可能包含时间和日期。



备注: 基础设施对时间和日期进行同步。如果不在基础设施信号范围内，则可手动设置值。

设置屏幕上的时间和日期

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **时间 & 日期** → **显示**。
- 3 选择下列选项之一：
 - **时间和日期** — 对讲机显示时间和日期。
 - **时间** — 对讲机仅显示时间。 **日期格式**子菜单被禁用。
 - **日期** — 对讲机仅显示日期。 **时间格式**子菜单被禁用。
 - **关** — 对讲机不显示时间或日期。 禁用**格式**菜单。

相关链接

[显示](#) 第 26 页

[显示](#) 第 85 页

设置时间格式

先决条件: 如果菜单 → **设置** → **时间和日期** → **显示** 设置为**时间和日期**或**时间**。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **时间和日期** → **格式** → **时间格式**。
- 3 选择下列选项之一：
 - **12 小时制** - 显示带有 **am**（上午）或 **pm**（下午）指示的时间。
 - **24 小时制**。

手动设置时间

何时何处使用: 如果无法通过基础设施自动更新时间。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **时间和日期** → **设置** → **设置时间**。
- 3 使用浏览键输入当前时间 或 键盘输入当前时间。
- 4 按**完成**。

设置日期格式

先决条件： 如果菜单 → 设置 → 时间和日期 → 显示设置为时间和日期或日期。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择设置 → 时间和日期 → 格式 → 日期格式。
- 3 选择（D — 日，M — 月，Y — 年）：
 - 日/月/年
 - 月/日/年
 - 日-月-年
 - 年/月/日

手动设置日期

何时何处使用： 如果无法通过基础设施自动更新时间。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择设置 → 时间和日期 → 设置 → 设置日期。
- 3 使用浏览键输入当前时间或键盘输入当前时间。
- 4 按完成。

设置时差

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择设置 → 时间&日期 → 设置 → 时差设定。
- 3 使用浏览键输入时差。



备注： 您可以以 15 分钟的幅度向前或向后调整最多 14 个小时的时差值。

- 4 按完成。

设置时间和日期的自动更新

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择设置 → 时间和日期 → 系统更新。
- 3 选择下列选项之一：
 - **关** — 所有基础设施信息都将被忽略。对讲机使用内部时间和时差。
 - **时间** — 显示的时间是在基础设施时间上增加或减去服务提供商设定的时差计算所得。
 - **时间和时差** — 接收来自基础设施的信息后，时间和时差都将被更新。

节电模式

节电模式 (EE) 是一种旨在节省电池电量的运行模式。您的对讲机不监听主控制信道所有下行链路的时隙。如果将对讲机接在充电器上，则不需要使用**节电模式**。

启动节电模式

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **节电模式** → **节电选择**。
- 3 选择下列选项之一：
 - **开** - 启动节电模式功能。
 - **关** - 关闭节电模式功能。

查看节电状态

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **节电模式** → **节电状态**。
- 3 节电状态显示为：
 - **系统支持节电模式**
 - **系统目前不支持节电模式**。

发射功率的级别

通过发射功率功能，您的对讲机可以选择利用 3L 级或 4 级进行传输。当对讲机使用此功能时会显示信号强度图标。

选择 RF 功率

何时何处使用： 如果您将进入需要较强信号的区域。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **RF 功率**。
- 3 选择下列选项之一：
 - **高 RF 功率** — 启动此功能。
 - **普通 RF 功率** — 关闭此功能。



备注:

- 在通话过程中将 RF 功率的级别切换到**普通 RF 功率**可能会导致通话中断。该功率级别可能不足以维持发射。
- 选择**高 RF 功率**时耗电量较高。



备注: 这是一个收费功能。

预订

此菜单项可用于编辑 RUA/RUI 功能设置以自动接受或拒绝预订请求。

相关链接

[RUI 第 100 页](#)

[RUA/RUI 第 108 页](#)

编辑预订设置

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **预订设置**。
- 3 选择下列选项之一：
 - **接受预订** — 对讲机接受所有预订请求。
 - **拒绝预订** — 对讲机拒绝所有预订请求，并且不会发送任何通知。

旋钮

使用此菜单项可以设置与旋钮相关的所有功能。

设置旋钮模式

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **旋钮** → **旋转模式**。
- 3 选择下列选项之一：
 - **双重模式** — 两种模式均可用。旋转旋钮以调节音量，或按下旋钮并旋转以切换到其他通话组。
 - **音量** — 此旋钮仅用于控制音量。顺时针转动旋钮可提高音量。
 - **滚动** — 此旋钮仅用于更改通话组或在菜单中滚动菜单项。



备注: 如果您选择**滚动**，屏幕将显示：

- **已选择滚动** - 要调整音量大小，请转至主菜单，选择**设置** → **设置音量**。
- **设置功能键以调节音量** — 您可以使用可预设侧边按钮调节音量。



备注: 旋钮和侧边按钮是成对的。当旋钮模式设置为**音量**或**双**时，侧边按钮支持单键按钮功能。

相关链接

[单键按钮功能](#) 第 35 页

设置旋钮锁定

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **旋钮** → **旋钮锁定**。
- 3 选择下列选项之一：
 - **锁定** - 锁定 旋钮，您可以通过选择**解锁**或按住旋钮解锁。
 - **解锁** - 解锁旋钮。
 - **禁用** - 锁定功能不可用。您的旋钮 将始终处于解锁状态。

设置键盘锁

何时何处使用: 设置锁定键盘时旋钮的行为。

过程:

- 1 在初始屏幕上，按菜单键。

- 2 选择**设置** → **旋钮** → **键盘锁定**。
- 3 选择下列选项之一：
 - **无锁定** — 滚动与音量设置功能可用。
 - **锁定音量** — 只能使用旋钮进行滚动。
 - **锁定滚动** — 只能使用旋钮用于设置音量。
 - **同时锁定** — 滚动与音量设置功能都不可用。

设置旋钮环绕

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **旋钮** → **环绕**。
- 3 选择下列选项之一：
 - **开** - 循环滚动通话组列表或进入下一个文件夹。
 - **关** - 在通话组列表中滚动时，该操作会在到达当前所选文件夹中的第一个或最后一个通话组后停止。



备注: 仅当**环绕**设置为**开**，并且**滚动范围**设置为**滚动到下一个**时，您才能在所有通话组和文件夹中滚动。

设置旋钮滚动范围

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **旋钮** → **滚动范围**。
- 3 选择下列选项之一：
 - **保持在范围内** - 仅在当前文件夹的通话组中滚动。
 - **滚动到下一个** - 在所有通话组和文件夹之间滚动。



备注: 仅当**环绕**设置为**开**，并且**滚动范围**设置为**滚动到下一个**时，您才能在所有通话组和文件夹中滚动。

设置旋钮通话组选择功能

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **旋钮** → **确认 TG 选择**。
- 3 选择下列选项之一：
 - **开** - 您需要通过按**选择**按钮或按通话按键来确认通话组选择，以便立即在新通话组中发起呼叫。
 - **关** - 加入所选的通话组，而不出现任何其他提示

设置旋钮功能键

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **旋钮** → **功能键**。
- 3 选择下列选项之一：
 - **自动** - 根据**旋转模式**设置侧边按钮。



备注: 如果**旋转模式**设置为:

- **双或音量** - 屏幕显示**自动选择 (OTB)**, 只能通过旋钮设置音量。
- **滚动** - 屏幕显示**自动选择(音量)**, 只能通过侧边按钮设置音量。
- **音量调节** - 通过设置侧边按钮来调节音量大小。
- **OTB 功能** - 将侧边按钮设置为预定义的单键按钮功能。

通话组设置

使用此子菜单可设置“扫描”和“我的通话组”文件夹。

扫描

此菜单项可用于启动/关闭扫描、查看使用中的扫描列表, 以及对扫描列表进行编辑。此功能仅适用于 TMO 模式。只要在扫描列表中定义此通话组, 并且扫描处于开启状态, 对讲机就可以加入任何组呼。

相关链接

[启动通话组扫描](#) 第 35 页

启动通话组扫描

何时何处使用: 如果您想要监听定义的通话组列表中的任何 TMO 组呼。

过程:

- 1 在初始屏幕上, 按菜单键。
- 2 选择**更多...** → **通话组设置** → **扫描** → **扫描**。
- 3 选择**选择列表**和列表名称。
对讲机将显示**已选择**列表名称。
- 4 选择**扫描** → **开**。

对讲机将扫描预定义扫描列表。

相关链接

[扫描](#) 第 93 页

设置活动扫描列表中的通话组

何时何处使用: 如果您希望编辑活动扫描列表中的通话组。

过程:

- 1 在初始屏幕上, 按菜单键。
- 2 选择**更多...** → **通话组设置** → **扫描** → **使用中的列表**。



备注: 如果显示**扫描关闭**, 请转至**更多...** → **通话组设置** → **扫描** → **扫描** → **开**以启用扫描。

- 3 选择**查看**, 并高亮选中所需通话组。
- 4 按菜单。
- 5 选择下列选项之一:
 - **删除** — 从活动扫描列表中清除此通话组。
 - **优先级**, 将新优先级选择为**低**、**中**或**高**。

设置扫描列表

何时何处使用： 如果您希望设置任何扫描列表。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **通话组设置** → **扫描** → **扫描列表**。
- 3 高亮选中所需扫描列表，然后按菜单查看其他设置：
 - **重命名** — 为此扫描列表输入一个新名称。
 - **容量** — 显示此扫描列表中的已分配通话组和未分配通话组的数目。
 - **清除** — 删除分配给此扫描列表的所有通话组。
 - **增加通话组** — 向扫描列表添加通话组。从通话组文件夹中选择一个通话组，然后指定适当的优先级。
 - **编辑** — 更改所需通话组的优先级或删除通话组。

从扫描列表中删除通话组

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **通话组设置** → **扫描** → **扫描列表**。
- 3 高亮选中所需的扫描列表，然后按菜单 → **编辑**。
- 4 高亮选中所需通话组，然后按菜单 → **删除**。

我的通话组

我的通话组相当于**收藏夹**（下一部分）。两个菜单项包含常用通话组和联系人号码的快捷方式，以及允许执行相同的操作。详细的功能描述请参见**收藏夹**。

收藏夹

收藏夹包含在收藏文件夹中整理的常用通话组和联系人号码的快捷方式。

要快速访问收藏文件夹，在初始屏幕中按向上浏览键。要滚动查看收藏文件夹中项目，您可以使用导航键或旋钮。

收藏夹

常用通话组和联系人号码都存储在收藏夹。此文件夹为所有类型的通话组和联系人号码所共用，这意味着在一个文件夹中，您可以让项目在不同模式下可用。此外，为表示每个项目的类型，对讲机将在旁边显示一个小图标。

默认情况下，对讲机具有一个可存储多达 128 个项目的收藏夹。不过，您可以在**收藏夹**内创建另外两个文件夹，为它们指定能够反映其内容的有意义的名称。

如果**收藏夹**仅包含一个收藏文件夹并且它是空的，您唯一可执行的操作便是向文件夹添加一个项目，重命名文件夹，以及创建新文件夹。

常用通话组

您可以将对讲机中预设的任何通话组添加到**收藏夹**。对讲机根据当前所选的常用通话组来调节它所使用模式。例如，如果对讲机处于 DMO 模式并且您选择 TMO 通话组，则对讲机将切换到 TMO 模式，反之亦然。

在进行组呼的过程中滚动常用通话组不会终止通话。在通话期间还可以从**收藏夹**删除当前选择的通话组，这不会终止呼叫。

如果关机之前最后一个选定的通话组是来自**收藏夹**的通话组，对讲机：

- 在以 DMO 模式开机时，会加入最后选择的收藏 DMO 通话组。
- 在以 TMO 模式开机时，会加入最后选择的收藏 TMO 通话组。

要拨打常用通话组的电话，请使用此文档中介绍的组呼标准程序。

常用联系号码

您可以将任何联系号码从**通讯录**添加到**收藏夹**。如果通讯录包含多个联系号码，您需要使用右或左浏览键以指定要添加的特定联系号码。没有关于为联系人添加分配的单个联系号码的限制 — 您可以作为单独的条目添加所有联系号码。从**通讯录**删除单个联系号码时会自动将它从**收藏夹**中删除。同样，从**通讯录**删除一个联系人时，也会自动从**收藏夹**删除所有相关的联系号码。

在紧急操作期间，无法呼叫常用的联系号码。

向常用的联系人号码发起单呼

过程：

- 1 选择想要呼叫的联系人号码，从初始屏幕中执行以下操作之一：
 - 按右或左浏览键。
 - 转到**选项** → **TG 文件夹列表**，选择所需的收藏夹，然后突出显示联系人号码。
- 2 如果您正处于以下模式：
 - a TMO — 对于单工呼叫，按下通话按键然后松开。您将听到铃音。否则，按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。对于双工呼叫，按一下发送键。您将听到铃音。
 - b DMO — 只能使用单工呼叫。按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。
- 3 要结束呼叫，请按结束键。

将文件夹添加至收藏夹

先决条件：收藏夹包含少于三个收藏夹。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **收藏夹**。
- 3 选择**[新文件夹]**。
- 4 输入名称并选择**确定**。

将联系人号码添加至收藏夹

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**通讯录**

- 3 突出显示您要添加至**收藏夹**的联系人并使用左或右浏览键选择所需号码。
- 4 按菜单键并选择**添加至收藏夹**。
- 5 选择您要添加联系人号码的一个文件夹，然后按**选择**。

将通话组添加至收藏夹

先决条件:

要添加 DMO 通话组，确保对讲机处于 DMO 模式。

要添加 TMO 通话组，确保对讲机处于 TMO 模式。

过程:

- 1 在初始屏幕上，按**选项**键。
- 2 选择下列选项之一：
 - **TG 文件夹列表** - 包含按文件夹排列的通话组。
 - **TG 通话组列表** - 包含按字母顺序排列的通话组。
- 3 找到并突出显示您要添加至**收藏夹**的通话组。
- 4 按菜单键并选择**添加至收藏夹**。
- 5 选择您要添加通话组的一个文件夹，然后按**选择**。

相关链接

[进入 DMO 模式](#) 第 48 页

管理收藏夹中的文件夹

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多... → 收藏夹**。
- 3 高亮选中所需的文件夹。
- 4 按菜单键。
- 5 选择下列选项之一：
 - **重命名文件夹** - 更改文件夹名称。输入新的文件夹名称并按**确定**。
 - **删除文件夹** - 从**收藏夹**删除选定的文件夹。按**是**确认删除。



备注: 您不能删除最后一个收藏夹或至少包含一个非可擦除项目的文件夹。

从收藏夹删除项目

何时何处使用: 要从收藏夹中删除单个联系人号码或通话组。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多... → 收藏夹**。
- 3 选择一个包含您要删除的项目的文件夹。
- 4 突出显示该项目，然后选择**删除**。按**是**确认删除。

从收藏夹中删除所有项目

何时何处使用： 要删除存储在收藏夹中的所有联系人号码和通话组。

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **收藏夹**。
- 3 选择所需的文件夹。
- 4 按菜单键，然后选择**全部删除**。按**是**确认删除。

我的信息

使用此子菜单可查看您自己的私人信息、电话信息和对讲机信息。

查看和修改个人信息

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **我的信息**。
- 3 选择下列选项之一：
 - **本机私密号码** - 显示您的对讲机的个人号码。
 - **本机电话号码** - 显示您的对讲机的电话号码。



备注：要修改显示的电话号码，请选择**编辑**。键入相应号码，然后按**确定**。

- **对讲机信息** - 显示对讲机信息：制造商、产品类型、ISSI、TEI、序列号和 OPTA。



备注：OPTA 信息是可选的。

最近呼叫号码

您可以查看所有呼叫的记录：

- **呼出号码** — 您发起的呼叫。
- **已接收** — 您应答的呼叫。
- **未接来电** — 您接收到但未应答的呼叫，或者是拒绝接听的呼叫。

每单呼叫列表最多可以包含 50 个号码，最近呼叫号码排在列表的最前面。如果最近呼叫号码已存储在通讯录中，则最近呼叫号码列表中会显示该号码对应的姓名。虽然一个号码拨叫过多次，在列表中也只将显示一次。

查看最近呼叫

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **最近呼叫号码**。
- 3 选择下列选项之一：

- 已拨呼叫
- 已接来电
- 未接来电

- 4 从列表中选择所需通话。
- 5 按菜单键。
- 6 选择**查看**。



建议: 按下浏览键绕过前两个步骤。



备注: 仅当在对讲机中设置了时间和日期时，呼叫时间信息才可用。未接电话列表中不能使用呼叫持续时间。

从最近呼叫号码中进行呼叫

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **最近呼叫号码**。
- 3 选择下列选项之一：
 - 已拨呼叫（在初始屏幕中按发送键访问**已拨呼叫**列表）
 - 已接来电
 - 未接来电



备注: 在初始屏幕中，按下浏览键访问**最近呼叫**菜单项。

- 4 高亮选中所需呼叫，然后按通话按键发起单呼或按发送键发起电话呼叫。



备注: 只有在 TMO 模式下才能提供电话呼叫。

将最近呼叫号码存储到通讯录

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **最近呼叫号码**。
- 3 选择**呼出号码**、**已接来电**或**未接来电**。
- 4 按**储存**。



备注: 如果**储存**未指定给左软按键，则表示该号码已经储存在地址簿中。

- 5 要将号码储存为新的条目，请选择 **[新建联系人]**。或者，如果要将号码储存到现有的条目，请选择该条目，然后按**查看**并选择**编辑**。
- 6 突出显示联系人类型字段后，左右滚动来显示要指定给该号码的联系人类型。
- 7 选择**完成**。

删除最近呼叫

过程:

- 1 在初始屏幕上，按菜单键。

- 2 选择**更多...** → **最近呼叫号码**。
- 3 选择**呼出号码、已接来电或未接来电**。
- 4 在所需呼叫上按菜单。
- 5 选择**删除**。



备注: 要清除所有呼叫，请选择**全部删除**。

快捷方式

使用此子菜单可设置快捷方式进入常用的菜单项。

创建菜单快捷方式

何时何处使用: 为菜单项指定快捷方式。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 滚动到要用作快捷方式的项目。
- 3 高亮选中此项目时按住菜单。

示例:

创建**所有提示音**选项的快捷方式。

- 1 在初始屏幕上，按菜单键。
- 2 选择**设置** → **提示音**。
- 3 高亮选中**所有提示音**，按住菜单，直到显示为下列各项指定快捷键方式：**所有提示音**。
- 4 选择**是**，然后显示**快捷键: 1**。
- 5 按**完成**。



备注: 要使用此快捷方式，请在初始屏幕中按菜单和键 1。

编辑菜单快捷方式列表

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **快捷方式**。
- 3 高亮选中所需快捷方式，然后按菜单。
- 4 选择下列选项之一：
 - **编辑** - 更改指定的键。键入所需号码，然后按**确定**。



备注: 键入介于 1-20 之间的数字。

- **删除** - 清除高亮选中的快捷方式。选择**是**进行确认。
- **全部删除** - 清除所有快捷方式。选择**是**进行确认。

RUI

使用此菜单项可登录/注销对讲机。

相关链接

[RUA/RUI](#) 第 108 页

[预订](#) 第 90 页

登录

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **RUI** → **登录**。
- 3 高亮选中：
 - **用户 ID** 并按**选择**进入**用户 ID 列表**。如果您是此对讲机的新用户，请选择 **[新用户 ID]** 并输入您的用户 ID。否则，请从列表中选择您的用户 ID。
 - 第二行并按**编辑**以便输入用户 ID，然后按**确定**。
- 4 选择**用户 PIN**，键入您的凭据，然后按**确定**。
- 5 此时显示登录屏幕。

注销

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **RUI** → **注销**。
- 3 按**接受**。

网络

使用此菜单项可在对讲机操作模式之间进行切换。

相关链接

[进入 TMO/DMO 模式](#) 第 33 页

[选择网络操作模式](#) 第 100 页

选择网络操作模式

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **网络**。
- 3 选择下列选项之一：
 - **网络选择** - 选择允许对讲机在其中注册的网络。
 - **集群模式** - 使用基础设施切换到此模式。
 - **直通模式** - 在不使用基础设施的情况下切换到此模式。
 - **中继器模式** - 切换到中继器模式。

- **TXI 模式** - 选择**激活**停止发送任何无线传输信号。



备注: 如果对讲机处于 **TXI 模式**, 则不能从**直通模式**切换到**集群模式**或**中继器模式**。

相关链接

[进入 TMO/DMO 模式](#) 第 33 页

[网络](#) 第 100 页

选择您的网络

过程:

- 1 在初始屏幕上, 按菜单键。
- 2 选择**更多...** → **网络** → **网络选择** → **本地网络**。
- 3 您的对讲机已在本地网络注册。如果已定义多个本地网络, 则对讲机将在列表上的第一个可用网络中注册。

使用选择网络选项进行入网登记

过程:

- 1 在初始屏幕上, 按菜单键。
- 2 选择**更多...** → **网络** → **网络选择** → **选择网络**。
- 3 从列表中选择所需网络。

您的对讲机已在所选网络注册。

使用外部网络入网登记

何时何处使用: 当您超出网络范围对讲机屏幕显示**不在服务区**信息时, 使用此功能迁移到另外一个预定义网络。

过程:

- 1 在初始屏幕上, 按菜单键。
- 2 选择**更多...** → **网络** → **网络选择** → **外部网络**。

使用任何网络

何时何处使用: 对讲机已不在其本地网络覆盖范围内, 可以注册到任何网络。所有网络上仅支持明文身份验证。

过程:

- 1 在初始屏幕上, 按菜单键。
- 2 选择**更多...** → **网络** → **网络选择** → **任何网络**。
- 3 对讲机自动从预定义列表选择网络并注册到其中。

使用迁移入网登记

何时何处使用: 当您超出网络范围对讲机屏幕显示**不在服务区**信息时, 使用此功能迁移到另外一个预定义网络。

过程:

- 1 在初始屏幕上, 按菜单键。

2 选择**更多...** → **网络** → **网络选择**选择下列选项之一：

- **迁移至...** — 从列表中选择所需网络。要查看网络 ID，请按菜单键，然后按“选择”。
- **自动** — 您的对讲机自动连接到预定义网络。

定位

详情请参阅 GPS 定位服务。

相关链接

[GPS 定位服务](#) 第 59 页

查看您的位置

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **定位** → **位置**。
- 3 滚动并查看有关上一次计算位置时的结果。



备注：要刷新您的位置：

- 选择**位置** — 对讲机将自动刷新其位置。
- 按**刷新**

更改 GPS 精度

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **定位** → **精度**。
- 3 选择下列选项之一：
 - **中**（默认值） - 优化耗电量，定位精度较低。
 - **高** - 定位精度较高，耗电量相对较高。



备注：如果连接到外部充电设备，则对讲机会自动进入**高精度**模式。

分组数据

分组数据 (PD) 业务允许您在 TETRA 系统中使用 Internet 协议 (IP) 传送数据。



备注：要从一台标准计算机上无线传递数据，请使用数据线连接计算机 PMKN4025 和对讲机。服务提供商需要在计算机上安装附加应用程序。

如果您的服务提供商安装了这些应用程序，则通过使用多时隙分组数据 (MSPD) 业务就可以加快数据的传输速度。



备注：这是一个收费功能。

查看数据统计信息

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **分组数据**。



备注: 只有在 TMO 模式下才能提供数据服务。必须将数据选项设置为**语音和数据**或**仅数据**。

- 3 选择下列选项之一:

- **已发数据** — 自显示当前分组数据启动后已发送数据量（以千字节为单位）和数据流量。
- **已收数据** — 自显示当前分组数据启动后已接收数据量（以千字节为单位）和数据流量。
- **带宽** — 显示活动数据会话百分比。
- **失败的传输** — 发送/接收失败的分组数据的百分比。



备注: 暂缺 — 备用分组数据会话。

查看加密状态

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择**更多...** → **分组数据** → **加密**。
- 3 显示当前分组数据会话的加密状态:
 - **分组数据频道清除**
 - **分组数据频道已加密**
 - **加密不适用**（清除）

章节 6

功能

个呼

单呼，亦称为点对点或个人呼叫，用于在两个个人用户之间进行通话。没有别的对讲机能听到他们的对话。可以通过两种方式进行此类型的呼叫：

- TMO 模式下的双工呼叫（如果系统允许）。呼叫双方可以同时讲话。
- TMO 或 DMO 模式下的单工呼叫。一次只有一方可以讲话。

在发起 DMO 单呼时，不在此呼叫中的对讲机会收到信道忙指示。对讲机使用其对讲机号码进行识别。

相关链接

[紧急个呼（单呼或 MS-ISDN）](#) 第 54 页

发起单呼

过程:

- 1 在初始屏幕上，输入号码。
- 2 如果单呼不是所显示的第一种呼叫类型，请反复按**类型**以将其选中。
- 3 如果您正处于以下模式：
 - a TMO — 对于单工呼叫，按下通话按键后再松开。您将听到铃音。否则，按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。对于双工呼叫，按下发送键后再松开。您将听到铃音。
 - b DMO — 只能使用单工呼叫。按住通话按键。等待通话提示音，然后讲话，释放通话按键接听。
- 4 要结束呼叫，请按结束键。

无线通信系统 (RMS)

无线通信系统 (RMS) 功能使对讲机通过 TETRA 网络使用短数据服务接收和发送 RMS 消息。

有两种类型的 RMS 信息：

- RMS 状态 — 在对讲机和服务提供商之间双向发送的预定义代码。对讲机可以有最多 10 个状态，已分配给 0 至 9 数字键。最新接听或发送的 RMS 状态被保留在主屏幕上，直到下一次重启。接收到的 RMS 状态在主屏幕上显示为蓝色字体。

RMS 自由文本 — 单向信息包含由服务提供商发送到对讲机上的自由文本。由于这种类型的信息会比较长，对讲机仅在其主屏幕上显示开始部分，要读取其剩余部分，您需要转到**菜单 → 信息 → RMS 信箱**。最新 RMS 自由文本被保留在主屏幕上，直到下一次重启。

RMS 自由文本消息和呼入和呼出 RMS 的状态（发送的 RMS 状态除外）均存储在 **RMS 信箱** 中。其容量为最多十条，用于传入和传出的 RMS 的信息。如果 **RMS 信箱** 已满，传入或传出的任何新 RMS 信息将覆盖最早的消息（已接收或发送）。





对讲机只与您的服务提供商预定义的号码之间收发 RMS 消息。



备注: 这是一个收费功能。

RMS 图标

表 19: RMS 图标

图标	说明
	RMS 状态已接收 表示新 RMS 状态消息刚刚到达。
	RMS 状态已发送
	RMS 信箱已读信息
	RMS 信箱未读信息

发送 RMS 状态

先决条件: 您的服务提供商已启用此功能，并且对讲机处于 RMS 模式。

何时何处使用: 使用数字键发送预定义的 RMS 状态。

过程:

按住所需的键。如果您按键的时间太短，对讲机将启动单呼/电话/PABX 呼叫。

单键拨号

此功能允许您在按住一个数字键 (1-9) 时进行呼叫。



备注: 如果启动了单键功能，单键拨号功能无效。如果按键未分配任何功能，您的对讲机屏幕会显示**未分配的按钮**信息。

通过索引进行通话组拨号

利用此功能，您可以通过拨打通话组索引连接到任何通话组，而不必从通话组文件夹和列表中进行选择。



备注: 这也称为通话组快速拨号。

查看通话组快速拨号号码

过程:

- 1 在初始屏幕上按**选项**。
- 2 选择下列选项之一：
 - **按文件夹搜索通话组**，选择文件夹并高亮选中所需通话组。
 - **按字母搜索通话组**，通过最多输入 15 个字符来缩小通话组名称的范围，并高亮选中所需通话组。
- 3 按菜单 → **查看**。

示例:

对讲机显示**快速拨号号码 1***，这表示此通话组的快速拨号号码为 1。

通过索引选择通话组

过程:

- 1 在初始屏幕中输入通话组快速拨号号码并按 *****。
- 2 按**加入**。



建议: 要发起组呼，请按通话按键。

电话及专用自动交换分机呼叫

电话呼叫 可用于呼叫固定电话号码或移动电话号码。专用自动交换分机 (PABX) 呼叫允许您呼叫本地的（交换局）分机号码。

发起电话或 PABX 呼叫

过程:

- 1 在初始屏幕上，输入号码。
- 2 如果**电话**或**PABX**不是出现的第一种呼叫类型，请反复按**呼叫类型**以将其选中。
- 3 按发送键。

电话/PABX 快速拨号

此功能允许您在拨打电话/PABX 时最少只拨三位数字而不必拨全部的号码。在联系人列表中添加已拨号码时，会分配电话/PABX **快速拨号** 号码。



备注: 此功能仅适用于 TMO 模式。

使用电话/PABX 快速拨号

过程:

- 1 在初始屏幕中输入预定义电话/PABX 快速拨号号码并按 **#** 键。
- 2 按发送键。

DTMF 拨号

此功能允许您在进行单呼、电话呼叫或 PABX 呼叫过程中，与自动应答设备（例如，语音信箱或录音电话）进行通信。

在进行单呼、电话呼叫或 PABX 呼叫过程中，按 DTMF 键（0-9、*、#）。这时，DTMF 键会发出提示音，且输入的数字会显示在屏幕上。

缩位拨号

此功能让您只需拨打被叫方完整号码的一部分即可拨号。您的对讲机会自动补全号码。

您的对讲机号码是 4282564。

- 1 拨 564（而不用拨完整号码 4282564）。
- 2 要发起该呼叫，请按通话按键或发送键。

RUA/RUI

对讲机用户分配 (RUA) 和对讲机用户识别 (RUI) 功能支持认证服务。只有在成功登录任意临时对讲机后，才能提供完全访问和永久性对讲机功能，这样一来，其他人便仍可使用您的固定号码与您取得联系。登录失败导致服务受限。

您可按接口颜色来区分 RUA/RUI 状态：

- 蓝色 - 已登录
- 灰色 - 已注销

对讲机状态

- 完全服务 - 用户已成功登录。您的对讲机具有完整的功能。
- 限制服务 - 用户未登录。由服务提供商指定。
- 伪登录 - 仅在单站集群 (LST) 中发生。除呼叫转移等服务之外的对讲机所有功能均可用（取决于服务提供商设置）。将显示 RUI 伪登录图标。

预订

您的服务提供商会在预定义的时间段将特定对讲机分配给某人。您将只能看到包含您的登录信息的屏幕，并可以使用完整服务。

强制注销

您的服务提供商可将您注销。对讲机将显示**强制注销**。



备注：这是一个收费功能。

相关链接

[RUI](#) 第 100 页

[预订](#) 第 90 页

WAP

无线应用协议 (WAP) 是针对在无线通信环境（如 TETRA 网络）中进行的应用层网络通信的标准。该协议用于通过 WAP 浏览器从对讲机访问移动 Web。



备注: 这是一个收费功能。

相关链接

[WAP 邮箱](#) 第 70 页

[WAP 推送](#) 第 116 页

WAP 浏览器

Openwave 手机浏览器是一类符合 WAP 的用户代理。WAP 浏览器提供了基于计算机的 Web 浏览器的所有基本服务。当任何先占式显示中断浏览器会话时，浏览器需要手动重新激活才能返回。WAP 浏览器不支持从右向左书写的语言（如阿拉伯语和希伯来语）；请改用英语。不会为用这些语言编写的内容显示字符。



备注: 根据对讲机配置和网络条件，WAP 浏览器可能无法正确显示图像（或可能会延时显示它们）。

进入浏览器

先决条件: 在初始屏幕上，按菜单键。设置 **设置** → **数据设置** 为 **仅数据** 或 **语音和数据**。

过程:

- 1 在初始屏幕上，按菜单键。
- 2 选择 **浏览器**。
- 3 可选：通过按住结束键，退出浏览器。

进入浏览器菜单窗格

先决条件: 您正处于浏览器中。

过程:

- 1 按 **Menu** 或菜单键。
- 2 通常它会进入“浏览”窗格，或者进入您最后一次使用的浏览器菜单窗格。



备注: 如果您要浏览的网页含有两个或多个软按键/选项，则会弹出 **Options** 窗格。从这里您可以使用左/右浏览键滚动到其他窗格，或者您也可以选择 **Browser Menu**，然后滚动到所需窗格。

浏览提示

按照以下说明操作以实现方便的浏览。

通过浏览窗格创建书签

过程:

- 1 进入浏览器并浏览到所需页面。
- 2 按 **Menu** 进入浏览器菜单。

- 3 选择 **Mark Page**。
- 4 屏幕会显示已标记页面的标题和 URL。
- 5 要保存页面：
 - a 按 **Save**（或 **Select**）将页面保存到书签。
 - b 选择 **Menu**，然后选择某个选项：
 - **Save** - 确认创建书签。
 - **Edit** - 允许您编辑创建的书签的标题、文件夹、选项和 URL。

通过书签窗格创建书签

过程:

- 1 进入浏览器。
- 2 滚动到 **Bookmarks** 窗格。
- 3 选择 **Organise**（如果没有保存的书签），或者 **More...**。
- 4 选择 **Menu**。
- 5 滚动到 **New Bookmark**。
- 6 输入书签标题和 URL，然后选择其位置。
- 7 按 **Save**。

使用书签

过程:

- 1 进入浏览器。
- 2 滚动到 **Bookmarks** 窗格。
- 3 滚动到所需的书签，然后选择 **Go**。书签将从网站下载所选的页面。

创建热键

过程:

- 1 进入浏览器。
- 2 滚动到 **Bookmarks** 窗格。
- 3 滚动到所需的书签。
- 4 按菜单。选择 **Hotkeys**。
- 5 选择未指定的键 (0 - 9)。
- 6 单击 **Assign**。屏幕将显示书签及其指定的热键。

使用热键

过程:

- 1 进入浏览器。
- 2 按住热键从网络下载相应的书签页面。

保存页面

何时何处使用： 保存页面以便脱机浏览。

过程:

- 1 进入浏览器并浏览到所需页面。

- 2 按 **Menu**。
- 3 滚动到 **Tools** 窗格。
- 4 选择 **Save Page**。如果需要，编辑所需的页面标题。 向下滚动并选择 **Save**。页面将保存在 **Bookmarks Saved Pages** 文件夹下。

选择已保存页面

过程:

- 1 进入浏览器。
- 2 滚动到 **Bookmarks** 窗格。
- 3 选择 **Organise**（如果没有保存的书签），或者 **More...**。
- 4 选择转到进入“已保存页面”文件夹。
- 5 选择已保存页面，然后按 **Ok**。屏幕将显示已保存页面。根据已保存页面，您可以从此处浏览网络。

禁用分组数据业务

如果没有分组数据业务，在第一次进入浏览器时，对讲机会显示**错误：:无网络可用**。选择左软按键重试输入，或者选择右软按键进入浏览器菜单。

如果分组数据业务之前可以使用，当重新进入浏览器时，对讲机会显示上次浏览的页面，或者上一个您脱机浏览的页面。

禁用浏览器项目

可在以下情况下禁用浏览器项目：

- 任何类型的语音呼叫过程中（环境监听呼叫除外）
- DMO 模式下
- 紧急模式下
- PIN 锁定过程中
- 服务提供商没有配置此功能
- 当已禁用对讲机时



备注:

- 在环境监听 (AL) 呼叫过程中启用了浏览器项目。如果您浏览到之前存储的页面，AL 状态会保持。
- 当您第一次启动分组数据业务时，AL 断开，您会感觉到似乎您以前没有处于 AL 中。

按键的使用

当浏览器启动后，编辑器内和编辑器外的按键用法如下所述。

表 20：浏览器按键的用法

按键	操作
0-9 键	编辑器内：根据选择的文本输入模式，输入数字和/或字符。 编辑器外：在编号列表中，选择所需的项目列表。

表 (续) ...

按键	操作
0-9 键（按住）	编辑器内：标准用法。 编辑器外：浏览到编号书签的热键。
* 键（按下或按住）	编辑器内，插入一个空格。
# 键（按下或按住）	在编辑器中弹出“文本输入”窗格。否则，发出错误提示音。
左或右软键	选择屏幕中位于左侧软按键和右侧软按键正上方的选项（页面部分）。
上浏览键	在选项列表中，向上移动一行。
上浏览键（按住）	向上移动页面。
下浏览键	在选项列表中，向下移动一行。
下浏览键（按住）	向下移动页面。
左浏览键	移动到上一个窗格。 编辑器内：向左移动。
左浏览键（按住）	后退。
右浏览键	移动到下一个窗格。 在编辑器内：将光标向右移动，如果在字的结尾，则将插入空格。
右浏览键（按住）	前进。
浏览键的中心（按住）	自动重复。
菜单键	弹出浏览器菜单。
结束键	按此键可关闭浏览器。
发送键	禁用浏览器激活状态。
旋钮	仅用于调节音量。
紧急键	关闭浏览器。对讲机会进入紧急模式。

浏览器菜单窗格概述

浏览器菜单包含以下窗格：

表 21：浏览器菜单窗格

菜单窗格	说明
浏览	用于访问主页和经常使用的项目。
书签	提供对存储的书签和已保存页面执行访问、编辑和存储操作的选项。
历史	进入最近访问的页面，并在历史堆栈中显示当前加载页面的位置。
工具	用于访问应用程序和工具。

根据具体的使用状态还会显示以下窗格：

表 22: 其他菜单窗格

菜单窗格	说明
选项	只在窗格或页面有更多选项时显示。
图像	只有选择图片时才显示此选项。用于访问图片详细信息、存储和显示使用情况。
输入文本	只在文本输入模式下显示。进入文本输入模式（如符号）。

“浏览”窗格

您可以选择下列项目之一：

- **Home** - 用于加载主页。
- **Open Page** - 用于输入 URL。
- **Search** - 此项目禁用。
- **Mark Page** - 用于创建（保存）当前文档的书签。会显示书签的标题和 URL，并选择根文件夹作为当前位置。
- **Forward** - 用于浏览到浏览历史中文档定位位置的前一步。如果没有向前的历史记录，则此项目无效。
- **Reload** - 用于重新加载当前文档。
- **Advanced...** - 请参阅下面一节。

高级...

从浏览窗格中，选择 **Advanced...** 以查看以下选项：

- **Settings...**
 - **Downloads** - 用于设置下载首选项。您可以关闭图片和对象的下载。浏览器将显示一个特殊的图标，而不是显示图片和对象。
 - **Scroll Mode** - 用于设置滚动模式和速度。
 - **Key Press Timeout** - 用于设置按键超时。此超时用于文本输入。
 - **Set Proxy** - 选择 WAP 代理 (1, 2, 3)。浏览器通过所选的代理或网关连接到网络。代理由网络提供商安装并配置。要建立加密会话，请选择加密代理。请问您的运营商加密会话使用的是哪个代理。尽管您可以选择自己的主页，但您的运营商可能会强行将他们的主页放入您的终端中。
 - **Circuit Prompt** - 用于打开/关闭电路提示。
 - **Resend Data Prompt** - 用于打开/关闭数据重发提示。
- **Security...**
 - **Secure Prompt** - 用于启用/禁用浏览器以通知您已将非加密连接替换成了加密连接或者相反的情况。
 - **Current Certificate** - 用于查看数字认证，该数字认证用于识别传递当前文档的服务器。认证中心 (CA) 以数字方式签名并验证此证书。所安装证书的默认列表中最多可以加入 10 个其他定制 WTLS 证书。如果您要加入这些定制 WTLS 证书，请问您的运营商。
 - **CA Certificates** - 用于查看安装在浏览器中并经认证中心 (CA) 数字签名的数字证书。
 - **Send Referrer** - 用于打开/关闭作为部分 HTTP 请求的 HTTP Referrer 头的发送。引用网页头提供到服务器链接源的 URL。
 - **Authentication** - 用于打开/关闭 HTTP 认证凭证的缓存。HTTP 认证保护对服务器内容的访问。如果您尝试访问受保护的内容，则请输入您的凭据（用户名或密码）。
- **Clear...**— 用于清除浏览器数据：浏览历史、缓存 cookie 或自动填充。
- **Restart Browser** - 用于重新启动浏览器。
- **About...**— 用于显示有关当前版本的信息 Openwave Mobile Browser。

“书签”窗格

如果根文件夹下有书签，请选择 **More...** 访问“选项”窗格。如果根文件夹下为空，请选择 **Organise...**，然后按菜单键访问“选项”窗格。“选项”窗格允许您管理书签。**Saved Pages** 文件夹包含已保存页面的快照。

使用所选书签的“选项”窗格

过程:

- 1 从“书签”窗格中，选择 **More...**。
- 2 滚动到所需书签。
- 3 按菜单打开此书签的“选项”窗格。
- 4 选择下列选项之一：
 - **Back** - 用于显示与此书签关联的页面（如果缓存中没有该页面则将进行下载）。
 - **Details** - 用于修改书签标题和 URL。
 - **Delete** - 用于删除书签。
 - **New Bookmark** - 用于创建新书签。
 - **New Folder** - 用于创建新文件夹。
 - **Move** - 用于将此书签移动到新的文件夹（或书签中）。
 - **Delete All** - 用于删除所有书签。
 - **Hotkeys** - 用于为可用书签指定热键。

使用“已保存页面”文件夹

过程:

- 1 从“书签”窗格中，选择 **Saved Pages** 文件夹。
- 2 浏览器使用“工具”窗格中的“保存页面”显示已保存页面（快照）。
- 3 滚动到已保存页面。
- 4 按 **Menu** 打开已保存页面的“选项”窗格。
- 5 选择下列选项之一：
 - a **Back** - 用于显示保存在其缓存中的此页面。
 - b **Details** - 用于修改已保存页面的页面标题和 URL。
 - c **Update Page** - 用于使用当前版本（要从服务器上下载）替换保存的版本。
 - d **Delete** - 用于将此页面从其缓存中删除。
 - e **Delete All** - 用于将所有已保存页面从其缓存中删除。
 - f **Cancel** - 用于退出此窗格并返回上一个显示的页面。

“历史”窗格

此窗格显示最近访问页面的列表（最多可列出 9 个历史项目）。每个历史项目都显示其标题（如果有）。否则显示 **No Title**。

浏览到最近访问的 URL

过程:

- 1 选择该 URL。
- 2 按 **Ok**。

“工具” 窗格

过程:

- 1 从“工具”窗格中，选择 **More...**
- 2 滚动到所需文档。
- 3 选择菜单键打开此文档的“选项”窗格。
- 4 选择下列选项之一：
 - **Show URL** - 用于显示当前页面的 URL。
 - **Save Page** - 用于创建当前文档的快照。
 - **Find Text** - 用于在当前文档中查找文本字符串。
 - **Copy Text** - 用于将文本从当前文档复制到剪贴板。

“选项” 窗格

此窗格是所显示页面或窗格的详细设置。

“图片” 窗格

当通过“浏览”窗格 > **Advanced...** > **Settings...** 启用图片下载时，浏览器菜单中会出现“图片”窗格。

您可以使用以下项目：

- **Save** - 用于保存终端中的图片。
- **[Send]** - 用于发送图片到您选择的目标设备。
- **Reload** - 用于重新加载图片。
- **Details** - 用于显示图片详情。
- **Show Image** - 用于在图片自己的页面上显示图片。

“文本输入” 窗格

先决条件： 当浏览器菜单打开并且文本输入区域被激活时，将出现此窗格。

何时何处使用： 输入 URL 的文本。

过程:

- 1 选择该 URL。
- 2 按 **abc**。
此时将打开文本输入窗格。
- 3 选择 **www**。
- 4 滚动到所需的后缀（例如：**.com**）
- 5 按 **.com**。屏幕将显示带有所选后缀的 URL。

表 23：浏览器文本输入图标

模式	软按键	操作
字母 - 小写	abc	输入小写文本。
字母 - 大写	ABC	输入大写文本。
数字	123	输入数字和符号。
http 模式	www	Enter

WAP 推送

WAP 推送使您能够将 WAP 内容推送到对讲机。此推送是通过将特殊格式的（推送访问协议）XML 文档发送到推送代理网关来执行的，它反过来会将该文档转发给对讲机。

WAP 推送信息是一种编码信息，其中包含 WAP 地址的链接。在检索 WAP 推送时，启用了 WAP 的对讲机会自动提供用于访问 WAP 内容的选项。已实现的 WAP 推送符合 WAP 2.0 标准。

对讲机仅通过代理支持 WAP 2.0。不支持缺少代理的连接

这是一个收费功能。

相关链接

[WAP 邮箱](#) 第 70 页

[WAP](#) 第 109 页

新 WAP 消息

WAP 消息的类型及其优先级：



备注：您的服务提供商会设置该信息的优先级。

- 推入式信息
 - 高 — 显示动画和图标（闪烁）并发出新 WAP 消息提示音。
 - 中 — 显示动画和图标并发出新 WAP 消息提示音。
 - 低 — 显示图标并发出新 WAP 消息提示音。
 - 删除 — 仅当您进入 WAP 收件箱时才可用，显示文本 **WAP 信息已远程删除**，除此之外无任何其他提示。



备注：如果您正在通话中、处于紧急模式、正在呼出、在信息编辑器中、处于 PIN 锁定状态或正切换到 DMO，则不显示动画。

- 加载推入式信息
 - 高 — 向用户打开浏览器并发出新 WAP 消息提示音。
 - 低 — 显示图标并发出新 WAP 消息提示音。



备注：如果您正在通话中、处于紧急模式、正在呼出、在信息编辑器中、处于 PIN 锁定状态或正切换到 DMO，则无法打开浏览器。

查看 WAP 信息

过程：

- 1 在初始屏幕上，按菜单键。
- 2 选择**信息** → **WAP 邮箱**。
- 3 选择所需的信息。
- 4 选择 **Go to** 在浏览器中查看此信息。

呼出

此功能可用于接收呼出提示。当对讲机接收到呼出信息后，它将中断当前服务，毫不延迟地处理呼出提示。清除呼出提示后，对讲机退出呼出模式，返回到正常模式。在呼出模式下只能接收紧急呼叫。



备注: 要读取整单呼出信息，按下下浏览键向下滚动屏幕。消息的长度由屏幕左侧的红色竖条指示。

图 4：呼出信息



备注: 这是一个收费功能。

相关链接

[呼出信箱](#) 第 69 页

呼出提示的类型

有四种呼出提示：

- 正常呼出 — 由调度员发送到一个对讲机或一组对讲机的提示消息。
- 灾难应急计划 — 调度员为一组对讲机发送的提示消息。要提高其可靠性，就多次发送几次。您无法响应呼出提示，按下任意键可以跳转到信息阶段。
- 降级运行模式 — 仅适用于语音通信的提示信息。要启动这种类型的呼出，按下您的服务提供商预先定义的单键。可手动清除。



备注: 降级运行仅在对讲机处于本站集群时可用。

- 测试呼出 — 由调度员发送以测试此功能的特殊呼出提示。在接收到测试呼出时，对讲机将发出提示音并显示**测试呼出**。要应答并清除提示，请按**测试成功**软键。

呼出模式交互

呼出功能操作在其他模式下是不同的：

- TXI 模式 — 您可以阅读信息但是不能回复。您可以选择通过按软按键来退出 TXI 模式或者拒绝呼出信息。
- DMO 模式 — 不支持呼出。
- 紧急模式 — 忽略所有呼出提示。

呼出服务阶段

在呼出模式下，有四个阶段：

- 提示阶段 — 收到呼出信息。警报音指示收到了信息。显示文本，您可使用以下选项：**接受**、**拒绝**或菜单。如果您接受该提示，则从此刻起其他任何服务都不能中断呼出。



备注: 您可通过按 PTT 或任意软按键停止提示音。

- 信息阶段 — 您仍处于呼出模式下，可以经由后续的文本或语音信息收到更多有关发生事故的详细信息。您可以使用语音组呼或呼出文本功能查询更多信息，呼出文本功能支持您发送文本信息。您始终能够通过语音组呼来回复和发回文本或语音信息。

Shadow 群组（地址包）

Shadow 群组功能（也称为地址包）可同时将信息发送至多个目标或收件人。该功能支持三种类型的信息：

- 状态信息（包括紧急警报）
- GPS LIP（TETRA 位置信息协议）报告
- RMS/FMS 信息

TMO 模式下的 Shadow 群组

每个 Shadow 群组可包含最多四个目标地址。每个通话组可配置为向特定 Shadow 群组发送状态信息、GPS LIP 报告或 RMS/FMS 信息。

DMO 模式下的 Shadow 群组

在 DMO 模式下，Shadow 群组包含一个目标地址。每个通话组可配置为向特定 Shadow 群组发送状态信息或 GPS LIP 报告。

每台对讲机可存储最多 255 个 Shadow 群组（在 TMO 和 DMO 模式下）。

Shadow 群组可能使紧急呼叫建立时间稍微延长。



备注：这是一个收费功能，需要服务提供商的支持才能使用。

附录A

铃声

表 24：对讲机提示音

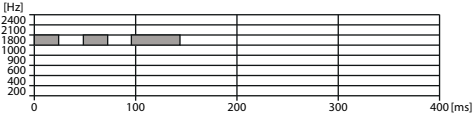
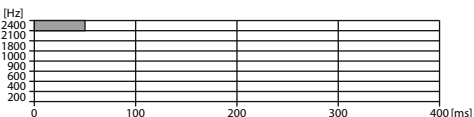
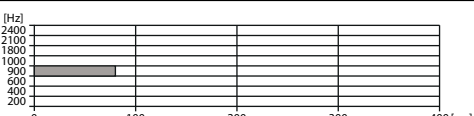
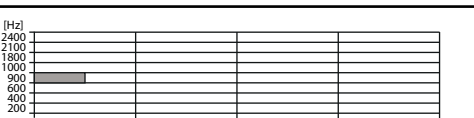
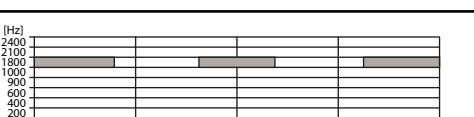
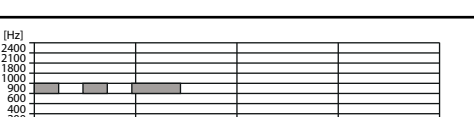
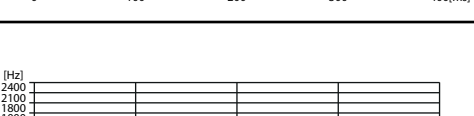
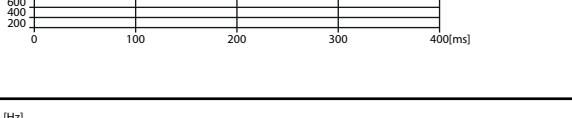
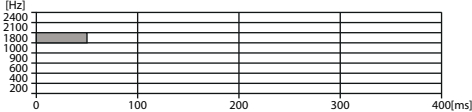
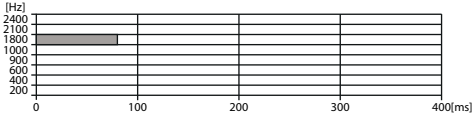
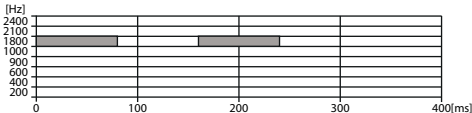
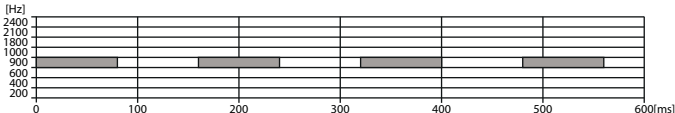
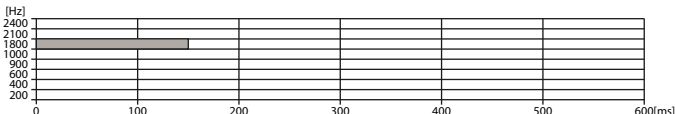
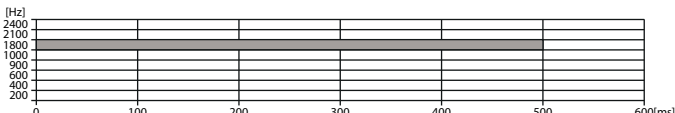
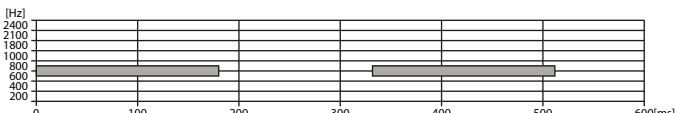
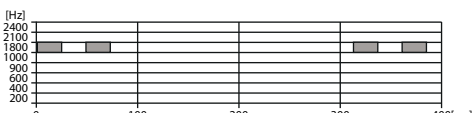
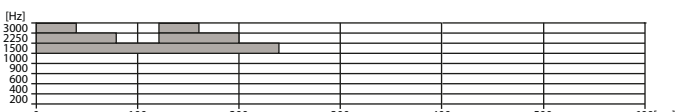
提示音名称	默认提示音图
返回覆盖范围 返回全服务状态	
可以发送	
按键无效	
从“不在服务区”状态变为 “在服务区”状态	
在紧急模式下	
通话许可	
<ul style="list-style-type: none">• 通话禁止• 系统忙• 限时器超时• 被叫对讲机不可用或占线	
因为网络原因呼叫被断开或失败	

表 (续) ...

提示音名称	默认提示音图
在 DMO 和 TMO 之间切换	
正在进入/退出本站集群	
正在接收/发送紧急警报	
紧急警报发送失败	
正在进入紧急模式	
正在退出紧急模式	
进入/退出 TXI	
电池电量低警报	
远程控制	



备注: 服务提供商可以禁用所有声音指示。

附录

B

LED 指示灯

表 25: LED 指示灯

指示	状态
绿灯长亮	正在使用
绿灯闪烁	在服务区内
红灯长亮	不在服务区内
红灯闪烁	正在连接网络 进入 DMO 模式
橙灯长亮	正在使用禁止发射功能 DMO 模式下信道忙
橙灯闪烁	呼入电话
无指示灯显示	待机 对讲机已关机

附录

C

故障排除

您的对讲机显示以下信息：

表 26：显示的信息

信息	信息描述
...-已接呼叫	收到呼叫，但未应答或是拒绝接听。
加入通话组失败	对讲机无法执行通话组连接操作。 它将继续尝试连接。 如不成功，请选择另一个通话组再试。
认证失败	对讲机不能注册到认证系统（例如，认证键不正确或认证功能关闭）。
电池电量过低。	电池电量太低无法执行所需的操作。
呼叫取消	您取消了呼叫。
呼叫结束	<ul style="list-style-type: none">信道有误。 请稍后再试。您已结束呼叫。
呼叫转接	您所呼叫的对讲机无法接通时呼叫会转接至其他对讲机。
呼叫类型改变	您所参与的呼叫已修改。
呼叫被抢占	信道被有优先权的呼叫占用。
解密失败：	解密信息或呼叫时出现错误。
正在使用紧急呼叫 等待紧急麦克打开	紧急麦克风功能已启动，但是已将信道传输许可授予了同一通话组中的另一个紧急呼叫。 您的对讲机麦克风此时不工作，但在预先设定的时间过后，麦克风会自动地再次请求通话允许。
紧急麦克结束	紧急麦克风时限已过，或您已按通话按键取消紧急麦克风功能。
紧急麦克打开	紧急麦克风功能已启动，您的对讲机将自动传输免提紧急呼叫话音。
空条目	您拨打的快速拨号号码不存在，或者号码存在但通话组未选择此号码。
设备故障 错误	自检失败。 您的对讲机检测到一个操作故障。 请记录错误代码。 关闭对讲机并与维修部门联系。
网关可用	您的对讲机已连接至网关。
网关不可用	您的对讲机不能连接至网关或连接已丢失。

表 (续) ...

信息	信息描述
此通话组已存在	您尝试增加的通话组已存在于 我的通话组 文件夹中。
仅限个呼	您只可以发起个呼（单呼）。
可见数据不足	您的对讲机正在确定您的位置。此过程需要几分钟的时间完成。
无足够的显示卫星	您的对讲机正在确定您的位置。此过程需要几分钟的时间完成。
ID 无效	输入的号码无效。
快捷方式位置无效	输入的号码无效。
限制服务	允许进行紧急呼叫、紧急警报和移动操作（例如连接通话组）。所有其他呼入和呼出以及数据业务都受到了限制。
号码表空白	在滚动列表中没有预设的条目。输入此条目。
未加入列表	扫描列表中的所有通话组都没有连接上。
已加入部分列表	扫描列表已启动，但并非所有通话组都已与它连接上。
信息已发送	表示已成功递送邮件。
信息失败	表示邮件递送失败。
新发送状态	您收到了新发送状态。
不在服务区	对讲机超出了信号覆盖范围。请返回覆盖范围。
在中继器模式下禁止	此服务或功能在中继器模式下不可用..
我的通话组 为空	当 我的通话组 文件夹为空时，您不能查看/删除通话组。
我的通话组 已满	您不能在 我的通话组 文件夹中增加通话组，因为它包含的通话组数量已达到允许的最大数目。
网络故障	网络有故障。请稍后重试。
无应答	被叫方没有应答。
无条目	当进入一个空列表时，将显示此信息。
无通话组	<ul style="list-style-type: none"> 连接故障。您的对讲机将与当前通话组脱离连接。请稍候，直到该对讲机与当前的通话组的连接重新建立为止。 当您超出了所选定通话组的正常覆盖范围时会显示此信息。请选择在您的工作范围内有效的新通话组。 表示从我的通话组文件夹中删除了一个常用通话组。
无列表	网络列表为空。
没有新信息或旧信息	表示 收件箱 中没有新信息或旧信息。
未选择扫描列表	您选择了空网络列表。
不在服务区	对讲机超出了信号覆盖范围。
禁止呼叫	您不能拨打地址簿中没有的号码。

表（续）...

信息	信息描述
禁止传输	释放通话按键，稍后重试。您不能将文本信息或状态信息发送到地址簿中没有的号码。
仅有一个通话组	在滚动列表中只有一个预设条目。
过热，请关闭对讲机	对讲机已关闭。请将其关闭 5 分钟。
占线	被叫对讲机占线。
对方不在系统内	被叫对讲机不在信号覆盖范围之内或者已关闭。请稍后重试。
请重试	您无法进行呼叫。
连接中，请稍候	这是在开机时出现的信息。
重新将对讲机连接到充电器	对讲机无法检测到充电器。确保充电器已正确连接，且对讲机和充电器的引脚清洁。
注册失败	您的对讲机无法在该系统入网登记。请稍后重试。
中继器可用	您的对讲机已连接至中继器。
中继器不可用	您的对讲机不能连接至中继器或连接已丢失。
服务被拒绝	无效号码。请与您的服务提供商联系。
没有这项服务	当前网络不提供这项服务。
服务受限制	您的服务提供商限制此项服务，您没有购买此项服务，或者此项服务不可用。
无法删除通话组...	您的服务提供商已设置此通话组，因此您不能从常用通话组文件夹中删除此通话组。
稍后再试	所要求的服务暂时无法提供。
无线已禁用	请咨询您的服务提供商。
设备正常 警告：	自检故障。您的对讲机检测到了一个小故障。您的对讲机现在仍可以完全正常工作。如果再次发生此故障，请记下错误代码并与维修部门联系。
对讲机未加入通话组	您的对讲机无法连接到系统中。可能没有在系统中定义所选通话组。请更换通话组再试。
未分配的按钮	当按键未分配功能时会显示此信息。

附录

D

维护



建议:

- 第一次使用对讲机之前，除去显示屏上的透镜保护塑胶。电池充电，直到 LED 指示灯显示为绿色为止。
- 充电只能在非危险区域进行。
- 经常使用软刷清洁接口（不要使用液体），例如在编程操作之前。

储存温度

- 不要将电池存放在温度可能超过 +65 °C 或低于 -20 °C。
- 您的锂离子电池可以存放在通风良好、阴凉干燥的地方，在电池寿命周期内会有一些容量损失。
- 不建议在满电量或电量耗完的情况下存储电池。

延长电池寿命

电池是损耗部件，在对讲机寿命周期内可能需要更换。为了确保对讲机可以达到最长工作寿命，请一定要使用原装的 Motorola 电池进行更换。为了确保电池可以达到最长使用寿命：

- 只有必要时才对其进行充电（出现电量低指示）。
- 充电至出现电池已充满的指示。

电池充电温度

当电池装到对讲机中时，它的充电温度范围为 0 °C 至 45 °C。电池单独充电时（不带对讲机），在充电模式下，电池工作的温度范围为 0° C 至 +45 °C，在放电模式下，电池工作的温度范围为 -10 °C 至 +60 °C。

如果在充电过程中温度超出了范围，电池可能无法充满，这是因为在温度恢复合适温度之前，充电将暂时停止。

电池充电注意事项

通常，要尽量减少充电的次数，等到出现**电量低**信息时再充电，因为这可以保证最长的电池寿命。不要将您的充电器当作对讲机支架使用，或者在不充电时将您的对讲机和已充满的电池连接在充电器上。持续充电会缩短电池的寿命。

关于电池的补充警告/注意事项

- 建议不要将电池存储在高于 60°C 或低于 -20°C 的温度下。
- 为防止伤害，不要让金属物接触电池触点。
- 不要拆解。
- 不要丢入明火。
- 不要与生活垃圾一起处置。

小心维护您的对讲机

千万不要将对讲机或电池放在极端温度环境中（超过 60 °C），例如遭受强烈阳光直射的挡风玻璃后。

千万不要将您的对讲机浸没在水中。

请使用潮湿或抗静电的软布清洁对讲机。