



PROFESSIONAL DIGITAL TWO-WAY RADIO

MOTOTRBO™

XPR 7550 IS, XPR 7580e IS

FULL KEYPAD PORTABLE RADIO

USER GUIDE

en-US

fr-CA



JULY 2020

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Supplier's Declaration of Conformity

Supplier's Declaration of Conformity

Per FCC CFR 47 Part 2 Section 2.1077(a)



Responsible Party

Name: Motorola Solutions, Inc.

Address: 2000 Progress Pkwy, Schaumburg, IL. 60196

Phone Number: 1-800-927-2744

Hereby declares that the product:

Model Name: **XPR 7550 IS**

conforms to the following regulations:

FCC Part 15, subpart B, section 15.107(a), 15.107(d), and section 15.109(a)

Class B Digital Device

As a personal computer peripheral, this device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

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

**NOTICE:**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio or TV technician for help.

For country code selection usage (WLAN devices)

**NOTICE:**

The country code selection is for non-US model only and is not available to all US models. Per FCC regulation, all Wi-Fi products marketed in the US must be fixed to US operation channels only.

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Important Safety Information

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



CAUTION:

This radio is restricted to Occupational use only.

Before using the radio, read the RF Energy Exposure and Product Safety Guide for Portable Two-Way Radios which contains important operating instructions for safe usage and RF energy awareness and control for Compliance with applicable standards and Regulations.

Any modification to this device, not expressly authorized by Motorola Solutions, may void the user's authority to operate this device.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

This radio transmitter has been approved by Industry Canada to operate with Motorola Solutions-approved antenna with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Notice to Users (FCC)

This device complies with Part 15 of the FCC rules per the following conditions:

- This device may not cause harmful interference.
- This device must accept any interference received, including interference that may cause undesired operation.
- Changes or modifications made to this device, not expressly approved by Motorola Solutions, could void the authority of the user to operate this equipment.

Notice to Users (Industry Canada)

The operation of your Motorola Solutions radio is subject to the Radiocommunications Act and must comply with rules and regulations of the Federal Government's department of Industry Canada. Industry Canada requires that all operators using Private Land Mobile frequencies obtain a radio license before operating their equipment.

Software Version

All the features described in the following sections are supported by the software version **R02.20.02.0000** or later.

See [Checking Firmware and Codeplug Versions on page 220](#) to determine the software version of your radio.

Contact your dealer or administrator for more information.

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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 trash bin label on the product (or the package in some cases).

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

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

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patent rights, copyrights and trade secrets of Digital Voice Systems, Inc.

This voice coding Technology is licensed solely for use within this Communications Equipment. The user of this Technology is explicitly prohibited from attempting to decompile, reverse engineer, or disassemble the Object Code, or in any other way convert the Object Code into a human-readable form.

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

Radio Care

This section describes the basic handling precaution of the radio.

Table 1: IP Specification

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



CAUTION:

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

- If your radio has been submersed in water, shake your radio well to remove any water that may be trapped inside the speaker grille and microphone port. Trapped water could cause decreased audio performance.
- If your radio's battery contact area has been exposed to water, clean and dry battery contacts on both your radio

and the battery before attaching the battery to radio. The residual water could short-circuit the radio.

- If your radio has been submersed in a corrosive substance (for example, saltwater), rinse radio and battery in fresh water then dry radio and battery.
- To clean the exterior surfaces of your radio, use a diluted solution of mild dishwashing detergent and fresh water (for example, one teaspoon of detergent to one gallon of water).
- Never poke the vent (hole) located on the radio chassis below the battery contact. This vent allows for pressure equalization in the radio. Doing so may create a leak path into radio and your radio's submersibility may be lost.
- Never obstruct or cover the vent, even with a label.
- Ensure that no oily substances come in contact with the vent.
- Your radio with antenna attached properly is designed to be submersible to a maximum depth of 1 m (3.28 ft) and a maximum submersion time of 30 minutes. Exceeding either maximum limit or use without antenna may result in damage to your radio.

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

Introduction

This user guide covers the operation of your radios.

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

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

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

1.1

Icon Information

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



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



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

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

1.2

Conventional Analog and Digital Modes

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

1 : Channel Selector Knob

Certain features are unavailable when switching from digital to analog mode. The icons for digital features reflect this change by appearing “grayed out”. The disabled features are hidden in the menu.

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

**NOTICE:**

Your radio also switches between digital and analog modes during a dual mode scan. See [Scan on page 305](#) for more information.

1.3

IP Site Connect

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

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

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

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

**NOTICE:**

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

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

**NOTICE:**

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

1.4

Capacity Plus–Single-Site

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

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

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

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

1.5

Capacity Plus–Multi-Site

Capacity Plus–Multi-Site is a multi-channel trunking configuration of the MOTOTRBO radio system, combining

the best of both Capacity Plus and IP Site Connect configurations.

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

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

If the radio is set to do this automatically, it scans through all available sites when the signal from the current site is weak or when the radio is unable to detect any signal from the current site. It then locks on to the repeater with the strongest RSSI value.

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

Any channel with Capacity Plus–Multi-Site enabled can be added to a particular roam list. The radio searches these

channels during the automatic roam operation to locate the best site.



NOTICE:

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

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

Getting Started

Getting Started provides instructions to prepare your radio for use.

2.1

Charging the Battery

For best performance, your radio is powered by a Motorola Solutions-approved Lithium-Ion (Li-Ion) battery.

- Charge your battery only in non-hazardous areas. After battery is charged, allow your radio to rest for at least 3 minutes.
- To avoid damage and comply with warranty terms, charge the battery using a Motorola Solutions charger exactly as described in the charger user guide.
- Charge your battery only in non-hazardous areas. After battery is charged, allow your radio to rest for at least 3 minutes.
- If battery is attached to your radio, ensure that your radio remains powered off while charging.
- Charge a new battery 14 to 16 hours before initial use for best performance.

- Always charge your IMPRES battery with an IMPRES charger for optimized battery life and valuable battery data.

IMPRES batteries charged exclusively with IMPRES chargers receive a 6-month capacity warranty extension over the standard Motorola Solutions Premium battery warranty duration.

2.2

Attaching the Battery

Follow the procedure to attach the battery to your radio.



NOTICE:

Do not replace battery in combustible gas and dust environments. Replace battery only in non-hazardous areas.

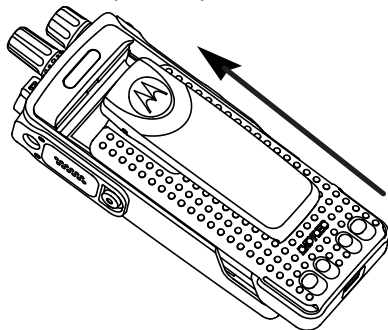
The certification of the radio is voided if you attach a non-CSA battery to the radio. This battery mismatch alert feature is only applicable for IMPRES battery and Non-IMPRES battery with kit number programmed in Erasable Programmable Read Only Memory (EPROM).

When the radio is attached with the wrong battery, a low pitched warning tone sounds, the LED lights up blinking red, display shows **Wrong Battery** and the Voice Announcement/Text-to-Speech sounds **Wrong Battery** if

the Voice Announcement/Text-to-Speech is loaded by using CPS.

When the radio is attached with non-Motorola Solutions battery, an alert tone sounds, display shows **Unknown Battery**, and battery icon is disabled.

- 1 Align the battery with the rails on the back of the radio.
- 2 Press the battery firmly, and slide upward until the latch snaps into place.



- 3 Slide battery latch into lock position.

Attaching the Antenna

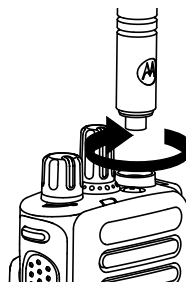
Turn off your radio.

Set the antenna in the receptacle and turn clockwise.



NOTICE:

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



NOTICE:

To remove the antenna, turn the antenna counterclockwise.



CAUTION:

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

2.4

Attaching the Belt Clip

- 1 To attach the belt clip, align the grooves on the clip with those on the battery and press downward until you hear a click.



- 2 To remove the belt clip, press the belt clip tab away from the battery using a key. Then slide the clip upward and away from the radio.

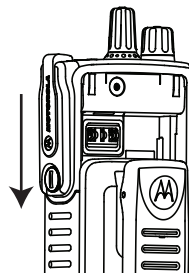
2.5

Attaching the Universal Connector Cover

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

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

- 1 Insert the slanted end of the cover into the slots above the universal connector.
- 2 Press downwards on the cover to seat the dust cover properly on the universal connector.



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

2.6

Turning the Radio On

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

If successful, your radio shows the following indications:

- A tone sounds.


NOTICE:

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

- The green LED lights up.
- The display shows MOTOTRBO (TM), followed by a welcome message or image.
- The Home screen lights up.

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


NOTICE:

During the initial power-up after a software version update to **R02.07.00.0000** or later, a GNSS firmware upgrade takes place for 20 seconds. After the upgrade, the radio resets and turns on. This firmware upgrade is only applicable for portable models with the latest software and hardware.

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

2.7

Adjusting the Volume

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

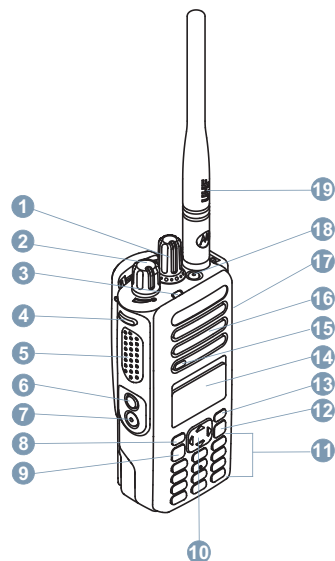
- To increase the volume, turn the **On/Off/Volume Control** knob clockwise.
- To decrease the volume, turn the **On/Off/Volume Control** knob counterclockwise.

**NOTICE:**

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

Radio Controls

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



1 Channel Selector Knob

2 On/Off/Volume Control Knob

3 LED Indicator

4 Side Button 1¹

5 Push-to-Talk (PTT) Button

6 Side Button 2¹

7 Side Button 3¹

8 Front Button P1¹

9 Menu/OK Button

10 4-Way Navigation Button

11 Keypad

12 Back/Home Button

13 Front Button P2¹

14 Display

15 Microphone

16 Speaker

17 Universal Connector for Accessories

18 Emergency Button¹

¹ These buttons are programmable.

19 Antenna

3.1
Using the 4-Way Navigation Button

You can use the 4-way navigation button, , to scroll through options, increase/decrease values, and navigate vertically.

Category	Direction	
	▲ or ▼	◀ or ▶
Menu	Vertical Navigation	-
Lists	Vertical Navigation	-
View Details	Vertical Navigation	Previous/Next Item

You can use the 4-way navigation button, , as a number, alias, or free form text editor.

Editor Category	Direction	
	▲ or ▼	◀ or ▶
Number	-	Left : Delete last digit Right : -
Alias	-	Move cursor one character left/right-
Free Form Text	Move cursor up/down	Move cursor one character right/left
Numeric Values	Increase/Decrease	Move cursor one character right/left

3.2

Using the Keypad

You can use the 3 x 4 alphanumeric keypad to access your radio features. Many characters require that you press a key multiple times. The following table shows the number of times a key needs to be pressed to generate the required character.

Key	Number of Times Key is Pressed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
 1 , . ?	1	.	,	?	!	@	&	'	%	—	:	*	#
 2 ABC	A	B	C	2									
 2 ABC													
 3 DEF	D	E	F	3									
 3 DEF													

Key	Number of Times Key is Pressed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
4 GHI	G	H	I	4									
4 GHI													
5 JKL	J	K	L	5									
5 JKL													
6 MNO	M	N	O	6									
6 MNO													
7 PQRS	P	Q	R	S	7								
7 PQRS													

Key	Number of Times Key is Pressed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
 	T	U	V	8									
 	W	X	Y	Z	9								
 	0	 NOTICE: Press to enter “0” and long press to activate the CAPS lock. Another long press to turn off the CAPS lock.											
	* or del	 NOTICE: Press during text entry to delete the character. Press during numeric entry to enter a “*”.											
	# or space	 NOTICE: Press during text entry to insert a space. Press during numeric entry to enter a “#”. Long press to change text entry method.											

WAVE

Wide Area Voice Environment (WAVE™) provides a new method of making calls between two or more radios.

WAVE allows you to communicate across different networks and devices using Wi-Fi. WAVE calls are made when the radio is connected to an IP network through Wi-Fi.

Your radio supports different system configurations:

- WAVE OnCloud/OnPremise
- WAVE Tactical/5000

The method to initiate a WAVE Call is different for each system type. Refer to the appropriate section depending on the system configuration of your radio.

Table 2: WAVE Display Icons

The following icons appear momentarily on the display when WAVE is enabled.



WAVE Connected
WAVE is connected.



WAVE Disconnected
WAVE is disconnected.



NOTICE:
This feature is applicable to specific models only.

4.1 WAVE OnCloud/OnPremise

4.1.1 Switching from Radio Mode to WAVE Mode

- 1 Do one of the following:
 - Press the programmed **WAVE** button. Skip the following steps.
 - Press  to access the menu.

2

Press ▲ or ▼ to WAVE. Press  to select.

The yellow LED double blinks.

The display shows a momentary notice of Switching to WAVE, then shows Preparing WAVE.

**NOTICE:**

Your radio automatically enables Wi-Fi after you switch to WAVE mode.

If successful:

- The blinking yellow LED turns off.
- The display shows the WAVE connected icon, <Talkgroup Alias>, and <Channel Index>.

If unsuccessful:

- A negative tone sounds.
- The red LED blinks.
- The display shows the WAVE disconnected icon and No Connection or Activation: Fail, depending on the error type.

**NOTICE:**

Synchronization occurs when new settings are updated to your radio. When you enter the WAVE mode, your radio displays Syncing.... When the synchronization completes, your radio returns to the home screen.

4.1.2

Making WAVE Group Calls

- 1 Use the channel selector knob or buttons to select a WAVE talkgroup.
-

- 2 To call, press the **PTT** button.
-

If the call is successful, the display shows the Group Call icon and the WAVE talkgroup alias.

If the call is unsuccessful:

- A negative indicator tone sounds.
- The display shows a momentary notice of Call Failed or No Participants.

4.1.3

Receiving and Responding to WAVE Group Calls

When you receive a WAVE group call:

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

1 To call, press the **PTT** button.

2 To listen, release the **PTT** button.

4.1.4

Receiving and Responding to WAVE Private Calls

When you receive a WAVE private call:

- A tone sounds.
- The display shows the private call icon and caller alias.

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

1 To call, press the **PTT** button.

2 To listen, release the **PTT** button.

4.1.5

Switching from WAVE Mode to Radio Mode

1 Do one of the following:

- Press the programmed **Radio Mode** button. Skip the following steps.
 - Press  to access the menu.
-

2

Press  or  to Radio Mode. Press  to select.

The yellow LED double blinks.

The display shows a momentary notice of Switching to Radio and then shows Preparing Radio.

When successful:

- The blinking yellow LED turns off.
- The WAVE connected icon disappears on the status bar. The display shows <Talkgroup Alias> and <Channel Index>.

Capacity Max

Capacity Max is a trunked radio system based on MOTOTRBO control channels.

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

5.1

Push-To-Talk Button

The Push-to-Talk (**PTT**) button serves two basic purposes:

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

Long press the **PTT** button to talk. Release the **PTT** button to listen.

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

5.2

Programmable Buttons

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

Short press

Pressing and releasing rapidly.

Long press

Pressing and holding for the programmed duration.



NOTICE:

See [Emergency Operation on page 326](#) for more information on the programmed duration of the **Emergency** button.

5.3

Assignable Radio Functions

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

Audio Profiles

Allows the user to select the preferred audio profile.

Audio Routing

Toggles audio routing between internal and external speakers.

Audio Toggle

Toggles audio routing between the internal radio speaker and the speaker of a wired accessory.

Bluetooth® Audio Switch ²

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

Bluetooth Connect

Initiates a Bluetooth find-and-connect operation.

Bluetooth Disconnect

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

Bluetooth Discoverable

Enables your radio to enter Bluetooth Discoverable Mode.

Contacts

Provides direct access to the Contacts list.

Call Alert

Provides direct access to the contacts list for you to select a contact to whom a Call Alert can be sent.

Call Log

Selects the call log list.

Emergency

Depending on the programming, initiates or cancels an emergency.

Indoor Location²

Toggles Indoor Location on or off.

Intelligent Audio

Toggles intelligent audio on or off.

Manual Dial

Initiates a Private Call by keying in any subscriber ID.

Manual Site Roam

Starts the manual site search.

Mic AGC

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

Notifications

Provides direct access to the Notifications list.

² Only applicable for XPR 7580e IS

One Touch Access

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

Option Board Feature

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

Phone

Provides direct access to the Phone Contacts list.

Privacy

Toggles privacy on or off.

Radio Alias and ID

Provides radio alias and ID.

Remote Monitor

Turns on the microphone of a target radio without it giving any indicators.

Reset Home Channel

Sets a new home channel.

Silence Home Channel Reminder

Mutes the Home Channel Reminder.

Site Info

Displays the current Capacity Max site name and ID.

Plays site announcement voice messages for the current site when Voice Announcement is enabled.

Site Lock

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

Status

Selects the status list menu.

Telemetry Control

Controls the Output Pin on a local or remote radio.

Text Message

Selects the text message menu.

Toggle Call Priority Level

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

Trill Enhancement

Toggles trill enhancement on or off.

Voice Announcement On/Off

Toggles voice announcement on or off.

Wi-Fi²

Toggles Wi-Fi on or off.

Zone Selection

Allows selection from a list of zones.

5.4

Assignable Settings or Utility Functions

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

Tones/Alerts

Toggles all tones and alerts on or off.

Backlight

Toggles display backlight on or off.

Backlight Brightness

Adjusts the brightness level.

Display Mode

Toggles the day/night display mode on or off.

Keypad Lock

Toggles keypad between locked and unlocked.

Power Level

Toggles transmit power level between high and low.

5.5

Accessing Programmed Functions

Follow the procedure to access programmed functions in your radio.

- 1 Do one of the following:
 - Press the programmed button. Proceed to [step 3](#).

- Press  to access the menu.
-

- 2 Press  or  to the menu function, and press  to select a function or enter a sub-menu.
-

- 3 Do one of the following:
 - Press  to return to the previous screen.
 - Long press  to return to the Home screen.

Your radio automatically exits the menu after a period of inactivity and returns to the Home screen.

5.6

Status Indicators

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

5.6.1

Icons

The 132 x 90 pixels, 256 colors, Liquid Crystal Display (LCD) of your radio shows the radio status, text entries, and menu entries. The following are the icons that appear on the radio display.

Table 3: Display Icons

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

	Battery The number of bars (0–4) shown indicates the charge remaining in the bat-
---	---

	tery. The icon blinks when the battery is low.
	Bluetooth Connected³ The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	Bluetooth Not Connected³ The Bluetooth feature is enabled but there is no remote Bluetooth device connected.
	DGNA Radio is in DGNA Talkgroup.
	Emergency Radio is in Emergency mode.
	GNSS Available GNSS feature is enabled. The icon stays lit when a position fix is available.

³ Only applicable for XPR 7580e IS.

	GNSS Not Available GNSS feature is enabled but is not receiving data from the satellite.
	High Volume Data Radio is receiving high volume data and channel is busy.
	Mute Mode Mute Mode is enabled and speaker is muted.
	Notification Notification List has one or more missed events.
	Option Board The Option Board is enabled. (Option board enabled models only)
	Option Board Non-Function The Option Board is disabled.
	Over-the-Air Programming Delay Timer Indicates time left before automatic re-start of radio.

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

	Silent Ring Silent ring mode is enabled.
	Site Roaming The site roaming feature is enabled.
	Status Indicates a new status message.
	Tones Disable Tones are turned off.
	Unsecure The Privacy feature is disabled.
	Wi-Fi Excellent³ Wi-Fi signal is excellent.
	Wi-Fi Good³ Wi-Fi signal is good.
	Wi-Fi Average³ Wi-Fi signal is average

	Wi-Fi Poor³ Wi-Fi signal is poor.
	Wi-Fi Unavailable³ Wi-Fi signal is unavailable.

Table 4: Advance Menu Icons

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

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

Table 5: Bluetooth Device Icons

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

**NOTICE:**

Bluetooth feature is only applicable for XPR 7580e IS

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

Table 6: Call Icons

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

	Call Priority High Indicating Call Priority Level High is enabled.
	DGNA Call Indicates a DGNA Call is in progress.
	Group Call/All Call Indicates a Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).
	Phone Call as Group/All Call Indicates a Phone Call as Group Call or All Call in progress. In the Contacts list, it indicates a group alias (name) or ID (number).

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

Table 7: Job Tickets Icons

The following icons appear momentarily on the display in the Job Ticket folder.

	All Jobs Indicates all jobs listed.
	New Jobs Indicates new jobs.

	In Progress Jobs are transmitting. This is seen before indication for Job Tickets Send Failed or Sent Successfully.
	Send Failed Jobs cannot be sent.
	Sent Successfully Jobs have been successfully sent.
	Priority 1 Indicates Priority Level 1 for jobs.
	Priority 2 Indicates Priority Level 2 for jobs.
	Priority 3 Indicates Priority Level 3 for jobs.

Table 8: Mini Notice Icons

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

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

Table 9: Sent Items Icons

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

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

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

5.6.2

LED Indicator

The LED indicator shows the operational status of your radio.

Blinking Red

Radio has failed the self-test upon powering up.

Radio is receiving an emergency transmission.

Radio is transmitting in low battery state.

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

Mute Mode is enabled.

Solid Green

Radio is powering up.

Radio is transmitting.

Radio is sending a Call Alert or an emergency transmission.

Blinking Green

Radio is receiving a call or data.

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

Radio is detecting activity over the air.

**NOTICE:**

This activity may or may not affect the programmed channel of the radio due to the nature of the digital protocol.

Double Blinking Green

Radio is receiving a privacy-enabled call or data.

Blinking Yellow

Radio has yet to respond to a Call Alert.

Double Blinking Yellow

Radio has Auto Roaming enabled.

Radio is actively searching for a new site.

Radio has yet to respond to a Group Call Alert.

Radio is locked.

5.6.3

Tones

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



High Pitched Tone



Low Pitched Tone

5.6.3.1

Audio Tones

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



Continuous Tone

A monotone sound. Sounds continuously until termination.



Periodic Tone

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



Repetitive Tone

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



Momentary Tone

Sounds once for a short duration set by the radio.

5.6.3.2

Indicator Tones

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



Positive Indicator Tone



Negative Indicator Tone

5.7

Registration

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

Registering

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

The indication means that the radio is busy searching for a site to roam, or that the radio has found a site successfully

but is waiting for a response to the registration messages from the radio.

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

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

Out of Range

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

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

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

Talkgroup Affiliation Failed

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

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

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

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

Register Denied

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

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

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

5.8

Zone and Channel Selections

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

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

5.8.1

Selecting Zones

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

- 1 Do one of the following:
 - Press the programmed **Zone Selection** button. Proceed to [step 3](#).
 - Press  to access the menu.
-

2

Press  or  to Zone. Press  to select.
The display shows  and the current zone.

3

Press  or  to the required zone. Press  to select.
The display shows <Zone> Selected momentarily and returns to the selected zone screen.

5.8.2

Selecting Zones by Using the Alias Search

Follow the procedure to select the required zone on your radio by using the alias search.

1

Press  to access the menu.

- 2 Press ▲ or ▼ to Zone. Press  to select.

The display shows ✓ and the current zone.

- 3 Enter the first character of the required alias.

The display shows a blinking cursor.

- 4 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

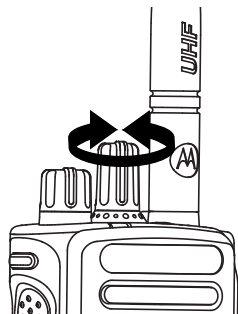
- 5 Press  to select.

The display shows <Zone> Selected momentarily and returns to the selected zone screen.

Selecting a Call Type

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

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



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

5.8.4

Selecting a Site

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

The Capacity Max system can support up to 250 sites.

5.8.5

Roam Request

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

If there are no sites available:

- The radio display shows *Searching* and continues to search through the list of sites.
- The radio will return to the previous site, if the previous site is still available.



NOTICE:

This is programmed by your dealer.

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

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

5.8.6

Site Lock On/Off

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

Press the programmed **Site Lock** button.

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

- You hear a positive indicator tone, indicating the radio has locked to the current site.
- The display shows `Site Locked`.

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

- You hear a negative indicator tone, indicating the radio is unlocked.
- The display shows `Site Unlocked`.

5.8.7

Site Restriction

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

The radio does not have to be reprogrammed to change the list of allowed and disallowed sites. If your radio attempts to register at a disallowed site, your radio receives indication that the site is denied. The radio then searches for a different network site.

When experiencing site restrictions, your radio displays `Register Denied` and the yellow LED double flashes to indicate a site search.

5.8.8

Site Trunking

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

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

When a radio is in Site Trunking, the radio displays `Site Trunking` and a repetitive tone sounds.

The radios in Site Trunking are still able to make group and individual voice calls as well as send text messages to other radios within the same site. Voice consoles, logging

recorders, phone gateways, and data applications cannot communicate to the radios at the site.

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

**NOTICE:**

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

5.9

Calls

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

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

Alias Search

This method is used for Group, Private, and All Calls only with a keypad microphone.

Contacts List

This method provides direct access to the Contacts list.

Manual Dial (by using Contacts)

This method is used for Private and Phone Calls only with a keypad microphone.

Programmed Number Keys

This method is used for Group, Private, and All Calls only with a keypad microphone.

**NOTICE:**

You can only have one alias or ID assigned to a number key, but you can have more than one number key associated to an alias or ID. All the number keys on a keypad microphone can be assigned. See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

Programmed One Touch Access Button

This method is used for Group, Private, and Phone Calls only.

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

Programmable Button

This method is used for Phone Calls only.

5.9.1

Group Calls

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

5.9.1.1

Making Group Calls

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

- 1 Do one of the following:
 - Select a channel with the active group alias or ID. See [Selecting a Call Type on page 67](#).
 - Press the programmed **One Touch Access** button.

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

The green LED lights up. The first text line shows the **Group Call** icon and alias.

- 3 Do one of the following:

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

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

The green LED lights up when the target radio responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

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

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

The call initiator can press  to end a Group Call.

5.9.1.2

Making Group Calls by Using the Contacts List

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.

- 3 Press  or  to the required alias or ID. Press  to select.

- 4 Press the **PTT** button to make the call.
The green LED lights up.
The first line displays the subscriber alias or ID. The second line displays **Group Call** and the **Group Call** icon.

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

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

- 6 Release the **PTT** button to listen.

The green LED lights up when the target radio responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

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

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

You hear a short tone. The display shows **Call Ended**.

5.9.1.3

Making Group Calls by Using the Programmable Number Key

Follow the procedure to make Group Calls on your radio by using the programmable number key.

- 1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

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

The green LED lights up. The display shows the **Group Call** icon at the top right corner. The first text line shows the caller alias. The second text line displays the call status for Group Call.

- 3 Do one of the following:

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

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

The green LED lights up when the target radio responds. The display shows the destination alias.

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

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on before initiating the call.

The call initiator can press  to end the Group Call.

See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

5.9.1.4

Making Group Calls by Using the Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias. This feature is only applicable

while in Contacts. If the target radio is not available, you hear a short tone and see **Party Not Available** on the display; the radio returns to the menu prior to initiating the radio presence check.



NOTICE:

Press  button or  to exit alias search.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.
The display shows the entries in alphabetical order.

- 3 Enter the first character of the required alias.
The display shows a blinking cursor.

- 4 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

- 5 Press the **PTT** button to make the call.
The green LED lights up. The display shows the destination ID, call type, and **Call** icon.

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

- 7 Release the **PTT** button to listen.
The green LED blinks when the target radio responds.

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

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

The call initiator can press  to end the Group Call.

- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The green LED lights up.

5.9.1.5

Responding to Group Calls

When you receive a Group Call:

- The green LED blinks.
- The first text line shows the caller alias.
- The second text line displays the group call alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

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

2 Do one of the following:

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

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

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

5.9.2

Broadcast Call

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

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

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

5.9.2.1

Making Broadcast Calls

- 1 Do one of the following:
 - Select a channel with the active group alias or ID. See [Selecting a Call Type on page 67](#).
 - Press the programmed **One Touch Access** button.
-
- 2 Press the **PTT** button to make the call.
The green LED lights up. The display shows the **Group Call** icon and alias.
-
- 3 Do one of the following:
 - Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
 - Wait for the **PTT** Sidetone to end and speak clearly into the microphone if enabled.

The call initiator can press  to end the Broadcast Call.

5.9.2.2

Making Broadcast Calls Using the Contact List

- 1 Press  to access the menu.
-
- 2 Press  or  to **Contacts**. Press  to select.
-
- 3 Press  or  to the required alias or ID. Press  to select.
-
- 4 Press the **PTT** button to make the call.
The green LED blinks.
The first line displays the subscriber alias or ID. The second line displays **Group Call** and the **Group Call** icon.
-

5 Do one of the following:

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

The call initiator can press  to end the Broadcast Call.

A negative indicator tone sounds if the number key is not associated to an entry.

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

The green LED lights up. The display shows the **Group Call** icon at the top right corner. The first text line shows the caller alias.

3 Do one of the following:

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

The call initiator can press  to end the Broadcast Call.

5.9.2.3

Making Broadcast Calls Using the Programmable Number Key

Follow the procedure to make Broadcast Calls on your radio using the programmable number key.

- 1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

5.9.2.4

Receiving Broadcast Calls

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

When you receive a Broadcast Call:

- The green LED blinks.
- The first text line shows the caller alias.
- The second text line displays the group call alias.
- Your radio unmutes and the incoming call sounds through the speaker.

**NOTICE:**

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

5.9.3

Private Call

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

There are two ways to set up a Private Call.

- The first call type is called Off Air Call Set-Up (OACSU). OACSU sets up the call after performing a radio presence check and completes the call automatically.
- The second type is called Full Off Air Call Set-Up (FOACSU). FOACSU also sets up the call after

performing a radio presence check. However, FOACSU calls require user acknowledgment to complete the call and allows the user to either Accept or Decline the call.

The type of call is configured by the system administrator.

If the target radio is not available prior to setting up the Private Call, the following occur:

- A tone sounds.
- The display shows a negative mini notice.
- The radio returns to the menu prior to initiating the radio presence check.

**NOTICE:**

Both the call initiator and recipient are able to

terminate an on-going Private Call by pressing .

5.9.3.1

Making Private Calls

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

not available, a short tone sounds and the display shows Party Not Available.

1 Do one of the following:

- Select a channel with the active subscriber alias or ID. See [Selecting a Call Type on page 67](#).
- Press the programmed **One Touch Access** button.

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

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

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

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

The green LED lights up when the target radio responds.

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

Both the call initiator and recipient are able to

terminate an on-going Private Call by pressing .

5.9.3.2

Making Private Calls by Using the Programmable Number Key

Follow the procedure to make Private Calls on your radio by using the programmable number key.

1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

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

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

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

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

The green LED blinks when the target radio responds. The display shows the destination alias.

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

Both the call initiator and recipient are able to

terminate an on-going Private Call by pressing .

See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

5.9.3.3

Making Private Calls by Using the Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias. This feature is only applicable while in **Contacts**.



NOTICE:

Press  button or  to exit alias search.

1

Press  to access the menu.

2

Press  or  to **Contacts**. Press  to select. The display shows the entries in alphabetical order.

3

Enter the first character of the required alias. The display shows a blinking cursor.

4

Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

-
- 5 Press the **PTT** button to make the call.

The green LED lights up. The display shows the destination ID, call type, and **Private Call** icon.

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

-
- 7 Release the **PTT** button to listen.

The green LED blinks when the target radio responds.

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

Both the call initiator and recipient are able to

terminate an on-going Private Call by pressing .

5.9.3.4

Making a Private Call with a One Touch Call Button

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

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

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

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

The LED lights up solid green.

The display shows the Private Call alias or ID.

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

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

When the target radio responds, the LED blinks green.

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

Both the call initiator and recipient are able to

terminate an on-going Private Call by pressing .

5.9.3.5

Making Private Calls by Using the Manual Dial

- 1 Press  to access the menu.
-

- 2 Press  or  to **Contacts**. Press  to select.
-

- 3 Press  or  to **Manual Dial**. Press  to select.
-

- 4 Press  or  to **Radio Number**. Press  to select.
-

- 5 Do one of the following:

- Enter the subscriber ID, and press  to proceed.
 - Edit the previously dialed subscriber ID, and press  to proceed.
-

- 6 Press the **PTT** button to make the call.

The green LED lights up. The display shows the destination alias.

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

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

The green LED lights up when the target radio responds. The display shows the transmitting user alias or ID.

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

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows **Call Ended**.

Both the call initiator and recipient are able to

terminate an on-going Private Call by pressing .

5.9.3.6

Receiving Private Calls

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

- The green LED blinks.

- The **Private Call** icon appears in the top right corner.
- The first text line shows the caller alias.
- Your radio unmutes and the incoming call sounds through the speaker.



NOTICE:

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

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

5.9.3.7

Accepting Private Calls

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

- The green LED blinks.
- The **Private Call** icon appears in the top right corner.
- The first text line shows the caller alias.

- 1 To accept a Private Call configured as FOACSU, do one of the following:

- Press ▲ or ▼ to Accept and press  to answer a Private Call.
- Press the **PTT** button on any entry.

The green LED lights up.

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

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

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows **Call Ended**.



NOTICE:

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

pressing .

5.9.3.8

Declining Private Calls

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

- The green LED blinks.
- The **Private Call** icon appears in the top right corner.
- The first text line shows the caller alias.

To decline a Private Call configured as FOACSU, do one of the following:

- Press ▲ or ▼ to Reject and press  to decline a Private Call.
 - Press  to decline a Private Call.
-

5.9.4

All Calls

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

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

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



NOTICE:

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

5.9.4.1

Receiving All Calls

When you receive an All Call, the following occur:

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

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

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



NOTICE:

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

5.9.4.2

Making All Calls

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

- 1 Select a channel with the active All Call group alias or ID. See [Selecting a Call Type on page 67](#).

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

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

Call, or Multi Site Call depending on the type of configuration.

3 Do one of the following:

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

Users on the channel cannot respond to an All Call.

The call initiator can press  to end the All Call.

5.9.4.3

Making All Calls by Using the Programmable Number Key

Follow the procedure to make All Calls on your radio by using the programmable number key.

- 1 Long press the programmed number key assigned to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

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

The green LED lights up. The display shows the **Group Call** icon and either All Call, Site All Call, or Multi Site Call depending on the type of configuration.

3 Do one of the following:

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

The call initiator can press  to end the All Call.

See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

5.9.4.4

Making All Calls by Using the Alias Search

You can use alias or alphanumeric search to retrieve the required subscriber alias. This feature is only applicable while in Contacts. Follow the procedure to make All Calls on your radio by using the alias search.



NOTICE:

Press  button or  to exit alias search.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.
The display shows the entries in alphabetical order.

- 3 Enter the first character of the required alias.
The display shows a blinking cursor.

- 4 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

-
- 5 Press the **PTT** button to make the call.

The green LED lights up. The display shows the destination ID, call type, and **Group Call** icon.

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



NOTICE:

The call initiator can press  to end the All Call.

5.9.5

Phone Calls

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

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

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

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

5.9.5.1

Making Phone Calls

Follow the procedure to make Phone Calls on your radio.

- 1 Do one of the following:

- Press the programmed **Phone** button to enter into the Phone Entry list.
- Press the programmed **One Touch Access** button. Proceed to [step 2](#).

- 2 Press ▲ or ▼ to the required alias or ID. Press



to select.

When you press the **PTT** button while on the Phone Contacts screen:

- A negative indicator tone sounds.
- The display shows `Press OK to Place Phone Call`.

The display shows `Access Code:` if the access code was not preconfigured.

- 3

Enter the access code, and press  to proceed.

The access or deaccess code cannot be more than 10 characters.

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

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

If the call is successful:

- The DTMF Tone sounds.
- You hear the call waiting tone of the telephone user.
- The display shows the subscriber alias and the **Phone Call** icon.

If the call is unsuccessful:

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

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

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

7 Enter extra digits with the keypad if requested by the call, and press to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on before initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

8 Press to end the call.

9 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows

`De-Access Code:`, and press  to proceed.
The radio returns to the previous screen.

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

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

If the call ends successfully:

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

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

5.9.5.2

Making Phone Calls with the Programmable Button

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

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

- 2 Press  or  to the required alias or ID. Press



to select.

If the access code was not preconfigured in the Contacts list, the display shows `Access Code:`.

Enter the access code and press the  button to proceed.

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

If the call-setup is successful:

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

If call-setup is unsuccessful:

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

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

- 4 To enter extra digits, if requested by the Phone Call. Do one of the following:

- Press any keypad key to begin the input of the extra digits. The display shows `Extra Digits:` and a blinking cursor. Enter the extra digits and

press the  button to proceed. The DTMF tone sounds and the radio returns to the previous screen.

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

5

Press  to end the call.

If deaccess code was not preconfigured in the Contacts list, the display shows `De-Access Code:`.

Enter the deaccess code and press the  button to proceed.

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

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

If the end-call-setup is unsuccessful, your radio returns to the Phone Call screen. Repeat [step 3](#) and [step 5](#) or wait for the telephone user to end the call.

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

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

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.



NOTICE:

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

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

5.9.5.3

Making Phone Calls by Using the Contacts List

Follow the procedure to make Phone Calls on your radio by using the Contacts list.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.
The display shows the entries in alphabetical order.

- 3 Press  or  to the required alias or ID. Press  to select.
When you press the **PTT** button while on the Phone Contacts screen:
 - A negative indicator tone sounds.
 - The display shows `Press OK to Place Call`.
 If the selected entry is empty:
 - A negative indicator tone sounds.

- The display shows `Phone Call Invalid #`.

4

Press  or  to **Call Phone**. Press  to select.

The display shows `Access Code:` if the access code was not preconfigured.

5

Enter the access code, and press  to proceed.

The access or deaccess code cannot be more than 10 characters.

The display shows `Calling`, subscriber alias or ID, and the **Phone Call** icon.

If the call is successful:

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

If the call is unsuccessful:

- A tone sounds.

- The display shows Phone Call Failed and then, Access Code:.
- Your radio returns to the screen you were on prior to initiating the call if the access code has been preconfigured in the Contacts list.

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

The **RSSI** icon disappears.

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

8 Enter extra digits with the keypad if requested by the call, and press  to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on prior to initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

9 Press  to end the call.

10 If the deaccess code was not preconfigured, enter the deaccess code when the display shows De-

Access Code:, and press  to proceed.

The radio returns to the previous screen. The DTMF Tone sounds and the display shows Ending Phone Call.

If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat [step 9](#) and [step 10](#), or wait for the telephone user to end the call. When you press the PTT button while in the Phone Contacts screen, as tone sounds and the display shows Press OK to Place Call.

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

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

5.9.5.4

Making Phone Calls by Using the Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias. This feature is only applicable while in Contacts. Follow the procedure to make Phone Calls on your radio by using the alias search.



NOTICE:

Press  button or  to exit alias search.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.
The display shows the entries in alphabetical order.

- 3 Enter the first character of the required alias.
The display shows a blinking cursor.

- 4 Enter the rest of the characters of the required alias.

The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.

The first text line shows the characters you entered. The following text lines show the shortlisted search results.

- 5 To make a call to the required alias, press  .

- 6 Press  or  to **Call Phone**. Press  to select.
The green LED lights up. The display shows the destination ID, call type, and **Phone Call** icon.

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

- 8 Release the **PTT** button to listen.
The green LED blinks when the target radio responds.

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

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows **Call Ended**.

5.9.5.5

Making Phone Calls by Using the Manual Dial

Follow the procedure to make Phone Calls on your radio by using the manual dial.

- 1 Press  to access the menu.
- 2 Press  or  to **Contacts**. Press  to select.
- 3 Press  or  to **Manual Dial**. Press  to select.

- 4 Press  or  to **Phone Number**. Press  to select.

The display shows **Number:** and a blinking cursor.

- 5 Enter the telephone number, and press  to proceed.

The display shows **Access Code:** and a blinking cursor if the access code was not preconfigured.

- 6 Enter the access code, and press  to proceed. The access or deaccess code cannot be more than 10 characters.

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

If the call is successful:

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

- The display shows subscriber alias and the **Phone Call** icon.

If the call is unsuccessful:

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

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

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

9 Enter extra digits with the keypad if requested by the call, and press  to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on before initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

10

Press  to end the call.

11 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows

`De-Access Code:`, and press  to proceed. The radio returns to the previous screen.

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

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

If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat [step 10](#), or wait for the telephone user to end the call.

5.9.5.6

Dual Tone Multi Frequency

The Dual Tone Multi Frequency (DTMF) feature allows your radio to operate in a radio system with an interface to the telephone systems.

Disabling all radio tones and alert will automatically turn off the DTMF tone.

5.9.5.6.1

Initiating DTMF Calls

Follow the procedure to initiate DTMF calls on your radio.

- 1 Press and hold the **PTT** button.
-
- 2 Do one of the following:
 - Enter the desired number to initiate a DTMF call.
 - Press  to initiate a DTMF call.
 - Press  to initiate a DTMF call.
-

5.9.5.7

Responding to Phone Calls as All Calls

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

When you receive a Phone Call as an All Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows either **All Call**, **Site All Call**, or **Multi Site Call** depending on the type of configuration and **Phone Call**.
- The green LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

5.9.5.8

Responding to Phone Calls as Group Calls

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

When you receive a Phone Call as a Group Call:

- The display shows the **Phone Call** icon and Phone Call.
- The green LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

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

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

3 Press  to end the call.



NOTICE:

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

The display shows Ending Phone Call.
If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat [step 3](#) or wait for the telephone user to end the call.

5.9.5.9

Responding to Phone Calls as Private Calls

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

When you receive a Phone Call as a Private Call:

- The display shows the **Phone Call** icon and Phone Call.
- The green LED blinks.
- Your radio unmutes and the incoming call sounds through the speaker.

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

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

3 Press  to end the call.

**NOTICE:**

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

The display shows `Ending Phone Call`.

If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat [step 3](#) or wait for the telephone user to end the call.

5.9.6

Initiating Transmit Interrupt

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

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

The receiving radio displays `Call Interrupted`.

5.9.7

Call Preemption

Call Preemption allows a radio to stop any in-progress voice transmission and initiate a priority transmission.

With the Call Preemption feature, the system interrupts and preempts ongoing calls in instances where trunked channels are unavailable.

Higher priority calls such as an Emergency Call or an All Call preempt the transmitting radio to accommodate the higher priority call. If no other Radio Frequency (RF) channels are available, an Emergency Call preempts an All Call as well.

5.9.8

Voice Interrupt

Voice Interrupt allows the user to shut down an in-progress voice transmission.

This feature uses reverse channel signaling to stop the in-progress voice transmission of a radio, if the interrupting radio is configured to Voice Interrupt, and the transmitting radio is configured to be Voice Call Interruptible. The interrupting radio is then allowed to make a voice transmission to the participant in the stopped call.

The Voice Interrupt feature significantly improves the probability of successfully delivering a new transmission to the intended parties when a call is in progress.

Voice Interrupt is accessible to the user only if this feature has been set up in the radio. Check with your dealer or system administrator for more information.

5.9.8.1

Enabling Voice Interrupt

Follow the procedure to initiate Voice Interrupt on your radio.

Your radio must be programmed to allow you to use this feature. Check with your dealer or system administrator for more information.

- 1 To interrupt the transmission during an on-going call, press the **PTT** button.

On the interrupted radio, the display shows **Call Interrupted**. The radio sounds a negative indicator tone until the **PTT** button is released.

- 2 Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.

If unsuccessful:

- A negative indicator tone sounds.

-
- 3 Do one of the following:

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

5.10

Advanced Features

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

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

5.10.1

Call Queue

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

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

If the call setup is successful, the following occur:

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

If the call setup is unsuccessful, the following occur:

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

5.10.2

Priority Call

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

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

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

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

The following are the types of Priority Call:

High Priority

The radio displays `Next Call: High Priority`.

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

Voice Announcement sounds Next Call: High Priority.

Normal Priority

The radio displays Next Call: Normal Priority.

Call Priority High icon disappears.

Voice Announcement sounds Next Call: Normal Priority.

5.10.3

Talkgroup Scan

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

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

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

5.10.3.1

Turning Talkgroup Scan On or Off

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

- 1 Press  to access the menu.

- 2 Press  or  to Scan. Press  to select.

- 3 Do one of the following:
 - Press  or  to Turn On. Press  to select.
 - Press  or  to Turn Off. Press  to select.

If scan is enabled:

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

If scan is disabled:

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

5.10.4

Receive Group List

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

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

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

- Add/remove talkgroups.
- Add, remove, and/or edit priority for talkgroups. Refer to [Editing Priority for a Talkgroup on page 104](#).
- Add, remove, and/or edit affiliation talkgroups. Refer to [Adding Talkgroup Affiliation on page 105](#) and [Removing Talkgroup Affiliation on page 106](#).
- Replace the existing scan list with a new scan list.

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



IMPORTANT:

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



NOTICE:

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

5.10.5

Priority Monitor

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

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



NOTICE:

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

Priority Monitor feature applies only to members in the Receive Group List. There are two Priority Talkgroups: Priority 1 (P1) and Priority 2 (P2). P1 has higher priority

than P2. In Capacity Max system, the radio receives transmission according to the priority order below:

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

See [Editing Priority for a Talkgroup on page 104](#) for more information on how to add, remove, and/or edit the priority of the talkgroups in the scan list.



NOTICE:

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

5.10.5.1

Editing Priority for a Talkgroup

In the Talkgroup Scan Menu, you can view or edit the priority of a talkgroup.

- 1 Press  **OK** to access the menu.

- 2 Press  or  to Scan. Press  **OK** to select.

- 3 Press  or  to View/Edit List. Press  **OK** to select.

- 4 Press  or  to the required talkgroup. Press  **OK** to select.

The current priority is indicated by a **Priority 1** or **Priority 2** icon beside the talkgroup.

- 5 Press  or  to Edit Priority. Press  **OK** to select.

- 6 Press  or  to the required priority level. Press  **OK** to select.

If another talkgroup has been assigned to Priority 1 or Priority 2, you can choose to overwrite the current

priority. When the display shows **Overwrite Existing?**, press ▲ or ▼ to the following options:

- No to return to the previous step.
- Yes to overwrite.

The display shows positive mini notice before returning to the previous screen. The priority icon appears beside the talkgroup.

5.10.6

Multi-Talkgroup Affiliation

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

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

5.10.6.1

Adding Talkgroup Affiliation

Follow the procedure to add a talkgroup affiliation.

1

Press  to access the menu.

2

Press ▲ or ▼ to Scan. Press  to select.

3

Press ▲ or ▼ to View/Edit List. Press  to select.

4

Press ▲ or ▼ to the required talkgroup ID or alias. Press  to select.

The affiliation status is displayed at the View/Edit List. The display shows ■ beside the selected talkgroup ID or alias.

5

Press ▲ or ▼ to Edit Affiliation. Press  to select.

6

Do one of the following:

- Press ▲ or ▼ to On. Press  to select.

- Press ▲ or ▼ to Off. Press  to select.

When On is selected, ■ appears beside the talkgroup ID or alias.

If affiliation is successful, the display shows ✓ beside the selected talkgroup ID or alias.

If affiliation is unsuccessful, ■ remains beside the talkgroup ID or alias.



NOTICE:

The radio displays List Full when a maximum of seven talkgroups are selected for affiliation in the scan list. To select a new talkgroup for affiliation, remove an existing affiliated talkgroup to make way for the new addition. See [Removing Talkgroup Affiliation on page 106](#) for more information.

5.10.6.2

Removing Talkgroup Affiliation

When the affiliation list is full and you want to select a new talkgroup for affiliation, remove an existing affiliated talkgroup to make way for the new addition. Follow the procedure to remove a talkgroup affiliation.

- Press  to access the menu.
- Press ▲ or ▼ to Scan. Press  to select.
- Press ▲ or ▼ to View/Edit List. Press  to select.
- Press ▲ or ▼ to the required talkgroup ID or alias. Press  to select.
The affiliation status is displayed at the View/Edit List. The display shows ■ beside the selected talkgroup ID or alias.
- Press ▲ or ▼ to Edit Affiliation. Press  to select.

6

Press ▲ or ▼ to Off. Press  to select.

When Off is selected, ■ disappears from beside the talkgroup ID or alias.

5.10.7

Talkback

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

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

Talkback Disabled

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

Talkback Enabled

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



NOTICE:

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

5.10.8

Bluetooth

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



NOTICE:

This feature is applicable to XPR 7580e IS only.

Bluetooth operates within a range of 10 m (32 ft) line of sight. This is an unobstructed path between your radio and your Bluetooth-enabled device. For high degree of

reliability, Motorola Solutions recommends to not separate the radio and the accessory.

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

Your radio can support up to three simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, a scanner, a sensor device, and a PTT-Only Device (POD). Multiple connections with Bluetooth-enabled devices of the same type are not supported.

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

Your radio connects to the Bluetooth-enabled device within range with either the strongest signal strength, or to one which it has connected to before in a prior session. Do not turn off your Bluetooth-enabled device or press the home

back button  during the finding and connecting operation as this cancels the operation.

5.10.8.1

Turning Bluetooth On and Off

Follow the procedure to turn Bluetooth on and off.

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to My Status. Press  to select.
The display shows On and Off. The current status is indicated by a .

- 4 Do one of the following:
 - Press  or  to On. Press  to select. The display shows  beside On.
 - Press  or  to Off. Press  to select.
The display shows  beside Off.

This feature is applicable to XPR 7580e IS only.

5.10.8.2

Connecting to Bluetooth Devices

Follow the procedure to connect to Bluetooth devices.

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

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to Devices. Press  to select.

- 4 Do one of the following:
 - Press  or  to the required device. Press  to select.
 - Press  or  to Find Devices to locate available devices. Press  or  to the required device. Press  to select.

5

Press  or  to Connect. Press  to select.

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

The display shows Connecting to <Device>.

Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows <Device> Connected and the **Bluetooth Connected** icon.
- The display shows  beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows Connecting Failed.



NOTICE:

This feature is applicable to XPR 7580e IS only.

5.10.8.3

Connecting to Bluetooth Devices in Discoverable Mode

Follow the procedure to connect to Bluetooth devices in discoverable mode.

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

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to Find Me. Press  to select.
The radio can now be found by other Bluetooth-enabled devices for a programmed duration. This is called Discoverable Mode.

Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.

- The display shows <Device> Connected and the **Bluetooth Connected** icon.

- The display shows  beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows Connecting Failed.



NOTICE:

This feature is applicable to XPR 7580e IS only.

5.10.8.4

Disconnecting from Bluetooth Devices

Follow the procedure to disconnect from Bluetooth devices.

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to Devices. Press  to select.

- 4 Press ▲ or ▼ to the required device. Press  to select.

- 5 Press ▲ or ▼ to Disconnect. Press  to select.

The display shows Disconnecting from <Device>.

Wait for acknowledgment.

- A tone sounds.
- The display shows <Device> Disconnected and the **Bluetooth Connected** icon disappears.
- The ✓ disappears beside the connected device.

This feature is applicable to XPR 7580e IS only.

5.10.8.5

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

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

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

The display shows one of the following results:

- A tone sounds. The display shows Route Audio to Radio.
- A tone sounds. The display shows Route Audio to Bluetooth.

This feature is applicable to XPR 7580e IS only.

5.10.8.6

Viewing Device Details

Follow the procedure to view device details on your radio.

- 1 Press  to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press  to select.

3 Press ▲ or ▼ to Devices. Press  to select.

4 Press ▲ or ▼ to the required device. Press  to select.

5 Press ▲ or ▼ to View Details. Press  to select.

This feature is applicable to XPR 7580e IS only.

5.10.8.7

Editing Device Name

Follow the procedure to edit the name of available Bluetooth-enabled devices.

1 Press  to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press  to select.

3 Press ▲ or ▼ to Devices. Press  to select.

4 Press ▲ or ▼ to the required device. Press  to select.

5 Press ▲ or ▼ to Edit Name. Press  to select.

6 Enter a new device name. Press  to select.
The display shows Device Name Saved.

This feature is applicable to XPR 7580e IS only.

5.10.8.8

Deleting Device Name

You can remove a disconnected device from the list of Bluetooth-enabled devices.

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to Devices. Press  to select.

- 4 Press  or  to the required device. Press  to select.

- 5 Press  or  to Delete. Press  to select.
The display shows Device Deleted.

This feature is applicable to XPR 7580e IS only.

5.10.8.9

Adjusting Bluetooth Mic Gain Values

Allows control of microphone gain value in connected Bluetooth-enabled devices.

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to BT Mic Gain. Press  to select.

- 4 Press  or  to the BT Mic Gain type and the current values. To edit values, press  to select.

- 5 Press  or  to increase or to decrease values.
Press  to select.

This feature is applicable to XPR 7580e IS only.

5.10.8.10

Permanent Bluetooth Discoverable Mode

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

**NOTICE:**

This feature is applicable to XPR 7580e IS only. If enabled, Bluetooth is **not** displayed in the Menu and you cannot use any Bluetooth programmable button features.

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

5.10.9**Indoor Location****NOTICE:**

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

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

5.10.9.1**Turning Indoor Location On or Off**

You can turn on or turn off Indoor Location by performing one of the following actions.

- Access this feature through the menu.
 - a. Press  to access the menu.
 - b. Press  or  to Bluetooth and press  to select.
 - c. Press  or  to Indoor Location and press  to select.
 - d. Press  to turn on Indoor Location.

The display shows Indoor Location On. You hear a positive indicator tone.

One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.

- If unsuccessful, the display shows **Turning On Failed**. You hear a negative indicator tone.

e. Press  to turn off Indoor Location.

The display shows **Indoor Location Off**. You hear a positive indicator tone.

One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows **Turning Off Failed**. You hear a negative indicator tone.

- Access this feature by using the programmed button.

a. Long press the programmed **Indoor Location** button to turn on Indoor Location.

The display shows **Indoor Location On**. You hear a positive indicator tone.

One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.

- If unsuccessful, the display shows **Turning On Failed**. If unsuccessful, you hear a negative indicator tone.

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

The display shows **Indoor Location Off**. You hear a positive indicator tone.

One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows **Turning Off Failed**. If unsuccessful, you hear a negative indicator tone.

5.10.9.2

Accessing Indoor Location Beacons Information

Follow the procedure to access Indoor Location beacons information.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Bluetooth and press  to select.

- 3 Press ▲ or ▼ to Indoor Location and press  to select.

- 4 Press ▲ or ▼ to Beacons and press  to select.

The display shows the beacons information.

5.10.10

Job Tickets

This feature allows your radio to receive messages from the dispatcher listing out tasks to perform.



NOTICE:

This feature can be customized through the Customer Programming Software (CPS) according to user requirements. Check with your dealer or system administrator for more information.

There are two folders that contain different Job Tickets:

My Tasks folder

Personalized Job Tickets assigned to your signed in user ID.

Shared Tasks folder

Shared Job Tickets assigned to a group of individuals.

You can respond to Job Tickets in order to sort them into Job Ticket Folders. By default, the folders are **All**, **New**, **Started**, and **Completed**.

Job Tickets are retained even after the radio is turned off and turned on again.

All Job Tickets are located in the **All** folder. Depending on how your radio is programmed, Job Tickets are sort by their priority level followed by time received. New Job Tickets,

Job Tickets with recent changes in state, and Job Tickets with the highest priority are listed first.

Upon reaching the maximum number of Job Tickets, the next Job Ticket automatically replaces the last Job Ticket in your radio. Your radio supports a maximum of 100 or 500 Job Tickets, depending on your radio model. Check with your dealer or system administrator for more information. Your radio automatically detects and discards duplicated Job Tickets with the same Job Ticket ID.

Depending on the importance of the Job Tickets, the dispatcher adds a Priority Level to them. There are three priority levels: Priority 1, Priority 2, and Priority 3. Priority 1 has the highest priority and Priority 3 has the lowest priority. There are also Job Tickets with no priority.

Your radio updates accordingly when dispatcher makes the following changes:

- Modify content of Job Tickets.
- Add or edit Priority Level of Job Tickets.
- Move Job Tickets from folder to folder.
- Canceling of Job Tickets.

5.10.10.1

Accessing the Job Ticket Folder

Follow the procedure to access the Job Ticket folder.

1 Do one of the following:

- Press the programmed **Job Ticket** button. Proceed to [step 3](#).
- Press  to access the menu.

2

Press  or  to Job Tickets. Press  to select.

3

Press  or  to the required folder. Press  to select.

4

Press  or  to the required Job Ticket. Press  to select.

5.10.10.2

Logging In or Out of the Remote Server

This feature allows you to log in and log out of the remote server by using your user ID.

- 1 Press  to access the menu.

- 2 Press  or  to Log In. Press  to select.
If you are already logged in, menu displays Log Out.
The display shows a transitional mini notice, indicating the request is in progress.

- 3 Wait for acknowledgment.
If successful:
 - A positive indicator tone sounds.
 - The display shows a positive mini notice.
 If unsuccessful:
 - A negative indicator tone sounds.
 - The display shows a negative mini notice.

5.10.10.3

Creating Job Tickets

Your radio is able to create Job Tickets, which are based on a Job Ticket template and send out tasks that need to be performed.

CPS programming software is required to configure the Job Ticket template.

- 1 Press  to access the menu.

- 2 Press  or  to Job Tickets. Press  to select.

- 3 Press  or  to Create Ticket. Press  to select.

5.10.10.4

Sending Job Tickets Using One Job Ticket Template

If your radio is configured with one Job Ticket template, perform the following actions to send the Job Ticket.

- 1 Use the keypad to type the required room number.

Press  to select.

- 2 Press  or  to Room Status. Press  to select.
-

- 3 Press  or  to the required option. Press  to select.
-

- 4 Press  or  to Send. Press  to select.
The display shows a transitional mini notice, indicating the request is in progress.
-

- 5 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.10.5

Sending Job Tickets Using More Than One Job Ticket Template

If your radio is configured with more than one Job Ticket template, perform the following actions to send the Job Tickets.

- 1 Press  or  to the required option. Press  to select.
-

- 2 Press ▲ or ▼ to Send. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress.

- 3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.10.6

Responding to Job Tickets

Follow the procedure to respond to job tickets on your radio.

- 1 Press  to access the menu.
-

- 2 Press ▲ or ▼ to Job Tickets. Press  to select.
-

- 3 Press ▲ or ▼ to the required folder. Press  to select.
-

- 4 Press ▲ or ▼ to the required job ticket. Press  to select.
-

- 5 Press  once more to access the sub-menu.
You can also press the corresponding number key (1–9) to **Quick Reply**.
-

- 6 Press ▲ or ▼ to the required job ticket. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress.

7 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.10.7

Deleting Job Tickets

Follow the procedure to delete job tickets on your radio.

1 Do one of the following:

- Press the programmed **Job Ticket** button.
Proceed to [step 4](#)
- Press  to access the menu.

2

Press  or  to Job Tickets. Press  to select.

3

Press  or  to the required folder. Press  to select.

4

Press  or  to All folder. Press  to select.

5

Press  or  to the required Job Ticket. Press  to select.

6

Press  again while viewing the Job Ticket.

7

Press  or  to Delete. Press  to select.
The display shows a transitional mini notice, indicating the request is in progress.

8

Wait for acknowledgment.
If successful:

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

If unsuccessful:

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

5.10.10.8

Deleting All Job Tickets

Follow the procedure to delete all job tickets on your radio.

1 Do one of the following:

- Press the programmed **Job Ticket** button.
Proceed to [step 3](#).
- Press  to access the menu.

2

Press  or  to Job Tickets. Press  to select.

3

Press  or  to the required folder. Press  to select.

4

Press  or  to All folder. Press  to select.

5

Press  or  to Delete All. Press  to select.

6 Do one of the following:

- Press  or  to Yes. Press  to select.
The display shows a positive mini notice.
- Press  or  to No. Press  to select.
The radio returns to the previous screen.

5.10.11

Multi-Site Controls

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

5.10.11.1

Enabling Manual Site Search

1 Perform one of the following actions:

- Press the programmed **Manual Site Roam** button. Skip the following steps.
- Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Settings. Press  to select.

4

Press  or  to Site Roaming. Press  to select.

5

Press  or  to Active Search. Press  to select.

A tone sounds. The green LED blinks. The display shows Finding Site.

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

- A positive tone sounds.
- The LED extinguishes.
- The display shows Site <Alias> Found.

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

- A negative tone sounds.
- The LED extinguishes.
- The display shows Out of Range.

If a new site is within range, but the radio is unable to connect to it, your radio shows the following indications:

- A negative tone sounds.
- The LED turns off.
- The display shows Channel Busy.

5.10.11.2

Site Lock On/Off

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

Press the programmed **Site Lock** button.

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

- You hear a positive indicator tone, indicating the radio has locked to the current site.
- The display shows `Site Locked`.

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

- You hear a negative indicator tone, indicating the radio is unlocked.
- The display shows `Site Unlocked`.

5.10.11.3

Accessing Neighbor Sites List

This feature allows the user to check the adjacent sites list of the current home site. Follow the procedure to access the Neighbor Sites List:

1

Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Info. Press  to select.

4

Press  or  to Neighbor Sites. Press  to select.

5.10.12

Home Channel Reminder

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

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

- The Home Channel Reminder tone and announcement sound.

- The display shows Non Home Channel.

5.10.12.1

Muting the Home Channel Reminder

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

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

The display shows HCR Silenced.

5.10.12.2

Setting New Home Channels

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

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

- Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Settings. Press  to select.

4

Press  or  to Home Channel. Press  to select.

5

Press  or  to the desired new home channel alias. Press  to select.

The display shows  beside the selected home channel alias.

5.10.13

Remote Monitor

This feature is used to turn on the microphone of a target radio with a subscriber alias or ID. You can use this feature

to remotely monitor any audible activity surrounding the target radio.

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

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

5.10.13.1

Initiating Remote Monitor

Follow the procedure to initiate Remote Monitor on your radio.

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

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



to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.13.2

Initiating Remote Monitor by Using the Contacts List

Follow the procedure to initiate Remote Monitor on your radio by using the Contacts list.

1

Press  to access the menu.

2 Press ▲ or ▼ to **Contacts**. Press  to select.

3 Press ▲ or ▼ to the required alias or ID. Press  to select.

4 Press ▲ or ▼ to **Remote Mon.**. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

5 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.13.3

Initiating Remote Monitors by Using the Manual Dial

Follow the procedure to initiate Remote Monitor on your radio by using the manual dial.

1 Press  to access the menu.

2 Press ▲ or ▼ to **Contacts**. Press  to select.

3 Press ▲ or ▼ to **Manual Dial**. Press  to select.

4 Press ▲ or ▼ to **Radio Number**. Press  to select.

5 Do one of the following:

- Enter the subscriber alias or ID, and press  to proceed.
- Edit the previously dialed ID, and press  to proceed.

6 Press ▲ or ▼ to Remote Mon.. Press to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

7 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.14

Contacts Settings

Contacts provides address book capabilities on your radio. Each entry corresponds to an alias or ID that you use to initiate a call. The entries are alphabetically sorted.

Each entry, depending on context, associates with the different call types: Group Call, Private Call, Broadcast Call, Site All Call, Multi-site All Call, PC Call, or Dispatch Call.

PC Call and Dispatch Call are data-related. They are only available with the applications. Refer to the data applications documentation for further details.

Contacts menu allows you to assign each entry to a programmable number key or more on a keypad microphone. If an entry is assigned to a number key, your radio can perform a quick dial on the entry.

**NOTICE:**

You see a checkmark before each number key that is assigned to an entry. If the checkmark is before Empty, you have not assign a number key to the entry.

Each entry within Contacts displays the following information:

- Call Type
- Call Alias
- Call ID

**NOTICE:**

If the Privacy feature is enabled on a channel, you can make privacy-enabled Group Calls, Private Calls, All Calls, and Phone Calls on that channel. Only target radios with the same Privacy Key, or the same Key Value and Key ID as your radio are able to decrypt the transmission.

5.10.14.1

Assigning Entries to Programmable Number Keys

Follow the procedure to assign entries to programmable number keys on your radio.

- 1 Press  to access the menu.
- 2 Press  or  to Contacts. Press  to select.
- 3 Press  or  to the required alias or ID. Press  to select.
- 4 Press  or  to Program Key. Press  to select.
- 5 Do one of the following:
 - If the desired number key has not been assigned to an entry, press  or  to the desired number key. Press  to select.
 - If the desired number key has been assigned to an entry, the display shows The Key is Already Assigned and then, the first text line shows Overwrite?. Do one of the following:
Press  or  to Yes. Press  to select.

The radio sounds a positive indicator tone and the display shows `Contact Saved` and a positive mini notice.

Press  or  to `No` to return to the previous step.

5.10.14.2

Removing Associations Between Entries and Programmable Number Keys

Follow the procedure to remove the associations between entries and programmable number keys on your radio.

1 Do one of the following:

- Long press the programmed number key to the required alias or ID. Proceed to [step 4](#).
- Press  to access the menu.

2

Press  or  to `Contacts`. Press  to select.

3 Press  or  to the required alias or ID. Press



to select.

4

Press  or  to `Program Key`. Press  to select.

5

Press  or  to `Empty`. Press  to select.
The first text line shows `Clear from all keys`.

6

Press  or  to `Yes`. Press  to select.



NOTICE:

When an entry is deleted, the association between the entry and its programmed number key(s) is removed.

A positive indicator tone sounds. The display shows `Contact Saved`.

The screen automatically returns to the previous menu.

5.10.14.3

Adding New Contacts

Follow the procedure to add new contacts on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.

- 3 Press  or  to **New Contact**. Press  to select.

- 4 Press  or  to select contact type **Radio Contact** or **Phone Contact**. Press  to select.

- 5 Enter the contact number with the keypad, and press  to proceed.

- 6 Enter the contact name with the keypad, and press  to proceed.

- 7 Press  or  to the required ringer type. Press

 to select.

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

5.10.15

Call Indicator Settings

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

5.10.15.1

Activating or Deactivating Call Ringers for Private Calls

- 1 Press  to access the menu.

- 2 Press  or  to **Utilities**. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

5 Press ▲ or ▼ to Call Ringers. Press  to select.

6 Press ▲ or ▼ to Private Call. Press  to select.

7 Do one of the following:

- Press ▲ or ▼ to the required tone. Press  to select.
The display shows ✓ and the selected tone.
- Press ▲ or ▼ to Off. Press  to select.
If the ringing tones were earlier enabled, the display shows ✓ beside Off.

If the ringing tones were earlier disabled, the display does not show ✓ beside Off.

5.10.15.2

Activating or Deactivating Call Ringers for Text Messages

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

5 Press ▲ or ▼ to Call Ringers. Press  to select.

- 6 Press ▲ or ▼ to Text Message. Press  to select.

The display shows ✓ and the current tone.

- 7 Press ▲ or ▼ to Messages. Press  to select.
The display shows ✓ and the current tone.
-

- 8 Do one of the following:

- Press ▲ or ▼ to the required tone. Press  to select.
The display shows ✓ and the selected tone.
 - Press ▲ or ▼ to Off. Press  to select.
If the ringing tones were earlier enabled, the display shows ✓ beside Off.
If the ringing tones were earlier disabled, the display does not show ✓ beside Off.
-

Activating or Deactivating Call Ringers for Call Alerts

- 1 Press  to access the menu.
-

- 2 Press ▲ or ▼ to Utilities. Press  to select.
-

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.
-

- 4 Press ▲ or ▼ to Tones/Alert. Press  to select.
-

- 5 Press ▲ or ▼ to Call Ringers. Press  to select.
-

- 6 Press ▲ or ▼ to Call Alert. Press  to select.
-

- 7 Do one of the following:

- Press ▲ or ▼ to the required tone. Press  to select.
The display shows ✓ and the selected tone.
- Press ▲ or ▼ to Off. Press  to select.
If the ringing tones were earlier enabled, the display shows ✓ beside Off.

If the ringing tones were earlier disabled, the display does not show ✓ beside Off.

5.10.15.4

Activating or Deactivating Call Ringers for Telemetry Status with Text

Follow the procedure to activate or deactivate call ringers for telemetry status with text on your radio.

- Press  to access the menu.
- Press ▲ or ▼ to Utilities. Press  to select.

- Press ▲ or ▼ to Radio Settings. Press  to select.

- Press ▲ or ▼ to Tones/Alert. Press  to select.

- Press ▲ or ▼ to Call Ringers. Press  to select.

- Press ▲ or ▼ to Telemetry. Press  to select.
The current tone is indicated by a ✓.

- Press ▲ or ▼ to the required tone. Press  to select. A ✓ appears beside the selected tone.

5.10.15.5

Assigning Ring Styles

The radio can be programmed to sound one of eleven predefined ringing tones when receiving a Private Call, a

Call Alert, or a Text Message from a particular contact. The radio sounds out each ring style as you navigate through the list.

- 1 Press  to access the menu.

- 2 Press  or  to Contacts. Press  to select.
The entries are alphabetically sorted.

- 3 Press  or  to the required alias or ID. Press  to select.

- 4 Press  or  to View/Edit. Press  to select.

- 5 Press  until display shows Ringer menu
A  indicates the current selected tone.

- 6 Press  or  to the required tone. Press  to select.

The display shows a positive mini notice.

5.10.15.6

Escalating Alarm Tone Volume

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

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alert. Press  to select.

5 Press ▲ or ▼ to Escalert.

6 Press  to enable OR disable Escalert. If enabled, ✓ appears beside Enabled. If disabled, ✓ disappears beside Enabled.

5.10.16

Call Log Features

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. The call log feature is used to view and manage recent calls.

Missed Call Alerts may be included in the call logs, depending on the system configuration on your radio. You can perform the following tasks in each of your call lists:

- Store Alias or ID to Contacts
- Delete Call
- View Details

5.10.16.1

Viewing Recent Calls

1 Press  to access the menu.

2 Press ▲ or ▼ to Call Log. Press  to select.

3 Press ▲ or ▼ to the preferred list. The options are Missed, Answered, and Outgoing lists.

Press  to select.

The display shows the most recent entry.

4 Press ▲ or ▼ to view the list.

You can start a call with the alias or ID the display is currently showing by pressing the **PTT** button.

5.10.16.2

Storing Aliases or IDs from the Call List

Follow the procedure to store aliases or IDs on your radio from the Call list.

- 1 Press  to access the menu.

- 2 Press  or  to Call Log. Press  to select.

- 3 Press  or  to the required list. Press  to select.

- 4 Press  or  to the required alias or ID. Press  to select.

- 5 Press  or  to Store. Press  to select.
The display shows a blinking cursor.

- 6 Enter the rest of the characters of the required alias.
Press  to select.
You can store an ID without an alias.
The display shows a positive mini notice.

5.10.16.3

Deleting Calls from the Call List

Follow the procedure to delete calls on your radio from the Call list.

- 1 Press  to access the menu.

- 2 Press  or  to Call Log. Press  to select.

- 3 Press  or  to the required list. Press  to select.
If the list is empty:
 - A tone sounds.
 - The display shows List Empty.

- 4 Press  or  to the required alias or ID. Press  to select.

5 Press ▲ or ▼ to Delete Entry?. Press  to select.

6 Do one of the following:

- Press  to select Yes to delete the entry. The display shows Entry Deleted.
 - Press ▲ or ▼ to No. Press  to select. The radio returns to the previous screen.
-

3 Press ▲ or ▼ to the required list. Press  to select.

4 Press ▲ or ▼ to the required alias or ID. Press  to select.

5 Press ▲ or ▼ to View Details. Press  to select. The display shows the details.

5.10.16.4

Viewing Details from the Call List

Follow the procedure to view details on your radio from the Call list.

1 Press  to access the menu.

2 Press ▲ or ▼ to Call Log. Press  to select.

5.10.17

Call Alert Operation

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

This feature is applicable for subscriber aliases or IDs only and is accessible through the menu by using Contacts, manual dial, or a programmed **One Touch Access** button.

In Capacity Max, the Call Alert feature allows a radio user or a dispatcher to send an alert to another radio user requesting the radio user to call back the initiating radio

user when available. Voice communication is not involved in this feature.

The Call Alert Operation can be configured by the dealer or the system administrator in two ways:

- The radio is configured to allow you to press the **PTT** button to respond directly to the call initiator by making a Private Call.
- The radio is configured to allow you to press the **PTT** button and continue with other Talkgroup communication. Pressing the **PTT** button on the call alert entry will not allow the user to respond to the call initiator. The user must navigate to the Missed Call Log option at the Call Log menu and respond to the Call Alert from there.

An Off Air Call Set-Up (OACSU) private call allows the user to respond immediately while a Full Off Air Call Set-Up (FOACSU) private call requires user acknowledgment for the call. OACSU type calls are therefore, recommended being used for the Call Alert feature. See [Private Call on page 78](#).

5.10.17.1

Making Call Alerts

Follow the procedure to make Call Alerts on your radio.

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

The display shows **Call Alert** and the subscriber alias or ID. The green LED lights up.

- 2 Wait for acknowledgment.

If the Call Alert acknowledgment is received, the display shows a positive mini notice.

If the Call Alert acknowledgment is not received, the display shows a negative mini notice.

5.10.17.2

Making Call Alerts by Using the Contacts List

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.

- 3 Do one of the following:
 - Select the subscriber alias or ID directly

Press ▲ or ▼ to the required alias or ID.

Press  to select.

- Use the Manual Dial menu

Press ▲ or ▼ to Manual Dial. Press  to select.

Press ▲ or ▼ to Radio Number. Press

 to select.

The display shows Radio Number: and a blinking cursor. Enter the subscriber ID you

want to page. Press  to select.

4

Press ▲ or ▼ to Call Alert. Press  to select.

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

5 Wait for acknowledgment.

- If the acknowledgment is received, the display shows a positive mini notice.

- If the acknowledgment is not received, the display shows a negative mini notice.

5.10.17.3

Responding to Call Alerts

When you receive a Call Alert:

- A repetitive tone sounds.
- The yellow LED blinks.
- The display shows the notification list listing a Call Alert with the alias or ID of the calling radio.

Depending on the configuration by your dealer or system administrator, you can respond to a Call Alert by doing one of the following:

- Press the **PTT** button and respond with a Private Call directly to the caller.
- Press the **PTT** button to continue normal talkgroup communication.
The Call Alert is moved to the Missed Call option at the Call Log menu. You can respond to the caller from the Missed Called log.

See [Notification List on page 187](#) and [Call Log Features on page 136](#) for more information.

5.10.18

Dynamic Caller Alias

This feature allows you to dynamically edit a Caller Alias from your radio front panel.

When in a call, the receiving radio displays the Caller Alias of the transmitting radio.

The Caller Aliases list can store up to 500 Caller Aliases of transmitting radio. You can view or make Private Calls from the Caller Aliases list. When you turn off your radio, the history of receiving Caller Aliases is removed from the Caller Aliases list.

5.10.18.1

Editing Your Caller Alias After Turning On the Radio

- 1 Turn on your radio.
-

2

Enter your new Caller Alias. Press  to proceed.

The display shows a positive mini notice.



NOTICE:

When in a call, the receiving radio displays your new Caller Alias.

5.10.18.2

Editing Your Caller Alias from the Main Menu

1

Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Info.. Press  to select.

4

Press  or  to My ID. Press  to select.

5 Press  to proceed.

6 Press ▲ or ▼ to Edit. Press  to select.

7 Enter your new Caller Alias. Press  to select.

The display shows a positive mini notice.



NOTICE:

When in a call, the receiving radio displays your new Caller Alias.

5.10.18.3

Viewing the Caller Aliases List

You can access the Caller Aliases list to view the transmitting Caller Alias details.

1 Press  to access the menu.

2 Press ▲ or ▼ to Caller Aliases. Press  to select.

3 Press ▲ or ▼ to the preferred list. Press  to select.

4 Press ▲ or ▼ to View Details. Press  to select.

5.10.18.4

Initiating Private Call From the Caller Aliases List

You can access the Caller Aliases list to initiate Private Call.

1 Press  to access the menu.

2 Press ▲ or ▼ to Caller Aliases. Press  to select.

- 3 Press ▲ or ▼ to the *<required Caller Alias>*.
-

- 4 To call, press and hold the **PTT** button.
-

5.10.19

Mute Mode

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

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

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



IMPORTANT:

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

This feature is applicable to XPR 7550e/XPR 7580e, XPR 7350e/XPR 7380e only.

5.10.19.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Do one of the following:

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

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



IMPORTANT:

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

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows *Mute Mode On*.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.

- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

5.10.19.2

Setting Mute Mode Timer

Mute Mode feature can be enabled for a pre-configured amount of time by setting the Mute Mode Timer. The timer duration is configured in the radio menu and can range between 0.5–6 hours. Mute Mode is exited once the timer expires.

If the timer is left at 0, the radio remains in Mute mode for an indefinite period until the radio is moved to a face-up position or the programmed **Mute Mode** button is pressed.

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to Mute Timer. Press  to select.

5 Press  or  to edit the numeric value of each digit, and press .

5.10.19.3

Exiting Mute Mode

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

Do one of the following to exit Mute mode manually:

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

The following occurs when Mute mode is disabled:

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

**NOTICE:**

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

5.10.20

Emergency Operation

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

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

When an Emergency Alarm is received, the recipient may choose to either delete the alarm and exit the Alarm List, or

respond to the Emergency Alarm by pressing the **PTT** button and transmitting non-emergency voice.

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

Short Press

Duration between 0.05 seconds and 0.75 seconds.

Long Press

Duration between 1.00 second and 3.75 seconds.

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

**NOTICE:**

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

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

Your radio supports three Emergency Alarms:

- Emergency Alarm

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

In addition, each alarm has the following types:

Regular

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

Silent

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

Silent with Voice

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



NOTICE:

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

Sending Emergency Alarms

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

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

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

You see one of these results:

- The display shows Tx Alarms and the destination alias.
- The display shows Tx Telegram and the destination alias.

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

**NOTICE:**

If programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode. The Emergency Search tone can be programmed by the dealer or system administrator.

2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
- The green LED blinks.
- The display shows `Alarm Sent`.

If unsuccessful after all retries have been exhausted:

- A tone sounds.
- The display shows `Alarm Failed`.

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

**NOTICE:**

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

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

5.10.20.2

Sending Emergency Alarms with Call

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

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

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

The display shows Tx Alarm and the destination alias. The **Emergency** icon appears. The green LED lights up.



NOTICE:

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

If an Emergency Alarm acknowledgment is successfully received:

- The Emergency tone sounds.
- The green LED blinks.
- The display shows Alarm Sent.
- Your radio enters the Emergency call mode when the display shows Emergency and the destination group alias.

If an Emergency Alarm acknowledgment is not successfully received:

- All retries are exhausted.
- A low-pitched tone sounds.

- The display shows Alarm Failed.
- The radio exits the Emergency Alarm mode.

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

The green LED lights up. The display shows the **Group Call** icon.

3 Do one of the following:

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

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

The display shows the caller and group aliases.

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

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

- 6 Press the **Emergency Off** button to exit the Emergency mode.

The radio returns to the Home screen.



NOTICE:

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

The Emergency Call initiator may press  to end an on-going emergency call. The radio returns to a call idle state but the emergency call screen remains open.

with the group of radios without pressing the **PTT** button. This activated microphone state is also known as *hot mic*.

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

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

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

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



NOTICE:

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

5.10.20.3

Sending Emergency Alarms with Voice to Follow

This feature allows you to send an Emergency Alarm with Voice to Follow to a group of radios. Your radio microphone is automatically activated, allowing you to communicate

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

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

You see one of these results:

- The display shows `Tx Alarm` and the destination alias.
- The display shows `Tx Telegram` and the destination alias.

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

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

The radio automatically stops transmitting when:

- The cycling duration between *hot mic* and receiving calls expires, if Emergency Cycle Mode is enabled.
- The *hot mic* duration expires, if Emergency Cycle Mode is disabled.

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

The radio returns to the Home screen.

5.10.20.4

Receiving Emergency Alarms

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

When you receive an Emergency Alarm:

- A tone sounds.
- The red LED blinks.
- The display shows the Emergency Alarm List, the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

1

Press  to view the alarm.

- 2 Press  to view the action options and details of the entry in the Alarm List.

- 3 Press  and select **Yes** to exit the Alarm list.
The radio returns to the home screen with an **Emergency Icon** displayed at the top, indicating the unresolved Emergency Alarm. The **Emergency Icon** disappears once the entry in the Alarm List is deleted.

- 4 Press  to access the menu.

- 5 Select **Alarm List** to revisit the Alarm list.

- 6 The tone sounds and the red LED blinks until you exit the Emergency mode. However, the tone can be silenced. Do one of the following:
 - Press the **PTT** button to call the group of radios which received the Emergency Alarm.
 - Press any programmable button.

5.10.20.5

Responding to Emergency Alarms

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

- 1 If the Emergency Alarm Indication is enabled, the Emergency Alarm List appears when the radio receives an Emergency Alarm. Press  or  to the required alias or ID.

- 2 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to transmit non-emergency voice to the same group the Emergency Alarm targeted.
The green LED lights up.

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

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

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

When the emergency initiating radio responds:

- The red LED blinks.
- The display shows the **Emergency Call** icon, the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.



NOTICE:

If the Emergency Call Indication is not enabled, the display shows the **Group Call** icon, Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

5.10.20.6

Responding to Emergency Alarms with Call

Follow the procedure to respond to Emergency Alarms with Call on your radio.

When you receive an Emergency Call:

- The Emergency Call Tone sounds if the Emergency Call Indication and Emergency Call Decode Tone is enabled. The Emergency Call Tone will not sound if only the Emergency Call Indication is enabled.
- The display shows the **Emergency Call** icon at the top right corner.
- The text line shows the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.
- Your radio unmutes and the incoming call sounds through the speaker.

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

The green LED lights up.

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

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

When the emergency initiating radio responds:

- The red LED blinks.

- The display shows the **Emergency Call** icon, the Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

**NOTICE:**

If the Emergency Call Indication is not enabled, the display shows the **Group Call** icon, Emergency Talkgroup ID or alias, and the ID or alias of the transmitting radio.

**NOTICE:**

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

5.10.20.7

Exiting Emergency Mode

Press the programmed **Emergency Off** button.

Your radio shows the following indications:

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

5.10.21

Status Message

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

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

The maximum length for each status message is 16 characters.

**NOTICE:**

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

5.10.21.1

Sending Status Messages

Follow the procedure below to send a status message.

1 Do one of the following:

- Press the programmed **One Touch Access** button. Skip the following steps.
- Press  to access the menu.

2

Press ▲ or ▼ to Status. Press  to select.

3

Press ▲ or ▼ to Quick Status. Press  to select.

4 Press ▲ or ▼ to the required status message.

Press  to select.

5 Press ▲ or ▼ to the required subscriber alias or

ID, or group alias or ID. Press  to select.

If successful:

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

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

If unsuccessful:

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

5.10.21.2

Sending Status Message by Using Programmable Button

Follow the procedure to send a status message by using the programmable button.

1 Press the programmed **Status Message** button.

2 Press ▲ or ▼ to the required status message.

Press  to select. The contact list is displayed.

- 3 Press ▲ or ▼ to the required subscriber alias or ID, or group alias or ID. Press  to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice momentarily before returning to the Quick Status screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

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

5.10.21.3

Sending a Status Message by Using the Contacts List

Follow the procedure to send a status message by using the contacts list.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to Contacts. Press  to select.
- 3 Press ▲ or ▼ to the required subscriber alias or ID, or group alias or ID. Press  to select.
- 4 Press ▲ or ▼ to Send Status. Press  to select.
- 5 Press ▲ or ▼ to the required status message. Press  to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice momentarily before returning to the Quick Status screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

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

5.10.21.4

Sending Status Message by Using Manual Dial

Follow the procedure to send a status message by using the manual dial.

- 1 Press  to access the menu.
- 2 Press  or  to **Contacts**. Press  to select.
- 3 Press  or  to **Manual Dial**. Press  to select.

- 4 Press  or  to **Radio Number**. Press  to select.
- 5 Enter the required subscriber alias or ID, or group alias or ID, and press  to proceed.
- 6 Press  or  to **Send Status**. Press  to select.
- 7 Press  or  to the required status message. Press  to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice momentarily before returning to the **Quick Status** screen.
- The display shows  beside the sent status message.

If unsuccessful:

- A negative indicator tone sounds.

- The LED turns off.
- The display shows the failure notice momentarily before returning to the Quick Status screen.

5.10.21.5

Viewing Status Messages

Follow the procedure to view status messages.

- 1 Press  to access the menu.
- 2 Press  or  to Status. Press  to select.
- 3 Press  or  to Inbox. Press  to select.
- 4 Press  or  to the required status message.
Press  to select.
The content of the status message is displayed to the radio user.

Received status messages can also be viewed by accessing the Notification List. See [Notification List on page 187](#) for more information.

5.10.21.6

Responding to Status Messages

Follow the procedure to reply status messages.

- 1 Press  to access the menu.
- 2 Press  or  to Status. Press  to select.
- 3 Press  or  to Inbox. Press  to select.
- 4 Press  or  to the required status message.
Press  to select.
- 5 The content of the status is displayed. Press  to select.

6 Press ▲ or ▼ to Reply. Press  to select.

7 Press ▲ or ▼ to the required status message.
Press  to select.

If successful:

- A positive indicator tone sounds.
- The LED turns off.
- The display shows a positive mini notice before returning to the Inbox screen.
- The display shows ✓ beside the sent status message.

If unsuccessful:

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

5.10.21.7

Deleting a Status Message

Follow the procedure to delete a status message from your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Status. Press  to select.

3 Press ▲ or ▼ to Inbox. Press  to select.

4 Press ▲ or ▼ to the required status message.
Press  to select.

5 The content of the status is displayed. Press  to select.

6 Press ▲ or ▼ to Delete. Press  to select.

7 Press ▲ or ▼ to Yes. Press  to select.

- The display shows a positive mini notice before returning to the Inbox screen.

5.10.21.8

Deleting All Status Messages

Follow the procedure to delete all status messages from your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Status. Press  to select.

3 Press ▲ or ▼ to Inbox. Press  to select.

4 Press ▲ or ▼ to Delete All. Press  to select.

5 Press ▲ or ▼ to Yes. Press  to select.

- The display shows List Empty.

5.10.22

Text Messaging

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

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



NOTICE:

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

5.10.22.1

Text Messages

The text messages are stored in an Inbox, and sorted according to the most recently received.

The radio exits the current screen once the inactivity timer

expires. Long press  at any time to return to the Home screen.

5.10.22.1.1

Viewing Text Messages

- 1 Press  to access the menu.

- 2 Press  or  to Messages. Press  to select.

- 3 Press  or  to Inbox. Press  to select.
If the Inbox is empty:
 - The display shows `List Empty`.
 - A tone sounds, if the Keypad Tone is turned on.

- 4 Press  or  to the required message. Press  to select.

The display shows a subject line if the message is from an e-mail application.

5.10.22.1.2

Viewing Telemetry Status Text Messages

Follow the procedure to view a telemetry status text message from the inbox.

- 1 Press  to access the menu.

- 2 Press  or  to Messages. Press  to select.

- 3 Press  or  to Inbox. Press  to select.

- 4 Press  or  to the required message. Press  to select.

You cannot reply to a Telemetry Status text message.

The display shows Telemetry: <Status Text Message>.

-
- 5 Long press  to return to the Home screen.
-

5.10.22.1.3

Viewing Saved Text Messages

- 1 Do one of the following:
 - Press the programmed **Text Message** button. Proceed to [step 3](#).
 - Press  to access the menu.
-
- 2 Press  or  to Messages. Press  to select.
-
- 3 Press  or  to Drafts. Press  to select.
-

- 4 Press  or  to the required message. Press  to select.
-

5.10.22.1.4

Responding to Text Messages

When you receive a text message:

- The display shows the Notification list with the alias or ID of the sender.
- The display shows the **Message** icon.



NOTICE:

The radio exits the Text Message alert screen and sets up a Private or Group Call to the sender of the message if the **PTT** button is pressed.

- 1 Do one of the following:
 - Press  or  to Read. Press  to select. The display shows the text message. The display shows a subject line if the message is from an e-mail application.

- Press ▲ or ▼ to Read Later. Press  to select.
The radio returns to the screen you were on prior to receiving the text message.

- Press ▲ or ▼ to Delete. Press  to select.

2

Press  to return to the Inbox.

5.10.22.1.5

Responding to Text Messages with Quick Text

1 Do one of the following:

- Press the programmed **Text Message** button.
Proceed to Step 3.
- Press  to access the menu.

2

Press ▲ or ▼ to Messages. Press  to select.

3

Press ▲ or ▼ to Inbox. Press  to select.

4

Press ▲ or ▼ to the required message. Press  to select.

The display shows a subject line if the message is from an e-mail application.

5

Press  to access the sub-menu.

6

Do one of the following:

- Press ▲ or ▼ to Reply. Press  to select.
- Press ▲ or ▼ to Quick Reply. Press  to select.

A blinking cursor appears. You can write or edit your message, if required.

7

Press  once message is composed.

The display shows a transitional mini notice, confirming the message is being sent.

8 Wait for acknowledgment.

If successful:

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

If unsuccessful:

- A tone sounds.
 - The display shows a negative mini notice.
 - The radio returns to the Resend option screen.
-

5.10.22.1.6

Forwarding Text Messages

When you are at the Resend option screen:

1

Press  or  to Forward, and press  to send the same message to another subscriber or group alias or ID.

2 Press  or  to the required alias or ID. Press  to select.

The display shows a transitional mini notice, confirming your message is being sent.

3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.22.1.7

Forwarding Text Messages by Using the Manual Dial

1 Press ▲ or ▼ to Forward. Press  to select.

2 Press  to send the same message to another subscriber or group alias or ID.

3 Press ▲ or ▼ to Manual Dial. Press  to select.
The display shows Radio Number:.

4 Enter the subscriber ID, and press  to proceed.
The display shows a transitional mini notice, confirming your message is being sent.

5 Wait for acknowledgment.
If successful:

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

If unsuccessful:

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

5.10.22.1.8

Editing Text Messages

Select Edit to edit the message.



NOTICE:

If a subject line is present (for messages received from an e-mail application), you cannot edit it.

1 Press ▲ or ▼ to Edit. Press  to select.
The display shows a blinking cursor.

2 Use the keypad to edit your message.

- Press ◀ to move one space to the left.

- Press  or  to move one space to the right.
- Press  to delete any unwanted characters.
- Long press  to change text entry method.

3

Press  once message is composed.

4 Do one of the following:

- Press  or  to Send and press  to send the message.
- Press  or  to Save and press  to save the message to the Drafts folder.
- Press  to edit the message.
- Press  to choose between deleting the message or saving it to the Drafts folder.

Sending Text Messages

It is assumed that you have a newly written text message or a saved text message.

Select the message recipient. Do one of the following:

- Press  or  to the required alias or ID. Press

 to select.

- Press  or  to Manual Dial. Press  to select. The first line of the display shows Radio Number:1. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID.

Press .

The display shows transitional mini notice, confirming your message is being sent.

If successful:

- A tone sounds.
- The display shows positive mini notice.

If unsuccessful:

- A low tone sounds.
- The display shows negative mini notice.
- The message is moved to the Sent Items folder.
- The message is marked with a Send Failed icon.

**NOTICE:**

For a newly written text message, the radio returns you to the **Resend** option screen.

5.10.22.1.10

Editing Saved Text Messages

- 1 Press  while viewing the message.
- 2 Press  or  to Edit. Press  to select.
A blinking cursor appears.
- 3 Use the keypad to type your message.

Press  to move one space to the left.

Press  or  to move one space to the right.

Press  to delete any unwanted characters.

Long press  to change text entry method.

4

Press  once message is composed.

Do one of the following:

- Press  or  to Send. Press  to send the message.
- Press . Press  or  to choose between saving or deleting the message. Press  to select.

5.10.22.1.11

Resending Text Messages

When you are at the **Resend** option screen:

Press  to resend the same message to the same subscriber or group alias or ID.

If successful:

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

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.
- The radio returns to the **Resend** option screen.

5.10.22.1.12

Deleting Text Messages from the Inbox

Follow the procedure to delete text messages from the Inbox on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button. Proceed to [step 3](#).
- Press  to access the menu.

2

Press  or  to **Messages**. Press  to select.

3

Press  or  to **Inbox**. Press  to select.

If the Inbox is empty:

- The display shows **List Empty**.
- A tone sounds.

4 Press  or  to the required message. Press

 to select.

The display shows a subject line if the message is from an e-mail application.

5

Press  to access the sub-menu.

- 6 Press ▲ or ▼ to Delete. Press  to select.

- 7 Press ▲ or ▼ to Yes. Press  to select.
- The display shows a positive mini notice. The screen returns to the Inbox.

5.10.22.1.13

Deleting All Text Messages from the Inbox

- 1 Do one of the following:
- Press the programmed **Text Message** button. Proceed to [step 3](#).
 - Press  to access the menu.

- 2 Press ▲ or ▼ to Messages. Press  to select.

- 3 Press ▲ or ▼ to Inbox. Press  to select.
- If the Inbox is empty:

- The display shows List Empty.
- A tone sounds.

- 4 Press ▲ or ▼ to Delete All. Press  to select.

- 5 Press ▲ or ▼ to Yes. Press  to select.
- The display shows a positive mini notice.

5.10.22.1.14

Deleting Saved Text Messages from the Drafts Folder

- 1 Do one of the following:
- Press the programmed **Text Message** button. Proceed to [step 3](#).
 - Press  to access the menu.

- 2 Press ▲ or ▼ to Messages. Press  to select.

- 3 Press ▲ or ▼ to Drafts. Press  to select.

- 4 Press ▲ or ▼ to the required message. Press  to select.

- 5 Press  again while viewing the message.

- 6 Press ▲ or ▼ to Delete. Press  to delete the text message.

5.10.22.2

Sent Text Messages

Once a message is sent to another radio, it is saved in Sent Items folder. The most recent sent text message is always added to the top of the Sent Items folder. You can resend, forward, edit, or delete a Sent text message.

The Sent Items folder is capable of storing a maximum of 30 last sent messages. When the folder is full, the next sent text message automatically replaces the oldest text message in the folder.

If you exit the message sending screen while the message is being sent, the radio updates the status of the message in the Sent Items folder without providing any indication in the display or via sound.

If the radio changes mode or powers down before the status of the message in Sent Items folder is updated, the radio cannot complete any In-Progress messages and automatically marks it with a **Send Failed** icon.

The radio supports a maximum of five In-Progress messages at one time. During this period, the radio cannot send any new message and automatically marks it with a **Send Failed** icon.

If you long press  at any time, the radio returns to the Home screen.



NOTICE:

If the channel type, for example a conventional digital or Capacity Plus channel, is not a match, you can only edit, forward, or delete a Sent message.

5.10.22.2.1

Viewing Sent Text Messages

- 1 Do one of the following:

- Press the programmed **Text Message** button.
Proceed to [step 3](#).

- Press  to access the menu.

2 Press  or  to Messages. Press  to select.

3 Press  or  to Sent Items. Press  to select.

If the Sent Items folder is empty:

- The display shows `List Empty`.
- A low tone sounds, if the Keypad Tone is turned on.

4 Press  or  to the required message. Press  to select.

The display shows a subject line if the message is from an e-mail application.

Sending Sent Text Messages

When you are viewing a Sent message:

1 Press .

2 Press  or  to Resend. Press  to select.

The display shows a transitional mini notice, confirming your message is being sent.

3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

- A tone sounds.
 - The display shows a negative mini notice.
 - The radio proceeds to the `Resend` option screen. See [Resending Text Messages on page 167](#) for more information.
-

5.10.22.2.3

Deleting Sent Text Messages from the Sent Items Folder

Follow the procedure to delete sent text messages from the Sent Items folder on your radio.

When you are viewing a Sent message:

1 Press .

2 Press  or  to Delete. Press  to select.

5.10.22.3

Quick Text Messages

Your radio supports a maximum of 50 Quick Text messages as programmed by your dealer.

While Quick Text messages are predefined, you can edit each message before sending it.

5.10.22.3.1

Sending Quick Text Messages

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

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

The display shows a transitional mini notice, confirming the message is being sent.

2 Wait for acknowledgment.

If successful:

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

If unsuccessful:

- A negative indicator tone sounds.
- The display shows a negative mini notice.
- The radio proceeds to the **Resend** option screen. See [Resending Text Messages on page 167](#) for more information.

5.10.23

Text Entry Configuration

Your radio allows you to configure different text.

You can configure the following settings for entering text on your radio:

- Word Predict
- Word Correct
- Sentence Cap
- My Words

Your radio supports the following text entry methods:

- Numbers
- Symbols
- Predictive or Multi-Tap
- Language (If programmed)



NOTICE:

Press  at any time to return to the previous

screen or long press  to return to the Home Screen. The radio exits the current screen once the inactivity timer expires.

5.10.23.1

Word Predict

Your radio can learn common word sequences that you often enter. It then predicts the next word you may want to use after you enter the first word of a common word sequence into the text editor.

1

Press  to access the menu.

2

Press  or  to Utilities and press  to select.

3

Press  or  to Radio Settings and press  to select.

4

Press  or  to Text Entry and press  to select.

5

Press  or  to Word Predict and press  to select.

You can also use ◀ or ▶ to change the selected option.

6 Do one of the following:

- Press  to enable Word Predict. The display shows ✓ beside Enabled.
 - Press  to disable Word Predict. The ✓ disappears from beside Enabled.
-

5.10.23.2

Sentence Cap

This feature is used to automatically enable capitalization of the first letter in the first word for every new sentence.

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Text Entry. Press  to select.

5 Press ▲ or ▼ to Sentence Cap. Press  to select.

6 Do one of the following:

- Press  to enable Sentence Cap. If enabled, ✓ appears beside Enabled.
 - Press  to disable Sentence Cap. If disabled, ✓ disappears beside Enabled.
-

5.10.23.3

Viewing Custom Words

You can add your own custom words into the in-built dictionary of your radio. Your radio maintains a list to contain these words.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Text Entry. Press  to select.

- 5 Press  or  to My Words. Press  to select.

6

Press  or  to List of Words. Press  to select.

The display shows the list of custom words.

5.10.23.4

Editing Custom Words

You can edit custom words saved in your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Text Entry. Press  to select.

5 Press ▲ or ▼ to My Words. Press  to select.

6 Press ▲ or ▼ to List of Words. Press  to select.

Display shows the list of custom words.

7 Press ▲ or ▼ to the required word. Press  to select.

8 Press ▲ or ▼ to Edit. Press  to select.

9 Use the keypad to edit your custom word.

- Press ◀ to move one space to the left.
 - Press ▶ key to move one space to the right.
 - Press the  key to delete any unwanted characters.
 - Long press  to change text entry method.
-

10 Press  once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display shows positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

5.10.23.5

Adding Custom Words

You can add custom words into the in-built radio dictionary.

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Text Entry. Press  to select.
-

- 5 Press ▲ or ▼ to My Words. Press  to select.
-

- 6 Press ▲ or ▼ to Add New Word. Press  to select.
- Display shows the list of custom words.
-

- 7 Use the keypad to edit your custom word.
- Press ◀ to move one space to the left.
 - Press ▶ key to move one space to the right.
 - Press the  key to delete any unwanted characters.
 - Long press  to change text entry method.
-

- 8 Press  once your custom word is completed.
-

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display show positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

5.10.23.6

Deleting a Custom Word

You can delete the custom words saved in your radio.

- 1 Press  to access the menu.
-

- 2 Press ▲ or ▼ to Utilities. Press  to select.
-

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.
-

- 4 Press ▲ or ▼ to Text Entry. Press  to select.

- 5 Press ▲ or ▼ to My Words. Press  to select.

- 6 Press ▲ or ▼ to the required word. Press  to select.

- 7 Press ▲ or ▼ to Delete. Press  to select.

- 8 Choose one of the following.
 - At Delete Entry?, press  to select Yes. The display shows Entry Deleted.
 - Press ▲ or ▼ to No. Press  to return to the previous screen.

Deleting All Custom Words

You can delete all custom words from the in-built dictionary of your radio.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Utilities. Press  to select.

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Text Entry. Press  to select.

- 5 Press ▲ or ▼ to My Words. Press  to select.

- 6 Press ▲ or ▼ to Delete All. Press  to select.

- 7 Do one of the following:

- At Delete Entry?, press  to select Yes. The display shows Entry Deleted.
- Press ▲ or ▼ to No to return to the previous screen. Press  to select.

5.10.24

Privacy

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

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

Your radio supports Enhanced Privacy.

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

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

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

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



NOTICE:

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

5.10.24.1

Turning Privacy On or Off

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

- 1 Do one of the following:
 - Press the programmed **Privacy** button. Skip the steps below.

- Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to Privacy. Press  to select.

5 Do one of the following:

- Press  or  to On. Press  to select. The display shows  beside On.
- Press  or  to Off. Press  to select. The display shows  beside Off.

Stun/Revive



Capacity Max

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

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

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

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



NOTICE:

The dealer or system administrator may permanently disable a radio. See [Radio Kill on page 184](#) for more information.

5.10.25.1

Stunning a Radio

Follow the procedure to disable a radio.

- 1 Press the programmed **Radio Disable** button.
- 2 Press ▲ or ▼ to the required alias or ID. Press  to select.
The green LED blinks.

- 3 Wait for acknowledgment.
If successful:
 - A positive indicator tone sounds.
 - The display shows a positive mini notice.If unsuccessful:
 - A negative indicator tone sounds.
 - The display shows a negative mini notice.

Stunning a Radio by Using the Contacts List

Follow the procedure to disable a radio by using the Contacts List.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to **Contacts**. Press  to select.
- 3 Press ▲ or ▼ to the required alias or ID. Press  to select.
- 4 Press ▲ or ▼ to **Radio Disable**. Press  to select.

5.10.25.2

If  is pressed during the Radio Disable operation, the radio does not receive an acknowledgment message.

The display shows Radio Disable: <Subscriber Alias or ID>. The green LED blinks.

5 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.25.3

Stunning a Radio by Using the Manual Dial

Follow the procedure to disable a radio by using the manual dial.

1 Press  to access the menu.

2 Press  or  to Contacts. Press  to select.

3 Press  or  to Manual Dial. Press  to select.

4 Press  or  to Radio Contact. Press  to select.

The first text line shows Radio Number:.

5 Enter the subscriber ID, and press  to proceed.

6 Press  or  to Radio Disable. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.

7 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.25.4

Reviving a Radio

Follow the procedure to enable a radio.

1 Press the programmed **Radio Enable** button.

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



to select.

The display shows Radio Enable: <Subscriber Alias or ID>. The green LED lights up.

5.10.25.5

Reviving a Radio by Using the Contacts List

Follow the procedure to enable a radio by using the Contacts List.

1

Press  to access the menu.

2

Press ▲ or ▼ to Contacts. Press  to select.

- 3 Press ▲ or ▼ to the required alias or ID. Press



to select.

4

Press ▲ or ▼ to Radio Enable. Press  to select.

The display shows Radio Enable: <Subscriber Alias or ID>. The green LED lights up.

- 5 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

Reviving a Radio by Using the Manual Dial

Follow the procedure to enable a radio by using the Manual Dial.

1

Press  to access the menu.

2

Press ▲ or ▼ to Contacts. Press  to select.

3

Press ▲ or ▼ to Manual Dial. Press  to select.

4

Press ▲ or ▼ to Private Call. Press  to select.

The first text line shows Radio Number:.

5

Enter the subscriber ID, and press  to proceed.

6

Press ▲ or ▼ to Radio Enable. Press  to select.

The display shows Radio Enable: <Subscriber Alias or ID>. The green LED lights up.

7 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

5.10.26

Radio Kill

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

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

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



NOTICE:

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

5.10.27

Lone Worker

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

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

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

5.10.28

Password Lock

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

Your radio supports a 4-digit password input.

Your radio is unable to receive calls in locked state.

5.10.28.1

Accessing the Radio by Using Password

Turn on your radio.

- 1 Enter the four-digit password.
 - a To edit the numeric value of each digit, press ▲ or ▼. To enter and move to the next digit, press



2

Press to confirm the password.

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

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

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

Repeat [step 1](#).

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

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



NOTICE:

In locked state, your radio responds to inputs from the **On/Off/Volume Control Knob** and programmed **Backlight** button only.

Wait for the 15-minute locked state timer to end and then repeat [step 1](#).



NOTICE:

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

5.10.28.2

Unlocking Radios in Locked State

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

Do one of the following:

- If the radio is powered on, wait for 15 minutes and then repeat the steps in [Accessing the Radio by Using Password on page 185](#) to access the radio.
- If the radio is powered off, power up the radio. Your radio restarts the 15-minute timer for locked state. A tone sounds. The yellow LED double blinks. The display shows `Radio Locked`.

Wait for 15 minutes and then repeat the steps in [Accessing the Radio by Using Password on page 185](#) to access the radio.

5.10.28.3

Changing Passwords

Follow the procedure to change passwords on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to `Utilities`. Press  to select.

- 3 Press  or  to `Radio Settings`. Press  to select.

- 4 Press  or  to `Passwd Lock`. Press  to select.

- 5 Enter the current four-digit password, and press  to proceed.

If the password is incorrect, the display shows `Wrong Password` and automatically returns to the previous menu.

- 6 Press  or  to `Change PWD`. Press  to select.

- 7 Enter a new four-digit password, and press  to proceed.

- 8 Re-enter the new four-digit password, and press



to proceed.

If successful, the display shows `Password Changed`.

If unsuccessful, the display shows `Passwords Do Not Match`.

The screen automatically returns to the previous menu.

5.10.29

Notification List

Your radio has a Notification list that collects all your unread events on the channel, such as unread text messages, telemetry messages, missed calls, and call alerts.

The display shows the **Notification** icon when the Notification list has one or more events.

The list supports a maximum of 40 unread events. When the list is full, the next event automatically replaces the oldest event. After the events are read, they are removed from the Notification list.

For text messages, missed calls, and call alert events, the maximum number of notifications are 30 text messages and 10 missed calls or call alerts. This maximum number depends on individual feature (job tickets or text messages or missed calls or call alerts) list capability.

5.10.29.1

Accessing Notification List

Follow the procedure to access the Notification list on your radio.

- 1 Do one of the following:

- Press the programmed **Notification** button. Skip the steps below.
- Press  to access the menu.

- 2

Press  to access the menu.

- 3

Press  or  to Notification. Press  to select.

4

Press ▲ or ▼ to the required event. Press  to select.

Long press  to return to the Home screen.

5.10.30

Over-the-Air Programming

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

When your radio undergoes OTAP, the green LED blinks.

When your radio receives high volume data:

- The display shows the **High Volume Data** icon.
- The channel becomes busy.
- A negative tone sounds if you press the **PTT** button.

When OTAP completes, depending on the configuration:

- A tone sounds. The display shows **Updating Restarting**. Your radio restarts by powering off and on again.

- You can select **Restart Now** or **Postpone**. When you select **Postpone**, your radio returns to the previous screen. The display shows the **OTAP Delay Timer** icon until the automatic restart occurs.

When your radio powers up after automatic restart:

- If successful, the display shows **Sw Update Completed**.
- If unsuccessful, the display shows **Sw Update Failed**.

See [Checking Software Update Information on page 221](#) for the updated software version.

5.10.31

Received Signal Strength Indicator

This feature allows you to view the Received Signal Strength Indicator (RSSI) values.

The display shows the **RSSI** icon at the top right corner. See [Display Icons](#) for more information on the **RSSI** icon.

5.10.31.1

Viewing RSSI Values

At the home screen, press  three times and immediately press , all in 5 seconds.

The display shows the current RSSI values.

To return to the home screen, press and hold .

5.10.32

Front Panel Programming

You are able to customize certain feature parameters in Front Panel Programming (FPP) to enhance the use of your radio.

The following buttons are used as required while navigating through the feature parameters.

Up/Down/Left/Right Navigation Button

Press to navigate through options horizontally or vertically, or increase or decrease values.

Menu/OK Button

Press to select the option or enter a sub-menu.

Return/Home Button

Short press to return to the previous menu or exit the selection screen.

Long press at any time to return to the Home screen.

5.10.32.1

Entering Front Panel Programming Mode

- 1 Press  to access the menu.
- 2 Press  or  to Utilities. Press  to select.
- 3 Press  or  to Program Radio. Press  to select.

5.10.32.2

Editing Mode Parameters

Use the following buttons as required while navigating through the feature parameters.

- ▲ , ▼ – Scroll through options, increase/decrease values, or navigate vertically.
-  – Select the option or enter a sub-menu.
-  – Short-press to return to previous menu or to exit the selection screen. Long-press to return to Home screen.

5.10.33

Wi-Fi Operation

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



NOTICE:

This feature is applicable to XPR 7580e IS only.

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

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

WEP/WPA/WPA2-Personal Wi-Fi network

Uses pre-shared key (password) based authentication.

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

WPA/WPA2-Enterprise Wi-Fi network

Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.



NOTICE:

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

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

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



NOTICE:

You can turn on or turn off Wi-Fi remotely by using a designated radio (see [Turning Wi-Fi On or Off Remotely by Using a Designated Radio \(Individual Control\) on page 191](#) and [Turning Wi-Fi On or Off Remotely by Using a Designated Radio \(Group Control\) on page 192](#)). Check with your dealer or system administrator for more information.

5.10.33.1

Turning Wi-Fi On or Off

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

- 2 Access this feature using the menu.

a Press  to access the menu.

b Press  or  to WiFi and press  to select.

c Press  or  to WiFi On and press  to select.

d Press  to turn on/off Wi-Fi.

If Wi-Fi is on, the display shows  beside Enabled.

If Wi-Fi is off, the  disappears from beside Enabled.

5.10.33.2

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control)

You can turn Wi-Fi on or off remotely in Individual Control (One to One).

**NOTICE:**

Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

- 1 Do one of the following:

- Long press the programmable button. Use the keypad to enter the ID and press  to select. Proceed to [step 4](#).
 - Press  to access the menu.
-

- 2

Press  or  to Contacts and press  to select.

- 3 Use one of the steps described next to select the required subscriber alias:
- Select the subscriber alias directly.
 - Press ▲ or ▼ to the required subscriber alias or ID.
 - Use the Manual Dial menu.
 - Press ▲ or ▼ to Manual Dial and press  to select.
 - Select Radio Number and use the keypad to enter the ID. Press  to select.

-
- 4 Press ▲ or ▼ to WiFi Control and press  to select.
-

- 5 Press ▲ or ▼ to select On or Off.
-

- 6 Press  to select.
-

If successful, the display shows a positive mini notice.

If unsuccessful, the display shows a negative mini notice.

5.10.33.3

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)

You can turn Wi-Fi on or off remotely in Group Control (One to Many).



NOTICE:

Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

-
- 1 Press  to access the menu.
-
- 2 Press ▲ or ▼ to Contacts and press  to select.
-
- 3 Press ▲ or ▼ to select the required subscriber alias or ID.
-
- 4 Press ▲ or ▼ to WiFi Control and press  to select.
-

5 Press ▲ or ▼ to select On or Off.

6 Press  to select.

If successful, the display shows `Sent Successfully`.

If unsuccessful, the display shows a negative mini notice.

5.10.33.4

Connecting to a Network Access Point

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



NOTICE:

You can also connect to a network access point using the menu.

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

1 Press  to access the menu.

2 Press ▲ or ▼ to Wi-Fi and press  to select.

3 Press ▲ or ▼ to Networks and press  to select.

4 Press ▲ or ▼ to a network access point and press  to select.



NOTICE:

For WPA-Enterprise Wi-Fi, if a network access point is not preconfigured, the `Connect` option is not available.

5 Press ▲ or ▼ to Connect and press  to select.

6 For WPA-Personal Wi-Fi, enter the password and press  .

- 7 For WPA-Enterprise Wi-Fi, password is configured by using RM.

If the preconfigured password is correct, your radio automatically connects to the selected network access point.

If the preconfigured password is incorrect, the display shows `Authentication Failure`, and automatically returns to the previous menu.

If the connection is successful, the radio displays a notice and the network access point is saved into the profile list.

If the connection is unsuccessful, the radio displays shows the failure notice screen momentarily and automatically returns to the previous menu.

5.10.33.5

Checking Wi-Fi Connection Status

Press the programmed **Wi-Fi Status Query** button for the connection status by using Voice Announcement. Voice

Announcement sounds `Wi-Fi is Off`, `Wi-Fi is On but No Connection`, or `Wi-Fi is On with Connection`.

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

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



NOTICE:

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

5.10.33.6

Refreshing the Network List

- Perform the following actions to refresh the network list through the menu.
 - a. Press  to access the menu.
 - b. Press  or  to WiFi and press  to select.
 - c. Press  or  to Networks and press  to select.

When you enter the Networks menu, the radio automatically refreshes the network list.
- If you are already in the Networks menu, perform the following action to refresh the network list.

Press  or  to Refresh and press  to select.

The radio refreshes and displays the latest network list.

5.10.33.7

Adding a Network



NOTICE:
This task is not applicable to WPA-Enterprise Wi-Fi networks.

If a preferred network is not in the available network list, perform the following actions to add a network.

- 1 Press  to access the menu.

- 2 Press  or  to WiFi and press  to select.

- 3 Press  or  to Networks and press  to select.

- 4 Press  or  to Add Network and press  to select.

- 5 Enter the Service Set Identifier (SSID) and press .

- 6 Press ▲ or ▼ to Open and press  to select.

- 7 Enter the password and press  .
The radio displays a positive mini notice to indicate that the network is successfully saved.

5.10.33.8

Viewing Details of Network Access Points

You can view details of network access points.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to WiFi and press  to select.
- 3 Press ▲ or ▼ to Networks and press  to select.

- 4 Press ▲ or ▼ to a network access point and press  to select.

- 5 Press ▲ or ▼ to View Details and press  to select.



NOTICE:

WPA-Personal Wi-Fi and WPA-Enterprise Wi-Fi display different details of Network Access Points.

WPA-Personal Wi-Fi

For a connected network access point, your radio displays Service Set Identifier (SSID), Security Mode, Media Access Control (MAC) address, and Internet Protocol (IP) address.

For a non-connected network access point, your radio displays SSID and Security Mode.

WPA-Enterprise Wi-Fi

For a connected network access point, your radio displays SSID, Security Mode, Identity, Extended Authentication Protocol (EAP) Method, Phase 2 Authentication, Cert Name, MAC address, IP address, Gateway, DNS1, and DNS2.

For a non-connected network access point, your radio displays SSID, Security Mode, Identity, EAP Method, Phase 2 Authentication, and Cert Name.

5.10.33.9

Removing Network Access Points



NOTICE:

This task is not applicable to Enterprise Wi-Fi networks.

Perform the following actions to remove network access points from the profile list.

- 1 Press  to access the menu.
- 2 Press  or  to WiFi and press  to select.
- 3 Press  or  to Networks and press  to select.

- 4 Press  or  to the selected network access point and press  to select.

- 5 Press  or  to Remove and press  to select.

- 6 Press  or  to Yes and press  to select.
The radio displays a positive mini notice to indicate that the selected network access point is successfully removed.

5.10.34

Dynamic Group Number Assignment (DGNA)

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

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

- A tone sounds.

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

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

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

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

When your radio is in DGNA mode, pressing the PTT button allows you to communicate only with the current DGNA talkgroup. To communicate with the previous non-DGNA talkgroup, program the **One Touch Access** button. See [Making Non-DGNA Calls on page 198](#).



NOTICE:

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

5.10.34.1

Making DGNA Calls

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

- A DGNA tone sounds.
- The display shows the DGNA icon and the DGNA talkgroup alias.



NOTICE:

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

5.10.34.2

Making Non-DGNA Calls

- 1 Press the programmed **One Touch Access** button.
 - A positive tone sounds.

- Voice Announcement sounds One Touch Replaced Call.
- The display shows <Talkgroup Alias> and Press PTT momentarily.

**NOTICE:**

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

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

**NOTICE:**

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

5.10.34.3

Receiving and Responding to DGNA Calls

When you receive a DGNA call:

- A DGNA tone sounds.

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

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

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

5.11

Utilities

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

5.11.1

Keypad Lock Options

With this feature, you can avoid accidentally pressing buttons or changing channels when your radio is not in use. You can choose to either lock your keypad, channel selector knob, or both; depending on your requirements.

Your dealer can use CPS/RM to configure one of the following options:

- Lock Keypad
- Lock Channel Selector Knob
- Lock Keypad and Channel Selector Knob

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

5.11.1.1

Enabling the Keypad Lock Option

The following steps are applicable for either Lock Keypad, Lock Channel Selector Knob, or Lock Keypad and Channel Selector Knob option depending on how your radio has been configured.

- 1 Do one of the following:
 - Press the programmed **Keypad Lock** button. Skip the following steps.
 - Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Keypad Lock. Press  to select.

The display shows Locked.

5.11.1.2

Disabling the Keypad Lock Option

The following steps are applicable for either Lock Keypad, Lock Channel Selector Knob, or Lock Keypad and Channel Selector Knob option depending on how your radio has been configured.

Do one of the following:

- Press the programmed **Keypad Lock** button.
- When the display shows Menu then * To Unlock, press  followed by .

The display shows Unlocked.

5.11.2

Turning Acoustic Feedback Suppressor On or Off

The feature allows you to minimize acoustic feedback in received calls. Follow the procedure to turn Acoustic Feedback Suppressor on or off on your radio.

- 1 Do one of the following:
 - Press the programmed **AF Suppressor** button. Skip the following steps.
 - Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to AF Suppressor. Press  to select.

- 5 Do one of the following:

- Press  to enable Acoustic Feedback Suppressor.
- Press  to disable Acoustic Feedback Suppressor.

If enabled,  appears beside Enabled. If disabled,  disappears beside Enabled.

5.11.3

Identifying Cable Type

Do the following steps to select the type of cable your radio uses.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Cable Type. Press  to select.

5 Press ▲ or ▼ to change the selected option.
The current cable type is indicated by a ✓.

5.11.4

Setting Menu Timer

You can set the time your radio stays in the menu before it automatically switches to the Home screen. Follow the procedure to set the menu timer.

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Display. Press  to select.

5 Press ▲ or ▼ to Menu Timer. Press  to select.

6 Press ▲ or ▼ to the required setting. Press  to select.

5.11.5

Text-to-Speech

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

This feature enables the radio to audibly indicate the following features:

- Current Channel
- Current Zone
- Programmed button feature on or off
- Content of received text messages
- Content of received Job Tickets

This audio indicator can be customized per customer requirements. This feature is typically useful when the user is in a difficult condition to read the content shown on the display.

5.11.5.1

Setting Text-to-Speech

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

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to Voice Announcement. Press  to select.

5 Press  or  to any of the following features.
Press  to select.

The available features are as follows:

- All
- Messages
- Job Tickets
- Channel
- Zone
- Program Button

✓ appears beside the selected setting.

5.11.6

Turning Global Navigation Satellite System On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise location. GNSS includes Global Positioning System (GPS), Global Navigation Satellite System (GLONASS), and BeiDou Navigation Satellite System (BDS).



NOTICE:

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

1

2 Do one of the following steps to toggle GNSS on or off on your radio.

- Press the programmed **GNSS** button.
- Press  to access the menu. Proceed to the next step.

3

Press  or  to Utilities. Press  to select.

4

Press  or  to Radio Settings. Press  to select.

5

Press  or  to GNSS. Press  to select.

6

Press  to enable or disable GNSS.

If enabled,  appears beside Enabled.

If disabled,  disappears beside Enabled.

5.11.7

Turning Introduction Screen On or Off

You can enable and disable the Introduction Screen by following the procedure.

1

Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Display. Press  to select.

5 Press ▲ or ▼ to Intro Screen. Press  to select.

6 Press  to enable or disable the Introduction Screen.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
 - If disabled, ✓ disappears beside Enabled.
-

Turning Radio Tones/Alerts On or Off

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

1 Do one of the following:

- Press the programmed **Tones/Alerts** button. Skip the following steps.
 - Press  to access the menu.
-

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

5 Press ▲ or ▼ to All Tones. Press  to select.

6 Press  to enable or disable all tones and alerts. The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
 - If disabled, ✓ disappears beside Enabled.
-

5.11.9

Setting Tones/Alerts Volume Offset Levels

This feature adjusts the volume of the tones or alerts, allowing it to be higher or lower than the voice volume. Follow the procedure to set the tones and alerts volume offset levels on your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

5 Press ▲ or ▼ to Vol. Offset. Press  to select.

6 Press ▲ or ▼ to the required volume offset level. A feedback tone sounds with each corresponding volume offset level.

7 Do one of the following:

- Press  to select. The required volume offset level is saved.
 - Press  to exit. The changes are discarded.
-

5.11.10

Turning Talk Permit Tone On or Off

Follow the procedure to turn Talk Permit Tone on or off on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Tones/Alerts. Press  to select.

- 5 Press  or  to Talk Permit. Press  to select.

6

Press  to enable or disable the Talk Permit Tone.

The display shows one of the following results:

- If enabled,  appears beside Enabled.
- If disabled,  disappears beside Enabled.

5.11.11

Turning Power Up Tone On or Off

Follow the procedure to turn Power Up Tone on or off on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

5 Press ▲ or ▼ to Power Up. Press  to select.

6 Press  to enable or disable the Power Up Tone. The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

5.11.12

Setting Text Message Alert Tones

You can customize the text message alert tone for each entry in the Contacts list. Follow the procedure to set the text message alert tones on your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Contacts. Press  to select.

3 Press ▲ or ▼ to the required alias or ID. Press  to select.

4 Press ▲ or ▼ to Message Alert. Press  to select.

5 Do one of the following:

- Press ▲ or ▼ to Momentary. Press  to select.

The display shows ✓ beside Momentary.

- Press ▲ or ▼ to Repetitive. Press  to select.

The display shows ✓ beside Repetitive.

5.11.13

Power Levels

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

High

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

Low

This enables communication with radios in closer proximity.



NOTICE:

This feature is not applicable in Citizens Band channels that are in the same frequency.

5.11.13.1

Setting Power Levels

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

1 Do one of the following:

- Press the programmed **Power Level** button. Skip the steps below.

- Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Settings. Press  to select.

4

Press  or  to Power. Press  to select.

5 Do one of the following:

- Press  or  to High. Press  to select.
The display shows  beside High.
- Press  or  to Low. Press  to select.
The display shows  beside Low.

6

Long press  to return to the Home screen.

5.11.14

Changing Display Modes

You can change the display mode of the radio between Day or Night, as needed. This feature affects the color palette of the display. Follow the procedure to change the display mode of your radio.

- 1 Do one of the following:
 - Press the programmed **Display Mode** button. Skip the following steps.
 - Press  to access the menu.

-
- 2 Press  or  to Utilities. Press  to select.

-
- 3 Press  or  to Radio Settings. Press  to select.

-
- 4 Press  or  to Display. Press  to select.
The display shows Day Mode and Night Mode.

5

Press  or  to the required setting. Press  to select.

The display shows  beside the selected setting.

5.11.15

Adjusting Display Brightness

Follow the procedure to adjust the display brightness on your radio.

- 1 Do one of the following:
 - Press the programmed **Brightness** button. Skip the following steps.
 - Press  to access the menu.

-
- 2 Press  or  to Utilities. Press  to select.

-
- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Brightness. Press  to select.

The display shows the progress bar.

- 5 Press ▲ or ▼ to decrease or increase the display brightness. Press  to select.

5.11.16

Setting Display Backlight Timer

You can set the display backlight timer of the radio as needed. The setting also affects the Menu Navigation Buttons and keypad backlighting accordingly. Follow the procedure to set the backlight timer on your radio.

- 1 Do one of the following:
 - Press the programmed **Backlight** button. Skip the following steps.
 - Press  to access the menu.

- 2 Press ▲ or ▼ to Utilities. Press  to select.

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Display. Press  to select.

- 5 Press ▲ or ▼ to Backlight Timer. Press  to select.

The display backlight and keypad backlighting are automatically turned off as the LED indicator is disabled. See [Turning LED Indicators On or Off on page 212](#) for more information.

5.11.17

Turning Backlight Auto On or Off

You can enable and disable the backlight of the radio to turn on automatically as needed. If enabled, the backlight is turned on when the radio receives a call, Notification List event, or Emergency Alarm.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Backlight Auto.

- 5 Press  to enable or disable Backlight Auto.
The display shows one of the following results:
 - If enabled,  appears beside Enabled.
 - If disabled,  disappears beside Enabled.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to LED Indicator. Press  to select.

- 5 Press  to enable or disable the LED indicator.
The display shows one of the following results:
 - If enabled,  appears beside Enabled.
 - If disabled,  disappears beside Enabled.

5.11.18

Turning LED Indicators On or Off

Follow the procedure to turn the LED indicators on or off on your radio.

5.11.19

Setting Languages

Follow the procedure to set the languages on your radio.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Utilities. Press  to select.

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Languages. Press  to select.

- 5 Press ▲ or ▼ to the required language. Press  to select.
The display shows ✓ beside the selected language.

5.11.20

Turning Option Board On or Off

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

Press the programmed **Option Board** button.

5.11.21

Turning Voice Announcement On or Off

This feature enables the radio to audibly indicate the current zone or channel the user has just assigned, or the programmable button the user has just pressed. This is typically useful when the user has difficulty reading the content shown on the display.

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

- 1 Do one of the following:
 - Press the programmed **Voice Announcement** button. Skip the following steps.
 - Press  to access the menu.

- 2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Voice Announcement. Press  to select.

5 Press  to enable or disable Voice Announcement.

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

5.11.22

Turning Digital Microphone AGC On or Off

The Digital Microphone Automatic Gain Control (AGC) controls the microphone gain of the radio automatically while transmitting on a digital system.

This feature suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of

audio. Follow the procedure to turn Digital Microphone AGC on or off on your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Mic AGC-D. Press  to select.

5 Press  to enable or disable Digital Microphone AGC.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
 - If disabled, ✓ disappears beside Enabled.
-

5.11.23

Switching Audio Route between Internal Radio Speaker and Wired Accessory

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

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

- The wired accessory with speaker is attached.

Press the programmed **Audio Toggle** button.

A tone sounds when the audio route has switched.

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

5.11.24

Turning Intelligent Audio On or Off

Your radio automatically adjusts the audio volume to overcome current background noise in the environment, inclusive of both stationary and non-stationary noise

sources. This is a receive-only feature and does not affect transmission audio. Follow the procedure to turn Intelligent Audio on or off on your radio.



NOTICE:

This feature is not applicable during a Bluetooth session.

- 1 Do one of the following:
 - Press the programmed **Intelligent Audio** button. Skip the steps below.

- Press  **OK** to access the menu.
-

- 2 Press  or  to Utilities. Press  **OK** to select.
-

- 3 Press  or  to Radio Settings. Press  **OK** to select.
-

- 4 Press  or  to Intelligent Audio. Press  **OK** to select.
-

5 Do one of the following:

- Press ▲ or ▼ to On. Press  to select. The display shows ✓ beside On.
 - Press ▲ or ▼ to Off. Press  to select. The display shows ✓ beside Off.
-

5.11.25

Turning Trill Enhancement On or Off

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

1 Do one of the following:

- Press the programmed **Trill Enhancement** button. Skip the steps below.
 - Press  to access the menu.
-

2

Press ▲ or ▼ to Utilities. Press  to select.

3

Press ▲ or ▼ to Radio Settings. Press  to select.

4

Press ▲ or ▼ to Trill Enhance. Press  to select.

5 Do one of the following:

- Press ▲ or ▼ to On. Press  to select. The display shows ✓ beside On.
 - Press ▲ or ▼ to Off. Press  to select. The display shows ✓ beside Off.
-

5.11.26

Turning the Microphone Dynamic Distortion Control Feature On or Off

This feature allows you to enable the radio to automatically monitor the microphone input and adjust the microphone gain value to avoid audio clipping.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Mic Distortion. Press  to select.

- 5 Do one of the following:
 - Press  to enable Microphone Dynamic Distortion Control. If enabled,  appears beside Enabled.
 - Press  to disable Microphone Dynamic Distortion Control. If disabled,  disappears beside Enabled.

Setting Audio Ambience

Follow the procedure to set the audio ambience on your radio according to your environment.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Audio Ambience. Press  to select.

- 5 Press  or  to the required setting. Press  to select.
The settings are as follows.
 - Choose Default for the default factory settings.

- Choose **Loud** to increase speaker loudness when using in noisy surroundings.
- Choose **Work Group** to reduce acoustic feedback when using with a group of radios that are near to each other.

The display shows ✓ beside the selected setting.

5.11.28

Setting Audio Profiles

Follow the procedure to set audio profiles on your radio.

- 1 Press  to access the menu.
 - 2 Press  or  to **Utilities**. Press  to select.
 - 3 Press  or  to **Radio Settings**. Press  to select.
-

- 4 Press  or  to **Audio Profiles**. Press  to select.
-

- 5 Press  or  to the required setting. Press  to select.

The settings are as follows.

- Choose **Default** to disable the previously selected audio profile and return to the default factory settings.
- Choose **Level 1**, **Level 2**, or **Level 3** for audio profiles intended to compensate for noise-induced hearing loss that is typical for adults over 40 years of age.
- Choose **Treble Boost**, **Mid Boost**, or **Bass Boost** for audio profiles that align with your preference for tinnier, more nasal, or deeper sounds.

The display shows ✓ beside the selected setting.

5.11.29

General Radio Information

Your radio contains information on various general parameters.

The general information of your radio is as follows:

- Battery information.
- Radio alias and ID.
- Firmware and Codeplug versions.
- Software update.
- GNSS information.
- Site information.
- Received Signal Strength Indicator.



NOTICE:

Press  to return to the previous screen. Long press  to return to the Home screen. The radio exits the current screen once the inactivity timer expires.

5.11.29.1

Accessing Battery Information

Displays information of your radio battery.

1

Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Info. Press  to select.

4

Press  or  to Battery Info. Press  to select.



NOTICE:

For **IMPRES** batteries only: The display reads *Recondition Battery* when the battery requires reconditioning in an IMPRES charger. After the reconditioning process, the display then shows the battery information.

The display shows the battery information.

**NOTICE:**

For non-supported battery, the display shows Unknown Battery.

5.11.29.2

Checking Radio Alias and ID

1 Do one of the following:

- Press the programmed **Radio Alias and ID** button. Skip the following steps. A positive indicator tone sounds.

You can press the programmed **Radio Alias and ID** button to return to the previous screen.

- Press  to access the menu.

2

Press ▲ or ▼ to Utilities. Press  to select.

3

Press ▲ or ▼ to Radio Info. Press  to select.

4

Press ▲ or ▼ to My Number. Press  to select.

The first text line shows the radio alias. The second text line shows the radio ID.

5.11.29.3

Checking Firmware and Codeplug Versions

1

Press  to access the menu.

2

Press ▲ or ▼ to Utilities. Press  to select.

3

Press ▲ or ▼ to Radio Info. Press  to select.

4

Press ▲ or ▼ to Versions. Press  to select.

The display shows the current firmware and codeplug versions.

5.11.29.4

Checking GNSS Information

Displays the GNSS information on your radio, such as values of:

- Latitude
- Longitude
- Altitude
- Direction
- Velocity
- Horizontal Dilution of Precision (HDOP)
- Satellites
- Version

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Info. Press  to select.

4 Press  or  to GNSS Info. Press  to select.

5 Press  or  to the required item. Press  to select. The display shows the requested GNSS information.

5.11.29.5

Checking Software Update Information

This feature shows the date and time of the latest software update carried out through OTAP or Wi-Fi. Follow the procedure to check the software update information on your radio.

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Info. Press  to select.

- 4 Press ▲ or ▼ to SW Update. Press  to select.
The display shows the date and time of the latest software update.

Software Update menu is only available after at least one successful OTAP or Wi-Fi session. See [Over-the-Air Programming on page 356](#) for more information.

5.11.29.6

Displaying Site Information

Follow the procedure to display the current site name your radio is on.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to Utilities. Press  to select.
- 3 Press ▲ or ▼ to Radio Info. Press  to select.

- 4 Press ▲ or ▼ to Site Info. Press  to select.
The display shows the current site name.

5.11.30

Viewing Enterprise Wi-Fi Certificate Details

You can view the details of the selected Enterprise Wi-Fi Certificate.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to Utilities. Press  to select.
- 3 Press ▲ or ▼ to Certificate Menu. Press  to select.
✓ appears beside ready certificates.

- 4 Press ▲ or ▼ to the required certificate. Press



to select.

Your radio displays the full details of the certificate.



NOTICE:

For unready certificates, the display shows only Status.

Other Systems

Features that are available to the radio users under this system are available in this chapter.

6.1

Push-To-Talk Button

The Push-to-Talk (**PTT**) button serves two basic purposes:

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

Long press the **PTT** button to talk. Release the **PTT** button to listen.

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

6.2

Programmable Buttons

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

Short press

Pressing and releasing rapidly.

Long press

Pressing and holding for the programmed duration.



NOTICE:

See [Emergency Operation on page 326](#) for more information on the programmed duration of the **Emergency** button.

6.3

Assignable Radio Functions

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

Audio Profiles

Allows the user to select the preferred audio profile.

Audio Toggle

Toggles audio routing between the internal radio speaker and the speaker of a wired accessory.

Bluetooth® Audio Switch ⁴

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

Bluetooth Connect

Initiates a Bluetooth find-and-connect operation.

Bluetooth Disconnect

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

Bluetooth Discoverable

Enables your radio to enter Bluetooth Discoverable Mode.

Call Alert

Provides direct access to the contacts list for you to select a contact to whom a Call Alert can be sent.

**Call Forwarding **

Toggles Call Forwarding on or off.

Call Log

Selects the call log list.

Channel Announcement

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

Contacts

Provides direct access to the Contacts list.

Emergency

Depending on the programming, initiates or cancels an emergency.

Indoor Location⁴

Toggles Indoor Location on or off.

Intelligent Audio

Toggles intelligent audio on or off.

**Manual Dial **

Initiates a Private Call by keying in any subscriber ID.

**Manual Site Roam ⁵ **

Starts the manual site search.

Mic AGC

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

⁴ Only applicable for XPR 7580e IS.

⁵ Not applicable in Capacity Plus.

Monitor

Monitors a selected channel for activity.

Notifications

Provides direct access to the Notifications list.

Nuisance Channel Delete⁵

Temporarily removes an unwanted channel, except for the Selected Channel, from the scan list. The Selected Channel refers to the selected zone or channel combination of the user from which scan is initiated.

One Touch Access

Directly initiates a predefined Private, Phone or Group Call, a Call Alert, a Quick Text message, or Home Revert.

Option Board Feature

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

Permanent Monitor⁵

Monitors a selected channel for all radio traffic until function is disabled.

Phone

Provides direct access to the Phone Contacts list.

Privacy

Toggles privacy on or off.

Radio Alias and ID

Provides radio alias and ID.

Radio Check

Determines if a radio is active in a system.

Radio Enable

Allows a target radio to be remotely enabled.

Radio Disable

Allows a target radio to be remotely disabled.

Remote Monitor

Turns on the microphone of a target radio without it giving any indicators.

Repeater/Talkaround⁵

Toggles between using a repeater and communicating directly with another radio.

Scan ⁶

Toggles scan on or off.

Silence Home Channel Reminder

Mutes the Home Channel Reminder.

⁶ Not applicable in Capacity Plus–Single-Site.

Site Info

Displays the current site name and ID of Capacity Plus-Multi-Site.

Plays site announcement voice messages for the current site when Voice Announcement is enabled.

Site Lock⁵

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

Status

Selects the status list menu.

Telemetry Control

Controls the Output Pin on a local or remote radio.

Text Message

Selects the text message menu.

Voice Interrupt

Interrupts the audio from a transmitting radio to free the channel.

Trill Enhancement

Toggles trill enhancement on or off.

Voice Announcement On/Off

Toggles voice announcement on or off.

Voice Operating Transmission (VOX)

Toggles VOX on or off.

Wi-Fi⁴

Toggles Wi-Fi on or off.

Zone Selection

Allows selection from a list of zones.

6.4

Assignable Settings or Utility Functions

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

Tones/Alerts

Toggles all tones and alerts on or off.

Backlight

Toggles display backlight on or off.

Backlight Brightness

Adjusts the brightness level.

Display Mode

Toggles the day/night display mode on or off.

Keypad Lock

Toggles keypad between locked and unlocked.

Power Level

Toggles transmit power level between high and low.

6.5

Accessing Programmed Functions

Follow the procedure to access programmed functions in your radio.

1 Do one of the following:

- Press the programmed button. Proceed to [step 3](#).
- Press  to access the menu.

2 Press or to the menu function, and press



to select a function or enter a sub-menu.

3 Do one of the following:

- Press  to return to the previous screen.

- Long press  to return to the Home screen.

Your radio automatically exits the menu after a period of inactivity and returns to the Home screen.

6.6

Status Indicators

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

6.6.1

Icons

The 132 x 90 pixels, 256 colors, Liquid Crystal Display (LCD) of your radio shows the radio status, text entries,

and menu entries. The following are the icons that appear on the radio display.

Table 10: Display Icons

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

	Battery The number of bars (0–4) shown indicates the charge remaining in the battery. The icon blinks when the battery is low.
	Bluetooth Connected⁷ The Bluetooth feature is enabled. The icon stays lit when a remote Bluetooth device is connected.
	Bluetooth Not Connected⁷ The Bluetooth feature is enabled but there is no remote Bluetooth device connected.

	Call Log Radio call log.
	Contact Radio contact is available.
	Emergency Radio is in Emergency mode.
	GNSS Available GNSS feature is enabled. The icon stays lit when a position fix is available.
	GNSS Not Available GNSS feature is enabled but is not receiving data from the satellite.
	High Volume Data Radio is receiving high volume data and channel is busy.
	Message Incoming message.

⁷ Only applicable for XPR 7580e IS.

	Monitor Selected channel is being monitored.
	Mute Mode Mute Mode is enabled and speaker is muted.
	Notification Notification List has one or more missed events.
	Option Board The Option Board is enabled. (Option board enabled models only)
	Option Board Non-Function The Option Board is disabled.
	Over-the-Air Programming Delay Timer Indicates time left before automatic re-start of radio.

	Power Level Radio is set at Low power or Radio is set at High power.
	Received Signal Strength Indicator (RSSI) The number of bars displayed represents the radio signal strength. Four bars indicate the strongest signal. This icon is only displayed while receiving.
	Ring Only Ringing mode is enabled.
	Scan⁸ Scan feature is enabled.
	Scan-Priority 1⁸ Radio detects activity on channel/group designated as Priority 1.
	Scan-Priority 2⁸ Radio detects activity on channel/group designated as Priority 2.

⁸ Not applicable in Capacity Plus.

	Secure The Privacy feature is enabled.
	Sign In Radio is signed in to the remote server.
	Sign Out Radio is signed out of the remote server.
	Silent Ring Silent ring mode is enabled.
	Site Roaming⁹ The site roaming feature is enabled.
	Talkaround⁸ In the absence of a repeater, radio is currently configured for direct radio to radio communication.

	Tones Disable Tones are turned off.
	Unsecure The Privacy feature is disabled.
	Vote Scan Vote scan feature is enabled.
	Wi-Fi Excellent¹⁰ Wi-Fi signal is excellent.
	Wi-Fi Good¹⁰ Wi-Fi signal is good.
	Wi-Fi Average¹⁰ Wi-Fi signal is average
	Wi-Fi Poor¹⁰ Wi-Fi signal is poor.

⁹ Not applicable in Capacity Plus–Single-Site

¹⁰ Only applicable for XPR 7580e IS



Wi-Fi Unavailable¹⁰
Wi-Fi signal is unavailable.



NOTICE:
Bluetooth feature is only applicable for XPR 7580e IS

Table 11: Advance Menu Icons

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



Checkbox (Checked)
Indicates that the option is selected.



Checkbox (Empty)
Indicates that the option is not selected.



Solid Black Box
Indicates that the option selected for the menu item with a sub-menu.



Bluetooth Audio Device
Bluetooth-enabled audio device, such as a headset.



Bluetooth Data Device
Bluetooth-enabled data device, such as a scanner.



Bluetooth PTT Device
Bluetooth-enabled PTT device, such as a PTT-Only Device (POD).



Bluetooth Sensor Device
Bluetooth-enabled sensor device, such as gas sensor.

Table 12: Bluetooth Device Icons

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

Table 13: Call Icons

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

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

In the Contacts list, it indicates a phone alias (name) or ID (number).

Table 14: Job Tickets Icons

The following icons appear momentarily on the display in the Job Ticket folder.

	All Jobs Indicates all jobs listed.
	New Jobs Indicates new jobs.
	In Progress Jobs are transmitting. This is seen before indication for Job Tickets Send Failed or Sent Successfully.
	Send Failed Jobs cannot be sent.
	Sent Successfully Jobs have been successfully sent.

	Priority 1 Indicates Priority Level 1 for jobs.
	Priority 2 Indicates Priority Level 2 for jobs.
	Priority 3 Indicates Priority Level 3 for jobs.

Table 15: Mini Notice Icons

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

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

Table 16: Sent Items Icons

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

	In Progress The text message to a subscriber alias or ID is pending transmission, followed by waiting for acknowledgment. The text message to a group alias or ID is pending transmission.
	Individual or Group Message Read The text message has been read.
	Individual or Group Message Unread The text message has not been read.
	Send Failed The text message cannot be sent.

**Sent Successfully**

The text message has been successfully sent.

6.6.2

LED Indicators

LED indicators show the operational status of your radio.

Blinking Red

Radio is indicating a battery mismatch.

Radio has failed the self-test upon powering up.

Radio is receiving an emergency transmission.

Radio is transmitting in low battery state.

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

Mute Mode is enabled.

Solid Green

Radio is powering up.

Radio is transmitting.

Radio is sending a Call Alert or an emergency transmission.

Blinking Green

Radio is receiving a call or data.

Radio is retrieving Over-the-Air Programming transmissions.

Radio is detecting activity over the air.

**NOTICE:**

This activity may or may not affect the programmed channel of the radio due to the nature of the digital protocol.

There is no LED indication when the radio is detecting activity over the air in Capacity Plus.

Double Blinking Green

Radio is receiving a privacy-enabled call or data.

Solid Yellow

Radio is monitoring a conventional channel.

Blinking Yellow

Radio is scanning for activity.

Radio has yet to respond to a Call Alert.

All Capacity Plus–Multi-Site channels are busy.

Double Blinking Yellow

Radio has Auto Roaming enabled.

Radio is actively searching for a new site.

Radio has yet to respond to a Group Call Alert.

Radio is locked.

Radio is not connected to the repeater while in Capacity Plus.

All Capacity Plus channels are busy.

6.6.3**Tones**

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



High Pitched Tone



Low Pitched Tone

6.6.3.1**Indicator Tones**

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



Positive Indicator Tone



Negative Indicator Tone

6.6.3.2**Audio Tones**

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

**Continuous Tone**

A monotone sound. Sounds continuously until termination.

**Periodic Tone**

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



Repetitive Tone

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



Momentary Tone

Sounds once for a short duration set by the radio.

6.7

Zone and Channel Selections

This chapter explains the operations to select a zone or channel on your radio. A zone is a group of channels.

Your radio supports up to 1000 channels and 250 zones, with a maximum of 160 channels per zone.

Each channel can be programmed with different features and/or support different groups of users.

6.7.1

Selecting Zones

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

1 Do one of the following:

- Press the programmed **Zone Selection** button. Proceed to [step 3](#).
- Press  to access the menu.

2

Press  or  to Zone. Press  to select.

The display shows  and the current zone.

3

Press  or  to the required zone. Press  to select.

The display shows <Zone> Selected momentarily and returns to the selected zone screen.

6.7.2

Selecting Zones by Using the Alias Search

Follow the procedure to select the required zone on your radio by using the alias search.

- 1 Press  to access the menu.

- 2 Press  or  to Zone. Press  to select.
The display shows  and the current zone.

- 3 Enter the first character of the required alias.
The display shows a blinking cursor.

- 4 Enter the rest of the characters of the required alias.
The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.
The first text line shows the characters you entered. The following text lines show the shortlisted search results.

- 5 Press  to select.
The display shows <Zone> Selected momentarily and returns to the selected zone screen.

6.7.3

Selecting Channels

Follow the procedure to select the required channel on your radio after you have selected a zone.

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

6.8

Calls

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

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

Alias Search

This method is used for Group, Private, and All Calls only with a keypad microphone.

Contacts List

This method provides direct access to the Contacts list.

Manual Dial (by using Contacts)

This method is used for Private and Phone Calls only with a keypad microphone.

Programmed Number Keys

This method is used for Group, Private, and All Calls only with a keypad microphone.



NOTICE:

You can only have one alias or ID assigned to a number key, but you can have more than one number key associated to an alias or ID. All the number keys on a keypad microphone can be assigned. See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

Programmed One Touch Access Button

This method is used for Group, Private, and Phone Calls only.

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

Programmable Button

This method is used for Phone Calls only.

6.8.1

Group Calls

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

6.8.1.1

Responding to Group Calls

To receive a call from a group of users, your radio must be configured as part of that group. Follow the procedure to respond to Group Calls on your radio.

When you receive a Group Call:

- The green LED blinks.
- The first text line shows the caller alias.
- The second text line displays the group call alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

-  If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button,

indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

-  If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The green LED lights up.

2 Do one of the following:

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

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

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

If the radio receives a Group Call while not on the Home screen, it remains on its current screen prior to answering the call.

Long press  to return to the Home screen to view the caller alias before replying.

6.8.1.2

Making Group Calls

Follow the procedure to make Group Calls on your radio.

1 Do one of the following:

- Select a channel with the active group alias or ID.
- Press the programmed **One Touch Access** button.

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

The green LED lights up. The display shows the **Group Call** icon and the group call alias.

3 Do one of the following:

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

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

The green LED lights up when the target radio responds. The display shows the **Group Call** icon, the group alias or ID, and the transmitting radio alias or ID.

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

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on prior to initiating the call.

6.8.1.3

Making Group Calls by Using the Contacts List

Follow the procedure to make Group Calls on your radio by using the Contacts list.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.

- 3 Press  or  to the required alias or ID. Press  to select.

- 4 Press the **PTT** button to make the call.
The green LED lights up.

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

- 6 Release the **PTT** button to listen.
The green LED lights up when the target radio responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

- 7  If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the

transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

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

6.8.1.4

Making Group Calls by Using the Programmable Number Key

Follow the procedure to make Group Calls on your radio by using the programmable number key.

- 1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

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

The green LED lights up. The display shows the **Group Call** icon at the top right corner. The first text line shows the subscriber alias. The second text line displays either the call status for a Private Call or **All Call** for All Call.

- 3 Do one of the following:

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

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

The green LED lights up when the target radio responds. The display shows the destination alias.

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

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on before initiating the call.

See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

6.8.1.5

Making Group Calls by Using the Channel Selector Knob

Follow the procedure to make Group Calls by using the Channel Selector Knob.

- 1 Do one of the following:
 - Select a channel with the active group alias or ID.
 - Press the programmed **One Touch Access** button.

- 2 Press the **PTT** button to make the call.
The green LED lights up. The display shows the **Group Call** icon and alias.

- 3 Do one of the following:

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

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

The green LED blinks when the target radio responds. The display shows the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID. The radio returns to the screen you were on prior to initiating the call.

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

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

A tone sounds.

6.8.2

Private Calls

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

There are two ways to set up a Private Call. The first type sets up the call after performing a radio presence check, while the second type sets up the call immediately. Only one of these types can be programmed to your radio by your dealer.

If your radio is programmed to perform a radio presence check prior to setting up the Private Call and the target radio is not available:

- A tone sounds.
- The display shows a negative mini notice.
- The radio returns to the menu prior to initiating the radio presence check.

See [Privacy on page 348](#) for more information.

6.8.2.1

Responding to Private Calls

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

When you receive a Private Call:

- The green LED blinks.
- The **Private Call** icon appears in the top right corner.
- The first text line shows the caller alias.
- Your radio unmutes and the incoming call sounds through the speaker.

1 Do one of the following:

-  If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.
-  If the Transmit Interrupt Remote Dekey feature is enabled, press the **PTT** button to stop an ongoing interruptible call and free the channel for you to respond.

The green LED lights up.

-
- 2 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
-
- 3 Release the **PTT** button to listen.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows **Call Ended**.

6.8.2.2

Making Private Calls

Your radio must be programmed to initiate a Private Call. If this feature is not enabled, a negative indicator tone sounds when you initiate the call. Follow the procedure to make Private Calls on your radio.

- 1 Do one of the following:
 - Select a channel with the active subscriber alias or ID.
 - Press the programmed **One Touch Access** button.
-

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

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

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

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

The green LED blinks when the target radio responds.

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

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows **Call Ended**.

6.8.2.3

Making Private Calls by Using the Contacts List

- 1 Press  to access the menu.
-

2 Press ▲ or ▼ to **Contacts**. Press  to select.

3 Press ▲ or ▼ to the required alias or ID. Press  to select.

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

If you release the **PTT** button while the radio is setting up the call, it exits without any indication and returns to the previous screen.

The green LED lights up. The display shows the destination alias.

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

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

The green LED blinks when the target radio responds. The display shows the transmitting user alias or ID.

7  If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the

transmitting radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows **Call Ended**.

6.8.2.4

Making Private Calls by Using the Programmable Number Key

Follow the procedure to make Private Calls on your radio by using the programmable number key.

1 Long press the programmed number key to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

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

The green LED lights up. The display shows the **Private Call** icon at the top right corner. The first text line shows the caller alias. The second text line shows the call status.

- 3 Do one of the following:

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

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

The green LED blinks when the target radio responds. The display shows the destination alias.

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

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

returns to the screen you were on before initiating the call.

See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

6.8.2.5

Making Private Calls by Using the Programmable Manual Dial Button

Follow the procedure to make Private Calls by using the programmable **Manual Dial** button.

- 1 To enter the Manual Dial screen, press the programmed **Manual Dial** button.

- 2 Press  or  to **Contacts**. Press  to select. The display shows **Number:1**.

- 3 Enter a subscriber alias.

- 4 Press the **PTT** button to make the call.

The display shows the **Private Call** icon at the top right corner. The first text line shows the caller alias. The second text line shows the call status.

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

- 6 Release the **PTT** button to listen.

The green LED blinks when the target radio responds.

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

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

6.8.3

All Calls

An All Call is a call from an individual radio to every radio on the channel. An All Call is used to make important

announcements, requiring full attention from the user. The users on the channel cannot respond to an All Call.

6.8.3.1

Receiving All Calls

When you receive an All Call:

- A tone sounds.
- The green LED blinks.
- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias ID.
- The second text line displays **All Call**.
- Your radio unmutes and the incoming call sounds through the speaker.

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

An All Call does not wait for a predetermined period before ending.

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

You cannot respond to an All Call.



NOTICE:

The radio stops receiving the All Call if you switch to a different channel while receiving the call. You are not able to continue with any menu navigation or editing until the end of an All Call.

6.8.3.2

Making All Calls

Your radio must be programmed for you to make an All Call. Follow the procedure to make All Calls on your radio.

- 1 Select a channel with the active All Call group alias or ID.

- 2 Press the **PTT** button to make the call.
The green LED lights up. The display shows the **Group Call** icon and All Call.

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

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

Users on the channel cannot respond to an All Call.

6.8.3.3

Making All Calls by Using the Programmable Number Key

Follow the procedure to make All Calls on your radio by using the programmable number key.

- 1 Long press the programmed number key assigned to the predefined alias or ID when you are on the Home screen.

If a number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

A negative indicator tone sounds if the number key is not associated to an entry.

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

The green LED lights up. The first text line shows the subscriber alias. The second text line shows the call status.

- 3 Do one of the following:

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

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

The green LED lights up when the target radio responds. The display shows the destination alias.

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

The call ends when there is no voice activity for a predetermined period. The radio returns to the screen you were on prior to initiating the call.

See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

6.8.4

Selective Calls

A Selective Call is a call from an individual radio to another individual radio. It is a Private Call on an analog system.

6.8.4.1

Responding to Selective Calls

Follow the procedure to respond to Selective Calls on your radio.

When you receive a Selective Call:

- The green LED blinks.
- The first text line shows the **Private Call** icon and the caller alias or **Selective Call** or **Alert with Call**.
- Your radio unmutes and the incoming call sounds through the speaker.

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

The green LED lights up.

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

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

The call ends when there is no voice activity for a predetermined period. A tone sounds. The display shows `Call Ended`.

6.8.4.2

Making Selective Calls

Your radio must be programmed for you to initiate a Selective Call. Follow the procedure to make Selective Calls on your radio.

- 1 Select a channel with the active subscriber alias or ID.
-

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

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

- 3 Do one of the following:

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

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

The green LED lights up when the target radio responds.

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

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

- 6 The display shows `Call Ended`.
-

6.8.4.3

Making Selective Calls by Using the Channel Selector Knob

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

- 1 Select the channel with the active subscriber alias or ID.
-

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

The display shows the **Private Call** icon at the top right corner. The first text line shows the caller alias. The second text line shows the call status.

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

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

The green LED blinks when the target radio responds.

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

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

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

6.8.5

Phone Calls

A Phone Call is a call from an individual radio to a telephone.

If Phone Call capability is not enabled in your radio:

- The display shows `Unavailable`.
- Your radio mutes the call.
- Your radio returns to the previous screen when the call ends.

During the Phone Call, your radio attempts to end the call when:

- You press the **One Touch Access** button with the deaccess code preconfigured.
- You enter the deaccess code as the input for extra digits.

During channel access, access or deaccess code, or extra digits transmission, your radio responds to the **On/Off**, **Volume Control**, and **Channel Selector** buttons or knobs only. A tone sounds for every invalid input.

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



NOTICE:

The access or deaccess code cannot be more than 10 characters.

Check with your dealer or system administrator for more information.

6.8.5.1

Dual Tone Multi Frequency

The Dual Tone Multi Frequency (DTMF) feature allows your radio to operate in a radio system with an interface to the telephone systems.

Disabling all radio tones and alert will automatically turn off the DTMF tone.

6.8.5.1.1

Initiating DTMF Calls

Follow the procedure to initiate DTMF calls on your radio.

- 1 Press and hold the **PTT** button.
-
- 2 Do one of the following:
 - Enter the desired number to initiate a DTMF call.
 - Press  to initiate a DTMF call.
 - Press  to initiate a DTMF call.
-

6.8.5.2

Responding to Phone Calls as Private Calls

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

When you receive a Phone Call as a Private Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows the caller alias or Phone Call.

If Phone Call capability is not enabled on your radio, the first line of the display shows `Unavailable` and your radio mutes the call. Your radio returns to the previous screen when the call ends.

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

2

Press  to end the call.

The display shows `Ending Phone Call`.
If the call ends successfully:

- A tone sounds.

- The display shows `Call Ended`.

If the call fails to end, the radio returns to the Phone Call screen. Repeat this step or wait for the telephone user to end the call.

6.8.5.3

Responding to Phone Calls as Group Calls

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

When you receive a Phone Call as a Group Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows the group alias and Phone Call.

If Phone Call capability is not enabled on your radio, the first line of the display shows `Unavailable` and your radio mutes the call.

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

2

Press  to end the call.

The display shows `Ending Phone Call`.

If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat this step or wait for the telephone user to end the call.

If Phone Call capability is not enabled on your radio, the first line of the display shows `Unavailable` and your radio mutes the call.

Your radio returns to the previous screen when the call ends.

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

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

3

Press  to end the call.

The display shows `Ending Phone Call`.

If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat [step 3](#) or wait for the telephone user to end the call.

6.8.5.4

Responding to Phone Calls as All Calls



When you receive a Phone Call as an All Call, you can respond to or end the call, only if an All Call type is assigned to the channel. Follow the procedure to respond to Phone Calls as All Calls on your radio.

When you receive a Phone Call as an All Call:

- The display shows the **Phone Call** icon at the top right corner.
- The display shows `All Call` and `Phone Call`.

6.8.5.5

Making Phone Calls

Follow the procedure to make Phone Calls on your radio.

- 1 Do one of the following:
 - Press the programmed **Phone** button to enter into the Phone Entry list.
 - Press the programmed **One Touch Access** button. Proceed to Step 3.

- 2 Press  or  to the required alias or ID. Press



to select.

When you press the **PTT** button while on the Phone Contacts screen:

- A negative indicator tone sounds.
- The display shows `Press OK to Place Phone Call.`

The display shows `Access Code:` if the access code was not preconfigured.

3

Enter the access code, and press  to proceed.

The access or deaccess code cannot be more than 10 characters.

- 4 Press the **PTT** button to make the call.

The green LED lights up. The display shows the **Phone Call** icon at the top right corner. The first text line shows the subscriber alias. The second text line shows the call status.

If the call is successful:

- The DTMF Tone sounds.
- You hear the dialing tone of the telephone user.
- The first text line shows the subscriber alias.
- The display continues to show the **Phone Call** icon at the top right corner.

If the call is unsuccessful:

- A tone sounds.
- The display shows `Phone Call Failed and then, Access Code:`.

- If the access code has been preconfigured in the Contacts list, your radio returns to the screen you were on before initiating the call.

5 Press the **PTT** button to respond to the call. Release the **PTT** button to listen.

6 Enter extra digits with the keypad if requested by the call, and press  to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on before initiating the call.

The Dual Tone Multi Frequency (DTMF) Tone sounds. Your radio returns to the previous screen.

7 Press  to end the call.

8 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows

De-Access Code:, and press  to proceed.

The radio returns to the previous screen.

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

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

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

If the call ends successfully:

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

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

6.8.5.6

Making Phone Calls by Using the Contacts List

Follow the procedure to make Phone Calls on your radio by using the Contacts list.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to **Contacts**. Press  to select.
The display shows the entries in alphabetical order.

- 3 Press ▲ or ▼ to the required alias or ID. Press  to select.
When you press the **PTT** button while on the Phone Contacts screen:
 - A negative indicator tone sounds.
 - The display shows **Press OK to Place Phone Call**.
 If the selected entry is empty:
 - A negative indicator tone sounds.
 - The display shows **Phone Call Invalid #**.

- 4 Press ▲ or ▼ to **Call Phone**. Press  to select.
The display shows **Access Code**: if the access code was not preconfigured.

- 5 Enter the access code, and press  to proceed.
The access or deaccess code cannot be more than 10 characters.
The first text line shows **Calling**. The second text line shows the subscriber alias or ID, and the **Phone Call** icon.
If the call is successful:
 - The DTMF Tone sounds.
 - You hear the dialing tone of the telephone user.
 - The first text line shows the subscriber alias or ID, and the **RSSI** icon.
 - The second text line shows **Phone Call**, and the **Phone Call** icon.
 If the call is unsuccessful:
 - A tone sounds.

- The display shows Phone Call Failed and then, Access Code:.
- Your radio returns to the screen you were on prior to initiating the call if the access code has been preconfigured in the Contacts list.

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

The **RSSI** icon disappears.

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

8 Enter extra digits with the keypad if requested by the call, and press  to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on prior to initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

9 Press  to end the call.

10 If the deaccess code was not preconfigured, enter the deaccess code when the display shows De-

Access Code:, and press  to proceed.

The radio returns to the previous screen. The DTMF Tone sounds and the display shows Ending Phone Call.

If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat [step 9](#) and [step 10](#), or wait for the telephone user to end the call. When you press the **PTT** button while in the Phone Contacts screen, as tone sounds and the display shows Press OK to Place Phone Call.

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

If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.

6.8.5.7

Making Phone Calls with the Programmable Phone Button

Follow the procedure to make a phone call with the programmable phone button.

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

- 2 Press  or  to the required alias or ID. Press



to select. If the access code was not preconfigured in the Contacts list, the display shows `Access Code:`. Enter the access code and press the



button to proceed.

- The green LED lights up. The **Phone Call** icon appears in the top right corner. The first text line shows the subscriber alias. The second text line displays the call status.
- If the call-setup is successful, the Dual Tone Multi Frequency (DTMF) tone sounds. You hear the dialing tone of the telephone user. The first text line shows the subscriber alias. The **Phone Call**

icon remains in the top right corner. The second text line displays the call status.

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

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

- 4 To enter extra digits, if requested by the Phone Call: Do one of the following:

- Press any keypad key to begin the input of the extra digits. The first line of the display shows `Extra Digits:`. The second line of the display shows a blinking cursor. Enter the extra digits

and press the  button to proceed. The Dual Tone Multi Frequency (DTMF) tone sounds and the radio returns to the previous screen.

- Press **One Touch Access** button. The Dual Tone Multi Frequency (DTMF) tone sounds. If the entry

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

5

Press  to end the call. If deaccess code was not preconfigured in the Contacts list, the first line of the display shows `De- Access Code:`. The second line of the display shows a blinking cursor. Enter the

deaccess code and press the  button to proceed.

- The Dual Tone Multi Frequency (DTMF) tone sounds and the display shows `Ending Phone Call`.
- If the end-call-setup is successful, a tone sounds and the display shows `Call Ended`.
- If the end-call-setup is unsuccessful, your radio returns to the Phone Call screen. Repeat [step 3](#) and [step 5](#) or wait for the telephone user to end the call.
- When you press **PTT** button while in the Phone Contacts screen, a tone sounds and the display shows `Press OK to Place Phone Call`.

- When the telephone user ends the call, a tone sounds and the display shows `Phone Call Ended`.
- If the call ends while you are entering the extra digits requested by the Phone Call, your radio returns to the screen you were on prior to initiating the call.



NOTICE:

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

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

6.8.5.8

Making Phone Calls by Using the Manual Dial

Follow the procedure to make Phone Calls on your radio by using the manual dial.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to `Contacts`. Press  to select.

- 3 Press ▲ or ▼ to `Manual Dial`. Press  to select.

- 4 Press ▲ or ▼ to `Phone Number`. Press  to select.
The display shows `Number:` and a blinking cursor.

- 5 Enter the telephone number, and press  to proceed.
The display shows `Access Code:` and a blinking cursor if the access code was not preconfigured.

- 6 Enter the access code, and press  to proceed.

The access or deaccess code cannot be more than 10 characters.

- 7 The green LED lights up. The display shows the **Phone Call** icon at the top right corner. The first text line shows the subscriber alias. The second text line shows the call status.
If the call is successful:
 - The DTMF Tone sounds.
 - You hear the dialing tone of the telephone user.
 - The first text line shows the subscriber alias.
 - The display continues to show the **Phone Call** icon at the top right corner.
 If the call is unsuccessful:
 - A tone sounds.
 - The display shows `Phone Call Failed` and then, `Access Code:`.
 - Your radio returns to the screen you were on before initiating the call if the access code has been preconfigured in the `Contacts` list.

- 8 Press the **PTT** button to respond to the call.

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

10 Enter extra digits with the keypad if requested by the

call, and press  to proceed.

If the call ends while you are entering the extra digits requested by the call, your radio returns to the screen you were on before initiating the call.

The DTMF Tone sounds. Your radio returns to the previous screen.

11

Press  to end the call.

12 Do one of the following:

- If the deaccess code was not preconfigured, enter the deaccess code when the display shows

De-Access Code:, and press  to proceed.
The radio returns to the previous screen.

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

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

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

If the call ends successfully:

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

If the call fails to end, the radio returns to the Phone Call screen. Repeat [step 11](#), or wait for the telephone user to end the call.

6.8.6

Initiating Transmit Interrupt

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

- Press the **Voice PTT** button.
- Press the **Emergency** button.
- Perform data transmission.

- Press the programmed **TX Interrupt Remote Dekey** button.

The recipient radio displays `Call Interrupted`.

6.8.7

Broadcast Voice Calls

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

The Broadcast Voice Call feature allows only the call initiating user to transmit to the talkgroup, while the recipients of the call cannot respond (no Call Hang Time).

Your radio must be programmed to allow you to use this feature. Check with your dealer or system administrator for more information.

6.8.7.1

Making Broadcast Voice Calls

Program your radio to make Broadcast Voice Calls.

- 1 Select a channel with the active group alias or ID.
-
- 2 Do one of the following:

- Select a channel with the active group alias or ID.
 - Press the programmed **One Touch Access** button.
-

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

The green LED lights up. The display shows `Broadcast Call`, the **Group Call** icon and alias. The display shows the **Group Call** icon and alias.

- 4 Do one of the following:

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



NOTICE:

Users on the channel cannot respond to Broadcast Voice Calls.

The radio returns to the previous menu after the call ends.

6.8.7.2

Making Broadcast Voice Calls by Using the Programmable Number Key

Follow the procedure to make Broadcast Voice Call on your radio by using the programmable number key.

- 1 On the **Home** screen, long press the programmed number key assigned to the predefined alias or ID.

If the number key is assigned to an entry in a particular mode, this feature is not supported when you long press the number key in another mode.

If the number key is not associated to an entry, a negative indicator tone sounds

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

The green LED lights up. The first text line shows the subscriber alias. The second text line shows the call status.

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

Users on the channel cannot respond to a Broadcast Voice Call.

The radio returns to the previous menu after the call ends.

See [Assigning Entries to Programmable Number Keys on page 310](#) for more information.

6.8.7.3

Making Broadcast Voice Calls by Using the Alias Search

You can use alias or alphanumeric search to retrieve the required subscriber alias. You can retrieve subscriber aliases this way only from Contacts. If you release the PTT button while this call is being set up, the call exits without any indication and returns to the previous screen. If the target radio is not available, you hear a short tone and see **Party Not Available** on the display; the radio returns to the menu before initiating the radio presence check.



NOTICE:

Press  button or  to exit alias search. If you release the **PTT** button while the radio is setting up the call, it exits without any indication and returns to the previous screen.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.
The display shows the entries in alphabetical order.

- 3 Enter the first character of the required alias.
The display shows a blinking cursor.

- 4 Enter the rest of the characters of the required alias.
The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.
The first text line shows the characters you entered.
The following text lines show the shortlisted search results.

- 5 Press the **PTT** button to make the call.
The green LED lights up. The display shows the destination ID, call type, and **Call** icon.

- 6 Wait for the Talk Permit Tone to end and speak clearly into the microphone if enabled.
User on the channel cannot respond to a Broadcast Voice Call.
The radio returns to the previous menu after the call ends.
-

6.8.7.4

Receiving Broadcast Voice Calls

When you receive a Broadcast Voice Call:

- A tone sounds.
- The green LED blinks.
- The display shows the **Group Call** icon at the top right corner.
- The first text line shows the caller alias ID.
- The second text line displays **Broadcast Call**.
- Your radio unmutes and the incoming call sounds through the speaker.

When the call ends, the radio returns to the previous screen.

A Broadcast Voice Call does not wait for a predetermined period before ending.

You cannot respond to a Broadcast Voice Call.



NOTICE:

The radio stops receiving the Broadcast Voice Call if you switch to a different channel while receiving the call. You cannot continue with any menu navigation or editing until the end of the Broadcast Voice Call.

6.8.8

Unaddressed Calls

An Unaddressed Call is a group call to one of the 16 predefined group IDs.

This feature is configured using CPS-RM. A contact for one of the predefined IDs is required to initiate and/or receive an Unaddressed Call. Check with your dealer or system administrator for more information.

6.8.8.1

Making Unaddressed Calls

- 1 Select a channel with the active group alias or ID.
-

- 2 Do one of the following:

- Select a channel with the active group alias or ID.
 - Press the programmed **One Touch Access** button.
-

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

The green LED lights up. The text line shows `Unaddress Call`, the **Group Call** icon and alias.

- 4 Do one of the following:

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

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

The green LED lights up when the target radio responds. A momentary tone sounds. The display shows `Unaddress Call`, the **Group Call** icon, and alias or ID, and the transmitting radio alias or ID.

- 6 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the

transmitting radio releases the **PTT** button, indicating that the channel is free for you to respond. Press the **PTT** button to respond to the call.

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

The call initiator can press  to end a Group Call.

6.8.8.2

Responding to Unaddressed Calls

When you receive an Unaddressed Call:

- The green LED blinks.
 - A momentary tone sounds.
 - The text line shows `Unaddress Call`, the caller alias, and the group call alias.
 - Your radio unmutes and the incoming call sounds through the speaker.
- 1 Do one of the following:
 - If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the transmitting radio releases the **PTT** button,

indicating the channel is free for you to respond. Press the **PTT** button to respond to the call.

- If the Voice Interrupt feature is enabled, press the **PTT** button to interrupt the audio from the transmitting radio and free the channel for you to respond.

The green LED lights up.

2 Do one of the following:

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

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

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

6.8.9

Open Voice Channel Mode (OVCM)

An Open Voice Channel Mode (OVCM) allows a radio that is not preconfigured to work in a particular system to both receive and transmit during a group or individual call.

The OVCM group call also supports broadcast calls. Program your radio to use this feature. Check with your dealer or system administrator for more information.

6.8.9.1

Making OVCM Calls

Your radio must be programmed for you to make an OVCM Call. Follow the procedure to make OVCM Calls on your radio.

- 1 Select a channel with the active group alias or ID.

- 2 Do one of the following:
 - Select a channel with the active group alias or ID.
 - Press the programmed **One Touch Access** button.

- 3 Press the **PTT** button to make the call.
 The green LED lights up.
 The text line shows the call type icon, OVCM and alias. indicating that the radio has entered OVCM State.

- 4 Do one of the following:

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

6.8.9.2

Responding to OVCM Calls

When you receive an OVCM Call:

- The green LED blinks.
- The text line shows the call type icon, OVCM, and alias.
- Your radio unmutes and the incoming call sounds through the speaker.



NOTICE:

Recipient users are not allowed to Talkback during a Broadcast Call. The display shows **Talkback Prohibit**. If the **PTT** button is pressed during a Broadcast Call, the Talkback Prohibit Tone sounds momentarily.

- 1 Do one of the following:

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

The green LED lights up.

2 Do one of the following:

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

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

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

6.9

Advanced Features

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

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

6.9.1

Bluetooth

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



NOTICE:

This feature is applicable to XPR 7580e IS only.

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

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

Your radio can support up to three simultaneous Bluetooth connections with Bluetooth-enabled devices of unique types. For example, a headset, a scanner, a sensor device, and a PTT-Only Device (POD). Multiple connections with Bluetooth-enabled devices of the same type are not supported.

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

Your radio connects to the Bluetooth-enabled device within range with either the strongest signal strength, or to one which it has connected to before in a prior session. Do not turn off your Bluetooth-enabled device or press the home

back button  during the finding and connecting operation as this cancels the operation.

6.9.1.1

Turning Bluetooth On and Off

Follow the procedure to turn Bluetooth on and off.

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to My Status. Press  to select.
The display shows On and Off. The current status is indicated by a .

- 4 Do one of the following:
 - Press  or  to On. Press  to select. The display shows  beside On.
 - Press  or  to Off. Press  to select.
The display shows  beside Off.

This feature is applicable to XPR 7580e IS only.

6.9.1.2

Connecting to Bluetooth Devices

Follow the procedure to connect to Bluetooth devices.

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

- 1 Press  to access the menu.

 - 2 Press  or  to Bluetooth. Press  to select.

 - 3 Press  or  to Devices. Press  to select.

 - 4 Do one of the following:
 - Press  or  to the required device. Press  to select.
 - Press  or  to Find Devices to locate available devices. Press  or  to the required device. Press  to select.
-

5

Press  or  to Connect. Press  to select.

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

The display shows Connecting to <Device>.

Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.
- The display shows <Device> Connected and the **Bluetooth Connected** icon.
- The display shows  beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows Connecting Failed.



NOTICE:

This feature is applicable to XPR 7580e IS only.

6.9.1.3

Connecting to Bluetooth Devices in Discoverable Mode

Follow the procedure to connect to Bluetooth devices in discoverable mode.

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

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to Find Me. Press  to select.
The radio can now be found by other Bluetooth-enabled devices for a programmed duration. This is called Discoverable Mode.

Wait for acknowledgment.

If successful:

- A positive indicator tone sounds.

- The display shows <Device> Connected and the **Bluetooth Connected** icon.

- The display shows  beside the connected device.

If unsuccessful:

- A negative indicator tone sounds.
- The display shows Connecting Failed.



NOTICE:

This feature is applicable to XPR 7580e IS only.

6.9.1.4

Disconnecting from Bluetooth Devices

Follow the procedure to disconnect from Bluetooth devices.

- 1 Press  to access the menu.

- 2 Press  or  to Bluetooth. Press  to select.

- 3 Press  or  to Devices. Press  to select.

- 4 Press ▲ or ▼ to the required device. Press  to select.

- 5 Press ▲ or ▼ to Disconnect. Press  to select.
- The display shows Disconnecting from <Device>.

Wait for acknowledgment.

- A tone sounds.
- The display shows <Device> Disconnected and the **Bluetooth Connected** icon disappears.
- The ✓ disappears beside the connected device.

This feature is applicable to XPR 7580e IS only.

6.9.1.5

Switching Audio Route between Internal Radio Speaker and Bluetooth Device

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

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

The display shows one of the following results:

- A tone sounds. The display shows Route Audio to Radio.
- A tone sounds. The display shows Route Audio to Bluetooth.

This feature is applicable to XPR 7580e IS only.

6.9.1.6

Viewing Device Details

Follow the procedure to view device details on your radio.

- 1 Press  to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press  to select.

3 Press ▲ or ▼ to Devices. Press  to select.

4 Press ▲ or ▼ to the required device. Press  to select.

5 Press ▲ or ▼ to View Details. Press  to select.

This feature is applicable to XPR 7580e IS only.

6.9.1.7

Editing Device Name

Follow the procedure to edit the name of available Bluetooth-enabled devices.

1 Press  to access the menu.

2 Press ▲ or ▼ to Bluetooth. Press  to select.

3 Press ▲ or ▼ to Devices. Press  to select.

4 Press ▲ or ▼ to the required device. Press  to select.

5 Press ▲ or ▼ to Edit Name. Press  to select.

6 Enter a new device name. Press  to select.
The display shows Device Name Saved.

This feature is applicable to XPR 7580e IS only.

6.9.1.8

Deleting Device Name

You can remove a disconnected device from the list of Bluetooth-enabled devices.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Bluetooth. Press  to select.

- 3 Press ▲ or ▼ to Devices. Press  to select.

- 4 Press ▲ or ▼ to the required device. Press  to select.

- 5 Press ▲ or ▼ to Delete. Press  to select.
The display shows Device Deleted.

This feature is applicable to XPR 7580e IS only.

6.9.1.9

Bluetooth Mic Gain

This feature allows the user to control the microphone gain value of the connected Bluetooth-enabled device.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Bluetooth. Press  to select.

- 3 Press ▲ or ▼ to BT Mic Gain. Press  to select.

- 4 Press ▲ or ▼ to the BT Mic Gain type and the current values. Press  to select. You can edit the values here.

- 5 Press ▲ or ▼ to increase or to decrease values.
Press  to select.

6.9.1.10

Permanent Bluetooth Discoverable Mode

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

**NOTICE:**

This feature is applicable to XPR 7580e IS only. If enabled, Bluetooth is **not** displayed in the Menu and you cannot use any Bluetooth programmable button features.

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

6.9.2**Indoor Location****NOTICE:**

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

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

6.9.2.1**Turning Indoor Location On or Off**

You can turn on or turn off Indoor Location by performing one of the following actions.

- Access this feature through the menu.
 - a. Press  to access the menu.
 - b. Press  or  to Bluetooth and press  to select.
 - c. Press  or  to Indoor Location and press  to select.
 - d. Press  to turn on Indoor Location.

The display shows Indoor Location On. You hear a positive indicator tone. One of the following scenarios occurs.

 - If successful, the Indoor Location Available icon appears on the Home screen display.

- If unsuccessful, the display shows **Turning On Failed**. You hear a negative indicator tone.

e. Press  to turn off Indoor Location.

The display shows **Indoor Location Off**. You hear a positive indicator tone.

One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows **Turning Off Failed**. You hear a negative indicator tone.

- Access this feature by using the programmed button.

a. Long press the programmed **Indoor Location** button to turn on Indoor Location.

The display shows **Indoor Location On**. You hear a positive indicator tone.

One of the following scenarios occurs.

- If successful, the Indoor Location Available icon appears on the Home screen display.

- If unsuccessful, the display shows **Turning On Failed**. If unsuccessful, you hear a negative indicator tone.

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

The display shows **Indoor Location Off**. You hear a positive indicator tone.

One of the following scenarios occurs.

- If successful, the Indoor Location Available icon disappears on the Home screen display.
- If unsuccessful, the display shows **Turning Off Failed**. If unsuccessful, you hear a negative indicator tone.

6.9.2.2

Accessing Indoor Location Beacons Information

Follow the procedure to access Indoor Location beacons information.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Bluetooth and press  to select.

- 3 Press ▲ or ▼ to Indoor Location and press  to select.

- 4 Press ▲ or ▼ to Beacons and press  to select.

The display shows the beacons information.

6.9.3

Job Tickets

This feature allows your radio to receive messages from the dispatcher listing out tasks to perform.



NOTICE:

This feature can be customized through the Customer Programming Software (CPS) according to user requirements. Check with your dealer or system administrator for more information.

There are two folders that contain different Job Tickets:

My Tasks folder

Personalized Job Tickets assigned to your signed in user ID.

Shared Tasks folder

Shared Job Tickets assigned to a group of individuals.

You can respond to Job Tickets in order to sort them into Job Ticket Folders. By default, the folders are **All**, **New**, **Started**, and **Completed**.

Job Tickets are retained even after the radio is turned off and turned on again.

All Job Tickets are located in the **All** folder. Depending on how your radio is programmed, Job Tickets are sort by their priority level followed by time received. New Job Tickets,

Job Tickets with recent changes in state, and Job Tickets with the highest priority are listed first.

Upon reaching the maximum number of Job Tickets, the next Job Ticket automatically replaces the last Job Ticket in your radio. Your radio supports a maximum of 100 or 500 Job Tickets, depending on your radio model. Check with your dealer or system administrator for more information. Your radio automatically detects and discards duplicated Job Tickets with the same Job Ticket ID.

Depending on the importance of the Job Tickets, the dispatcher adds a Priority Level to them. There are three priority levels: Priority 1, Priority 2, and Priority 3. Priority 1 has the highest priority and Priority 3 has the lowest priority. There are also Job Tickets with no priority.

Your radio updates accordingly when dispatcher makes the following changes:

- Modify content of Job Tickets.
- Add or edit Priority Level of Job Tickets.
- Move Job Tickets from folder to folder.
- Canceling of Job Tickets.

6.9.3.1

Accessing the Job Ticket Folder

Follow the procedure to access the Job Ticket folder.

1 Do one of the following:

- Press the programmed **Job Ticket** button. Proceed to [step 3](#).
- Press  to access the menu.

2

Press ▲ or ▼ to Job Tickets. Press  to select.

3

Press ▲ or ▼ to the required folder. Press  to select.

4

Press ▲ or ▼ to the required Job Ticket. Press  to select.

6.9.3.2

Logging In or Out of the Remote Server

This feature allows you to log in and log out of the remote server by using your user ID.

- 1 Press  to access the menu.

- 2 Press  or  to Log In. Press  to select.
If you are already logged in, menu displays Log Out.
The display shows a transitional mini notice, indicating the request is in progress.

- 3 Wait for acknowledgment.
If successful:
 - A positive indicator tone sounds.
 - The display shows a positive mini notice.
 If unsuccessful:
 - A negative indicator tone sounds.
 - The display shows a negative mini notice.

6.9.3.3

Creating Job Tickets

Your radio is able to create Job Tickets, which are based on a Job Ticket template and send out tasks that need to be performed.

CPS programming software is required to configure the Job Ticket template.

- 1 Press  to access the menu.

- 2 Press  or  to Job Tickets. Press  to select.

- 3 Press  or  to Create Ticket. Press  to select.

6.9.3.4

Sending Job Tickets Using One Job Ticket Template

If your radio is configured with one Job Ticket template, perform the following actions to send the Job Ticket.

- 1 Use the keypad to type the required room number.

Press  to select.

- 2 Press  or  to Room Status. Press  to select.
-

- 3 Press  or  to the required option. Press  to select.
-

- 4 Press  or  to Send. Press  to select.
The display shows a transitional mini notice, indicating the request is in progress.
-

- 5 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.3.5

Sending Job Tickets Using More Than One Job Ticket Template

If your radio is configured with more than one Job Ticket template, perform the following actions to send the Job Tickets.

- 1 Press  or  to the required option. Press  to select.
-

- 2 Press ▲ or ▼ to Send. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress.

- 3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.3.6

Responding to Job Tickets

Follow the procedure to respond to job tickets on your radio.

- 1 Press  to access the menu.
-

- 2 Press ▲ or ▼ to Job Tickets. Press  to select.
-

- 3 Press ▲ or ▼ to the required folder. Press  to select.
-

- 4 Press ▲ or ▼ to the required job ticket. Press  to select.
-

- 5 Press  once more to access the sub-menu.
You can also press the corresponding number key (1–9) to **Quick Reply**.
-

- 6 Press ▲ or ▼ to the required job ticket. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress.

7 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.3.7

Deleting Job Tickets

Follow the procedure to delete job tickets on your radio.

1 Do one of the following:

- Press the programmed **Job Ticket** button.
Proceed to [step 4](#)
- Press  to access the menu.

2

Press  or  to Job Tickets. Press  to select.

3

Press  or  to the required folder. Press  to select.

4

Press  or  to All folder. Press  to select.

5

Press  or  to the required Job Ticket. Press  to select.

6

Press  again while viewing the Job Ticket.

7

Press  or  to Delete. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress.

8

Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.3.8

Deleting All Job Tickets

Follow the procedure to delete all job tickets on your radio.

1 Do one of the following:

- Press the programmed **Job Ticket** button.
Proceed to [step 3](#).
- Press  to access the menu.

2

Press  or  to Job Tickets. Press  to select.

3

Press  or  to the required folder. Press  to select.

4

Press  or  to All folder. Press  to select.

5

Press  or  to Delete All. Press  to select.

6 Do one of the following:

- Press  or  to Yes. Press  to select.
The display shows a positive mini notice.
- Press  or  to No. Press  to select.
The radio returns to the previous screen.

6.9.4

Multi-Site Control



Your radio is able to search for sites and switch between sites when signal is weak or your radio is unable to detect any signal from the current site.

When the signal is strong, the radio remains on the current site.

This setting is applicable when your current radio channel is part of an IP Site Connect or Capacity Plus–Multi-Site configuration.

Your radio can perform either one of the following site searches:

- Automatic Site Search
- Manual Site Search

If the current channel is a multi-site channel with an attached roam list and is out of range, and the site is unlocked, your radio also performs automatic site search.

6.9.4.1

Starting Automatic Site Search

- Do one of the following:
 - Press the programmed **Site Lock On/Off** button. Skip the following steps.
 - Press  to access the menu.
- Press  or  to Utilities. Press  to select.
- Press  or  to Radio Settings. Press  to select.
- Press  or  to Site Roaming. Press  to select.
- Press  or  to Unlock Site. Press  to select.
 - A tone sounds.
 - The display shows Site Unlocked.

- The LED blinks yellow rapidly when the radio is actively searching for a new site.
- The yellow LED turns off once the radio locks on to a site.

6.9.4.2

Stopping Automatic Site Search

Follow the procedure to stop automatic site search when your radio is actively searching for a new site.

- 1 Do one of the following:
 - Press the programmed **Site Lock On/Off** button. Skip the following steps.
 - Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

4

Press  or  to Site Roaming. Press  to select.

5

Press  or  to Lock Site. Press  to select.

- A tone sounds.
- The  disappears from beside Enabled.
- The LED turns off.
- The display shows the current channel alias.

6.9.4.3

Enabling Manual Site Search

- 1 Perform one of the following actions:

- Press the programmed **Manual Site Roam** button. Skip the following steps.
- Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Site Roaming. Press  to select.

5 Press ▲ or ▼ to Active Search. Press  to select.

A tone sounds. The green LED blinks. The display shows `Finding Site`.

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

- A positive tone sounds.
- The LED extinguishes.
- The display shows `Site <Alias> Found`.

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

- A negative tone sounds.
 - The LED extinguishes.
 - The display shows `Out of Range`.
- If a new site is within range, but the radio is unable to connect to it, your radio shows the following indications:
- A negative tone sounds.
 - The LED turns off.
 - The display shows `Channel Busy`.

6.9.5

Text Entry Configuration

Your radio allows you to configure different text.

You can configure the following settings for entering text on your radio:

- Word Predict
- Word Correct
- Sentence Cap
- My Words

Your radio supports the following text entry methods:

- Numbers

- Symbols
- Predictive or Multi-Tap
- Language (If programmed)

**NOTICE:**

Press  at any time to return to the previous

screen or long press  to return to the Home Screen. The radio exits the current screen once the inactivity timer expires.

6.9.5.1**Enabling or Disabling Word Predict**

Word Predict: Your radio can learn common word sequences that you often enter. It then predicts the next word you may want to use after you enter the first word of a common word sequence into the text editor.

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to Text Entry. Press  to select.

5 Press  or  to Word Predict. Press  to select.

6 Do one of the following:

- Press  or  to Text Entry. Press  to select.
- Press  to enable the Word Predict. If enabled,  appears beside Enabled.
- Press  to disable Microphone Dynamic Distortion Control. If disabled,  disappears beside Enabled.

6.9.5.2

Sentence Cap

This feature is used to automatically enable capitalization of the first letter in the first word for every new sentence.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Text Entry. Press  to select.

- 5 Press  or  to Sentence Cap. Press  to select.

- 6 Do one of the following:

- Press  to enable Sentence Cap. If enabled,  appears beside Enabled.
 - Press  to disable Sentence Cap. If disabled,  disappears beside Enabled.
-

6.9.5.3

Viewing Custom Words

You can add your own custom words into the in-built dictionary of your radio. Your radio maintains a list to contain these words.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Text Entry. Press  to select.

5 Press ▲ or ▼ to My Words. Press  to select.

6 Press ▲ or ▼ to List of Words. Press  to select.

The display shows the list of custom words.

6.9.5.4

Editing Custom Words

You can edit custom words saved in your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Text Entry. Press  to select.

5 Press ▲ or ▼ to My Words. Press  to select.

6 Press ▲ or ▼ to List of Words. Press  to select.

Display shows the list of custom words.

7 Press ▲ or ▼ to the required word. Press  to select.

8 Press ▲ or ▼ to Edit. Press  to select.

9 Use the keypad to edit your custom word.

- Press  to move one space to the left.
- Press  key to move one space to the right.
- Press the  key to delete any unwanted characters.
- Long press  to change text entry method.

10

Press  once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display shows positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

6.9.5.5

Adding Custom Words

You can add custom words into the in-built radio dictionary.

1

Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Settings. Press  to select.

4

Press  or  to Text Entry. Press  to select.

5

Press  or  to My Words. Press  to select.

6

Press  or  to Add New Word. Press  to select.

Display shows the list of custom words.

7

Use the keypad to edit your custom word.

- Press  to move one space to the left.

- Press  key to move one space to the right.
- Press the  key to delete any unwanted characters.
- Long press  to change text entry method.

8 Press  once your custom word is completed.

The display shows transitional mini notice, confirming your custom word is being saved.

- If the custom word is saved, a tone sounds and the display show positive mini notice.
- If the custom word is not saved, a low tone sounds and the display show negative mini notice.

6.9.5.6

Deleting a Custom Word

You can delete the custom words saved in your radio.

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to Text Entry. Press  to select.

5 Press  or  to My Words. Press  to select.

6 Press  or  to the required word. Press  to select.

7 Press  or  to Delete. Press  to select.

8 Choose one of the following.

- At Delete Entry?, press  to select Yes. The display shows Entry Deleted.

- Press ▲ or ▼ to No. Press  to return to the previous screen.

6.9.5.7

Deleting All Custom Words

You can delete all custom words from the in-built dictionary of your radio.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to Utilities. Press  to select.
- 3 Press ▲ or ▼ to Radio Settings. Press  to select.
- 4 Press ▲ or ▼ to Text Entry. Press  to select.
- 5 Press ▲ or ▼ to My Words. Press  to select.

6

- Press ▲ or ▼ to Delete All. Press  to select.

7 Do one of the following:

- At Delete Entry?, press  to select Yes. The display shows Entry Deleted.
- Press ▲ or ▼ to No to return to the previous screen. Press  to select.

6.9.6

Talkaround

This feature allows you to continue communicating when your repeater is non-operational, or when your radio is out of range from the repeater but within the talk range of other radios.

The talkaround setting is retained even after powering down.

**NOTICE:**

This feature is not applicable in Capacity Plus–Single-Site, Capacity Plus–Multi-Site, and Citizens Band channels that are in the same frequency.

6.9.6.1

Toggling Between Repeater and Talkaround Modes

Follow the procedure to toggle between Repeater and Talkaround modes on your radio.

- 1 Do one of the following:
 - Press the programmed **Repeater/Talkaround** button. Skip the following steps.
 - Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

4

Press  or  to Talkaround. Press  to select.

If enabled,  appears beside Enabled.

If disabled,  disappears beside Enabled.

The screen automatically returns to the previous screen.

6.9.7

Monitor Feature

The feature allows you to ensure that a channel is free before transmitting.

**NOTICE:**

This feature is not applicable in Capacity Plus–Single-Site and Capacity Plus–Multi-Site.

6.9.7.1

Monitoring Channels

Follow the procedure to monitor channels.

- 1 Long press the programmed **Monitor** button.

The **Monitor** icon appears on the display and the LED lights up solid yellow.

If the channel is in use:

- The display shows the **Monitor** icon.
- You hear radio activity or total silence.
- The yellow LED lights up.

If the monitored channel is free, you hear a "white noise".

-
- 2 Press the **PTT** button to talk. Release the **PTT** button to listen.
-

6.9.7.2

Permanent Monitor

The Permanent Monitor feature is used to continuously monitor a selected channel for activity.

6.9.7.2.1

Turning Permanent Monitor On or Off

Follow the procedure to turn Permanent Monitor on or off on your radio.

Press the programmed **Permanent Monitor** button.

When the radio enters the mode:

- An alert tone sounds.
- The yellow LED lights up.
- The display shows Permanent Monitor On and the **Monitor** icon.

When the radio exits the mode:

- An alert tone sounds.
 - The yellow LED turns off.
 - The display shows Permanent Monitor Off.
-

6.9.8

Radio Check

This feature allows you to determine if another radio is active in a system without disturbing the radio user. No audible or visual notification is shown on the target radio.

This feature is only applicable for subscriber aliases or IDs. Your radio must be programmed to allow you to use this feature.

6.9.8.1

Sending Radio Checks

Follow the procedure to send radio checks on your radio.

- 1 Press the programmed **Radio Check** button.
- 2 Press ▲ or ▼ to the required alias or ID. Press



to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

Wait for acknowledgment.

If you press  when the radio is waiting for acknowledgment, a tone sounds, the radio terminates all retries, and exits Radio Check mode.

If successful:

- A positive indicator tone sounds.

- The display shows a positive mini notice.

If unsuccessful:

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

The radio returns to the subscriber alias or ID screen.

6.9.8.2

Sending Radio Checks by Using the Contacts List

Follow the procedure to send radio checks on your radio by using the Contacts list.

1

Press  to access the menu.

2

Press ▲ or ▼ to **Contacts**. Press  to select.

3

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

4

Press ▲ or ▼ to Radio Check. Press  to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

5 Wait for acknowledgment.

If you press  when the radio is waiting for acknowledgement, a tone sounds, the radio terminates all retries, and exits Radio Check mode.

If successful:

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

If unsuccessful:

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

The radio returns to the subscriber alias or ID screen.

6.9.9

Remote Monitor

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

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

This feature stops after a programmed duration or when there is any user operation on the target radio.

6.9.9.1

Initiating Remote Monitor

Follow the procedure to initiate Remote Monitor on your radio.

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

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

- 3 Press  to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

- 4 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

Initiating Remote Monitor by Using the Contacts List

Follow the procedure to initiate Remote Monitor on your radio by using the Contacts list.

- 1 Press  to access the menu.

- 2 Press  or  to Contacts. Press  to select.

- 3 Press  or  to the required alias or ID. Press  to select.

- 4 Press  or  to Remote Mon..

- 5 Press  to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

6 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.9.3

Initiating Remote Monitor by Using the Manual Dial

Follow the procedure to initiate Remote Monitor on your radio by using the manual dial.

1

Press  to access the menu.

2

Press  or  to **Contacts**. Press  to select.

3

Press  or  to **Manual Dial**. Press  to select.

4

Press  or  to **Radio Number**. Press  to select.

5 Do one of the following:

- Enter the subscriber alias or ID, and press  to proceed.
- Edit the previously dialed ID, and press  to proceed.

6

Press  or  to **Remote Mon..**

7



Press  to select.

The display shows a transitional mini notice, indicating the request is in progress. The green LED lights up.

8 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

Scan Lists

Scan lists are created and assigned to individual channels or groups. Your radio scans for voice activity by cycling through the channel or group sequence specified in the scan list for the current channel or group.

Your radio can support up to 250 scan lists, with a maximum of 16 members in a list.

Each scan list supports a mixture of both analog and digital entries.

You can add, delete, or prioritize channels by editing a scan list.

You can attach a new scan list to your radio by using Front Panel Programming. See [Front Panel Programming on page 189](#) for more information.

The **Priority** icon appears on the left of the member alias, if set, to indicate whether the member is on a Priority 1 or Priority 2 channel list. You cannot have multiple Priority 1 or Priority 2 channels in a scan list. There is no **Priority** icon if priority is set to **None**.



NOTICE:

This feature is not applicable in Capacity Plus.

6.9.10.1

Viewing Entries in the Scan List

Follow the procedure to view the entries in the Scan list on your radio.

- 1 Press  to access the menu.
- 2 Press  or  to Scan. Press  to select.
- 3 Press  or  to Scan List. Press  to select.
- 4 Press  or  to view each member on the list.

6.9.10.2

Viewing Entries in the Scan List by Using the Alias Search

Follow the procedure to view entries in the Scan list on your radio by using the alias search.

- 1 Press  to access the menu.
- 2 Press  or  to Scan. Press  to select.
- 3 Press  or  to Scan List. Press  to select.
- 4 Enter the first character of the required alias.
The display shows a blinking cursor.
- 5 Enter the rest of the characters of the required alias.
The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.
The first text line shows the characters you entered.
The following text lines show the shortlisted search results.

6.9.10.3

Adding New Entries to the Scan List

Follow the procedure to add new entries to the Scan list on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Scan. Press  to select.

- 3 Press  or  to Scan List. Press  to select.

- 4 Press  or  to Add Member. Press  to select.

- 5 Press  or  to the required alias or ID. Press  to select.

- 6 Press  or  to the required priority level. Press  to select.

The display shows a positive mini notice and then, Add Another?.

-
- 7 Do one of the following:
 - Press  or  to Yes to add another entry.
Press  to select. Repeat [step 5](#) and [step 6](#).
 - Press  or  to No to save the current list.
Press  to select.
-

6.9.10.4

Deleting Entries from the Scan List

Follow the procedure to delete entries from the Scan list.

- 1 Press  to access the menu.
-

2 Press ▲ or ▼ to Scan. Press  to select.

3 Press ▲ or ▼ to Scan List. Press  to select.

4 Press ▲ or ▼ to the required alias or ID. Press  to select.

5 Press ▲ or ▼ to Delete. Press  to select.
The display shows Delete Entry?.

6 Do one of the following:

- Press ▲ or ▼ to Yes to delete the entry. Press  to select.
The display shows a positive mini notice.
- Press ▲ or ▼ to No to return to the previous screen. Press  to select.

7 Repeat [step 4](#) to [step 6](#) to delete other entries.

8 Long press  to return to the Home screen after deleting all required aliases or IDs.

6.9.10.5

Setting Priority for Entries in the Scan List

Follow the procedure to set priorities for entries in the Scan list on your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Scan. Press  to select.

3 Press ▲ or ▼ to Scan List. Press  to select.

4 Press ▲ or ▼ to the required alias or ID. Press  to select.

- 5 Press ▲ or ▼ to Edit Priority. Press  to select.

- 6 Press ▲ or ▼ to the required priority level. Press  to select.

The display shows a positive mini notice before returning to the previous screen. The **Priority** icon appears on the left of the member alias.

6.9.11

Scan

Your radio cycles through the programmed scan list for the current channel looking for voice activity when you start a scan.



NOTICE:

This feature is not applicable in Capacity Plus.

During a dual-mode scan, if you are on a digital channel, and your radio locks onto an analog channel, it automatically switches from digital mode to analog mode for the duration of the call. This is also true for the reverse.

There are two ways of initiating scan:

Main Channel Scan (Manual)

Your radio scans all the channels or groups in your scan list. On entering scan, your radio may, depending on the settings, automatically start on the last scanned active channel or group, or on the channel where scan was initiated.

Auto Scan (Automatic)

Your radio automatically starts scanning when you select a channel or group that has Auto Scan enabled.



NOTICE:

When you configure **Receive Group Message In Scan**, your radio is able to receive group messages from non-home channels. Your radio is able to reply the group messages on home channel but is not able to reply on non-home channels. Check with your dealer or system administrator for more information.

6.9.11.1

Turning Scan On or Off

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

**NOTICE:**

While scanning, the radio only accepts data (for example: text message, location, or PC data) if received on its Selected Channel.

- 1 Turn the **Channel Selector Knob** to select a channel programmed with a scan list.

- 2 Press  to access the menu.

- 3 Press  or  to Scan. Press  to select.

- 4 Press  or  to Scan State. Press  to select.

- 5 Press  or  to the required scan state and press  to select.

If scan is enabled:

- The display shows `Scan On` and **Scan** icon.
- The yellow LED blinks.

If scan is disabled:

- The display shows `Scan Off`.
- The **Scan** icon disappears.
- The LED turns off.

6.9.11.2

Responding to Transmissions During Scanning

During scanning, your radio stops on a channel or group where activity is detected. The radio stays on that channel for a programmed duration known as hang time. Follow the procedure to respond to transmissions during scanning.

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

The green LED lights up.

- 2 Do one of the following:

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

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

The radio returns to scanning other channels or groups if you do not respond within the hang time.

6.9.11.3

Deleting Nuisance Channels

If a channel continually generates unwanted calls or noise, (termed a "nuisance" channel), you can temporarily remove the unwanted channel from the scan list. This capability does not apply to the channel designated as the Selected Channel. Follow the procedure to delete nuisance channels on your radio.

- 1 When your radio locks on to an unwanted or nuisance channel, press the programmed **Nuisance Channel Delete** button until you hear a tone.
-

2 Release the programmed **Nuisance Channel Delete** button.

The nuisance channel is deleted.

6.9.11.4

Restoring Nuisance Channels

Follow the procedure to restore nuisance channels on your radio.

Do one of the following:

- Turn the radio off and then power it on again.
 - Stop and restart a scan using the programmed **Scan** button or menu.
 - Change the channel using the **Channel Selector Knob**.
-

6.9.12

Vote Scan



Vote Scan provides you with wide area coverage in areas where there are multiple base stations transmitting identical information on different analog channels.

Your radio scans analog channels of multiple base stations and performs a voting process to select the strongest received signal. Once that is established, your radio receives transmissions from that base station.

During a vote scan, the yellow LED blinks and the display shows the **Vote Scan** icon.

To respond to a transmission during a vote scan, see [Responding to Transmissions During Scanning on page 306](#).

6.9.13

Contacts Settings

Contacts provides address book capabilities on your radio. Each entry corresponds to an alias or ID that you use to initiate a call. The entries are alphabetically sorted.

Each entry, depending on context, associates with the different call types: Group Call, Private Call, All Call, PC Call, or Dispatch Call.

PC Call and Dispatch Call are data-related. They are only available with the applications. Refer to the data applications documentation for further details.

 Additionally, Contacts menu allows you to assign each entry to a programmable number key or more on a keypad microphone. If an entry is assigned to a number key, your radio can perform a quick dial on the entry.



NOTICE:

You see a checkmark before each number key that is assigned to an entry. If the checkmark is before **Empty**, you have not assign a number key to the entry.

Each entry within Contacts displays the following information:

- Call Type
- Call Alias
- Call ID



NOTICE:

If the Privacy feature is enabled on a channel, you can make privacy-enabled Group Calls, Private Calls, and All Calls on that channel. Only target radios with the same Privacy Key, or the same Key Value and Key ID as your radio will be able to decrypt the transmission.

6.9.13.1

Adding New Contacts

Follow the procedure to add new contacts on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Contacts. Press  to select.

- 3 Press  or  to New Contact. Press  to select.

- 4 Press  or  to select contact type Radio Contact or Phone Contact. Press  to select.

- 5 Enter the contact number with the keypad, and press  to proceed.

- 6 Enter the contact name with the keypad, and press  to proceed.

- 7 Press  or  to the required ringer type. Press  to select.

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

6.9.13.2

Setting Default Contact

Follow the procedure to set the default contact on your radio.

- 1 Press  to access the menu.

2 Press ▲ or ▼ to **Contacts**. Press  to select.

3 Press ▲ or ▼ to the required alias or ID. Press  to select.

4 Press ▲ or ▼ to **Set as Default**. Press  to select.

A positive indicator tone sounds. The display shows a positive mini notice. The display shows ✓ beside the selected default alias or ID.

6.9.13.3

Assigning Entries to Programmable Number Keys

1 Press  to access the menu.

2 Press ▲ or ▼ to **Contacts**. Press  to select.

3 Press ▲ or ▼ to the required alias or ID. Press  to select.

4 Press ▲ or ▼ to **Program Key**. Press  to select.

5 Do one of the following:

- If the desired number key has not been assigned to an entry, press ▲ or ▼ to the desired number key. Press  to select.
- If the desired number key has been assigned to an entry, the display shows **The Key is Already Assigned** and then, the first text line shows **Overwrite?**. Do one of the following:

Press ▲ or ▼ to **Yes**. Press  to select.

The radio sounds a positive indicator tone and the display shows **Contact Saved** and a positive mini notice.

Press ▲ or ▼ to **No** to return to the previous step.

6.9.13.4

Removing Associations Between Entries and Programmable Number Keys

- 1 Do one of the following:
 - Long press the programmed number key to the required alias or ID. Proceed to [step 4](#).
 - Press  to access the menu.

- 2 Press  or  to Contacts. Press  to select.

- 3 Press  or  to the required alias or ID. Press  to select.

- 4 Press  or  to Program Key. Press  to select.

5

Press  or  to Empty. Press  to select.
The first text line shows Clear from all keys.

6

Press  or  to Yes. Press  to select.


NOTICE:

When an entry is deleted, the association between the entry and its programmed number key(s) is removed.

A positive indicator tone sounds. The display shows Contact Saved.
The screen automatically returns to the previous menu.

6.9.14

Call Indicator Settings

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

6.9.14.1

Activating or Deactivating Call Ringers for Call Alerts

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Tones/Alert. Press  to select.

- 5 Press  or  to Call Ringers. Press  to select.

- 6 Press  or  to Call Alert. Press  to select.

7 Do one of the following:

- Press  or  to the required tone. Press  to select.
The display shows  and the selected tone.
- Press  or  to Off. Press  to select.
If the ringing tones were earlier enabled, the display shows  beside Off.
If the ringing tones were earlier disabled, the display does not show  beside Off.

6.9.14.2

Activating or Deactivating Call Ringers for Private Calls

Follow the procedure to activate or deactivate call ringers for Private Calls on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.
-

- 4 Press ▲ or ▼ to Tones/Alerts. Press  to select.
-

- 5 Press ▲ or ▼ to Call Ringers. Press  to select.
-

- 6 Press ▲ or ▼ to Private Call. Press  to select.

The display shows ✓ beside On if Private Call ringing tones are enabled.

The display shows ✓ beside Off if Private Call ringing tones are disabled.

- 7 Do one of the following:

- Press ▲ or ▼ to the required tone. Press  to select.

The display shows ✓ and the selected tone.

- Press ▲ or ▼ to Off. Press  to select. If the ringing tones were earlier enabled, the display shows ✓ beside Off.

If the ringing tones were earlier disabled, the display does not show ✓ beside Off.

6.9.14.3

Activating or Deactivating Call Ringers for Selective Calls

Follow the procedure to activate or deactivate call ringers for Selective Calls on your radio.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Utilities. Press  to select.

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

5 Press ▲ or ▼ to Call Ringers. Press  to select.

6 Press ▲ or ▼ to Selective Call. Press  to select.
The display shows ✓ and the current tone.

7 Do one of the following:

- Press ▲ or ▼ to the required tone. Press  to select.
The display shows ✓ and the selected tone.
 - Press ▲ or ▼ to Off. Press  to select.
If the ringing tones were earlier enabled, the display shows ✓ beside Off.
If the ringing tones were earlier disabled, the display does not show ✓ beside Off.
-

6.9.14.4

Activating or Deactivating Call Ringers for Text Messages

Follow the procedure to activate or deactivate call ringers for text messages on your radio.

1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

5 Press ▲ or ▼ to Call Ringers. Press  to select.

- 6 Press ▲ or ▼ to Text Message. Press  to select.

The display shows ✓ and the current tone.

- 7 Press ▲ or ▼ to Messages. Press  to select.
- The display shows ✓ at the current tone.
-

- 8 Do one of the following:

- Press ▲ or ▼ to the required tone. Press  to select.
The display shows ✓ and the selected tone.
 - Press ▲ or ▼ to Off. Press  to select.
If the ringing tones were earlier enabled, the display shows ✓ beside Off.
If the ringing tones were earlier disabled, the display does not show ✓ beside Off.
-

Activating or Deactivating Call Ringers for Telemetry Status with Text

Follow the procedure to activate or deactivate call ringers for telemetry status with text on your radio.

- 1 Press  to access the menu.
 - 2 Press ▲ or ▼ to Utilities. Press  to select.
 - 3 Press ▲ or ▼ to Radio Settings. Press  to select.
 - 4 Press ▲ or ▼ to Tones/Alert. Press  to select.
 - 5 Press ▲ or ▼ to Call Ringers. Press  to select.
-

- 6 Press ▲ or ▼ to Telemetry. Press  to select.

The current tone is indicated by a ✓.

- 7 Press ▲ or ▼ to the required tone. Press  to select. A ✓ appears beside the selected tone.

6.9.14.6

Assigning Ring Styles

The radio can be programmed to sound one of eleven predefined ringing tones when receiving a Private Call, a Call Alert, or a Text Message from a particular contact. The radio sounds out each ring style as you navigate through the list.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Contacts. Press  to select.
The entries are alphabetically sorted.

- 3 Press ▲ or ▼ to the required alias or ID. Press  to select.

- 4 Press ▲ or ▼ to View/Edit. Press  to select.

- 5 Press  until display shows Ringer menu
A ✓ indicates the current selected tone.

- 6 Press ▲ or ▼ to the required tone. Press  to select.

The display shows a positive mini notice.

6.9.14.7

Escalating Alarm Tone Volume

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

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Tones/Alert. Press  to select.

- 5 Press  or  to Escalert.

- 6 Press  to enable OR disable Escalert. If enabled,  appears beside Enabled. If disabled,  disappears beside Enabled.

6.9.15

Call Log Features

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. The call log feature is used to view and manage recent calls.

Missed Call Alerts may be included in the call logs, depending on the system configuration on your radio. You can perform the following tasks in each of your call lists:

- Store Alias or ID to Contacts
- Delete Call
- View Details

6.9.15.1

Viewing Recent Calls

- 1 Press  to access the menu.

- 2 Press  or  to Call Log. Press  to select.

- 3 Press  or  to the preferred list. The options are Missed, Answered, and Outgoing lists.

Press  to select.

The display shows the most recent entry.

-
- 4 Press ▲ or ▼ to view the list.

You can start a call with the alias or ID the display is currently showing by pressing the **PTT** button.

6.9.15.2

Viewing Call List Details

Follow the procedure to view call details on your radio.

- 1 Press  to access the menu.

-
- 2 Press ▲ or ▼ to Call Log. Press  to select.

-
- 3 Press ▲ or ▼ to the required list. Press  to select.
-

- 4 Press ▲ or ▼ to the required alias or ID. Press  to select.
-

- 5 Press ▲ or ▼ to View Details. Press  to select.
- The display shows the call details.
-

6.9.15.3

Storing Aliases or IDs from the Call List

Follow the procedure to store aliases or IDs on your radio from the Call list.

- 1 Press  to access the menu.

-
- 2 Press ▲ or ▼ to Call Log. Press  to select.
-

3 Press ▲ or ▼ to the required list. Press  to select.

4 Press ▲ or ▼ to the required alias or ID. Press  to select.

5 Press ▲ or ▼ to Store. Press  to select.
The display shows a blinking cursor.

6 Enter the rest of the characters of the required alias.
Press  to select.
You can store an ID without an alias.
The display shows a positive mini notice.

6.9.15.4

Deleting Calls from the Call List

Follow the procedure to delete calls on your radio from the Call list.

1 Press  to access the menu.

2 Press ▲ or ▼ to Call Log. Press  to select.

3 Press ▲ or ▼ to the required list. Press  to select.

If the list is empty:

- A tone sounds.
 - The display shows List Empty.
-

4 Press ▲ or ▼ to the required alias or ID. Press  to select.

5 Press ▲ or ▼ to Delete. Press  to select.

6 Do one of the following:

- Press  to select Yes to delete the entry.
The display shows a positive mini notice.

- Press ▲ or ▼ to No. Press  to select. The radio returns to the previous screen.
-

6.9.16

Call Alert Operation

Call Alert paging enables you to alert a specific radio user to call you back.

This feature is applicable for subscriber aliases or IDs only and is accessible through the menu using Contacts, manual dial, or a programmed **One Touch Access** button.

6.9.16.1

Responding to Call Alerts

When you receive a Call Alert:

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

- The display shows the notification list listing a Call Alert with the alias or ID of the calling radio.

Depending on the configuration by your dealer or system administrator, you can respond to a Call Alert by doing one of the following:

- Press the **PTT** button and respond with a Private Call directly to the caller.
 - Press the **PTT** button to continue normal talkgroup communication. The Call Alert is moved to the Missed Call option at the Call Log menu. You can respond to the caller from the Missed Called log.
-

See [Notification List on page 187](#) and [Call Log Features on page 136](#) for more information.

6.9.16.2

Making Call Alerts

Follow the procedure to make Call Alerts on your radio.

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

The display shows **Call Alert** and the subscriber alias or ID. The green LED lights up.

- 2 Wait for acknowledgment.

If the Call Alert acknowledgment is received, the display shows a positive mini notice.

If the Call Alert acknowledgment is not received, the display shows a negative mini notice.

6.9.16.3

Making Call Alerts by Using the Contacts List

- 1 Press  to access the menu.
-

- 2 Press  or  to **Contacts**. Press  to select.
-

- 3 Do one of the following:
 - Select the subscriber alias or ID directly

Press  or  to the required alias or ID.

Press  to select.

- Use the **Manual Dial** menu

Press  or  to **Manual Dial**. Press  to select.

Press  or  to **Radio Number**. Press  to select.

The display shows **Radio Number:** and a blinking cursor. Enter the subscriber ID you

want to page. Press  to select.

- 4 Press  or  to **Call Alert**. Press  to select.

The display shows **Call Alert** and the subscriber alias or ID. The green LED lights up.

- 5 Wait for acknowledgment.
 - If the acknowledgment is received, the display shows a positive mini notice.

- If the acknowledgment is not received, the display shows a negative mini notice.

6.9.17

Dynamic Caller Alias

This feature allows you to dynamically edit a Caller Alias from your radio front panel.

When in a call, the receiving radio displays the Caller Alias of the transmitting radio.

The Caller Aliases list can store up to 500 Caller Aliases of transmitting radio. You can view or make Private Calls from the Caller Aliases list. When you turn off your radio, the history of receiving Caller Aliases is removed from the Caller Aliases list.

6.9.17.1

Editing Your Caller Alias After Turning On the Radio

- 1 Turn on your radio.

2

Enter your new Caller Alias. Press  to proceed.

The display shows a positive mini notice.


NOTICE:

When in a call, the receiving radio displays your new Caller Alias.

6.9.17.2

Editing Your Caller Alias from the Main Menu

1

Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Info.. Press  to select.

4

Press  or  to My ID. Press  to select.

5 Press  to proceed.

6 Press  or  to Edit. Press  to select.

7 Enter your new Caller Alias. Press  to select.

The display shows a positive mini notice.



NOTICE:

When in a call, the receiving radio displays your new Caller Alias.

6.9.17.3

Viewing the Caller Aliases List

You can access the Caller Aliases list to view the transmitting Caller Alias details.

1 Press  to access the menu.

2 Press  or  to Caller Aliases. Press  to select.

3 Press  or  to the preferred list. Press  to select.

4 Press  or  to View Details. Press  to select.

6.9.17.4

Initiating Private Call From the Caller Aliases List

You can access the Caller Aliases list to initiate Private Call.

1 Press  to access the menu.

2 Press  or  to Caller Aliases. Press  to select.

- 3 Press ▲ or ▼ to the *<required Caller Alias>*.
-

- 4 To call, press and hold the **PTT** button.
-

6.9.18

Mute Mode

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

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

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



IMPORTANT:

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

This feature is applicable to XPR 7550e/XPR 7580e, XPR 7350e/XPR 7380e only.

6.9.18.1

Turning On Mute Mode

Follow the procedure to turn on Mute Mode.

Do one of the following:

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

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



IMPORTANT:

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

The following occurs when Mute mode is enabled:

- Positive Indicator Tone sounds.
- Display shows *Mute Mode On*.
- The red LED light starts blinking and remains blinking until Mute Mode is exited.

- Display shows **Mute Mode** icon on home screen.
- Radio is muted.
- Mute Mode Timer begins counting down the duration that is configured.

6.9.18.2

Setting Mute Mode Timer

Mute Mode feature can be enabled for a pre-configured amount of time by setting the Mute Mode Timer. The timer duration is configured in the radio menu and can range between 0.5–6 hours. Mute Mode is exited once the timer expires.

If the timer is left at 0, the radio remains in Mute mode for an indefinite period until the radio is moved to a face-up position or the programmed **Mute Mode** button is pressed.

- 1 Press  to access the menu.
- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Mute Timer. Press  to select.

- 5 Press  or  to edit the numeric value of each digit, and press .

6.9.18.3

Exiting Mute Mode

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

Do one of the following to exit Mute mode manually:

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

The following occurs when Mute mode is disabled:

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



NOTICE:

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

6.9.19

Emergency Operation

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

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

Short Press

Duration between 0.05 seconds and 0.75 seconds.

Long Press

Duration between 1.00 second and 3.75 seconds.

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



NOTICE:

If a short press to the **Emergency** button initiates Emergency mode, then a long press to the same enables the radio to exit Emergency mode.

If a long press to the **Emergency** button initiates Emergency mode, then a short press to the same enables the radio to exit Emergency mode.

Your radio supports three Emergency Alarms:

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



NOTICE:

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

In addition, each alarm has the following types:

Regular

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

Silent

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

Silent with Voice

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

6.9.19.1**Receiving Emergency Alarms**

When you receive an Emergency Alarm:

- A tone sounds.
- The red LED blinks.

- The display shows the **Emergency** icon, and the Emergency caller alias or if there is more than one alarm, all emergency caller aliases are displayed in an Alarm List.

1 Do one of the following:

- If only one alarm, press  to view more details.
- If more than one alarm, press  or  to the required alias, and press  to view more details.

2

Press  to view the action options.

3

Press  and select Yes to exit the Alarm list.

4

Press  to access the menu.

5

Select **Alarm List** to revisit the Alarm list.

- 6 To return to home screen, perform the following actions:

a Press .

b Press  or  to Yes.

c Press  to select.

The radio returns to the home screen and the display shows the Emergency icon.

6.9.19.2

Responding to Emergency Alarms

- 1 Make sure the display shows the Alarm List. Press  or  to the required alias or ID.

- 2 Press the **PTT** button to transmit non-emergency voice to the same group the Emergency Alarm targeted.

 If the Channel Free Indication feature is enabled, you hear a short alert tone the moment the

transmitting radio releases the **PTT** button, indicating the channel is free for you to respond.



NOTICE:

Emergency voice can only be transmitted by the emergency initiating radio. All other radios, including the emergency receiving radio, transmit non-emergency voice.

The green LED lights up. Your radio remains in the Emergency mode.

- 3 Do one of the following:

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

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

When the emergency initiating radio responds:

- The green LED blinks.
- The display shows the **Group Call** icon and ID, transmitting radio ID, and the Alarm list.

6.9.19.3

Sending Emergency Alarms

This feature allows you to send an Emergency Alarm, a non-voice signal, which triggers an alert indication on a group of radios. Your radio does not display any audio or visual indicators during Emergency mode when it is set to Silent.

Follow the procedure to send Emergency Alarms on your radio.

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

You see one of these results:

- The display shows Tx Alarms and the destination alias.
-  The display shows Tx Telegram and the destination alias.

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



NOTICE:

If programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode. The Emergency Search tone can be programmed through CPS.

-
- 2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
- The red LED blinks.
- The display shows Alarm Sent.

If unsuccessful after all retries have been exhausted:

- A tone sounds.
- The display shows Alarm Failed.

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

6.9.19.4

Sending Emergency Alarms with Call

This feature allows you to send an Emergency Alarm with Call to a group of radios. Upon acknowledgement by a radio within the group, the group of radios can communicate over a programmed Emergency channel. If your radio is set to Silent, it does not display any audio or visual indicators during Emergency mode, or allow any received calls to sound through the radio's speaker, until you press the PTT button to initiate the call.

If your radio is set to Silent with Voice, it does not display any audio or visual indicators during Emergency mode, but allow incoming calls to sound through the radio's speaker. The indicators only appear once you press the PTT button to initiate, or respond to, the call.

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

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

You see the following:

- The display shows Tx Telegram and the destination alias.

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



NOTICE:

If programmed, the Emergency Search tone sounds. This tone is muted when the radio transmits or receives voice, and stops when the radio exits Emergency mode. The Emergency Search tone can be programmed by your dealer or system administrator.

-
- 2 Wait for acknowledgment.

If successful:

- The Emergency tone sounds.
 - The red LED blinks.
 - The display shows Alarm Sent.
 - Your radio enters the Emergency call mode when the display shows Emergency and the destination group alias.
-

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

The green LED lights up. The display shows the **Group Call** icon.

- 4 Do one of the following:

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

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

The display shows the caller and group aliases.

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

- 7 To exit the Emergency mode once the call ends, press the **Emergency Off** button.

The radio returns to the Home screen.

6.9.19.5

Emergency Alarms with Voice to Follow

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

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

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

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

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

**NOTICE:**

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

6.9.19.6

Sending Emergency Alarms with Voice to Follow

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

You see one of these results:

- The display shows Tx Alarm and the destination alias.

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

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

The radio automatically stops transmitting when:

- The cycling duration between *hot mic* and receiving calls expires, if Emergency Cycle Mode is enabled.

- The *hot mic* duration expires, if Emergency Cycle Mode is disabled.

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

The radio returns to the Home screen.

6.9.19.7

Reinitiating Emergency Mode

Perform one of the following actions:

- Change the channel while the radio is in Emergency mode.

**NOTICE:**

You can reinitiate emergency mode only if you enable emergency alarm on the new channel.

- Press the programmed **Emergency On** button during an emergency initiation or transmission state.

The radio exits the Emergency mode, and reinitiates Emergency.

6.9.20

Man Down

This feature prompts an emergency to be raised if there is a change in the motion of the radio, such as the tilt of the radio, motion and/or the lack of motion for a predefined time.

Following a change in the motion of the radio for a programmed duration, the radio pre-warns the user with an audio indicator indicating that a change in motion is detected.

If there is still no acknowledgment by the user before the predefined reminder timer expires, the radio initiates an Emergency Alarm or an Emergency Call. You can program the reminder timer by using CPS.

6.9.20.1

Turning the Man Down Feature On or Off



NOTICE:

The programmed **Man Down** button and Man Down settings are configured using CPS. Check with your dealer or system administrator to determine how your radio has been programmed.

If you disable the Man Down feature, the programmed alert tone sounds repeatedly until the Man Down feature is enabled. A device failure tone sounds when the Man Down feature fails while powering up. The device failure tone continues until the radio resumes normal operation.

You can enable or disable this feature by performing one of the following actions.

- Press the programmed **Man Down** button to toggle the feature on or off.
- Access this feature using the menu.
 - a. Press  to access the menu.
 - b. Press  or  to Utilities. Press  to select.

c. Press ▲ or ▼ to Radio Settings. Press  to select.

d. Press ▲ or ▼ to Man Down. Press  to select.

You can also use ◀ or ▶ to change the selected option.

e. Press  to enable or disable Man Down.

If enabled, ✓ appears beside Enabled.

If disabled, ✓ disappears beside Enabled.

6.9.21

Text Messaging

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

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message is 280

characters, including the subject line. The subject line only appears when you receive messages from e-mail applications.



NOTICE:

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

6.9.21.1

Text Messages

The text messages are stored in an Inbox, and sorted according to the most recently received.

6.9.21.1.1

Viewing Text Messages

1

Press  to access the menu.

2

Press ▲ or ▼ to Messages. Press  to select.

- 3 Press ▲ or ▼ to Inbox. Press  to select.
If the Inbox is empty:
 - The display shows List Empty.
 - A tone sounds, if the Keypad Tone is turned on.
- 4 Press ▲ or ▼ to the required message. Press  to select.
The display shows a subject line if the message is from an e-mail application.

6.9.21.1.2

Viewing Telemetry Status Text Messages

Follow the procedure to view a telemetry status text message from the inbox.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to Messages. Press  to select.

- 3 Press ▲ or ▼ to Inbox. Press  to select.
- 4 Press ▲ or ▼ to the required message. Press  to select.
You cannot reply to a Telemetry Status text message.
The display shows Telemetry: <Status Text Message>.
- 5 Long press  to return to the Home screen.

6.9.21.1.3

Viewing Saved Text Messages

- 1 Do one of the following:
 - Press the programmed **Text Message** button. Proceed to [step 3](#).
 - Press  to access the menu.

2 Press ▲ or ▼ to Messages. Press  to select.

3 Press ▲ or ▼ to Drafts. Press  to select.

4 Press ▲ or ▼ to the required message. Press  to select.

6.9.21.1.4

Responding to Text Messages

Follow the procedure to respond to text messages on your radio.

When you receive a text message:

- The display shows the Notification list with the alias or ID of the sender.
- The display shows the **Message** icon.



NOTICE:

The radio exits the Text Message alert screen and sets up a Private or Group Call to the sender of the message if the **PTT** button is pressed.

1 Do one of the following:

- Press ▲ or ▼ to Read. Press  to select.
The display shows the text message. The display shows a subject line if the message is from an e-mail application.
 - Press ▲ or ▼ to Read Later. Press  to select.
The radio returns to the screen you were on prior to receiving the text message.
 - Press ▲ or ▼ to Delete. Press  to select.
-

2 Press  to return to the Inbox.

6.9.21.1.5

Replying to Text Messages

Follow the procedure to respond to text messages on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button.
Proceed to Step [step 3](#).
- Press  to access the menu.

2

Press  or  to Messages. Press  to select.

3

Press  or  to Inbox. Press  to select.

4 Press  or  to the required message. Press

 to select.

The display shows a subject line if the message is from an e-mail application.

5

Press  to access the sub-menu.

6 Do one of the following:

- Press  or  to Reply. Press  to select.
- Press  or  to Quick Reply. Press  to select.

A blinking cursor appears. You can write or edit your message, if required.

7

Press  once message is composed.

The display shows a transitional mini notice, confirming the message is being sent.

8 Wait for acknowledgment.

If successful:

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

If unsuccessful:

- A tone sounds.
- The display shows a negative mini notice.
- The radio returns to the Resend option screen.

6.9.21.1.6

Forwarding Text Messages

Follow the procedure to forward text messages on your radio.

When you are at the Resend option screen:

- 1 Press  or  to Forward, and press  to send the same message to another subscriber or group alias or ID.

- 2 Press  or  to the required alias or ID. Press  to select.

The display shows a transitional mini notice, confirming your message is being sent.

- 3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.21.1.7

Forwarding Text Messages by Using the Manual Dial

Follow the procedure to forward text messages by using the manual dial on your radio.

- 1 Press  or  to Forward. Press  to select.
- 2 Press  to send the same message to another subscriber or group alias or ID.

- 3 Press ▲ or ▼ to Manual Dial. Press  to select.

The display shows Radio Number:.

- 4 Enter the subscriber ID, and press  to proceed.

The display shows a transitional mini notice, confirming your message is being sent.

- 5 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

Editing Text Messages

Select Edit to edit the message.



NOTICE:

If a subject line is present (for messages received from an e-mail application), you cannot edit it.

- 1 Press ▲ or ▼ to Edit. Press  to select.
The display shows a blinking cursor.
-

- 2 Use the keypad to edit your message.

- Press ◀ to move one space to the left.
 - Press ▶ or #  to move one space to the right.
 - Press * ◀ to delete any unwanted characters.
 - Long press #  to change text entry method.
-

- 3 Press  once message is composed.
-

- 4 Do one of the following:

- Press ▲ or ▼ to Send and press  to send the message.
- Press ▲ or ▼ to Save and press  to save the message to the Drafts folder.
- Press  to edit the message.
- Press  to choose between deleting the message or saving it to the Drafts folder.

6.9.21.1.9

Sending Text Messages

It is assumed that you have a newly written text message or a saved text message.

Select the message recipient. Do one of the following:

- Press ▲ or ▼ to the required alias or ID. Press  to select.

- Press ▲ or ▼ to Manual Dial. Press  to select. The first line of the display shows Radio Number:!. The second line of the display shows a blinking cursor. Key in the subscriber alias or ID.

Press .

The display shows transitional mini notice, confirming your message is being sent.

If successful:

- A tone sounds.
- The display shows positive mini notice.

If unsuccessful:

- A low tone sounds.
- The display shows negative mini notice.
- The message is moved to the Sent Items folder.
- The message is marked with a Send Failed icon.



NOTICE:

For a newly written text message, the radio returns you to the Resend option screen.

6.9.21.1.10

Editing Saved Text Messages

- 1 Press  while viewing the message.

- 2 Press  or  to Edit. Press  to select.
A blinking cursor appears.

- 3 Use the keypad to type your message.
Press  to move one space to the left.
Press  or  to move one space to the right.
Press  to delete any unwanted characters.
Long press  to change text entry method.

- 4 Press  once message is composed.
Do one of the following:

- Press  or  to Send. Press  to send the message.
- Press . Press  or  to choose between saving or deleting the message. Press  to select.

6.9.21.1.11

Resending Text Messages

When you are at the **Resend** option screen:

Press  to resend the same message to the same subscriber or group alias or ID.

If successful:

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

If unsuccessful:

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

- The radio returns to the Resend option screen.

6.9.21.1.12

Deleting Text Messages from the Inbox

Follow the procedure to delete text messages from the Inbox on your radio.

- 1 Do one of the following:
 - Press the programmed **Text Message** button. Proceed to [step 3](#).
 - Press  to access the menu.

- 2 Press  or  to Messages. Press  to select.

- 3 Press  or  to Inbox. Press  to select.
If the Inbox is empty:
 - The display shows List Empty.
 - A tone sounds.

- 4 Press  or  to the required message. Press  to select.

The display shows a subject line if the message is from an e-mail application.

- 5 Press  to access the sub-menu.

- 6 Press  or  to Delete. Press  to select.

- 7 Press  or  to Yes. Press  to select.

The display shows a positive mini notice. The screen returns to the Inbox.

6.9.21.1.13

Deleting All Text Messages from the Inbox



Follow the procedure to delete all text messages from the Inbox on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button.
Proceed to [step 3](#).

- Press  to access the menu.

2

Press ▲ or ▼ to Messages. Press  to select.

3

Press ▲ or ▼ to Inbox. Press  to select.

If the Inbox is empty:

- The display shows List Empty.
- A tone sounds.

4

Press ▲ or ▼ to Delete All. Press  to select.

5

Press ▲ or ▼ to Yes. Press  to select.
The display shows a positive mini notice.

6.9.21.1.14

Deleting Saved Text Messages from the Drafts Folder

1 Do one of the following:

- Press the programmed **Text Message** button.
Proceed to [step 3](#).

- Press  to access the menu.

2

Press ▲ or ▼ to Messages. Press  to select.

3

Press ▲ or ▼ to Drafts. Press  to select.

4

Press ▲ or ▼ to the required message. Press  to select.

5

Press  again while viewing the message.

6

Press ▲ or ▼ to Delete. Press  to delete the text message.

6.9.21.2

Sent Text Messages

Once a message is sent to another radio, it is saved in Sent Items folder. The most recent sent text message is always added to the top of the Sent Items folder. You can resend, forward, edit, or delete a Sent text message.

The Sent Items folder is capable of storing a maximum of 30 last sent messages. When the folder is full, the next sent text message automatically replaces the oldest text message in the folder.

If you exit the message sending screen while the message is being sent, the radio updates the status of the message in the Sent Items folder without providing any indication in the display or via sound.

If the radio changes mode or powers down before the status of the message in Sent Items folder is updated, the radio cannot complete any In-Progress messages and automatically marks it with a **Send Failed** icon.

The radio supports a maximum of five In-Progress messages at one time. During this period, the radio cannot send any new message and automatically marks it with a **Send Failed** icon.

If you long press  at any time, the radio returns to the Home screen.



NOTICE:

If the channel type, for example a conventional digital or Capacity Plus channel, is not a match, you can only edit, forward, or delete a Sent message.

6.9.21.2.1

Viewing Sent Text Messages

Follow the procedure to view sent text messages on your radio.

- 1 Do one of the following:
 - Press the programmed **Text Message** button. Proceed to [step 3](#).
 - Press  to access the menu.

2 Press ▲ or ▼ to Messages. Press  to select.

3 Press ▲ or ▼ to Sent Items. Press  to select.

If the Sent Items folder is empty:

- The display shows List Empty.
 - A low tone sounds, if the Keypad Tone is turned on.
-

4 Press ▲ or ▼ to the required message. Press  to select.

The display shows a subject line if the message is from an e-mail application.

6.9.21.2.2

Sending Sent Text Messages

Follow the procedure to send a sent text message on your radio.

When you are viewing a Sent message:

1 Press  while viewing the message.

2 Press ▲ or ▼ to Resend. Press  to select.
The display shows a transitional mini notice, confirming your message is being sent.

3 Wait for acknowledgment.

If successful:

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

If unsuccessful:

- A negative indicator tone sounds.
 - The display shows a negative mini notice.
 - The radio proceeds to the Resend option screen. See [Resending Text Messages on page 167](#) for more information.
-

6.9.21.2.3

Deleting All Sent Text Messages from the Sent Items Folder

Follow the procedure to delete all sent text messages from the Sent Items folder on your radio.

1 Do one of the following:

- Press the programmed **Text Message** button.
Proceed to [step 3](#).
- Press  to access the menu.

2

Press  or  to **Messages**. Press  to select.

3

Press  or  to **Sent Items**. Press  to select.

If the Sent Items folder is empty:

- The display shows **List Empty**.
- A tone sounds.

4

Press  or  to **Delete All**. Press  to select.

5 Do one of the following:

- Press  or  to **Yes**. Press  to select.
The display shows a positive mini notice.
- Press  or  to **No**. Press  to select.
The radio returns to the previous screen.

6.9.21.3

Quick Text Messages

Your radio supports a maximum of 50 Quick Text messages as programmed by your dealer.

While Quick Text messages are predefined, you can edit each message before sending it.

6.9.21.3.1

Sending Quick Text Messages

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

1 Do one of the following:

- Press the programmed **Text Message** button.
Proceed to Step 3.
- Press  to access the menu.

2

Press ▲ or ▼ to Messages. Press  to select.

3

Press ▲ or ▼ to Quick Text. Press  to select.

4 Press ▲ or ▼ to the required Quick Text

message. Press  to select.

If required, use the keypad to edit the message.

5

Press  once the message is composed.

6 Do the following to select the recipient and send the message.

a Press ▲ or ▼ to the required alias or ID. Press

 to select.

b Press ▲ or ▼ to Manual Dial. Press to select.

The first line of the display shows Radio Number: and the second line shows a blinking cursor.

c Key in the subscriber alias or ID and press .

The display shows a transitional mini notice, confirming that your message is being sent.

7 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

- The radio proceeds to the **Resend** option screen. See [Resending Text Messages on page 167](#) for more information.

6.9.22

Privacy

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

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

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

Your radio supports the following types of privacy, but only one can be assigned to your radio. They are:

- Basic Privacy
- Enhanced Privacy

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

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

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

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

6.9.22.1

Turning Privacy On or Off

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

- 1 Do one of the following:
 - Press the programmed **Privacy** button. Skip the proceeding steps.

- Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to *<required privacy>*. Press  to select.

- If privacy is on, display shows ✓ beside Enabled.
- If privacy is off, display shows empty box beside Enabled.

6.9.23

Security

This feature allows you to enable or disable any radio in the system.

For example, you may want to disable a stolen radio to prevent unauthorized users from using it, and enable the radio when it is recovered.

You will not receive an acknowledgment if you press  during Radio Enable or Radio Disable operation.



NOTICE:

Check with your dealer or system administrator for more information.

6.9.23.1

Disabling Radios

Follow the procedure to disable your radio.

1 Press the programmed **Radio Disable** button.

2 Press  or  to the required alias or ID.

3 Press  to select.

The green LED blinks.

4 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.23.2

Disabling Radios by Using the Contacts List

Follow the procedure to disable your radio by using the Contacts list.

1 Press  to access the menu.

2 Press  or  to **Contacts**. Press  to select.

3 Press  or  to the required alias or ID. Press

 to select.

4 Press  or  to **Radio Disable**.

5 Press  to select.
The green LED blinks.

6 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.23.3

Disabling Radios by Using the Manual Dial

Follow the procedure to disable your radio by using the manual dial.

- 1 Press  to access the menu.

- 2 Press  or  to **Contacts**. Press  to select.

- 3 Press  or  to **Manual Dial**. Press  to select.

- 4 Press  or  to **Radio Contact**. Press  to select.
The first text line shows **Radio Number:.**

- 5 Enter the subscriber ID, and press  to proceed.

- 6 Press  or  to **Radio Disable**.

- 7 Press  to select.
The display shows a transitional mini notice, indicating the request is in progress. The green LED blinks.

- 8 Wait for acknowledgment.
If successful:
 - A positive indicator tone sounds.
 - The display shows a positive mini notice.
 If unsuccessful:
 - A negative indicator tone sounds.
 - The display shows a negative mini notice.

6.9.23.4

Enabling Radios

Follow the procedure to enable your radio.

1 Press the programmed **Radio Enable** button.

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

3 Press  to select.

The display shows Radio Enable: <Subscriber Alias or ID>. The green LED lights up.

4 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.23.5

Enabling Radios by Using the Contacts List

Follow the procedure to enable your radio by using the Contacts list.

1 Press  to access the menu.

2 Press ▲ or ▼ to Contacts. Press  to select.

3 Press ▲ or ▼ to the required alias or ID. Press  to select.

4 Press ▲ or ▼ to Radio Enable.

5 Press  to select.

The display shows Radio Enable: <Subscriber Alias or ID>. The green LED lights up.

6 Wait for acknowledgment.

If successful:

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

If unsuccessful:

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

6.9.23.6

Enabling Radios by Using the Manual Dial

Follow the procedure to enable your radio by using the manual dial.

- 1 Press  to access the menu.
- 2 Press  or  to **Contacts**. Press  to select.
- 3 Press  or  to **Manual Dial**. Press  to select.

- 4 Press  or  to **Private Call**. Press  to select.

The first text line shows **Radio Number:**.

- 5 Enter the subscriber ID, and press  to proceed.

- 6 Press  or  to **Radio Enable**.

- 7 Press  to select.
The display shows **Radio Enable: <Subscriber Alias or ID>**. The green LED lights up.

- 8 Wait for acknowledgment.
If successful:
 - A positive indicator tone sounds.
 - The display shows a positive mini notice.
 If unsuccessful:
 - A negative indicator tone sounds.

- The display shows a negative mini notice.

6.9.24

Lone Worker

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

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

If there is still no acknowledgment by you before the predefined reminder timer expires, the radio initiates an Emergency Alarm.

Only one of the following Emergency Alarms is assigned to this feature:

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

The radio remains in the emergency state, allowing voice messages to proceed until action is taken. See [Emergency](#)

[Operation on page 326](#) for more information on ways to exit Emergency.



NOTICE:

Check with your dealer or system administrator for more information.

6.9.25

Notification List

Your radio has a Notification list that collects all your unread events on the channel, such as unread text messages, telemetry messages, missed calls, and call alerts.

The display shows the **Notification** icon when the Notification list has one or more events.

The list supports a maximum of 40 unread events. When the list is full, the next event automatically replaces the oldest event. After the events are read, they are removed from the Notification list.

For text messages, missed calls, and call alert events, the maximum number of notifications are 30 text messages and 10 missed calls or call alerts. This maximum number depends on individual feature (job tickets or text messages or missed calls or call alerts) list capability.

6.9.25.1

Accessing Notification List

Follow the procedure to access the Notification list on your radio.

- 1 Do one of the following:
 - Press the programmed **Notification** button. Skip the steps below.
 - Press  to access the menu.

-
- 2 Press  to access the menu.

-
- 3 Press  or  to Notification. Press  to select.

-
- 4 Press  or  to the required event. Press  to select.

Long press  to return to the Home screen.

6.9.26

Auto-Range Transponder System



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

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

Your radio provides indications of states as follows:

First-Time Alert

A tone sounds.

The display shows channel alias and In Range.

ARTS-in-Range Alert

A tone sounds, if programmed.

The display shows channel alias and In Range.

ARTS-Out-of-Range Alert

A tone sounds. The red LED rapidly blinks.

The display shows Out of Range alternating with the Home screen.

**NOTICE:**

Check with your dealer or system administrator for more information.

6.9.27

Over-the-Air Programming

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

When your radio undergoes OTAP, the green LED blinks.

When your radio receives high volume data:

- The display shows the **High Volume Data** icon.
- The channel becomes busy.
- A negative tone sounds if you press the **PTT** button.

When OTAP completes, depending on the configuration:

- A tone sounds. The display shows `Updating`
`Restarting`. Your radio restarts by powering off and on again.
- You can select `Restart Now` or `Postpone`. When you select `Postpone`, your radio returns to the previous

screen. The display shows the **OTAP Delay Timer** icon until the automatic restart occurs.

When your radio powers up after automatic restart:

- If successful, the display shows `Sw Update Completed`.
- If unsuccessful, the display shows `Sw Update Failed`.

See [Checking Software Update Information on page 221](#) for the updated software version.

6.9.28

Password Lock

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

Your radio supports a 4-digit password input.

Your radio is unable to receive calls in locked state.

6.9.28.1

Accessing the Radio by Using Password

Turn on your radio.

1 Enter the four-digit password.

- a To edit the numeric value of each digit, press ▲ or ▼. To enter and move to the next digit, press



2

Press  to confirm the password.

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

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

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

Repeat [step 1](#).

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

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



NOTICE:

In locked state, your radio responds to inputs from the **On/Off/Volume Control Knob** and programmed **Backlight** button only.

Wait for the 15-minute locked state timer to end and then repeat [step 1](#).



NOTICE:

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

6.9.28.2

Unlocking Radios in Locked State

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

Do one of the following:

- If the radio is powered on, wait for 15 minutes and then repeat the steps in [Accessing the Radio by Using Password on page 185](#) to access the radio.
- If the radio is powered off, power up the radio. Your radio restarts the 15-minute timer for locked state. A tone sounds. The yellow LED double blinks. The display shows `Radio Locked`.

Wait for 15 minutes and then repeat the steps in [Accessing the Radio by Using Password on page 185](#) to access the radio.

6.9.28.3

Changing Passwords

Follow the procedure to change passwords on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Passwd Lock. Press  to select.

- 5 Enter the current four-digit password, and press  to proceed.

If the password is incorrect, the display shows Wrong Password and automatically returns to the previous menu.

- 6 Press  or  to Change PWD. Press  to select.

- 7 Enter a new four-digit password, and press  to proceed.

- 8 Re-enter the new four-digit password, and press  to proceed.

If successful, the display shows Password Changed. If unsuccessful, the display shows Passwords Do Not Match.

The screen automatically returns to the previous menu.

6.9.29

Wi-Fi Operation

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


NOTICE:

This feature is applicable to XPR 7580e IS only.

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

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

WEP/WPA/WPA2-Personal Wi-Fi network

Uses pre-shared key (password) based authentication.

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

WPA/WPA2-Enterprise Wi-Fi network

Uses certificate-based authentication.

Your radio must be pre-configured with a certificate.


NOTICE:

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

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

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


NOTICE:

You can turn on or turn off Wi-Fi remotely by using a designated radio (see [Turning Wi-Fi On or Off Remotely by Using a Designated Radio \(Individual Control\) on page 191](#) and [Turning Wi-Fi On or Off Remotely by Using a Designated Radio \(Group Control\) on page 192](#)). Check with your dealer or system administrator for more information.

6.9.29.1

Turning Wi-Fi On or Off

- 1 Press the programmed **Wi-Fi On or Off** button. Voice Announcement sounds Turning On Wi-Fi or Turning Off Wi-Fi.
- 2 Access this feature using the menu.

- a Press  to access the menu.
- b Press  or  to WiFi and press  to select.
- c Press  or  to WiFi On and press  to select.
- d Press  to turn on/off Wi-Fi.
 If Wi-Fi is on, the display shows  beside Enabled.
 If Wi-Fi is off, the  disappears from beside Enabled.

6.9.29.2

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Individual Control)

You can turn Wi-Fi on or off remotely in Individual Control (One to One).



NOTICE:

Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

- 1 Do one of the following:
 - Long press the programmable button. Use the keypad to enter the ID and press  to select. Proceed to [step 4](#).
 - Press  to access the menu.
- 2 Press  or  to Contacts and press  to select.
- 3 Use one of the steps described next to select the required subscriber alias:
 - Select the subscriber alias directly.
 - Press  or  to the required subscriber alias or ID.
 - Use the Manual Dial menu.

- Press ▲ or ▼ to Manual Dial and press  to select.
- Select Radio Number and use the keypad to enter the ID. Press  to select.

4 Press ▲ or ▼ to WiFi Control and press  to select.

5 Press ▲ or ▼ to select On or Off.

6 Press  to select.

If successful, the display shows a positive mini notice.

If unsuccessful, the display shows a negative mini notice.

6.9.29.3

Turning Wi-Fi On or Off Remotely by Using a Designated Radio (Group Control)

You can turn Wi-Fi on or off remotely in Group Control (One to Many).



NOTICE:

Only radio with specific CPS setting supports this function, check with your dealer or system administrator for more information.

1 Press  to access the menu.

2 Press ▲ or ▼ to Contacts and press  to select.

3 Press ▲ or ▼ to select the required subscriber alias or ID.

4 Press ▲ or ▼ to WiFi Control and press  to select.

5 Press ▲ or ▼ to select On or Off.

6 Press  to select.

If successful, the display shows `Sent Successfully`.

If unsuccessful, the display shows a negative mini notice.

6.9.29.4

Connecting to a Network Access Point

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



NOTICE:

You can also connect to a network access point using the menu.

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

1 Press  to access the menu.

2 Press ▲ or ▼ to Wi-Fi and press  to select.

3 Press ▲ or ▼ to Networks and press  to select.

4 Press ▲ or ▼ to a network access point and press  to select.



NOTICE:

For WPA-Enterprise Wi-Fi, if a network access point is not preconfigured, the `Connect` option is not available.

5 Press ▲ or ▼ to Connect and press  to select.

6 For WPA-Personal Wi-Fi, enter the password and press .

- 7 For WPA-Enterprise Wi-Fi, password is configured by using RM.

If the preconfigured password is correct, your radio automatically connects to the selected network access point.

If the preconfigured password is incorrect, the display shows `Authentication Failure`, and automatically returns to the previous menu.

If the connection is successful, the radio displays a notice and the network access point is saved into the profile list.

If the connection is unsuccessful, the radio displays shows the failure notice screen momentarily and automatically returns to the previous menu.

6.9.29.5

Checking Wi-Fi Connection Status

Press the programmed **Wi-Fi Status Query** button for the connection status by using Voice Announcement. Voice

Announcement sounds `Wi-Fi is Off`, `Wi-Fi is On but No Connection`, or `Wi-Fi is On with Connection`.

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

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



NOTICE:

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

6.9.29.6

Refreshing the Network List

- Perform the following actions to refresh the network list through the menu.

- Press  to access the menu.
- Press  or  to WiFi and press  to select.
- Press  or  to Networks and press  to select.

When you enter the Networks menu, the radio automatically refreshes the network list.

- If you are already in the Networks menu, perform the following action to refresh the network list.

Press  or  to Refresh and press  to select.

The radio refreshes and displays the latest network list.

6.9.29.7

Adding a Network



NOTICE:

This task is not applicable to WPA-Enterprise Wi-Fi networks.

If a preferred network is not in the available network list, perform the following actions to add a network.

- Press  to access the menu.

- Press  or  to WiFi and press  to select.

- Press  or  to Networks and press  to select.

- Press  or  to Add Network and press  to select.

- Enter the Service Set Identifier (SSID) and press .

6 Press ▲ or ▼ to Open and press  to select.

7 Enter the password and press  .
The radio displays a positive mini notice to indicate that the network is successfully saved.

6.9.29.8

Viewing Details of Network Access Points

You can view details of network access points.

1 Press  to access the menu.

2 Press ▲ or ▼ to WiFi and press  to select.

3 Press ▲ or ▼ to Networks and press  to select.

4 Press ▲ or ▼ to a network access point and press  to select.

5 Press ▲ or ▼ to View Details and press  to select.



NOTICE:

WPA-Personal Wi-Fi and WPA-Enterprise Wi-Fi display different details of Network Access Points.

WPA-Personal Wi-Fi

For a connected network access point, your radio displays Service Set Identifier (SSID), Security Mode, Media Access Control (MAC) address, and Internet Protocol (IP) address.

For a non-connected network access point, your radio displays SSID and Security Mode.

WPA-Enterprise Wi-Fi

For a connected network access point, your radio displays SSID, Security Mode, Identity, Extended Authentication Protocol (EAP) Method, Phase 2 Authentication, Cert Name, MAC address, IP address, Gateway, DNS1, and DNS2.

For a non-connected network access point, your radio displays SSID, Security Mode, Identity, EAP Method, Phase 2 Authentication, and Cert Name.

6.9.29.9

Removing Network Access Points



NOTICE:

This task is not applicable to Enterprise Wi-Fi networks.

Perform the following actions to remove network access points from the profile list.

- 1 Press  to access the menu.
- 2 Press  or  to WiFi and press  to select.
- 3 Press  or  to Networks and press  to select.

- 4 Press  or  to the selected network access point and press  to select.

- 5 Press  or  to Remove and press  to select.

- 6 Press  or  to Yes and press  to select.
The radio displays a positive mini notice to indicate that the selected network access point is successfully removed.

6.9.30

Front Panel Programming

You are able to customize certain feature parameters in Front Panel Programming (FPP) to enhance the use of your radio.

The following buttons are used as required while navigating through the feature parameters.

Up/Down/Left/Right Navigation Button

Press to navigate through options horizontally or vertically, or increase or decrease values.

Menu/OK Button

Press to select the option or enter a sub-menu.

Return/Home Button

Short press to return to the previous menu or exit the selection screen.

Long press at any time to return to the Home screen.

6.9.30.1**Entering Front Panel Programming Mode**

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Program Radio. Press  to select.

6.9.30.2**Editing Mode Parameters**

Use the following buttons as required while navigating through the feature parameters.

-  ,  – Scroll through options, increase/decrease values, or navigate vertically.
-  – Select the option or enter a sub-menu.
-  – Short-press to return to previous menu or to exit the selection screen. Long-press to return to Home screen.

6.10**Utilities**

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

6.10.1**Keypad Lock Options**

With this feature, you can avoid accidentally pressing buttons or changing channels when your radio is not in use.

You can choose to either lock your keypad, channel selector knob, or both; depending on your requirements.

Your dealer can use CPS/RM to configure one of the following options:

- Lock Keypad
- Lock Channel Selector Knob
- Lock Keypad and Channel Selector Knob

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

6.10.1.1

Enabling the Keypad Lock Option

The following steps are applicable for either Lock Keypad, Lock Channel Selector Knob, or Lock Keypad and Channel Selector Knob option depending on how your radio has been configured.

1 Do one of the following:

- Press the programmed **Keypad Lock** button. Skip the following steps.
- Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Settings. Press  to select.

4

Press  or  to Keypad Lock. Press  to select.

The display shows **Locked**.

6.10.1.2

Disabling the Keypad Lock Option

The following steps are applicable for either Lock Keypad, Lock Channel Selector Knob, or Lock Keypad and Channel Selector Knob option depending on how your radio has been configured.

Do one of the following:

- Press the programmed **Keypad Lock** button.

- When the display shows Menu then * To

Unlock, press  followed by .

The display shows Unlocked.

6.10.2

Turning Automatic Call Forwarding On or Off

You can enable your radio to automatically forward voice calls to another radio.

- 1 Press  to access the menu.
- 2 Press  or  to Utilities. Press  to select.
- 3 Press  or  to Radio Settings. Press  to select.
- 4 Press  or  to Call Forward. Press  to select.

- 5 Do one of the following:

- Press  or  to enable Call Forwarding. If enabled,  appears beside Enabled.
- Press  or  to disable Call Forwarding. If disabled,  disappears beside Enabled.

6.10.3

Identifying Cable Type

Do the following steps to select the type of cable your radio uses.

- 1 Press  to access the menu.
- 2 Press  or  to Utilities. Press  to select.
- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Cable Type. Press  to select.
-

- 5 Press ▲ or ▼ to change the selected option.
The current cable type is indicated by a ✓.
-

6.10.4

Flexible Receive List

Flexible Receive List is a feature that allows you to create and assign members on the receive talkgroup list. Your radio can support a maximum of 16 members in the list. This feature is supported in Capacity Plus.

6.10.4.1

Turning Flexible Receive List On or Off

Follow the procedure to turn Flexible Receive List on or off.

- 1 Do one of the following:
 - Press the programmed **Flexible Receive List** button. Skip the following steps.

- Press  to access the menu.
-

- 2 Press ▲ or ▼ to Flexible Rx List. Press  to select.
-

- 3 Do one of the following:

- Press ▲ or ▼ to Turn On. Press  to select.
A positive indicator tone sounds.
The display shows a positive mini notice.
 - Press ▲ or ▼ to Turn Off. Press  to select.
A negative indicator tone sounds.
The display shows a negative mini notice.
-

6.10.4.2

Adding New Entries to the Flexible Receive List

Follow the procedure to add new members to the receive talkgroup list.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Flexible Rx List. Press  to select.

- 5 Press  or  to View/Edit List. Press  to select.

- 6 Press  or  to Add Member. Press  to select.

- 7 Press  or  to the required alias or ID. Press  to select.
The display shows a positive mini notice and then, Add Another?.

- 8 Do one of the following:
 - Press  or  to Yes to add another entry.
Press  to select. Repeat [step 7](#).
 - Press  or  to No to save the current list.
Press  to select.

6.10.4.3

Deleting Entries from the Flexible Receive List

Follow the procedure to delete members of the receive talkgroup list from your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Flexible Rx List. Press  to select.

- 5 Press  or  to View/Edit List. Press  to select.

- 6 Press  or  to the required alias or ID. Press  to select.

- 7 Press  or  to Delete. Press  to select.

- 8 Do one of the following:
 - Press  or  to Yes to delete the entry. Press  to select.
The display shows a positive mini notice.
 - Press  or  to No. Press  to select.
The radio returns to the previous screen.

- 9 Repeat [step 6](#) to [step 8](#) to delete other entries.

- 10 Long press  to return to the Home screen after deleting all required aliases or IDs.

6.10.4.4

Deleting Entries From the Flexible Receive List Using Alias Search

Follow the procedure to delete members of the receive talkgroup list by using alias search.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Flexible Rx List. Press  to select.

- 5 Press  or  to View/Edit List. Press  to select.

- 6 Enter the first character of the required alias.
The display shows a blinking cursor.

- 7 Enter the rest of the characters of the required alias.
The alias search is case-insensitive. If there are two or more entries with the same name, the display shows the entry listed first in the list.
The first text line shows the characters you entered. The following text lines show the shortlisted search results.

- 8 Press  to select.

- 9 Press  or  to Delete. Press  to select.

- 10 Do one of the following:
 - Press  or  to Yes to delete the entry. Press  to select.
The display shows a positive mini notice.

- Press ▲ or ▼ to No. Press  to select.
The radio returns to the previous screen.

- 11 Long press  to return to the Home screen after deleting all required aliases or IDs.

6.10.5

Setting Menu Timer

You can set the time your radio stays in the menu before it automatically switches to the Home screen. Follow the procedure to set the menu timer.

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to Utilities. Press  to select.
- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Display. Press  to select.

- 5 Press ▲ or ▼ to Menu Timer. Press  to select.

- 6 Press ▲ or ▼ to the required setting. Press  to select.

6.10.6

Setting Text-to-Speech

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

- 1 Press  to access the menu.
- 2 Press ▲ or ▼ to Utilities. Press  to select.
- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Voice Announcement. Press



to select.

- 5 Press ▲ or ▼ to any of the following features.



Press to select.

The available features are as follows:

- All
- Messages
- Job Tickets
- Channel
- Zone
- Program Button

✓ appears beside the selected setting.

Turning Acoustic Feedback Suppressor On or Off

The feature allows you to minimize acoustic feedback in received calls. Follow the procedure to turn Acoustic Feedback Suppressor on or off on your radio.

- 1 Do one of the following:

- Press the programmed **AF Suppressor** button. Skip the following steps.



- Press to access the menu.

2

Press ▲ or ▼ to Utilities. Press  to select.

3

Press ▲ or ▼ to Radio Settings. Press  to select.

4

Press ▲ or ▼ to AF Suppressor. Press  to select.

- 5 Do one of the following:

- Press  to enable Acoustic Feedback Suppressor.
- Press  to disable Acoustic Feedback Suppressor.

If enabled,  appears beside Enabled. If disabled,  disappears beside Enabled.

6.10.8

Turning Global Navigation Satellite System On or Off

Global Navigation Satellite System (GNSS) is a satellite navigation system that determines the radio precise location. GNSS includes Global Positioning System (GPS), Global Navigation Satellite System (GLONASS), and BeiDou Navigation Satellite System (BDS).



NOTICE:

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

1

2 Do one of the following steps to toggle GNSS on or off on your radio.

- Press the programmed **GNSS** button.

- Press  to access the menu. Proceed to the next step.

3

Press  or  to Utilities. Press  to select.

4

Press  or  to Radio Settings. Press  to select.

5

Press  or  to GNSS. Press  to select.

- 6 Press  to enable or disable GNSS.
If enabled, ✓ appears beside Enabled.
If disabled, ✓ disappears beside Enabled.
-

6.10.9

Turning Introduction Screen On or Off

You can enable and disable the Introduction Screen by following the procedure.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Utilities. Press  to select.

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Display. Press  to select.

- 5 Press ▲ or ▼ to Intro Screen. Press  to select.
-

- 6 Press  to enable or disable the Introduction Screen.
- The display shows one of the following results:
- If enabled, ✓ appears beside Enabled.
 - If disabled, ✓ disappears beside Enabled.
-

6.10.10

Turning Radio Tones/Alerts On or Off

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

- 1 Do one of the following:
 - Press the programmed **Tones/Alerts** button. Skip the following steps.

- Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to Tones/Alerts. Press  to select.

5 Press  or  to All Tones. Press  to select.

6 Press  to enable or disable all tones and alerts. The display shows one of the following results:

- If enabled,  appears beside Enabled.
 - If disabled,  disappears beside Enabled.
-

Setting Tones/Alerts Volume Offset Levels

This feature adjusts the volume of the tones or alerts, allowing it to be higher or lower than the voice volume. Follow the procedure to set the tones and alerts volume offset levels on your radio.

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Settings. Press  to select.

4 Press  or  to Tones/Alerts. Press  to select.

5 Press  or  to Vol. Offset. Press  to select.

- 6 Press ▲ or ▼ to the required volume offset level.

A feedback tone sounds with each corresponding volume offset level.

- 7 Do one of the following:

- Press  to select. The required volume offset level is saved.
- Press  to exit. The changes are discarded.

6.10.12

Turning Talk Permit Tone On or Off

Follow the procedure to turn Talk Permit Tone on or off on your radio.

- 1 Press  to access the menu.

- 2 Press ▲ or ▼ to Utilities. Press  to select.

- 3 Press ▲ or ▼ to Radio Settings. Press  to select.

- 4 Press ▲ or ▼ to Tones/Alerts. Press  to select.

- 5 Press ▲ or ▼ to Talk Permit. Press  to select.

- 6 Press  to enable or disable the Talk Permit Tone.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.10.13

Turning Power Up Tone On or Off

Follow the procedure to turn Power Up Tone on or off on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Tones/Alerts. Press  to select.

- 5 Press  or  to Power Up. Press  to select.

- 6 Press  to enable or disable the Power Up Tone. The display shows one of the following results:
 - If enabled,  appears beside Enabled.
 - If disabled,  disappears beside Enabled.

Setting Text Message Alert Tones

You can customize the text message alert tone for each entry in the Contacts list. Follow the procedure to set the text message alert tones on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Contacts. Press  to select.

- 3 Press  or  to the required alias or ID. Press  to select.

- 4 Press  or  to Message Alert. Press  to select.

- 5 Do one of the following:
 - Press  or  to Momentary. Press  to select. The display shows  beside Momentary.

- Press ▲ or ▼ to Repetitive. Press  to select.
The display shows ✓ beside Repetitive.
-

6.10.15

Changing Display Modes

You can change the display mode of the radio between Day or Night, as needed. This feature affects the color palette of the display. Follow the procedure to change the display mode of your radio.

- Do one of the following:
 - Press the programmed **Display Mode** button.
Skip the following steps.
 - Press  to access the menu.
-

- Press ▲ or ▼ to Utilities. Press  to select.
-

- Press ▲ or ▼ to Radio Settings. Press  to select.
-

- Press ▲ or ▼ to Display. Press  to select.
The display shows Day Mode and Night Mode.
-

- Press ▲ or ▼ to the required setting. Press  to select.
The display shows ✓ beside the selected setting.
-

6.10.16

Adjusting Display Brightness

Follow the procedure to adjust the display brightness on your radio.

- Do one of the following:
 - Press the programmed **Brightness** button. Skip the following steps.
 - Press  to access the menu.
-

- Press ▲ or ▼ to Utilities. Press  to select.
-

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Brightness. Press  to select.
The display shows the progress bar.

5 Press ▲ or ▼ to decrease or increase the display brightness. Press  to select.

6.10.17

Setting Display Backlight Timer

You can set the display backlight timer of the radio as needed. The setting also affects the Menu Navigation Buttons and keypad backlighting accordingly. Follow the procedure to set the backlight timer on your radio.

- 1 Do one of the following:
 - Press the programmed **Backlight** button. Skip the following steps.

- Press  to access the menu.
-

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Display. Press  to select.

5 Press ▲ or ▼ to Backlight Timer. Press  to select.

The display backlight and keypad backlighting are automatically turned off as the LED indicator is disabled. See [Turning LED Indicators On or Off on page 212](#) for more information.

6.10.18

Turning Backlight Auto On or Off

You can enable and disable the backlight of the radio to turn on automatically as needed. If enabled, the backlight is turned on when the radio receives a call, Notification List event, or Emergency Alarm.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Backlight Auto.

- 5 Press  to enable or disable Backlight Auto.
The display shows one of the following results:
 - If enabled,  appears beside Enabled.

- If disabled,  disappears beside Enabled.

6.10.19

Squelch Levels

You can adjust the squelch level to filter out unwanted calls with low signal strength or channels with noise higher than normal background.

Normal

This is the default setting.

Tight

This setting filters out unwanted calls and/or background noise. Calls from remote locations may also be filtered out.



NOTICE:

This feature is not applicable in Citizens Band channels that are in the same frequency.

6.10.19.1

Setting Squelch Levels

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

1 Do one of the following:

- Press the programmed **Squelch** button. Skip the following steps.
- Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Settings. Press  to select.

4

Press  or  to Squelch. Press  to select.

5 Do one of the following:

- Press  or  to Normal. Press  to select. The display shows  beside Normal.
- Press  or  to Tight. Press  to select.

The display shows  beside Tight.

The screen automatically returns to the previous menu.

6.10.20

Turning LED Indicators On or Off

Follow the procedure to turn the LED indicators on or off on your radio.

1

Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Settings. Press  to select.

4

Press  or  to LED Indicator. Press  to select.

- 5 Press  to enable or disable the LED indicator. The display shows one of the following results:
- If enabled, ✓ appears beside Enabled.
 - If disabled, ✓ disappears beside Enabled.

6.10.21

Setting Languages

Follow the procedure to set the languages on your radio.

- 1 Press  to access the menu.
-
- 2 Press ▲ or ▼ to Utilities. Press  to select.
-
- 3 Press ▲ or ▼ to Radio Settings. Press  to select.
-
- 4 Press ▲ or ▼ to Languages. Press  to select.
-

- 5 Press ▲ or ▼ to the required language. Press  to select.

The display shows ✓ beside the selected language.

6.10.22

Voice Operating Transmission

The Voice Operating Transmission (VOX) allows you to initiate a hands-free voice-activated call on a programmed channel. The radio automatically transmits, for a programmed period, whenever the microphone on the VOX-capable accessory detects voice.

You can enable or disable VOX by doing one of the following:

- Turn the radio off and then power it on again to enable VOX.
- Change the channel by using the **Channel Selector** knob to enable VOX.
- Turn VOX on or off by using the programmed **VOX** button or menu to enable or disable VOX.
- Press the **PTT** button during radio operation to disable VOX.

**NOTICE:**

Turning this feature on or off is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

6.10.22.1

Turning Voice Operating Transmission On or Off

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

1 Do one of the following:

- Press the programmed **VOX** button. Skip the steps below.
- Press  **OK** to access the menu.

2

Press  or  to Utilities. Press  **OK** to select.

3

Press  or  to Radio Settings. Press  **OK** to select.

4

Press  or  to VOX. Press  **OK** to select.

5 Do one of the following:

- Press  or  to On. Press  **OK** to select. The display shows  beside On.
- Press  or  to Off. Press  **OK** to select. The display shows  beside Off.

**NOTICE:**

If the Talk Permit Tone is enabled, use a trigger word to initiate the call. Wait for the Talk Permit Tone to finish before speaking clearly into the microphone. See [Turning Talk Permit Tone On or Off on page 207](#) for more information.

6.10.23

Turning Option Board On or Off

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

Press the programmed **Option Board** button.

6.10.24

Turning Voice Announcement On or Off

This feature enables the radio to audibly indicate the current zone or channel the user has just assigned, or the programmable button the user has just pressed. This is typically useful when the user has difficulty reading the content shown on the display.

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

- 1 Do one of the following:
 - Press the programmed **Voice Announcement** button. Skip the following steps.
 - Press  to access the menu.
-

- 2 Press  or  to Utilities. Press  to select.
-

- 3 Press  or  to Radio Settings. Press  to select.
-

- 4 Press  or  to Voice Announcement. Press  to select.
-

- 5 Press  to enable or disable Voice Announcement.
 - If enabled,  appears beside Enabled.
 - If disabled,  disappears beside Enabled.
-

6.10.25

Turning Analog Microphone AGC On or Off

The Analog Microphone Automatic Gain Control (AGC) controls the microphone gain of the radio automatically while transmitting on an analog system.

This feature suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of

audio. Follow the procedure to turn Analog Microphone AGC on or off on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Mic AGC-A. Press  to select.

- 5 Press  to enable or disable Analog Microphone AGC.
The display shows one of the following results:
 - If enabled,  appears beside Enabled.
 - If disabled,  disappears beside Enabled.

6.10.26

Turning Digital Microphone AGC On or Off

The Digital Microphone Automatic Gain Control (AGC) controls the microphone gain of the radio automatically while transmitting on a digital system.

This feature suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of audio. Follow the procedure to turn Digital Microphone AGC on or off on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Settings. Press  to select.

- 4 Press  or  to Mic AGC-D. Press  to select.

5

Press  to enable or disable Digital Microphone AGC.

The display shows one of the following results:

- If enabled, ✓ appears beside Enabled.
- If disabled, ✓ disappears beside Enabled.

6.10.27

Switching Audio Route between Internal Radio Speaker and Wired Accessory

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

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

- The wired accessory with speaker is attached.

Press the programmed **Audio Toggle** button.

A tone sounds when the audio route has switched.

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

6.10.28

Turning Intelligent Audio On or Off

Your radio automatically adjusts the audio volume to overcome current background noise in the environment, inclusive of both stationary and non-stationary noise sources. This is a receive-only feature and does not affect transmission audio. Follow the procedure to turn Intelligent Audio on or off on your radio.



NOTICE:

This feature is not applicable during a Bluetooth session.

1 Do one of the following:

- Press the programmed **Intelligent Audio** button. Skip the steps below.
- Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Intelligent Audio. Press  to select.

5 Do one of the following:

- Press ▲ or ▼ to On. Press  to select. The display shows ✓ beside On.
 - Press ▲ or ▼ to Off. Press  to select. The display shows ✓ beside Off.
-

6.10.29

Turning Trill Enhancement On or Off

You can enable this feature when you are speaking in a language that contains many words with alveolar trill

(rolling "R") pronunciations. Follow the procedure to turn Trill Enhancement on or off on your radio.

1 Do one of the following:

- Press the programmed **Trill Enhancement** button. Skip the steps below.
 - Press  to access the menu.
-

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Radio Settings. Press  to select.

4 Press ▲ or ▼ to Trill Enhance. Press  to select.

5 Do one of the following:

- Press ▲ or ▼ to On. Press  to select. The display shows ✓ beside On.

- Press ▲ or ▼ to Off. Press  to select.
The display shows ✓ beside Off.
-

6.10.30

Turning the Microphone Dynamic Distortion Control Feature On or Off

This feature allows you to enable the radio to automatically monitor the microphone input and adjust the microphone gain value to avoid audio clipping.

- 1 Press  to access the menu.
 - 2 Press ▲ or ▼ to Utilities. Press  to select.
 - 3 Press ▲ or ▼ to Radio Settings. Press  to select.
 - 4 Press ▲ or ▼ to Mic Distortion. Press  to select.
-

5 Do one of the following:

- Press  to enable Microphone Dynamic Distortion Control. If enabled, ✓ appears beside Enabled.
 - Press  to disable Microphone Dynamic Distortion Control. If disabled, ✓ disappears beside Enabled.
-

6.10.31

Audio Ambience

You can customize the audio ambience for your radio according to your environment.

Default

This is the default setting.

Loud

This setting enables Noise Suppressor and increases speaker loudness for use in noisy surroundings.

Work Group

This setting enables AF Suppressor and disables AGC for use when a group of radios are near to each other.

6.10.31.1

Setting Audio Ambience

Follow the procedure to set the audio ambience on your radio according to your environment.

- 1 Press  to access the menu.

 - 2 Press  or  to Utilities. Press  to select.

 - 3 Press  or  to Radio Settings. Press  to select.

 - 4 Press  or  to Audio Ambience. Press  to select.

 - 5 Press  or  to the required setting. Press  to select.
- The settings are as follows.
- Choose **Default** for the default factory settings.

- Choose **Loud** to increase speaker loudness when using in noisy surroundings.
- Choose **Work Group** to reduce acoustic feedback when using with a group of radios that are near to each other.

The display shows  beside the selected setting.

6.10.32

Audio Profiles

You can customize the audio profiles for your radio according to your preference.

Default

This is the default setting.

Level 1, Level 2, and Level 3

These settings are intended to compensate for noise-induced hearing loss that is typical for adults in their 40's, 50's, and 60's or over.

Treble Boost, Mid Boost, and Bass Boost

These settings are intended for a tinnier sound, a more nasal sound, and a deeper sound.

6.10.32.1

Setting Audio Profiles

Follow the procedure to set audio profiles on your radio.

- 1 Press   to access the menu.

- 2 Press  or  to Utilities. Press   to select.

- 3 Press  or  to Radio Settings. Press   to select.

- 4 Press  or  to Audio Profiles. Press   to select.

- 5 Press  or  to the required setting. Press   to select.

The settings are as follows.

- Choose **Default** to disable the previously selected audio profile and return to the default factory settings.

- Choose **Level 1**, **Level 2**, or **Level 3** for audio profiles intended to compensate for noise-induced hearing loss that is typical for adults over 40 years of age.
- Choose **Treble Boost**, **Mid Boost**, or **Bass Boost** for audio profiles that align with your preference for tinnier, more nasal, or deeper sounds.

The display shows  beside the selected setting.

6.10.33

General Radio Information

Your radio contains information on various general parameters.

The general information of your radio is as follows:

- Battery information.
- Radio alias and ID.
- Firmware and Codeplug versions.
- Software update.
- GNSS information.
- Site information.

- Received Signal Strength Indicator.

**NOTICE:**

Press  to return to the previous screen. Long press  to return to the Home screen. The radio exits the current screen once the inactivity timer expires.

6.10.33.1

Accessing Battery Information

Displays information of your radio battery.

1

Press  to access the menu.

2

Press  or  to Utilities. Press  to select.

3

Press  or  to Radio Info. Press  to select.

4

Press  or  to Battery Info. Press  to select.

**NOTICE:**

For **IMPRES** batteries only: The display reads **Recondition Battery** when the battery requires reconditioning in an IMPRES charger. After the reconditioning process, the display then shows the battery information.

The display shows the battery information.

**NOTICE:**

For non-supported battery, the display shows **Unknown Battery**.

6.10.33.2

Checking Radio Alias and ID

1 Do one of the following:

- Press the programmed **Radio Alias and ID** button. Skip the following steps. A positive indicator tone sounds.

You can press the programmed **Radio Alias and ID** button to return to the previous screen.

- Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Info. Press  to select.

4 Press  or  to My Number. Press  to select.
The first text line shows the radio alias. The second text line shows the radio ID.

6.10.33.3

Checking Firmware and Codeplug Versions

1 Press  to access the menu.

2 Press  or  to Utilities. Press  to select.

3 Press  or  to Radio Info. Press  to select.

4 Press  or  to Versions. Press  to select.
The display shows the current firmware and codeplug versions.

6.10.33.4

Checking GNSS Information

Displays the GNSS information on your radio, such as values of:

- Latitude
- Longitude
- Altitude
- Direction
- Velocity

- Horizontal Dilution of Precision (HDOP)
- Satellites
- Version

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Info. Press  to select.

- 4 Press  or  to GNSS Info. Press  to select.

- 5 Press  or  to the required item. Press  to select. The display shows the requested GNSS information.

6.10.33.5

Checking Software Update Information

This feature shows the date and time of the latest software update carried out through OTAP or Wi-Fi. Follow the procedure to check the software update information on your radio.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Info. Press  to select.

- 4 Press  or  to SW Update. Press  to select.
The display shows the date and time of the latest software update.

Software Update menu is only available after at least one successful OTAP or Wi-Fi session. See [Over-the-Air Programming on page 356](#) for more information.

6.10.33.6

Displaying Site Information

Follow the procedure to display the current site name your radio is on.

- 1 Press  to access the menu.

- 2 Press  or  to Utilities. Press  to select.

- 3 Press  or  to Radio Info. Press  to select.

- 4 Press  or  to Site Info. Press  to select.

The display shows the current site name.

6.10.34

Received Signal Strength Indicator

This feature allows you to view the Received Signal Strength Indicator (RSSI) values.

The display shows the **RSSI** icon at the top right corner. See [Display Icons](#) for more information on the **RSSI** icon.

6.10.34.1

Viewing RSSI Values

At the home screen, press  three times and immediately press , all in 5 seconds.

The display shows the current RSSI values.

To return to the home screen, press and hold .

6.10.35

Viewing Enterprise Wi-Fi Certificate Details

You can view the details of the selected Enterprise Wi-Fi Certificate.

- 1 Press  to access the menu.

2 Press ▲ or ▼ to Utilities. Press  to select.

3 Press ▲ or ▼ to Certificate Menu. Press  to select.

✓ appears beside ready certificates.

4 Press ▲ or ▼ to the required certificate. Press  to select.

Your radio displays the full details of the certificate.



NOTICE:

For unready certificates, the display shows only Status.

Authorized Accessories List

Motorola Solutions provides a list of accessories to improve the productivity of your radio.

Antenna

- UHF, 403-433MHz, GPS Folded Monopole Antenna EX (PMAE4018_)
- UHF, 430-470MHz, GPS Stubby Antenna EX (PMAE4023_)
- UHF, 430-470MHz, GPS Folded Monopole Antenna EX (PMAE4024_)
- VHF, 136-147MHz, GPS Helical Antenna EX (PMAD4067_)
- VHF, 147-160MHz, GPS Helical Antenna EX (PMAD4068_)
- VHF, 160-174MHz, GPS Helical Antenna EX (PMAD4069_)
- VHF, 136-174MHz, Wide Band Antenna (PMAD4088_)
- 800/900, 896-941MHz, Coaxial Whip (NAF5088_)
- 800/900, 806-870MHz, Coaxial Whip (NAF5087_)

Batteries

- MOTOTRBO CSA Li-Ion, 2300mA (NNTN8386_)

Carry Devices

- 2.5 in. Replacement Leather Swivel Belt Loop (PMLN5610_)
- Belt Clip for 2.5 in. Belt Width (PMLN6086_)
- Hard Leather Carry Case with 2.5 in. Swivel Belt Loop for Full-Keypad Radio (PMLN6097_)
- Soft Leather Carry Case with 2.5 in. Swivel Belt Loop for Full-Keypad Radio (PMLN6099_)

Chargers

- IMPRES Multi-Unit Charger, US/NA Plug (WPLN4212_)
- IMPRES Multi-Unit Charger with Display, Base Only (WPLN4218_)
- IMPRES Multi-Unit Charger with Display, US/NA Plug (WPLN4219_)
- IMPRES Single-Unit Charger, Base Only (WPLN4226_)
- IMPRES Single Unit Charger (WPLN4232_)

- IMPRES Single-Unit Charger with Switch Mode Power Supply US Cord (WPLN4253_)
- IMPRES Vehicular Charger (NNTN7616_)
- Wall Mount Bracket for IMPRES Multi-Unit Charger (NLN7967_)
- Travel Charger (NNTN8525_)

Earbuds and Earpieces

- Receive-Only Earpiece (RLN4941_)
- Earphone with Acoustic Tube (Black) (RLN5313_)
- D-Shell Receive-Only Earpiece (PMLN4620_)¹¹
- Receive-Only Earpiece (RLN4885_)¹¹
- Simple Ear Bud (Black) (BDN6781_)¹²
- Earphone with Acoustic Tube (Beige) (RLN5314_)¹²

Headsets and Headset Accessories

- Behind the Head Heavy Duty Headset (PMLN5275_)¹³

- Receive-only Headset (RMN4054_)¹³
- Standard Hardhat Mount Headset, 24 NRR (NNTN8379_)¹³
- Standard Hardhat Mount Headset, 26 NRR (NNTN8380_)¹³

Remote Speaker Microphones

- IMPRES Noise Canceling Remote Speaker Microphone with Audio Jack (PMMN4050_)
- IMPRES ATEX CSA Remote Speaker Microphone (PMMN4067_)
- Remote Speaker Microphone, Noise Canceling, IP57 (NNTN8382_)
- Remote Speaker Microphone, Noise Canceling, IP54 (NNTN8383_)

Miscellaneous Accessories

- Universal Connector Dust Cover for MOTOTRBO ATEX CSA (15012157001_)

¹¹ Only applicable for XPR 7580e IS.

¹² Only applicable for XPR 7550 IS.

¹³ For use with NNTN8378_

- ATEX Adapter with Molex Jack (PMLN6047_)
- CSA Push-to-Talk Adapter (NNTN8378_)

Maritime Radio Use in the VHF Frequency Range

Special Channel Assignments

Emergency Channel

If you are in imminent and grave danger at sea and require emergency assistance, use VHF Channel 16 to send a distress call to nearby vessels and the United States Coast Guard. Transmit the following information, in this order:

- 1 "MAYDAY, MAYDAY, MAYDAY."
- 2 "THIS IS _____, CALL SIGN _____." State the name of the vessel in distress 3 times, followed by the call sign or other identification of the vessel, stated 3 times.
- 3 Repeat "MAYDAY" and the name of the vessel.
- 4 "WE ARE LOCATED AT _____." State the position of the vessel in distress, using any information that will help responders to locate you, e.g.:
 - latitude and longitude

- bearing (state whether you are using true or magnetic north)
- distance to a well-known landmark
- vessel course, speed or destination

- 5 State the nature of the distress.
- 6 Specify what kind of assistance you need.
- 7 State the number of persons on board and the number needing medical attention, if any.
- 8 Mention any other information that would be helpful to responders, such as type of vessel, vessel length and/or tonnage, hull color, etc.
- 9 "OVER."
- 10 Wait for a response.
- 11 If you do not receive an immediate response, remain by the radio and repeat the transmission at intervals until you receive a response. Be prepared to follow any instructions given to you.

Non-Commercial Call Channel

For non-commercial transmissions, such as fishing reports, rendezvous arrangements, repair scheduling, or berthing information, use **VHF Channel 9**.

Operating Frequency Requirements

A radio designated for shipboard use must comply with Federal Communications Commission Rule Part 80 as follows:

- on ships subject to Part II of Title III of the Communications Act, the radio must be capable of operating on the 156.800 MHz frequency.
- on ships subject to the Safety Convention, the radio must be capable of operating:
 - in the simplex mode on the ship station transmitting frequencies specified in the 156.025–157.425 MHz frequency band, and
 - in the semiduplex mode on the two frequency channels specified in the table below.



NOTICE:

Simplex channels 3, 21, 23, 61, 64, 81, 82, and 83 cannot be lawfully used by the general public in US waters.

Additional information about operating requirements in the Maritime Services can be obtained from the full text of FCC Rule Part 80 and from the US Coast Guard.

Table 17: VHF Marine Channel List

Channel Number	Frequency (MHz)	
	Transmit	Receive
1	156.050	160.650
2	156.100	160.700
*	156.150	160.750
4	156.200	160.800
5	156.250	160.850
6	156.300	–
7	156.350	160.950
8	156.400	–
9	156.450	156.450
10	156.500	156.500
11	156.550	156.550
12	156.600	156.600
13**	156.650	156.650
14	156.700	156.700
15**	156.750	156.750

16	156.800	156.800
17**	156.850	156.850
18	156.900	161.500
19	156.950	161.550
20	157.000	161.600
*	157.050	161.650
22	157.100	161.700
*	157.150	161.750
24	157.200	161.800
25	157.250	161.850
26	157.300	161.900
27	157.350	161.950
28	157.400	162.000
60	156.025	160.625
*	156.075	160.675
62	156.125	160.725
63	156.175	160.775
*	156.225	160.825

65	156.275	160.875
66	156.325	160.925
67**	156.375	156.375
68	156.425	156.425
69	156.475	156.475
71	156.575	156.575
72	156.625	—
73	156.675	156.675
74	156.725	156.725
75	***	***
76	***	***
77**	156.875	—
78	156.925	161.525
79	156.975	161.575
80	157.025	161.625
*	157.075	161.675
*	157.125	161.725
*	157.175	161.775

84	157.225	161.825
85	157.275	161.875
86	157.325	161.925
87	157.375	161.975
88	157.425	162.025

**NOTICE:**

* Simplex channels 3, 21, 23, 61, 64, 81, 82, and 83 cannot be **lawfully used** by the general public in US waters.

** Low power (1 W) only.

*** Guard band.

**NOTICE:**

A – in the Receive column indicates that the channel is transmit only.

Declaration of Compliance for the Use of Distress and Safety Frequencies

The radio equipment does not employ a modulation other than the internationally adopted modulation for maritime

use when it operates on the distress and safety frequencies specified in RSS-182 Section 7.3.

Technical Parameters for Interfacing External Data Sources

Table 18: Technical Parameters for Interfacing External Data Sources

	RS232	USB	SB9600
Input Voltage (Volts Peak-to-peak)	18 V	3.6 V	5 V
Max Data Rate	28 kb/s	12 Mb/s	9.6 kb/s
Impedance	5000 ohm	90 ohm	120 ohm

Batteries and Chargers Warranty

The Workmanship Warranty

The workmanship warranty guarantees against defects in workmanship under normal use and service.

All MOTOTRBO Batteries	24 Months
IMPRES Chargers (Single-Unit and Multi-Unit, Non-Display)	24 Months
IMPRES Chargers (Multi-Unit with Display)	12 Months

The Capacity Warranty

The capacity warranty guarantees 80% of the rated capacity for the warranty duration.

Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-Ion) Batteries	12 Months
IMPRES Batteries, When Used Exclusively with IMPRES Chargers	18 Months

Limited Warranty

MOTOROLA SOLUTIONS COMMUNICATION PRODUCTS

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

Motorola Solutions, Inc. ("Motorola Solutions") warrants the Motorola Solutions manufactured Communication Products listed below ("Product") against defects in material and workmanship under normal use and service for a period of time from the date of purchase as scheduled below:

Portable Radios	Two (2) Years
Product Accessories (Ex- cluding Batteries and Chargers)	One (1) Year

Motorola Solutions, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it (with a new or reconditioned Product), or refund the purchase price of the Product during the warranty

period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts of Product shall become the property of Motorola Solutions.

This express limited warranty is extended by Motorola Solutions to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by Motorola Solutions. Motorola Solutions assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of Motorola Solutions.

Unless made in a separate agreement between Motorola Solutions and the original end user purchaser, Motorola Solutions does not warrant the installation, maintenance or service of the Product.

Motorola Solutions cannot be responsible in any way for any ancillary equipment not furnished by Motorola Solutions which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, Motorola Solutions

disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

II. GENERAL PROVISIONS

This warranty sets forth the full extent of Motorola Solutions responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at Motorola Solutions option, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY. IN NO EVENT SHALL MOTOROLA SOLUTIONS BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME, INCONVENIENCE, COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT, TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW.

III. STATE LAW RIGHTS:

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY.

This warranty gives specific legal rights, and there may be other rights which may vary from state to state.

IV. HOW TO GET WARRANTY SERVICE

You must provide proof of purchase (bearing the date of purchase and Product item serial number) in order to receive warranty service and, also, deliver or send the Product item, transportation and insurance prepaid, to an authorized warranty service location. Warranty service will be provided by Motorola Solutions through one of its authorized warranty service locations. If you first contact the company which sold you the Product (for example, dealer or communication service provider), it can facilitate your obtaining warranty service. You can also call Motorola Solutions at 1-800-927-2744.

V. WHAT THIS WARRANTY DOES NOT COVER

- 1 Defects or damage resulting from use of the Product in other than its normal and customary manner.
- 2 Defects or damage from misuse, accident, water, or neglect.
- 3 Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
- 4 Breakage or damage to antennas unless caused directly by defects in material workmanship.
- 5 A Product subjected to unauthorized Product modifications, disassembles or repairs (including, without limitation, the addition to the Product of non-Motorola Solutions supplied equipment) which adversely affect performance of the Product or interfere with Motorola Solutions normal warranty inspection and testing of the Product to verify any warranty claim.
- 6 Product which has had the serial number removed or made illegible.
- 7 Rechargeable batteries if:
 - any of the seals on the battery enclosure of cells are broken or show evidence of tampering.
 - the damage or defect is caused by charging or using the battery in equipment or service other than the Product for which it is specified.
- 8 Freight costs to the repair depot.
- 9 A Product which, due to illegal or unauthorized alteration of the software/firmware in the Product, does not function in accordance with Motorola Solutions published specifications or the FCC certification labeling in effect for the Product at the time the Product was initially distributed from Motorola Solutions.
- 10 Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
- 11 Normal and customary wear and tear.

VI. PATENT AND SOFTWARE PROVISIONS

Motorola Solutions will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or parts infringe a United States patent, and Motorola Solutions will pay those

costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

- 1 Motorola Solutions will be notified promptly in writing by such purchaser of any notice of such claim,
- 2 Motorola Solutions will have sole control of the defense of such suit and all negotiations for its settlement or compromise, and
- 3 Should the Product or parts become, or in Motorola Solutions opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit Motorola Solutions, at its option and expense, either to procure for such purchaser the right to continue using the Product or parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or parts as established by Motorola Solutions.

Motorola Solutions will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or parts furnished hereunder with software, apparatus or devices not furnished by

Motorola Solutions, nor will Motorola Solutions have any liability for the use of ancillary equipment or software not furnished by Motorola Solutions which is attached to or used in connection with the Product. The foregoing states the entire liability of Motorola Solutions with respect to infringement of patents by the Product or any parts thereof.

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VII. GOVERNING LAW

This Warranty is governed by the laws of the State of Illinois, U.S.A.