City Parks

| en | de-DE | fr-FR | it-IT | es-ES | tr | pl | ru | ar |

Contents

Contents

2

3

5

Important Safety Information

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

ATTENTION!

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.

For a list of Motorola-approved antennas, batteries,
and other accessories, visit the following website:

http://www.motorolasolutions.com

6

Software Version

All the features described in the following sections are supported by the radio's software version **R02.40.00** or later.

See *Checking the Firmware Version and Codeplug Version* on page 98 to determine your radio's software version.

Check with your dealer or system administrator for more details of all the features supported.

7

Computer Software Copyrights

The Motorola products described in this manual may include copyrighted Motorola computer programs stored in semiconductor memories or other media. Laws in the United States and other countries preserve for Motorola certain exclusive rights for copyrighted computer programs including, but not limited to, the exclusive right to copy or reproduce in any form the copyrighted computer program. Accordingly, any copyrighted Motorola computer programs contained in the Motorola products described in this manual may not be copied, reproduced, modified, reverse-engineered, or distributed in any manner without the express written permission of Motorola. Furthermore, the purchase of Motorola products shall not be deemed to grant either directly or by implication, estoppel, or otherwise, any license under the copyrights, patents or patent applications of Motorola, except for the normal non-exclusive license to use that arises by operation of law in the sale of a product.

The AMBE+2™ voice coding Technology embodied in this product is protected by intellectual property rights including 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.

Handling Precautions

The MOTOTRBO Series Digital Portable radio meets IP55 specifications, allowing the radio to withstand adverse field conditions such as being used in rain or dusty environment.

- If the radio has been exposed to water or rain, shake the radio well to remove any water that may be trapped inside the speaker grille, microphone port and aesthetic cover (if applicable). Trapped water in speaker grille and microphone port could cause decreased audio performance. If aesthetic cover is attached onto radio, trapped water in aesthetic cover could cause corrosion on the slim connector interface gold contacts.

- If the radio's battery contact area has been exposed to water, clean and dry battery contacts on both the radio and the battery before attaching the battery to the radio. The residual water could short-circuit the radio.

- If the radio has been exposed to a corrosive substance (e.g. saltwater), rinse the radio and battery in fresh water then dry the radio and battery.

- To clean the exterior surfaces of the radio, use a diluted solution of mild dishwashing detergent and fresh water (i.e. one teaspoon of detergent to one gallon of water).

- The radio with antenna attached properly is designed to be protected against dust and low pressure jets of water projected with nozzle 6.3 mm diameter at flow rate of 12.5 l/min, with water pressure at 30 kN/m^2 and from a distance of 2.5 meter to 3 meter for at least 3 minutes. Exceeding either maximum limit or use without antenna may result in damage to the radio.

- When cleaning the radio, do not use a high pressure jet spray on the radio as this may cause water to leak into the radio.

⚠ **Caution:** Do not disassemble the 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.

Getting Started

How to Use This Guide

This User Guide covers the basic operation of the MOTOTRBO Portables.

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

Throughout this publication, the icons described next are used to indicate features supported in either the conventional Analog mode 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, **no** icon is shown.

What Your Dealer/System Administrator Can Tell You

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 will help promote longer radio life?

Preparing Your Radio for Use

Charging the Battery

Important: 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 Premium battery warranty duration.

Your radio is powered by a Nickel Metal-Hydride (NiMH) or Lithium-Ion (Li-lon) battery. To avoid damage and to ensure compliance with warranty terms, charge the battery using a Motorola charger *exactly* as described in the charger user guide.

Charge a new battery 14 to 16 hours before initial use for best performance.

Attaching the Battery

1 Align the battery with the rails on the back of the radio. Press the battery firmly, and slide upwards until the latch snaps into place.
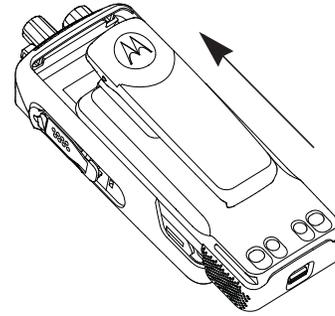
2 To remove the battery, turn the radio off. Move the battery latch (Ⓐ) into unlock position and hold, and slide the battery down and off the rails.
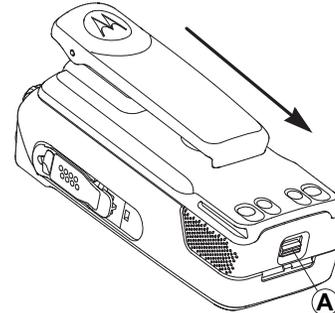
Attaching the Antenna

⚠️ **Caution:** If antenna needs to be replaced, ensure that only MOTOTRBO antennas are used. Neglecting this will damage your radio.

1 With the radio turned off, set the antenna in its receptacle and turn clockwise.
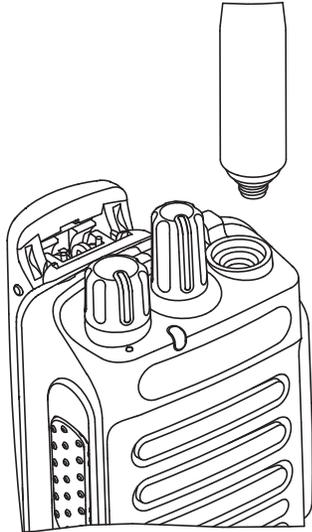
2 To remove the antenna, turn the antenna counterclockwise.

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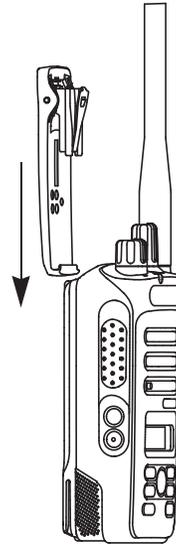
2 To remove the belt clip, press the belt clip tab away from the battery using a key. Then slide the clip upward and away from the radio.

Attaching the Universal Connector Cover (Dust Cover)

The universal connector is located on the antenna side of the radio. It is used to connect MOTOTRBO accessories to the radio.
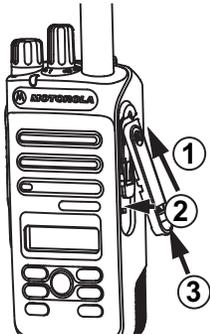
Insert the slanted end of the cover into the slots above the universal connector. Press downward on the cover to seat the dust cover properly on the Universal Connector.

Secure the dust cover to the radio by pushing the latch upwards.

To remove the dust cover, push the latch downwards. Lift the cover up and slide down the dust cover from the universal connector to remove it.

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

Attaching the Accessory Connector

The accessory connector is to be secured to the universal connector on the antenna side of the radio.

1 To attach the accessory connector, refer to the steps shown in the diagram.
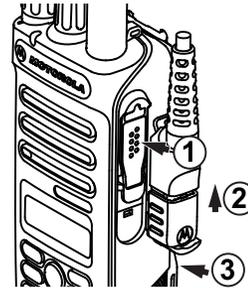
2 To remove the accessory connector, refer to the steps shown in the diagram.

Powering Up the Radio

Rotate the **On/Off/Volume Control Knob** clockwise until you hear a click. You see a welcome message or welcome image.

The LED blinks green (Ⓐ) if the backlight setting is set to turn on automatically.
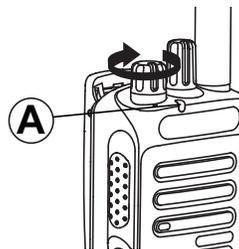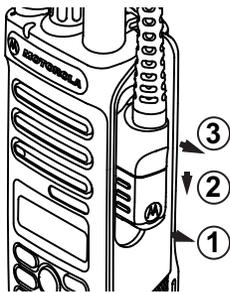
Note: The Home screen does not light up during a power up if the LED indicator is disabled (see *Turning the LED Indicator On or Off* on page 88).

A brief tone sounds, indicating that the power up test is successful.

Note: There is no power up tone if the radio tones/alerts function is disabled (see *Turning the Radio Tones/Alerts On or Off* on page 85).

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

To turn off the radio, rotate this knob counterclockwise until you hear a click. You see a brief `Powering Down` on the radio's display.

Adjusting the Volume

To increase the volume, turn the **On/Off/Volume Control Knob** clockwise.

To decrease the volume, turn this knob counterclockwise.

Note: Your radio can be programmed to have a minimum volume offset where the volume level cannot be lowered past the programmed minimum volume. Check with your dealer or system administrator for more information.
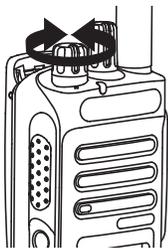
Identifying Radio Controls

Radio Controls

1   Channel Selector Knob
2   On/Off/Volume Control Knob
3   LED Indicator
4   Push-to-Talk (**PTT**) Button
5   Microphone
6   Side Button 1[1]
7   Side Button 2[1]
8   Left Navigation Button
9   Menu Button
10 Front Button P1[1]
11 OK Button
12 Front Button P2[1]
13 Back/Home Button
14 Right Navigation Button
15 Display
16 Speaker
17 Universal Connector for Accessories
18 Antenna

16   [1] These buttons are programmable.

Additional Radio Controls

Push-To-Talk (PTT) Button

The **PTT** button on the side of the radio (Ⓐ) serves two basic purposes:
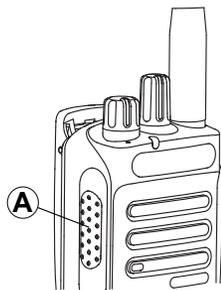
• While a call is in progress, the **PTT** button allows the radio to transmit to other radios in the call.

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

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

• While a call is not in progress, the **PTT** button is used to make a new call (see *Making a Radio Call* on page 35).

If the Talk Permit Tone (see *Turning the Talk Permit Tone On or Off* on page 87) 🔘 is enabled, wait until the short alert tone ends before talking.

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

🔘 You will also hear a continuous talk prohibit tone, if your call is interrupted, indicating that you should release the **PTT** button, for example when the radio receives an Emergency Call.

Programmable Buttons

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

• Short press – Pressing and releasing rapidly.

17

- Long press – Pressing and holding for the programmed duration.
- Hold down – Keeping the button pressed.

Note: The programmed duration of a button press is applicable for all assignable radio/utility functions or settings. See *Emergency Operation* on page 57 for more information on the programmed duration of the **Emergency** button.

Assignable Radio Functions

Audio Toggle	Toggles audio routing between the internal radio speaker and the speaker of wired accessory.
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 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.
Emergency	Depending on the programming, initiates or cancels an emergency.
Intelligent Audio	Toggles intelligent audio on or off.
Manual Site Roam 🔘	Starts the manual site search.
Mic AGC On/Off	Toggles the internal microphone automatic gain control (AGC) on or off.
Monitor	Monitors a selected channel for activity.
Notifications	Provides direct access to the Notifications list.
Nuisance Channel Delete	Temporarily removes an unwanted channel, except for the Selected Channel, from the scan list. The Selected

	Channel refers to the user's selected zone/channel combination from which scan is initiated.
One Touch Access 🔵	Directly initiates a predefined Private, Phone or Group Call, a Call Alert or a Quick Text message.
Permanent Monitor	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.

Repeater/ Talkaround	Toggles between using a repeater and communicating directly with another radio.
Scan	Toggles scan on or off.
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.
Text Message	Selects the text message menu.
Transmit Interrupt Remote Dekey 🔵	Stops an ongoing interruptible call to free the channel.
Voice Announcement On/Off	Toggles voice announcement on or off.
Voice Operating Transmission (VOX)	Toggles VOX on or off.
Zone	Allows selection from a list of zones.

19

Assignable Settings or Utility Functions

All Tones/Alerts	Toggles all tones and alerts on or off.
Backlight	Toggles display backlight on or off.
Backlight Brightness	Adjusts the brightness level.
Power Level	Toggles transmit power level between high and low.
Squelch 🔴	Toggles squelch level between tight and normal.

Accessing the Programmed Functions

You can access various radio functions through one of the following ways:

• A short or long press of the relevant programmable buttons.
• Use the Menu Navigation Buttons as follows:

1 Press ⊞ to access the menu. Press the appropriate Menu Scroll button (◀ or ▶) to access the menu functions.

2 To select a function or enter a sub-menu, press the (OK) button.

3 To go back one menu level, or to return to the previous screen, press the ⤺ button. Long press the ⤺ button to return to the Home screen.

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

Identifying Status Indicators

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2 Not applicable in Capacity Plus and Linked Capacity Plus

Additional Radio Controls

Display Icons

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

T.ill	**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.
	Monitor Selected channel is being monitored.
	High Volume Data Radio is receiving high volume data and channel is busy.
★	**Notification** Notification List has one or more missed events.

L or **H**	**Power Level** Radio is set at Low power or Radio is set at High power.
	Tones Disable Tones are turned off.
5	**Over-the-Air Programming Delay Timer** Indicates time left before automatic restart of radio.
Z	**Scan**[3][4] Scan feature is enabled.
Z.	**Scan- Priority 1**[3][4] Radio detects activity on channel/group designated as Priority 1.
Z:	**Scan- Priority 2**[3][4] Radio detects activity on channel/group designated as Priority 2.

21

	Vote Scan Vote scan feature is enabled.
	Flexible Receive List Flexible receive list is enabled.
	Emergency Radio is in Emergency mode.
	Secure 🔵 The Privacy feature is enabled.
	Unsecure 🔵 The Privacy feature is disabled.
	Site Roaming[3] 🔵 The site roaming feature is enabled.

	Talkaround[3][4] In the absence of a repeater, radio is currently configured for direct radio to radio communication.
	Battery The number of bars (0 – 4) shown indicates the charge remaining in the battery. Blinks when the battery is low.

Call Icons

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

	Private Call

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3 Not applicable in Capacity Plus
4 Not applicable in Linked Capacity Plus

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

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

Mini Notice Icons

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

	Successful Transmission (Positive)

23

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

Sent Item Icons 🔵

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

	Sent Successfully
OR	The text message has been successfully sent.

	Send Failed
OR	The text message cannot be sent.

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

LED Indicator

The LED indicator (Ⓐ) shows the operational status of your radio.
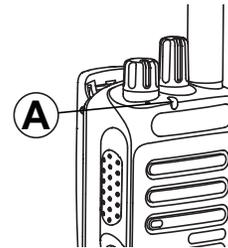
Blinking red	Radio is transmitting at low battery condition, receiving an emergency transmission, has failed the self-test upon powering up, or has moved out of range if radio is configured with Auto-Range Transponder System.
Solid yellow	Radio is monitoring a conventional channel. Also indicates fair battery charge when programmable button is pressed.
Blinking yellow	Radio is scanning for activity or receiving a Call Alert, flexible receive list is enabled or all local Linked Capacity Plus channels are busy.
Double blinking yellow	Radio is no longer connected to the repeater while in Capacity Plus or

	Linked Capacity Plus; all Capacity Plus or Linked Capacity Plus channels are currently busy.
Solid green	Radio is powering up or transmitting. Also indicates full charge of the battery when the programmable button is pressed.
Blinking green	Radio is powering up, receiving a non-privacy-enabled call or data, detecting activity, or retrieving Over-the-Air Programming transmissions over the air.
Rapidly blinking green 🔒	Radio is receiving a privacy-enabled call or data.

Note: While in conventional mode, when the LED blinks green, it indicates the radio detects activity over the air. Due to the nature of the digital protocol, this activity may or may not affect the radio's programmed channel.

25

For Capacity Plus and Linked Capacity Plus, there is no LED indication when the radio is detecting activity over the air.

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 only once for a short period of time defined by the radio.

Indicator Tones

High pitched tone		Low pitched tone	

	Positive Indicator Tone
	Negative Indicator Tone

Switching Between Conventional Analog and Digital Mode

Each channel in your radio can be configured as a conventional analog or conventional digital channel. Use the Channel Selector Knob (Ⓐ) to switch between an analog or a digital channel.
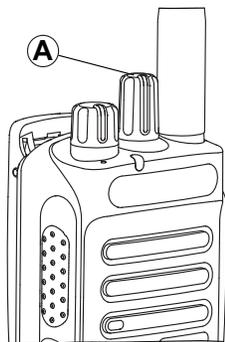
When switching from digital to analog mode, certain features are unavailable. Icons for the digital features (such as Messages) reflect this change by appearing 'grayed out'. Disabled features are hidden in the menu.

Your radio also has features available in both analog and digital mode. However, the minor differences in the way each feature works does **not** affect the performance of your radio.

Note: Your radio also switches between digital and analog modes during a dual mode scan (see *Scan* on page 47).

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 which are connected via an Internet Protocol (IP) network.

When the radio moves out of range from one site and into the range of another, it connects to the new site's repeater 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 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 it.

Note: 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 channel(s) 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).

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

Capacity Plus

Capacity Plus 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 via a programmable button press.

Your radio also has features that are available in conventional digital mode, IP Site Connect, Capacity Plus and Linked 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.

Linked Capacity Plus

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

Linked Capacity Plus allows your radio to extend trunking communication beyond the reach of a single site, by connecting to different available sites which are connected via an Internet Protocol (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 new site's repeater 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 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 it.

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

Note: 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, icons of features not applicable to Linked Capacity Plus are not available in the menu. You hear a negative indicator tone if you try to access a feature not applicable to Linked Capacity Plus via a programmable button press.

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

Making and Receiving Calls

Selecting a Zone

A zone is a group of channels. Your radio supports up to 128 channels and 50 zones, with a maximum of 16 channels per zone.

1 Access the Zone feature.

Radio Controls	Steps
Programmed Zone button	Press the programmed **Zone** button.
Radio menu	**1** ⬚ to access the menu. **2** ◄ or ► to `Zone` and press ⓄⓀ to select.

The current zone is displayed and indicated by a ✓.

2 Select the required zone.

Radio Control	Steps
◄ or ►	◄ or ► and scroll to the required zone.

3 Press ⓄⓀ to select.
The display shows `<Zone> Selected` momentarily and returns to the selected zone screen.

Selecting a Channel

Transmissions are sent and received on a channel. Depending on your radio's configuration, each channel may have been programmed differently to support different groups of users or supplied with different features. After selecting the relevant Zone, select the relevant channel you require to transmit or receive on.
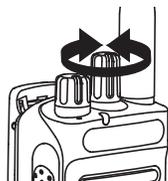
Once the required zone is displayed (if you have multiple zones in your radio), turn the programmed Channel Selector Knob to select the channel.

Receiving and Responding to a Radio Call

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

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

Note: The LED lights up solid green while the radio is transmitting and blinks greenrapidly when the radio is receiving a privacy-enabled call and blinks green when receiving a non-privacy-enabled call.

To unscramble a privacy-enabled call, your radio must have the same Privacy Key, OR the same Key Value and Key ID (programmed by your dealer), as the transmitting radio (the radio you are receiving the call from).

See *Privacy* on page 72 for more information.

Receiving and Responding to a Group Call

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

When you receive a Group Call (while on the Home screen), the LED blinks green. The Group Call icon appears in the top right corner. 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 radio's speaker.

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

- 🔲 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.
- 🔲 If the Voice Interrupt feature is enabled, press the **PTT** button to stop the current call from the transmitting radio and free the channel for you to talk/respond.

The LED lights up solid green.

2 Wait for one of the following tones to finish (if enabled), and speak clearly into the microphone.

- The Talk Permit Tone.
- The **PTT** Sidetone. 🔴

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

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

See *Making a Group Call* on page 36 for details on making a Group Call.

Note: If the radio receives a Group Call while not on the Home screen, it remains on its current screen prior to answering the call.

Note: Long press the 🔄 button to go to the Home screen to view the caller alias before replying.

Receiving and Responding to a Private Call 🔵

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

Depending on how your radio is programmed,

- The LED lights up solid yellow momentarily. Then, the LED blinks green.

- The LED blinks green.

The first text line shows private call icon. The second text line displays the private call alias. Your radio unmutes and the incoming call sounds through the radio's speaker.

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

- 🔴 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.
- 🔴 If the Voice Interrupt feature is enabled, press the **PTT** button to stop the current call from the transmitting radio and free the channel for you to talk/respond.

The LED lights up solid green.

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

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

32

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

The display shows `Call Ended`.

See *Making a Private Call* on page 36 for details on making a Private Call.

Receiving an All Call

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

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

The Group Call icon appears in the top right corner. The first text line shows the caller alias. The second text line displays `All Call`. Your radio unmutes and the incoming call sounds through the radio speaker.

Once the All Call ends, the radio returns to the previous screen before receiving the call. An All Call does not wait for a predetermined time before ending.

🔵 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 now available for use.

You cannot respond to an All Call.

Note: See *Making an All Call* on page 37 for details on making an All Call.

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

Receiving and Responding to a Selective Call 🔵

A Selective Call is a call from an individual radio to another individual radio. It is a Private Call on an analog system.

When you receive a Selective Call, the LED blinks green. The Private Call icon appears in the top right corner. The first text line shows the caller alias or `Selective Call` or `Alert with Call`. The first text line shows the Private Call icon. The radio displays `Selective Call` or `Alert with Call`. Your radio unmutes and the incoming call sounds through the radio's speaker.

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

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

33

The LED lights up solid green.

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

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

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

The display shows Call Ended.

See *Making a Private Call* on page 36 for details on making a Private Call.

Receiving and Responding to a Phone Call 🌐

Phone Call as Private Call

When you receive a Phone Call as a Private Call, the Phone Call icon appears in the top right corner; the display shows the caller alias or Phone Call.

If Phone Call capability is not enabled in 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 talk and release it to listen.

2 Press 🔘 to end the call.

Phone Call as Group Call

When you receive a Phone Call as a Group Call, the Phone Group Call icon appears in the top right corner; the display shows the group alias and Phone Call.

If Phone Call capability is not enabled in 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 talk and release it to listen.

2 Press 🔘 to end the call.

The display shows Ending Phone Call.

If successful, a tone sounds and the display shows Call Ended.

If unsuccessful, your radio returns to the Phone Call screen. Repeat this step to end the call.

Phone Call as All Call

When you receive a Phone Call as an All Call, the Phone Call icon appears in the top right corner; the display shows `All Call` and `Phone Call`.

If Phone Call capability is not enabled in 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.

Note: When you receive a Phone Call as an All Call, you can respond to the call or end the call, only if an All Call type is assigned to the channel.

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

2 Press ⟲⌂ to end the call.
The display shows `Ending Phone Call`.

If successful, a tone sounds and the display shows `All Call` and `Call Ended`.

If unsuccessful, your radio returns to the Phone Call screen. Repeat this stepor wait for the telephone user to end the call.

Making a Radio Call

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

• The Channel Selector Knob.
• A programmed **One Touch Access** button (see *Making a Phone Call with the One Touch Access Button* on page 38). 📞
• A programmable button – This method is for Phone Calls only (see *Making a Phone Call with the Programmable Phone Button* on page 40).
• The Contacts list (see *Contact Settings* on page 49). 📞

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

Note: See *Privacy* on page 72 for more information.

Making a Group Call

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 the channel with the active group alias or ID. See *Selecting a Channel* on page 30.
- Press the programmed **One Touch Access** button.

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

3 Press the **PTT** button to make the call.
The LED lights up solid green. The first text line shows the group call icon. The second text line shows the group call alias.

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

When the target radio responds, the LED blinks green. You see the Group Call icon, the group alias or ID, and transmitting radio alias or ID on your display.

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.

If there is no voice activity for a predetermined period of time, the call ends. Radio returns to the screen you were on prior to initiating the call.

Making a Private Call

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

There are two types of Private Calls. The first type, where a radio presence check is performed prior to setting up the call, while the other sets up the call immediately.

Only **one** of these call types can be programmed to your radio by your dealer.

You will hear a negative indicator tone, when you make a Private Call via the **One Touch Access** button, the programmed number keys, or the Channel Selector Knob, if this feature is not enabled.

Use the Quick Text Message or Call Alert features to contact an individual radio. See *Text Message Features* on page 62 or *Call Alert Operation* on page 56 for more information.

1 Do one of the following.

- Select the channel with the active subscriber alias or ID. See *Selecting a Channel* on page 30.
- Press the programmed **One Touch Access** button.

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

3 Press the **PTT** button to make the call.
The LED lights up solid green. The first text line shows the private call icon. The second text line displays the private call alias.

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

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

When the target radio responds, the LED blinks green.

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.

If there is no voice activity for a predetermined period of time, the call ends. You hear a short tone. The display shows `Call Ended`.

You can also make a Private Call via Contacts (see *Making a Private Call from Contacts* on page 50).

Making an All Call

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

Users on the channel cannot respond to an All Call.

1 Select the channel with the active All Call group alias or ID. See *Selecting a Channel* on page 30.

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

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

37

The LED lights up solid green. The first text line shows the All Call icon. The second text line displays the All Call alias.

4 Wait for one of the following tones to finish (if enabled), and speak clearly into the microphone.

- The Talk Permit Tone.
- The **PTT** Sidetone. 😊

Making a Selective Call 😊

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. See *Selecting a Channel* on page 30.

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

3 Press the **PTT** button to make the call.
The LED lights up solid green. The Private Call icon appears in the top right corner. The first text line shows the subscriber alias. The second text line displays the call status.

4 Wait for one of the following tones to finish (if enabled), and speak clearly into the microphone.

- The Talk Permit Tone.
- The **PTT** Sidetone. 😊

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

When the target radio responds, the LED blinks green.

🔵 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.

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

The display shows Call Ended.

Making a Phone Call with the One Touch Access Button

1 Press the programmed **One Touch Access** button to make a Phone Call to the predefined alias or ID.

If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds. If the access code was not preconfigured in the Contacts list, the display shows `Access Code:`.

Enter the access code and press 🆗 to proceed.

The LED lights up solid green. 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 DTMF tone sounds. You hear the dialing tone of the telephone user.

If the 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.

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

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

4 Press 🔚 to end the call.

If de-access code was not preconfigured in the Contacts list, the display shows `De-Access Code:`. Do one of the following.

- Enter the de-access code and press 🆗 to proceed. The radio returns to the previous screen.
- Press the **One Touch Access** button. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

The DTMF tone sounds with each keypad press, 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. Repeat Step *4* or wait for the telephone user to end the call.

39

Making a Phone Call with the Programmable Phone Button 🔘

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

2 ◀ or ▶ to the required subscriber alias or ID, and press 🆗 to select.

The LED lights up solid green. 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 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 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.

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

5 To enter extra digits, if requested by the Phone Call, Press **One Touch Access** button. If the entry for the **One Touch Access** button is empty, a negative indicator tone sounds.

6 Press 🔘 to end the call.

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 *4* 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.

40

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.

Note: 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.

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

Stopping a Radio Call 🔵

This feature allows you to stop an ongoing Group or Private Call to free the channel for transmission. For example, when a radio experiences a "stuck microphone" condition where the **PTT** button is inadvertently pressed by the user.

Your radio must be programmed to allow you to use this feature.

1 Press the programmed **Transmit Interrupt Remote Dekey** button, while on the relevant channel.
The display shows `Remote Dekey`.

2 Wait for acknowledgement.

If successful, the radio sounds a positive indicator tone and the display shows `Remote Dekey Success`, indicating that the channel is now free.

If unsuccessful, the radio sounds a negative indicator tone and the display shows `Remote Dekey Failed`.

On the interrupted radio, the remote radio's display shows `Call Interrupted`, and the radio sounds a negative indicator tone until the **PTT** button is released.

Talkaround

You can continue to communicate when your repeater is not operating, or when your radio is out of the repeater's range but within talking range of other radios.

This is called "talkaround".

41

Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

The Talkaround setting is retained even after powering down.

You can toggle between talkaround and repeater modes by pressing the programmed **Repeater/ Talkaround** button or using the radio menu as described next.

1 <kbd>🔠</kbd> to access the menu.

2 <kbd>◀</kbd> or <kbd>▶</kbd> to `Utilities` and press <kbd>OK</kbd> to select.

3 <kbd>◀</kbd> or <kbd>▶</kbd> to `Radio Settings` and press <kbd>OK</kbd> to select.

4 <kbd>◀</kbd> or <kbd>▶</kbd> to `Talkaround` and press <kbd>OK</kbd> to select.

You can also use or <kbd>▶</kbd> to change the selected option.

5 Press <kbd>OK</kbd> to enable/disable the Talkaround.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Monitoring Features

Monitoring a Channel

Use the Monitor feature to make sure a channel is clear before transmitting.

This feature is not applicable in Capacity Plus and Linked Capacity Plus.

1 Press and hold the programmed **Monitor** button and listen for activity.

The Monitor icon appears on the display and the LED lights up solid yellow. You hear radio activity or total silence, depending on how your radio is programmed. This indicates that the channel is in use.

2 🔴 Wait until you hear "white noise". This indicates that the channel is free.

Making and Receiving Calls

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

Permanent Monitor

Use the Permanent Monitor feature to continuously monitor a selected channel for activity.

Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

1 Press the programmed **Permanent Monitor** button to activate permanent monitoring of the channel.
Radio sounds an alert tone, the LED lights up solid yellow, and the display shows `Permanent Monitor On`. The Monitor icon appears on the display.

2 Press the programmed **Permanent Monitor** button to exit Permanent Monitor mode.
Radio sounds an alert tone, the LED turns off, and the display shows `Permanent Monitor Off`.

Advanced Features

Radio Check

If enabled, this feature allows you to determine if another radio is active in a system without disturbing the user of that radio. No audible or visual notification is shown on the target radio.

This feature is only applicable for subscriber aliases or IDs.

Sending a Radio Check

1 Access the Radio Check feature.

Radio Control	Steps
Programmed Radio Check button	**1** Press the programmed **Radio Check** button. **2** ◁ or ▷ to the required subscriber alias or ID and press 🆗 to select.
Menu	**1** 🔳 to access the menu.

Radio Control	Steps
	2 ◁ or ▷ to `Contacts` and press 🆗 to select. **3** ◁ or ▷ to `Radio Check` and press 🆗 to select.

The display shows The LED lights up solid green.

2 Wait for acknowledgement.

If the 🔙 button is pressed when the radio is waiting for acknowledgement, a tone sounds, and the radio terminates all retries and exits Radio Check mode.

Radio returns to the subscriber alias or ID screen.

Scan Lists

Scan lists are created and assigned to individual channels/groups. Your radio scans for voice activity by cycling through the channel/group sequence

specified in the scan list for the current channel/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.

Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

Viewing an Entry in the Scan List

1 🔲 to access the menu.

2 ◀ or ▶ to Scan and press ⊙ to select.

3 ◀ or ▶ to and press ⊙ to select.

4 Use ◀ or ▶ to view each member on the list.

The Priority icon appears left of the member's 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**.

Editing the Scan List

Adding a New Entry to the Scan List

1 🔲 to access the menu.

2 ◀ or ▶ to Scan and press ⊙ to select.

3 ◀ or ▶ to and press ⊙ to select.

4 ◀ or ▶ to Add Member and press ⊙ to select.

5 ◀ or ▶ to the required alias or ID.

6 ◀ or ▶ to the required priority level and press ⊙ to select.
The display shows , followed immediately by Add Another?.

45

7 Do one of the following:

- $\bigcirc$ or $\bigcirc$ to `Yes` and press $\overset{\text{OK}}{\bigcirc}$ to select, and repeat Steps *5* to *6*.

- $\bigcirc$ or $\bigcirc$ to `No` and press $\overset{\text{OK}}{\bigcirc}$ to save the current list.

Deleting an Entry from the Scan List

1 $\overset{\boxminus}{\bigcirc}$ to access the menu.

2 $\bigcirc$ or $\bigcirc$ to `Scan` and press $\overset{\text{OK}}{\bigcirc}$ to select.

3 $\bigcirc$ or $\bigcirc$ to and press $\overset{\text{OK}}{\bigcirc}$ to select.

4 $\bigcirc$ or $\bigcirc$ to the required alias or ID.

5 Press $\overset{\text{OK}}{\bigcirc}$ to select.

6 $\bigcirc$ or $\bigcirc$ to `Delete` and press $\overset{\text{OK}}{\bigcirc}$ to select.

7 Do one of the following:

- At `Delete Entry?`, $\bigcirc$ or $\bigcirc$ to `Yes` and press $\overset{\text{OK}}{\bigcirc}$ to delete entry. The display shows .

- $\bigcirc$ or $\bigcirc$ to `No` and press $\overset{\text{OK}}{\bigcirc}$ to return to the previous screen.

8 Repeat Steps *4* to *6* to delete other entries. After deleting all required aliases or IDs, long press $\overset{\text{↰}}{\bigcirc}$ to return to the Home screen.

Setting and Editing Priority for an Entry in the Scan List

1 $\overset{\boxminus}{\bigcirc}$ to access the menu.

2 $\bigcirc$ or $\bigcirc$ to `Scan` and press $\overset{\text{OK}}{\bigcirc}$ to select.

3 $\bigcirc$ or $\bigcirc$ to and press $\overset{\text{OK}}{\bigcirc}$ to select.

4 Press $\overset{\text{OK}}{\bigcirc}$ to select.

5 ◀ or ▶ to `Edit Priority` and press OK to select.

6 ◀ or ▶ to the required priority level and

press OK to select.
The display shows before returning to the previous screen.

Note: The Priority icon appears left of the member's name.

There is no Priority icon if priority is set to **None**.

Scan

When you start a scan, your radio cycles through the programmed scan list for the current channel looking for voice activity.

The LED blinks yellow.

There are two ways of initiating scan:

- **Main Channel Scan (Manual)**: Your radio scans all the channels/groups in your scan list. On entering scan, your radio may – depending on the settings – automatically start on the last scanned

"active" channel/group or on the channel where scan was initiated.

- **Auto Scan (Automatic)**: Your radio automatically starts scanning when you select a channel/group that has Auto Scan enabled.

Note: This feature is not applicable in Capacity Plus and Linked Capacity Plus.

Starting and Stopping Scan

1 Use the Channel Selector Knob to select a channel programmed with a scan list.

2 ⊞ to access the menu.

3 ◀ or ▶ to `Scan` and press OK to select.

4 ◀ or ▶ to `Scan State` and press OK to select.

5 ◀ or ▶ to required scan state and press OK to select.

47

- The display shows Scan On when Scan is enabled. The LED blinks yellow and the scan icon appears.
- The display shows Scan Off if Scan is disabled. The LED turns off and the scan icon disappears.

Responding to a Transmission During a Scan

During scanning, your radio stops on a channel/group where activity is detected. The radio stays on that channel for a programmed time period known as "hang time".

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

🔵 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.

2 Press the **PTT** button during hang time.
The LED lights up solid green.

3 Wait for one of the following tones to finish (if enabled), and speak clearly into the microphone.

- The Talk Permit Tone.

- The **PTT** Sidetone. 🔴

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

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

Deleting a Nuisance Channel

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.

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 **Nuisance Channel Delete** button. The nuisance channel is deleted.

Restoring a Nuisance Channel

To restore the deleted nuisance channel, do one of the following:

- Turn the radio off and then power it on again.
- Stop and restart a scan via the programmed **Scan** button or menu.
- Change the channel via the **Channel Selector Knob**.

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 unmutes to transmissions from that base station.

The LED blinks yellow .

To respond to a transmission during a Vote Scan, follow the same procedures as *Responding to a Transmission During a Scan* on page 48.

Contact Settings

Contacts provides "address-book" capabilities on your radio. Each entry corresponds to an alias or ID that you use to initiate a call.

Each entry, depending on context, associates with **one** of five types of calls: 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 more information.

Note: If the Privacy feature is enabled on a channel, you can make privacy-enabled Group Call, Private Call, and All Call 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 unscramble the transmission.

See *Privacy* on page 72 for more information.

Your radio supports two Contacts lists, one for Analog contacts and one for Digital contacts, with a maximum of 500 members for each Contacts list.

Each entry within Contacts displays the following information:

49

- Call Type.
- Call Alias.
- Call ID.

Note: You can add or edit subscriber IDs for the Digital Contacts list. Deleting subscriber IDs can only be performed by your dealer.

For the Analog Contacts list, you can only view the subscriber IDs, edit the subscriber IDs, and initiate a Call Alert. Adding and deleting capabilities can only be performed by your dealer.

Making a Group Call from Contacts

1   🔳 to access the menu.

2   ◀ or ▶ to `Contacts` and press 🆗 to select.
The entries are alphabetically sorted.

3   ◀ or ▶ to the required group alias or ID.

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

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

The LED lights up solid green.

6   Wait for one of the following tones to finish (if enabled), and speak clearly into the microphone.

- The Talk Permit Tone.
- The **PTT** Sidetone. 🔊

7   Release the **PTT** button to listen.
When any user in the group responds, the LED blinks green. You see the Group Call icon, the group ID, and the user's ID on your display.

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.

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

Making a Private Call from Contacts 🔵

1   🔳 to access the menu.

Advanced Features

2 ◁ or ▷ to Contacts and press 🆗 to select.

The entries are alphabetically sorted.

---

3 ◁ or ▷ to the required subscriber alias or

ID and press 🆗 to select.

---

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

---

5 Press the **PTT** button to make the call.
The LED lights up solid green. The display shows the destination alias.

---

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

---

7 Release the **PTT** button to listen.
When the target radio responds, the LED blinks green and the display shows the transmitting user's ID.

---

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.

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

The display shows Call Ended.

Setting a Default Contact 🔴

1 ⊞ to access the menu.

---

2 ◁ or ▷ to Contacts and press 🆗 to select.

---

3 ◁ or ▷ to the required alias or ID and

press 🆗 to select.

---

4 ◁ or ▷ to Set as Default and press 🆗 to select.

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

A ✓ appears beside the selected default alias or ID.

51

Call Indicator Settings

Activating and Deactivating Call Ringers for Call Alert 🔔

You can select, or turn on or off ringing tones for a received Call Alert.

1 ⬚ to access the menu.

2 ◀ or ▶ to Utilities and press OK to select.

3 ◀ or ▶ to Radio Settings and press OK to select.

4 ◀ or ▶ to Tones/Alert and press OK to select.

5 ◀ or ▶ to Call Ringers and press OK to select.

6 ◀ or ▶ to Call Alert and press OK to select.

The current tone is indicated by a ✓.

7 ◀ or ▶ to the required tone and press OK to select.

✓ appears beside selected tone.

Activating and Deactivating Call Ringers for Private Calls 🔔

You can turn on or off the ringing tones for a received Private Call.

1 ⬚ to access the menu.

2 ◀ or ▶ to Utilities and press OK to select.

3 ◀ or ▶ to Radio Settings and press OK to select.

4 ◀ or ▶ to Tones/Alerts and press OK to select.

Advanced Features

5
  ◁ or ▷ to `Call Ringers` and press ⑩ to
select.

6
  ◁ or ▷ to `Private Call` and press ⑩ to
select.

Activating and Deactivating Call Ringers for Selective Call 🔴

You can select, or turn on or off ringing tones for a
received Selective Call.

1
  🔳 to access the menu.

2
  ◁ or ▷ to `Utilities` and press ⑩ to
select.

3
  ◁ or ▷ to `Radio Settings` and press ⑩
to select.

4
  ◁ or ▷ to `Tones/Alert` and press ⑩ to
select.

5
  ◁ or ▷ to `Call Ringers` and press ⑩ to
select.

6
  ◁ or ▷ to `Selective Call` and press ⑩
to select.

The current tone is indicated by a ✓.

7
  ◁ or ▷ to the required tone and press ⑩
to select.
✓ appears beside selected tone.

Activating and Deactivating Call Ringers for Text Message

You can turn on or off the ringing tones for a received
Text Message.

1
  🔳 to access the menu.

2
  ◁ or ▷ to `Utilities` and press ⑩ to
select.

53

3 🔘◀ or ▶🔘 to `Radio Settings` and press 🆗 to select.

4 🔘◀ or ▶🔘 to `Tones/Alerts` and press 🆗 to select.

5 🔘◀ or ▶🔘 to `Call Ringers` and press 🆗 to select.

6 🔘◀ or ▶🔘 to `Text Message` and press 🆗 to select.

The current tone is indicated by a ✓.

Assigning Ring Styles

You can program your radio to sound one of ten predefined ringing tones when receiving 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 🔲 to access the menu.

2 🔘◀ or ▶🔘 to `Contacts` and press 🆗 to select.

The entries are alphabetically sorted.

3 🔘◀ or ▶🔘 to the required alias or ID and press 🆗 to select.

4 🔘◀ or ▶🔘 to and press 🆗 to select.
A ✓ indicates the current selected tone.

5 🔘◀ or ▶🔘 to the required tone and press 🆗 to select.
The display shows `Contact Saved`.

Escalating Alarm Tone Volume

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

Call Log Features

Your radio keeps track of all recent outgoing, answered, and missed Private Calls. Use the call log feature to view and manage recent calls.

You can perform the following tasks in each of your call lists:

- Delete
- View Details

Viewing Recent Calls

The lists are `Missed`, `Answered`, and `Outgoing`.

1 🔲 to access the menu.

2 🔘 or 🔘 to `Call Log` and press 🆗 to select.

3 🔘 or 🔘 to preferred list and press 🆗 to select.
The display shows the most recent entry at the top of the list.

4 🔘 or 🔘 to view the list.
Press the **PTT** button to start a Private Call with the current selected alias or ID.

Deleting a Call from a Call List

1 🔲 to access the menu.

2 🔘 or 🔘 to `Call Log` and press 🆗 to select.

3 🔘 or 🔘 to the required list and press 🆗 to select.
When you select a call list and it contains no entries, the display shows `List Empty`.

4 🔘 or 🔘 to the required alias or ID and press 🆗 to select.

5 🔘 or 🔘 to `Delete Entry?` and press 🆗 to select.

6 Do one of the following:

- Press 🆗 to select Yes to delete the entry. The display shows Entry Deleted.

- ◀ or ▶ to No, and press the 🆗 button to return to the previous screen.

Viewing Details from a Call List

1 🔲 to access the menu.

2 ◀ or ▶ to Call Log and press 🆗 to select.

3 ◀ or ▶ to the required list and press 🆗 to select.

4 ◀ or ▶ to the required alias or ID and press 🆗 to select.

5 ◀ or ▶ to View Details and press 🆗 to select.
Display shows details.

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 via Contacts or manual dial.

Receiving and Responding to a Call Alert

When you receive a Call Alert page, you see the notification list listing a Call Alert with the alias or ID of the calling radio on the display, .

When you hear a repetitive tone and the LED blinks yellow, do one of the following:

- Press the **PTT** button while the display still shows the Call Alert in the Notification List to respond with a Private Call.

- Press 🔙 to exit the Notification List. The alert is moved to the Missed Call Log.

Making a Call Alert from the Contact List

1 🔲 to access the menu.

2 ◀ or ▶ to Contacts and press ⓞ to select.

3 ◀ or ▶ to the required subscriber alias or ID and press ⓞ to select.

4 ◀ or ▶ to Call Alert and press ⓞ to select.

The display shows Call Alert and the subscriber alias or ID, indicating that the Call Alert has been sent.

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

If the Call Alert acknowledgement is received, the display shows positive mini notice.

If the Call Alert acknowledgement is not received, the display shows negative mini notice.

Making a Call Alert with the One Touch Access Button

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

The display shows Call Alert and the subscriber alias or ID, indicating that the Call Alert has been sent.

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

If the Call Alert acknowledgement is received, the display shows positive mini notice.

If the Call Alert acknowledgement is not received, the display shows negative mini notice.

Emergency Operation

An Emergency Alarm is used to indicate a critical situation. You are able to initiate an Emergency at any time on any screen display 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 | Between 0.05 seconds and 0.75 seconds. |
| Long press | Between 1.00 second and 3.75 seconds. |

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

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

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

Your radio supports **three** Emergency Alarms:

• Emergency Alarm.
• Emergency Alarm with Call.
• Emergency Alarm with Voice to Follow.

Note: 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 radio's speaker, until you press the **PTT** button to initiate the call.
• **Silent with Voice** – Radio transmits an alarm signal without any audio or visual indicators, but allow incoming calls to sound through the radio's speaker.

Sending an Emergency Alarm

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

If your radio is set to Silent, it does not display any audio or visual indicators during Emergency mode.

Press the programmed **Emergency On** button.

The display shows one of the following:

• Tx Alarm and the destination alias.
• Tx Telegram and the destination alias.

The LED lights up solid green and the Emergency icon appears on the Home screen display.

When an Emergency Alarm acknowledgement is received, the Emergency tone sounds and the LED blinks green. The display shows `Alarm Sent.`

If your radio does not receive an Emergency Alarm acknowledgement, and after all retries have been exhausted, a tone sounds and the display shows `Alarm Failed.`

Radio exits the Emergency Alarm mode and returns to the Home screen.

Sending an Emergency Alarm with Call

This feature allows you to send an Emergency Alarm 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.

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

The display shows one of the following:

- `Tx Alarm` and the destination alias.
- `Tx Telegram` and the destination alias.

The LED lights up solid green.

When an Emergency Alarm acknowledgement is received, the Emergency tone sounds and the LED blinks green. The display shows `Alarm Sent.`Your radio enters the emergency call mode when the display shows `Emergency` and the destination group alias.

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

3 Press **PTT** button to make the call.
The LED lights up solid green and the Group icon appears on the display.

4 Wait for one of the following tones to finish (if enabled), and speak clearly into the microphone.

59

- • The Talk Permit Tone.
- • The **PTT** Sidetone. 🔴

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

7 Once your call ends, press **Emergency Off** button to exit the Emergency mode.
The radio returns to the Home screen.

Sending an Emergency Alarm with Voice to Follow 🔵

This feature allows you to send an Emergency Alarm to a group of radios. Your radio's 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 radio's speaker.

If you press the **PTT** button during the programmed hot mic transmission or programmed receiving period, regardless whether Emergency Cycle Mode is enabled or disabled,you hear a prohibit tone, indicating that you should release the **PTT** button. The radio ignores the **PTT** press and remains in Emergency mode.

Note: 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 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 the programmed hot mic transmission period is over, and you press the **PTT** button.

If your radio is set to Silent with Voice, it does not display any audio or visual indicators during Emergency mode when you are making the call with hot mic, but allow sound through the radio's speaker when the target radio responds after the programmed

hot mic transmission period is over. The indicators only appear when you press the **PTT** button.

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

1 Press the programmed **Emergency On** button. The display shows one of the following:

- `Tx Alarm` and the destination alias.
- `Tx Telegram` and the destination alias.

The LED lights up solid green and the Emergency icon is displayed.

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

When hot mic has been enabled, the radio automatically transmits without a **PTT** button press until the hot mic duration expires. While transmitting, the LED lights up solid green and the Emergency icon appears on the display.

3 The radio automatically stops transmitting when the cycling duration between hot mic and receiving calls expires, if Emergency Cycle Mode is enabled.

4 Once the hot mic duration expires, the radio automatically stops transmitting. To transmit again, press the **PTT** button.

Reinitiating an Emergency Mode

Note: This feature is only applicable to the radio sending the Emergency Alarm.

There are two instances where this can happen:

- You change the channel while the radio is in Emergency mode. This exits the Emergency mode. If Emergency Alarm is enabled on this new channel, the radio reinitiates Emergency.
- You press the programmed **Emergency On** button during an Emergency initiation/transmission state. This causes the radio to exit this state, and to reinitiate Emergency.

Exiting Emergency Mode After Sending the Emergency Alarm

Your radio exits Emergency mode when one of the following occurs:

- Emergency Alarm acknowledgement is received (for **Emergency Alarm** only).
- All retries to send the alarm have been exhausted.

• The **Emergency Off** button is pressed.

Note: If your radio is powered off, it exits the Emergency mode. The radio will not reinitiate the Emergency mode automatically when it is turned on again.

Text Message Features 🔒

Sending a Quick Text Message

1
⬛ to access the menu.

2
◀ or ▶ to Quick Text and press 🆗 to select.

3
◀ or ▶ to the required message . Press 🆗 to send.

The display shows the transitional mini notice, confirming your message is being sent.

If the message is sent, a tone sounds and the display shows the positive mini notice.

If the message is not sent, a low tone sounds and the display shows the negative mini notice.

Sending a Quick Text Message with the One Touch Access Button

Press the programmed **One Touch Access** button to send a predefined Quick Text message to a predefined alias or ID.

The display shows the transitional mini notice, confirming your message is being sent.

If the message is sent, a tone sounds and the display shows the positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows the negative mini notice.

If the text message fails to send, the radio returns you to the Resend option screen (see *Managing Fail-to-Send Text Messages* on page 62).

Managing Fail-to-Send Text Messages

You can select one of the following options while at the Resend option screen:

• Resend.
• Forward.

Note: If the channel type (i.e. conventional digital or Capacity Plus or Linked Capacity Plus) is not a match, you can only edit and forward a Fail-to-Send message.

Resending a Text Message

Press 🆗 to resend the same message to the same subscriber/group alias or ID.

If the message is sent successfully, a tone sounds and the display shows the positive mini notice.

If the message cannot be sent, the display shows the negative mini notice.

Forwarding a Text Message

1 ◀ or ▶ to Forward and press 🆗 to select.

2 ◀ or ▶ to the required alias or ID and press 🆗 to select.

The display shows transitional mini notice, confirming your message is being sent.

If the message is sent successfully, a tone sounds and the display shows positive mini notice.

If the message cannot be sent, a low tone sounds and the display shows negative mini notice.

Managing Sent Text Messages

Once a message is sent to another radio, it is saved in Sent Items. The most recent sent text message is always added to the top of the Sent Items list.

The Sent Items folder is capable of storing a maximum of thirty (30) last sent messages. When the folder is full, the next sent text message automatically replaces the oldest text message in the folder.

Note: Long press 🔄 at any time to return to the Home screen.

Viewing a Sent Text Message

1 Access the **Text Message** feature by performing one of the following actions:

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.

63

Radio Controls	Steps
Menu	**1** 🔲 to access the menu. **2** ◀ or ▶ to Messages and press 🆗 to select.

2 ◀ or ▶ to Sent Items and press 🆗 to select.

3 ◀ or ▶ to the required message and press 🆗 to select.

A subject line may be shown if the message is from an e-mail application.

The icon at the top right corner of the screen indicates the status of the message (see *Sent Item Icons* on page 24).

Sending a Sent Text Message

You can select one of the following options while viewing a sent text message:

- Resend
- Forward
- Delete

Note: If the channel type (i.e. conventional digital or Capacity Plus or Linked Capacity Plus) is not a match, you can only edit, forward, or delete a Sent message.

1 Press 🆗 again while viewing the message.

2 ◀ or ▶ to one of the following options and press 🆗 to select.

Option	Steps
Forward	Select Forward to send the selected text message to another subscriber/group alias or ID (see *Forwarding a Text Message* on page 63).
Delete	Select Delete to delete the text message.

Option	Steps
Resend	Select Resend to resend the selected text message to the same subscriber/group alias or ID.
	The display shows transitional mini notice, confirming that the same message is being sent to the same target radio.
	If the message is sent successfully, a tone sounds and the display shows positive mini notice.
	If the message cannot be sent, a low tone sounds and the display shows negative mini notice.
	If the message fails to send, the radio returns you to the Resend option screen. Press ⓞⓚ to resend the message to the same subscriber/group alias or ID.
	Note: Changing the volume, and pressing any button, except for ⓞⓚ,

Option	Steps
	◀, or ▶, returns you to the message.
	The radio exits the Resend option screen if you press the **PTT** button to initiate a Private or Group Call, or to respond to a Group Call. The radio also exits the screen when it receives a text message, an emergency call or alarm, or a call alert.
	The display returns to the Resend option screen if you press the **PTT** button to respond to a Private Call (except when the radio is displaying the Missed Call screen), and at the end of an All Call.

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.

65

If the radio changes mode or powers down before the status of the message in Sent Items 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 (5) 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.

Deleting All Sent Text Messages from Sent Items

1 Access the **Text Message** feature by performing one of the following actions:

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**1** ⬛ to access the menu.

Radio Controls	Steps
	2 ◀ or ▶ to Messages and press ⓞⓚ to select.

2 ◀ or ▶ to Sent Items and press ⓞⓚ to select.

3 ◀ or ▶ to Delete All and press ⓞⓚ to select.

4 Choose one of the following.

- ◀ or ▶ to Yes and press ⓞⓚ to select. The display shows positive mini notice.
- ◀ or ▶ to No and press ⓞⓚ to return to the previous screen.

Receiving a Text Message

When your radio receives a message, the display shows the Notification List with the alias or ID of the sender and the Message icon.

You can select one of the following options when receiving a text message:

- Read.
- Read Later.
- Delete.

Note: The radio exits the Text Message alert screen and sets up a Private or Group Call to the sender of the messageif the **PTT** button is pressed when the radio is displaying the alert screen.

Reading a Text Message

⬅ or ➡ to one of the options described next and press 🆗 to select.

Option	Steps
Read?	Choosing this option, opens the selected message in the Inbox. A subject line may be shown if the message is from an e-mail application. Press 🆗 to return to the Inbox.

Option	Steps
	Press 🆗 a second time to reply, forward, or delete the text message.
Read Later	Choosing this option, returns you to the screen you were on prior to receiving the text message.
Delete	Choosing this option, deletes the selected text message.

Managing Received Text Messages

Use the Inbox to manage your text messages. The Inbox is capable of storing a maximum of 30 messages.

Text messages in the Inbox are sorted according to the most recently received.

Your radio supports the following options for text messages:

- Forward
- Delete
- Delete All

67

Note: If the channel type (i.e. conventional digital or Capacity Plus or Linked Capacity Plus) is not a match, you can only forward, delete, or delete all Received messages.

Note: Long press 🔄🏠 at any time to return to the Home screen.

Viewing a Text Message from the Inbox

1 🔲 to access the menu.

2 ◀ or ▶ to Messages and press 🆗 to select.

3 ◀ or ▶ to Inbox and press 🆗 to select.

4 ◀ or ▶ to view the messages.

A subject line may be shown if the message is from an e-mail application.

5 Do one of the following:

- Press 🆗 to select the current message, and press 🆗 again to reply, forward, or delete that message.

- Long press 🔄🏠 to return to the Home screen.

Deleting a Text Message from the Inbox

1 Access the **Text Message** feature by performing one of the following actions:

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**1** 🔲 to access the menu. **2** ◀ or ▶ to Messages and press 🆗 to select.

2 ◁ or ▷ to `Inbox` and press ⓸ to select.

3 ◁ or ▷ to the required message and press
⓸ to select.

A subject line may be shown if the message is
from an e-mail application.

4 Press ⓸ once more to access the sub-menu.

5 ◁ or ▷ to `Delete` and press ⓸ to select.

6 ◁ or ▷ to `Yes` and press ⓸ to
The display shows positive mini notice and the
screen returns to the Inbox.

Deleting All Text Messages from the Inbox

1 Access the **Text Message** feature by performing
one of the following actions:

Radio Controls	Steps
Programmed Text Message button	Press the programmed **Text Message** button.
Menu	**1** 🔳 to access the menu. **2** ◁ or ▷ to `Messages` and press ⓸ to select.

2 ◁ or ▷ to `Inbox` and press ⓸ to select.

When you select `Inbox` and it contains no text
messages, the display shows `List Empty`.

3 ◁ or ▷ to `Delete All` and press ⓸ to
select.

4 ◁ or ▷ to `Yes` and press ⓸ to select.
The display shows positive mini notice.

69

Analog Message Encode 🔴

Your radio is able to send pre-programmed messages from the Message list to a radio alias or to the dispatcher.

Sending MDC Message Encode to Dispatcher

1 ⊞ to access the menu.

2 ◄ or ► to Message and press ⊚ to select.

3 ◄ or ► to Quick Text and press ⊚ to select.

4 ◄ or ► to the required message. Press ⊚ to send.

The display shows transitional mini notice, confirming your message is being sent.

If the message is sent, a tone sounds and the display shows positive mini notice.

If the message is not sent, a low tone sounds and the display shows negative mini notice.

Sending 5–Tone Message Encode to Contact

1 ⊞ to access the menu.

2 ◄ or ► to Message and press ⊚ to select.

3 ◄ or ► to Quick Text and press ⊚ to select.

4 ◄ or ► to the required message. Press ⊚ to select.

5 ◄ or ► to the required contact. Press ⊚ to select.

The display shows transitional mini notice, confirming your message is being sent.

If the message is sent, a tone sounds and the display shows positive mini notice.

If the message is not sent, a low tone sounds and the display shows negative mini notice.

Analog Status Update 🔘

Your radio is able to send preprogrammed messages from the Status List indicating your current activity to a radio contact (for 5-Tone systems) or to the dispatcher (for MDC systems).

The last acknowledged message is kept at the top of the Status List. The other messages are arranged in alphanumeric order.

Sending Status Update to Predefined Contact

1 ◀ or ▶ to Status and press 🆗 to select.

2 ◀ or ▶ to the required status and press 🆗 to select.

3 ◀ or ▶ to Set as Default and press 🆗 to select.

The display shows transitional mini notice, confirming your status update is being sent.

If the status update is acknowledged, a tone sounds and the display shows positive mini notice. A ✓ appears beside the acknowledged status.

If the status update is not acknowledged, a low tone sounds and the display shows negative mini notice. A ✓ remains beside the previous status.

For 5-Tone systems, see *Setting a Default Contact* on page 51 for details on setting the default contact.

For 5-Tone systems, a **PTT** button press while in the status list sends the selected status update and returns to the Home screen to initiate a voice call.

Viewing a 5-Tone Status Details

Note: A Software License Key sold separately is required to use this feature.

1 ◀ or ▶ to Status and press 🆗 to select.

2 ◀ or ▶ to the required status and press 🆗 to select.

3 ⬅ or ➡ to `View Details` and press 🆗 to select.
The display shows details of the selected status.

Privacy ⓟ

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

Your radio must have privacy enabled on the 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 (unscrambled) transmissions.

Your radio supports two types of privacy:

- Basic Privacy.
- Enhanced Privacy.

Only one of the privacy types above can be assigned to the radio.

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 a different Key Value and Key ID, you will either hear a garbled transmission (Basic Privacy) or nothing at all (Enhanced Privacy).

If the radio has a privacy type assigned, the Home screen shows the Secure or Unsecure icon, except when the radio is sending or receiving an Emergency call or alarm.

The LED lights up solid green while the radio is transmitting and blinks green rapidly when the radio is receiving an ongoing privacy-enabled transmission.

You can access this feature by performing one of the following actions:

- Pressing the programmed **Privacy** button to toggle privacy on or off.
- Using the Radio Menu as described by the steps described next.

Note: Some radio models may not offer this Privacy feature. Check with your dealer or system administrator for more information.

1 🔲 to access the menu.

2 ◁ or ▷ to `Utilities` and press ⓞⓚ to select.

3 ◁ or ▷ to `Radio Settings` and press ⓞⓚ to select.

4 ◁ or ▷ to `Privacy` and press ⓞⓚ to select.

You can also use ◁ or ▷ to change selected option.

5 Press ⓞⓚ to enable/disable Privacy.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Security

You can enable or disable any radio in the system. For example, you might want to disable a stolen radio, to prevent the thief from using it, and enable that radio, when it is recovered.

Note: Performing Radio Disable and Enable is limited to radios with these functions enabled. Check with your dealer or system administrator for more information.

Radio Disable

1 Access this feature by

Radio Controls	Steps
Radio Disable button	**1** Press the programmed **Radio Disable** button. **2** ◁ or ▷ to the required alias or ID and press ⓞⓚ to select.
Radio menu	**1** 🔲 to access the menu.

73

Radio Controls	Steps
2	🔾 or 🔾 to `Contacts` and press 🆗 to select. The entries are alphabetically sorted.
3	Use one of the steps described next to select the required subscriber alias or ID:
	• Select the required alias or ID directly.
	• 🔾 or 🔾 to the required alias or ID and press 🆗 to select.
	• Use the `Manual Dial` menu.
	• 🔾 or 🔾 to `Manual Dial` and press 🆗 to select.

Radio Controls	Steps
	• 🔾 or 🔾 to `Radio Number` and press 🆗 to select.
	• The first line of the display shows `Radio Number:` . the second line of the display shows a blinking cursor. Use the keypad to enter the subscriber alias or ID and press 🆗 .
4	🔾 or 🔾 to `Radio Disable` and press 🆗 to select.

The display shows `Radio Enable: <Subscriber Alias or ID>` and the LED lights up solid green.

2 Wait for acknowledgement.

If successful,

If not successful,

Do not press ⟳⌂ during the Radio Disable operation as you will not get an acknowledgement message.

Radio Enable

1 Access this feature by

Radio Controls	Steps
Radio Enable button	1 Press the programmed **Radio Enable** button. 2 ◁ or ▷ to the required alias or ID and press ⊛ to select.
Radio menu	1 ▦ to access the menu. 2 ◁ or ▷ to Contacts and press ⊛ to select. The entries are alphabetically sorted.

Radio Controls	Steps

	3 Use one of the steps described next to select the required subscriber alias or ID
	
	• select the required alias or ID directly
	
	  • ◁ or ▷ to the required alias or ID and press ⊛ to select.
	
	• use the Manual Dial menu
	
	  • ◁ or ▷ to Manual Dial and press ⊛ to select.
	
	  • ◁ or ▷ to Radio Number and press ⊛ to select.

75

Radio Controls	Steps
	• The first line of the display shows `Radio Number: .` the second line of the display shows a blinking cursor. Use the keypad to enter the subscriber alias or ID and press $\textcircled{\scriptsize OK}$.
4	$\textcircled{\scriptsize ◀}$ or $\textcircled{\scriptsize ▶}$ to `Radio Enable` and press $\textcircled{\scriptsize OK}$ to select.

The display shows `Radio Enable: <Subscriber Alias or ID>` and the LED lights up solid green.

2 Wait for acknowledgement.

If successful,

If not successful,

Do not press $\textcircled{\scriptsize ⮌📞}$ during the Radio Enable operation as you will not get an acknowledgement message.

Lone Worker

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

Before raising the emergency, when the inactivity timer expires, the radio warns the user via an audio indicator.

If there is still no acknowledgement by the user before the predefined reminder timer expires, the radio initiates an Emergency Alarm.

Only one of the following Emergency Alarms can be 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 57 on ways to exit Emergency.

Note: This feature is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

Password Lock Features

If enabled, this feature only allows you access your radio if the correct password is entered upon powering up.

Accessing the Radio from Password

1 Power up your radio.
   You hear a continuous tone.

2 Enter your current four-digit password. Press or to edit each digit's numeric value. Each digit changes

   to •. Press to move to next digit. Press (OK) to confirm your selection.

   • Enter your current four-digit password with the radio's keypad. The second line of the display

     shows ••••. Press (OK) to proceed.

   • Enter your current four-digit password. Press

     (◀) or (▶) to edit each digit's numeric value. Each digit changes to •. Press to move

     to next digit. Press (OK) to confirm your selection.

You hear a positive indicator tone for every digit entered. Press to remove the last digit on the display.

If the password is correct, your radio proceeds to power up. See *Powering Up the Radio* on page 14.

If the password is incorrect, the display shows `Wrong Password`. Repeat Steps *1* and *2*.

After the third incorrect password, the display shows `Wrong Password` and then, shows `Radio Locked`. A tone sounds and the LED double blinks yellow.

Your radio enters into locked state for 15 minutes, and responds to inputs from **On/Off/Volume Control Knob** only.

Note: The radio is unable to receive any call, including emergency calls, in locked state.

Unlocking the Radio from Locked State

1 If your radio was powered down after being in the locked state, power up the radio.
   A tone sounds and the LED double blinks yellow.
   The display shows `Radio Locked`.

77

2 Wait for 15 minutes.

Your radio restarts the 15 minutes timer for locked state when you power up.

3 Repeat Steps *1* and *2* in *Accessing the Radio from Password* on page 77.

Turning the Password Lock On or Off

1 ⬚ to access the menu.

2 ◀ or ▶ to `Utilities` and press OK to select.

3 ◀ or ▶ to `Radio Settings` and press OK to select.

4 ◀ or ▶ to `Passwd Lock` and press OK to select.

5 Enter the four-digit password.
See Step *2* in *Accessing the Radio from Password* on page 77.

6 Press OK to proceed.

If the password is incorrect, the display shows `Wrong Password`, and automatically returns to the previous menu.

7 If the password entered in the previous step is correct, press OK to enable/disable password lock.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Changing the Password

1 ⬚ to access the menu.

2 ◀ or ▶ to `Utilities` and press OK to select.

3 ◀ or ▶ to `Radio Settings` and press OK to select.

Advanced Features

4

$\bigcirc$ or $\bigcirc$ to `Passwd Lock` and press $\textcircled{ok}$ to select.

5 Enter the four-digit password.

See Step *2* in *Accessing the Radio from Password* on page 77.

6

Press $\textcircled{ok}$ to proceed.
If the password is incorrect, the display shows `Wrong Password`, and automatically returns to the previous menu.

7 If the password entered in the previous step is correct, $\bigcirc$ or $\bigcirc$ to `Change Pwd` and press $\textcircled{ok}$ to select.

8 Enter a new four-digit password.

See Step *2* in *Accessing the Radio from Password* on page 77.

9 Reenter the previously entered four-digit password. See Step *2* in *Accessing the Radio from Password* on page 77.

10 Press $\textcircled{ok}$ to proceed.

If the reentered password matches the new password entered earlier, the display shows `Password Changed`.

If the reentered password does **NOT** match the new password entered earlier, the display shows `Passwords Do Not Match`.

The screen automatically returns to the previous menu.

Notification List

Your radio has a Notification List that collects all your "unread" events on the channel, such as unread text messages, missed calls, and call alerts.

The Notification icon appears on the status bar when the Notification List has one or more events.

The list supports a maximum of forty (40) unread events. When it is full, the next event automatically replaces the oldest event.

Note: After the events are read, they are removed from the Notification List.

79

Accessing the Notification List

1 ⊞ to access the menu.

2 ◀ or ▶ to Notification and press ㉿ to select.

3 ◀ or ▶ to the required event and press ㉿ to select.

Long press ⤺ to return to the Home Screen.

Auto-Range Transponder System (ARTS) ⬤

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 dealer can program your radio to transmit or receive the ARTS signal.

Your radio provides indications of states as follows:

- **First-Time Alert** – A tone sounds and the display shows In Range after the channel alias.
- **ARTS-in-Range Alert** – A tone sounds, if programmed, and the display shows In Range after the channel alias.
- **ARTS-Out-of-Range Alert** – A tone sounds, the LED rapidly blinks red, and the display alternates between Out of Range and the home screen.

Over-the-Air-Programming (OTAP)

Your radio can be updated by your dealer remotely, via OTAP, without needing to be physically connected. Additionally, some settings can also be configured via OTAP.

While undergoing OTAP, the LED blinks green.

Note: When the radio is receiving high volume data, the High Volume Data icon appears and channel is busy. A **PTT** button press at this time may cause a negative tone to sound.

Once the programming is complete, depending on your radio's configuration:

- A tone sounds, the display shows `Updating Restarting`, and your radio restarts (powers off and on again).
- Select between `Restart Now` or `Postpone`. Selecting Postpone allows your radio to return to the previous display, with an OTAP Timer icon visible, for a period of time before the automatic restart occurs.

Upon power up after the automatic restart occurs, the display shows `Sw Update Completed` if the OTAP update is successful or `Sw Update Failed` if the OTAP update is unsuccessful.

See for your updated software version.

Utilities

Setting the Squelch Level

You can adjust your radio's squelch level to filter out unwanted calls with low signal strength or channels that have a higher than normal background noise.

`Normal` is the default. `Tight` filters out (unwanted) calls and/or background noise; however, calls from remote locations may also be filtered out.

Press the programmed **Squelch** button to toggle squelch level between normal and tight. Follow the procedure described next to access this feature via the radio's menus.

1 🔲 to access the menu.

2 ◀ or ▶ to `Utilities` and press ⓞⓚ to select.

3 ◀ or ▶ to `Radio Settings` and press ⓞⓚ to select.

4 ◀ or ▶ to `Squelch` and press ⓞⓚ to select.
The display shows `Tight` and `Normal`.

5 ◀ or ▶ to the required setting and press ⓞⓚ to select.
✓ appears besides selected setting. Screen returns to the previous menu.

81

Setting the Power Level

You can customize your radio's power setting to high or low for each channel.

High enables communication with radios located at a considerable distance from you. Low enables communication with radios in closer proximity.

Press the programmed **Power Level** button to toggle transmit power level between high and low. Follow the procedure described next to access this feature via the radio's menus.

1 ⬚ to access the menu.

2 ◁ or ▷ to Utilities and press ⓞⓚ to select.

3 ◁ or ▷ to Radio Settings and press ⓞⓚ to select.

4 ◁ or ▷ to Power and press ⓞⓚ to select.

5 ◁ or ▷ to the required setting and press ⓞⓚ to select.

✓ appears beside selected setting. At any time, long press ⟲⌂ to return to the Home screen. Screen returns to the previous menu.

Adjusting the Display Brightness

You can adjust radio's display brightness as needed.

Note: Display brightness cannot be adjusted when "Auto Brightness" is enabled.

Adjust the Display Brightness

Radio Control	Steps
Programmed Display Brightness Button	**1** Press the programmed **Brightness** button. **2** Decrease display brightness by pressing or increase the display brightness by pressing . Select from setting

Radio Control	Steps
	of 1 to 8. Press 🆗 to confirm your entry.
Menu	**1** 🔳 to access the menu.
	2 ◀ or ▶ to Utilities and press 🆗 to select.
	3 ◀ or ▶ to Radio Settings and press 🆗 to select.
	4 ◀ or ▶ to Brightness and press 🆗 to select.
	The display shows a progress bar.
	5 Decrease display brightness by pressing or increase the

Radio Control	Steps
	display brightness by pressing . Select from setting of 1 to 8. Press 🆗 to confirm your entry.

Turning the Voice Operating Transmission (VOX) Feature On or Off

This feature 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.

Pressing the **PTT** button during radio operation will disable VOX. To re-enable VOX, do one of the following:

- Turn the radio off and power it on again.
- Change the channel via the Channel Selector Knob.
- Press the programmed **VOX** button to toggle the feature on or off.

83

- Follow the steps described next to access this feature via the radio menu.

If the Talk Permit Tone feature is enabled (see *Turning the Talk Permit Tone On or Off* on page 87), use a trigger word to initiate the call. Wait for the Talk Permit Tone to finish before speaking clearly into the microphone.

Note: Turning this feature on or off is limited to radios with this function enabled. Check with your dealer or system administrator for more information.

1 🔲 to access the menu.

2 ◀ or ▶ to Utilities and press 🆗 to select.

3 ◀ or ▶ to Radio Settings and press 🆗 to select.

4 ◀ or ▶ to VOX and press 🆗 to select.

5 Press 🆗 to disable/enable VOX.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Setting the Display Backlight Timer

You can set the the radio's display backlight timer as needed. The setting also affects the Menu Navigation Buttons and keypad backlighting accordingly.

Press the programmed **Backlight** button to toggle the backlight settings, or follow the procedure described next to access this feature via the radio menu.

The display backlight and keypad backlighting are automatically turned off if the LED indicator is disabled (see *Turning the LED Indicator On or Off* on page 88).

1 🔲 to access the menu.

2 ◀ or ▶ to Utilities and press 🆗 to select.

3 ◀ or ▶ to Radio Settings and press 🆗 to select.

4 $\langle$ or $\rangle$ to `Display` and press ^{OK} to select.

5 $\langle$ or $\rangle$ to `Backlight Timer` and press ^{OK} to select.

Turning the Backlight Auto On or Off

You can enable and disable the radio's backlight to turn on automatically if needed. If enabled, the backlight is turned on when the radio receives a call, Notification List event, or Emergency Alarm.

1 to access the menu.

2 $\langle$ or $\rangle$ to `Utilities` and press ^{OK} to select.

3 $\langle$ or $\rangle$ to `Radio Settings` and press ^{OK} to select.

4 $\langle$ or $\rangle$ to `Backlight Auto`.

5 Press ^{OK} to enable/disable the Backlight Auto.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Turning the Radio Tones/Alerts On or Off

You can enable and disable all radio tones and alerts (except for the incoming Emergency alert tone) if needed.

Press the programmed **All Tones/Alerts** button to toggle all tones on or off, or follow the procedure described next to access this feature via the radio menu.

1 to access the menu.

2 $\langle$ or $\rangle$ to `Utilities` and press ^{OK} to select.

3 $\langle$ or $\rangle$ to `Radio Settings` and press ^{OK} to select.

85

4
$\bigcirc$ or $\bigcirc$ to `Tones/Alerts` and press $\textcircled{ok}$ to select.

5
$\bigcirc$ or $\bigcirc$ to `All Tones` and press $\textcircled{ok}$ to select.

You can also use $\bigcirc$ or $\bigcirc$ to change the selected option.

6
Press $\textcircled{ok}$ to enable/disable all tones and alerts.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Turning the Power Up Alert Tone On or Off

You can enable and disable the Power Up Alert Tone if needed.

1
$\textcircled{\scriptsize{\blacksquare\blacksquare}}$ to access the menu.

2
$\bigcirc$ or $\bigcirc$ to `Utilities` and press $\textcircled{ok}$ to select.

3
$\bigcirc$ or $\bigcirc$ to `Radio Settings` and press $\textcircled{ok}$ to select.

4
$\bigcirc$ or $\bigcirc$ to `Tones/Alerts` and press $\textcircled{ok}$ to select.

5
$\bigcirc$ or $\bigcirc$ to `Power Up` and press $\textcircled{ok}$ to select.

You can also use $\bigcirc$ or $\bigcirc$ to change the selected option.

6
Press $\textcircled{ok}$ to enable/disable the Power Up Alert Tone.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Setting the Tone Alert Volume Offset Level

You can adjust the Tone Alert Volume Offset level if needed. This feature adjusts the volume of the tones/ alerts, allowing it to be higher or lower than the voice volume.

1 🎛 to access the menu.

2 ◀ or ▶ to Utilities and press ⟨OK⟩ to select.

3 ◀ or ▶ to Radio Settings and press ⟨OK⟩ to select.

4 ◀ or ▶ to Tones/Alerts and press ⟨OK⟩ to select.

5 ◀ or ▶ to Vol. Offset and press ⟨OK⟩ to select.

6 ◀ or ▶ to the required volume value. The radio sounds a feedback tone with each corresponding volume value.

7 Do one of the following:

• Press ⟨OK⟩ to keep the required displayed volume value.

• Press ⟨↰⟩ to exit without changing the current volume offset settings.

• Repeat Step *6* to select another volume value.

Turning the Talk Permit Tone On or Off

You can enable and disable the Talk Permit Tone if needed.

1 🎛 to access the menu.

2 ◀ or ▶ to Utilities and press ⟨OK⟩ to select.

3 ◀ or ▶ to Radio Settings and press ⟨OK⟩ to select.

4 ◀ or ▶ to Tones/Alerts and press ⟨OK⟩ to select.

5 ◀ or ▶ to Talk Permit and press ⟨OK⟩ to select.

6 Press ⟨OK⟩ to enable/disable the Talk Permit Tone.

87

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Language

You can set your radio display to be in your required language.

1 〔⊞〕 to access the menu.

2 ◁ or ▷ to Utilities and press 〔OK〕 to select.

3 ◁ or ▷ to Radio Settings and press 〔OK〕 to select.

4 ◁ or ▷ to Languages and press 〔OK〕 to select.

You can also use ◁ or ▷ to change selected option.

5 ◁ or ▷ to the required language and press 〔OK〕 to enable. ✓ appears beside selected language.

Turning the LED Indicator On or Off

You can enable and disable the LED Indicator if needed.

1 〔⊞〕 to access the menu.

2 ◁ or ▷ to Utilities and press 〔OK〕 to select.

3 ◁ or ▷ to Radio Settings and press 〔OK〕 to select.

4 ◁ or ▷ to LED Indicator and press 〔OK〕 to select.

You can also use ◁ or ▷ to change the selected option.

5 Press 〔OK〕 to enable/disable the LED Indicator.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Turning the Introduction Screen On or Off

You can enable and disable the Introduction Screen if needed.

1
  ⊞ to access the menu.

2
  ◀ or ▶ to Utilities and press ⓞⓚ to select.

3
  ◀ or ▶ to Radio Settings and press ⓞⓚ to select.

4
  ◀ or ▶ to Display and press ⓞⓚ to select.

5
  ◀ or ▶ to Intro Screen and press ⓞⓚ to select.

  You can also use ◀ or ▶ to change the selected option.

6
  Press ⓞⓚ to enable/disable the Introduction Screen.

  The display shows ✓ beside Enabled.

  The ✓ disappears from beside Enabled.

Turning the Voice Announcement On or Off

Note: The Voice Announcement feature can only be enabled in MOTOTRBO CPS. If enabled, the Text-to-Speech feature is automatically disabled, and vice versa.

This feature enables the radio to audibly indicate the current Zone or Channel the user has assigned, or programmable button press. This audio indicator can be customized per customer requirements. This is typically useful when the user is in a difficult condition to read the content shown on the display.

Toggle Voice Announcement On or Off.

Radio Control	Steps
Programmed Voice Announcement Button	Press the programmed **Voice Announcement** button.

89

Radio Control	Steps
Menu	**1** ⬚ to access the menu. **2** ◀ or ▶ to Utilities and press ⓞⓚ to select. **3** ◀ or ▶ to Radio Settings and press ⓞⓚ to select. **4** ◀ or ▶ to Voice Announcement and press ⓞⓚ to select. **Note:** You can also use ◀ or ▶ to change the selected option. **5** Do one of the following: • Press ⓞⓚ to enable Voice Announcement.

Radio Control	Steps
	The display shows ✓ beside Enabled. • Press ⓞⓚ to disable Voice Announcement. The ✓ disappears from beside Enabled.

Call Forwarding 🔴

You can enable your radio to automatically forward voice calls to another radio.

1 ⬚ to access the menu.

---

2 ◀ or ▶ to Utilities and press ⓞⓚ to select.

---

3 ◀ or ▶ to Call Forward and press ⓞⓚ to select.

You can also use ◀ or ▶ to change the selected option.

---

4 Do one of the following:

* Press OK to enable Call Forwarding. The display shows ✓ beside Enabled.

* Press OK to disable Call Forwarding. The ✓ disappears from beside Enabled.

Menu Timer

Set the period of time your radio stays in the menu before it automatically switches to the Home screen.

1 🔘 to access the menu.

2 ◀ or ▶ to `Utilities` and press OK to select.

3 ◀ or ▶ to `Radio Settings` and press OK to select.

4 ◀ or ▶ to `Display` and press OK to select.

5 ◀ or ▶ to `Menu Timer` and press OK to select.

6 ◀ or ▶ to the required setting and press OK to select.

Analog Mic AGC (Mic AGC-A)

This feature controls the your radio's microphone gain automatically while transmitting on an analog system. It suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of audio.

1 🔘 to access the menu.

2 ◀ or ▶ to `Utilities` and press OK to select.

3 ◀ or ▶ to `Radio Settings` and press OK to select.

You can also use ◀ or ▶ to change the selected option.

91

4   ⬅ or ➡ to `Analog Mic AGC` and press ⓞⓚ to select.

5   Do one of the following:

- Press ⓞⓚ to enable Analog Mic AGC. The display shows ✓ beside Enabled.

- Press ⓞⓚ to disable Analog Mic AGC. The ✓ disappears from beside Enabled.

Digital Mic AGC (Mic AGC-D)

This feature controls the your radio's microphone gain automatically while transmitting on a digital system. It suppresses loud audio or boosts soft audio to a preset value in order to provide a consistent level of audio.

1   ⬛ to access the menu.

2   ⬅ or ➡ to `Utilities` and press ⓞⓚ to select.

3   ⬅ or ➡ to `Radio Settings` and press ⓞⓚ to select.

You can also use or ➡ to change the selected option.

4   ⬅ or ➡ to `Digital Mic AGC` and press ⓞⓚ to select.

5   Do one of the following:

- Press ⓞⓚ to enable Digital Mic AGC. The display shows ✓ beside Enabled.

- Press ⓞⓚ to disable Digital Mic AGC. The ✓ disappears from beside Enabled.

Switching Audio Route between Internal Radio Speaker and Wired Accessory

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

- The wired accessory with speaker is attached.

- The audio is not routed to an external Bluetooth-enabled accessory.

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

Press the programmed **Audio Toggle** button to toggle audio routing between the internal radio speaker and the speaker of wired accessory.

Intelligent Audio

Your radio can automatically adjust its audio volume to overcome background noise in the environment, inclusive of all stationary and non-stationary noise sources. This feature is a Receive-only feature and does not affect Transmit audio.

Toggle Intelligent Audio On or Off.

Radio Control	Steps
Programmed Intelligent Audio Button	Press the programmed **Intelligent Audio** button.
Menu	1 ⊞ to access the menu.

Radio Control	Steps
	2 ◀ or ▶ to `Radio Settings` and press ⓞⓚ to select.
	3 ◀ or ▶ to `Radio Settings` and press ⓞⓚ to select.
	4 ◀ or ▶ to `Intelligent Audio` and press ⓞⓚ to select. **Note:** You can also use ◀ or ▶ to change the selected option.
	5 Do one of the following: • Press ⓞⓚ to enable Intelligent Audio. The

Radio Control	Steps
	display shows ✓ beside Enabled.
	• Press 🆗 to disable Intelligent Audio. The ✓ disappears from beside Enabled.

Turning the Acoustic Feedback Suppressor Feature On or Off 🔘

This feature allows you to minimize acoustic feedback in received calls.

Toggle the Acoustic Feedback Suppressor Feature On or Off by performing one of the following actions:

Radio Control	Steps
Programmed Acoustic Feedback	Press the programmed **Acoustic Feedback Suppressor** button.

Radio Control	Steps
Suppressor Button	
Menu	**1** 🔲 to access the menu. **2** ◀ or ▶ to Utilities and press 🆗 to select. **3** ◀ or ▶ to Radio Settings and press 🆗 to select. **4** ◀ or ▶ to AF Suppressor and press 🆗 to select. **Note:** You can also use ◀ or ▶ to change the selected option. **5** Do one of the following:

Advanced Features

Radio Control	Steps
	• Press (OK) to enable Acoustic Feedback Suppressor. The display shows ✓ beside Enabled. • Press (OK) to disable Acoustic Feedback Suppressor. The ✓ disappears from beside Enabled.

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. Press the programmed **Trill Enhancement On/Off** button to toggle trill enhancement on or off.

1 (⊞) to access the menu.

2 (◀) or (▶) to Utilities and press (OK) to select.

3 (◀) or (▶) to Radio Settings and press (OK) to select.

4 (◀) or (▶) to Trill Enhance and press (OK) to select.

5 Press (OK) to enable/disable Trill Enhancement.

The display shows ✓ beside Enabled.

The ✓ disappears from beside Enabled.

Setting the Audio Ambience

You can customize your radio's audio ambience according to your environment.

Default enables the default factory settings.

Loud enables Noise Suppressor and increases speaker loudness for use in noisy surroundings.

95

`Work Group` enables AF Suppressor and disables AGC for use when a group of radios are near to each other.

1 🔲 to access the menu.

2 ◀ or ▶ to `Utilities` and press ⓞⓚ to select.

3 ◀ or ▶ to `Radio Settings` and press ⓞⓚ to select.

4 ◀ or ▶ to `Audio Ambience` and press ⓞⓚ to select.

5 ◀ or ▶ to the required setting and press ⓞⓚ to select.

✓ appears beside selected setting.

Setting the Audio Profiles

You can customize your radio's audio profiles according to your preference.

`Default` disables the previously selected audio profile and the radio's audio profile returns to normal.

`Level 1`, `Level 2`, and `Level 3` are audio profiles 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` are for a tinnier sound, a more nasal sound, and a deeper sound.

1 🔲 to access the menu.

2 ◀ or ▶ to `Utilities` and press ⓞⓚ to select.

3 ◀ or ▶ to `Radio Settings` and press ⓞⓚ to select.

4 ◀ or ▶ to `Audio Profiles` and press ⓞⓚ to select.

5 ◀ or ▶ to the required setting and press ⓞⓚ to select.

✓ appears beside selected setting.

Accessing General Radio Information

Your radio contains information on the following:

- Battery
- Radio Alias and ID
- Firmware and Codeplug Versions
- GPS Information
- Software Update

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.

Accessing the Battery Information

Displays information on your radio battery.

1 　 🔳 to access the menu.

2 ◀ or ▶ to Utilities and press 🆗 to select.

3 ◀ or ▶ to Radio Info and press 🆗 to select.

4 ◀ or ▶ to Battery Info and press 🆗 to select.

The display shows the battery information.

For **IMPRES** batteries **ONLY**: The display reads Recondition Battery if the battery requires reconditioning in an IMPRES charger. After the reconditioning process, the display then shows the battery information.

Checking the Radio Alias and ID

This feature displays the ID of your radio.

Press the programmed **Radio Alias and ID** button to check your radio alias and ID. You hear a positive indicator tone.

Follow the procedure described next to access this feature via the radio screen.

1 　 🔳 to access the menu.

97

2　⬅ or ➡ to `Utilities` and press 🆗 to select.

3　⬅ or ➡ to `Radio Info` and press 🆗 to select.

4　⬅ or ➡ to `My ID` and press 🆗 to select.
The first line of the display shows the radio alias.
The second line of the display shows the radio ID.

You can also press the programmed Radio Alias and ID button to return to the previous screen.

Checking the Firmware Version and Codeplug Version

Displays the firmware version on your radio.

1　🔲 to access the menu.

2　⬅ or ➡ to `Utilities` and press 🆗 to select.

3　⬅ or ➡ to `Radio Info` and press 🆗 to select.

4　⬅ or ➡ to `Versions` and press 🆗 to select.
The display shows the current firmware and codeplug versions.

Software Update

Displays the date and time of the latest software update carried out via Over-the-Air Programming.

Note: Software Update menu is only available after at least one successful OTAP session.

1　🔲 to access the menu.

2　⬅ or ➡ to `Utilities` and press 🆗 to select.

3　⬅ or ➡ to `Radio Info` and press 🆗 to select.

4   ⬤ or ⬤ to `SW Update` and press ⬤ to select.
The display shows the date and time of the latest software update.

See Over-the-Air-Programming (OTAP) on page 80 for details on OTAP session.

Checking the RSSI Values

Your radio shows the Received Signal Strength Indicator (RSSI) icon at the top of your display. This feature allows you to view the RSSI values.

On the home screen, press ⬤ three times and immediately press ⬤, all within 5 seconds. The display shows current RSSI values. Long press the ⬤ to return to the Home Screen.

See Display Icons on page 21 for details on RSSI icon.

Front Panel Programming (FPP)

Your radio is able to customize certain feature parameters to enhance the use of your radio.

Entering FPP Mode

1   ⬤ to access the menu.

2   ⬤ or ⬤ to `Utilities` and press ⬤ to select.

3   ⬤ or ⬤ to `Program Radio` and press ⬤ to select.

Long press ⬤ at any time to return to the Home screen.

Editing FPP 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.

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 COMMUNICATION PRODUCTS

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

MOTOROLA SOLUTIONS, INC. ("MOTOROLA") warrants the MOTOROLA 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:

Digital Portable Radios	24 Months
Product Accessories (Excluding Batteries and Chargers)	12 Months

MOTOROLA, 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.

This express limited warranty is extended by MOTOROLA 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. MOTOROLA assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of MOTOROLA.

Unless made in a separate agreement between MOTOROLA and the original end user purchaser, MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not furnished by MOTOROLA 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 disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

101

II. GENERAL PROVISIONS:

This warranty sets forth the full extent of MOTOROLA'S responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at MOTOROLA's 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 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 through one of its authorized warranty service locations. If you first contact the company which sold you the Product (e.g., dealer or communication service provider), it can facilitate your obtaining warranty service. You can also call MOTOROLA at 1-800-927-2744 US/Canada.

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 supplied equipment) which adversely affect performance of the Product or interfere with MOTOROLA's 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's published specifications or the FCC certification labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.
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 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 will pay those costs and damages finally awarded against

103

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 that MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim,
2 that MOTOROLA 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's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit MOTOROLA, 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.

MOTOROLA 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, nor will MOTOROLA have any liability for the use of ancillary equipment or software not furnished by MOTOROLA which is attached to or used in connection with the Product. The foregoing states the entire liability of MOTOROLA with respect to infringement of patents by the Product or any parts thereof.

Laws in the United States and other countries preserve for MOTOROLA certain exclusive rights for copyrighted MOTOROLA software such as the exclusive rights to reproduce in copies and distribute copies of such MOTOROLA software. MOTOROLA software may be used in only the Product in which the software was originally embodied and such software in such Product may not be replaced, copied, distributed, modified in any way, or used to produce any derivative thereof. No other use including, without limitation, alteration, modification, reproduction, distribution, or reverse engineering of such MOTOROLA software or exercise of rights in such MOTOROLA software is permitted. No license is granted by implication, estoppel or otherwise under MOTOROLA patent rights or copyrights.

104

VII. GOVERNING LAW:

This Warranty is governed by the laws of the State of Illinois, U.S.A.

MOTOROLA

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