MOTOROLA SOLUTIONS

MOTOTRBO™
PROFESSIONAL DIGITAL TWO-WAY RADIO

DM1600, DM1400 Mobile Radio User Guide

MN008348A01-AB

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ЕАС

Europe

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Limited Warranty

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Chapter 1

Read Me First

This user guide covers the basic operations of the radio models offered in your region.

Notations Used in This Manual

Throughout the text in this publication, you notice the use of **Warning**, **Caution**, and **Notice**. These notations are used to emphasize that safety hazards exist, and the care that must be taken or observed.

⚠️ **WARNING:** An operational procedure, practice, or condition, and so on, which may result in injury or death if not carefully observed.

⚠️ **CAUTION:** An operational procedure, practice, or condition, and so on, which may result in damage to the equipment if not carefully observed.

📝 **NOTE:** An operational procedure, practice, or condition, and so on, which is essential to emphasize.

Special Notations

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

Table 1: Special Notations

Example	Description
Menu key or **PTT** button	Bold words indicate a name of a key, button, or soft menu item.
Your radio shows `Bluetooth On`.	Typewriter words indicate the MMI strings or messages displayed on your radio.
`<required ID>`	The courier, bold, italic, and angle brackets indicate user input.
Setup → Tone → All Tones	Bold words with the arrow in between indicate the navigation structure in the menu items.

Feature and Service Availability

Your dealer or administrator may have customized your radio for your specific needs.

📝 **NOTE:**
- Not all features in the manual are available in your radio. Contact your dealer or administrator for more information.

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

- What are the functions of each button?
- Which optional accessories may suit your needs?
- What are the best radio usage practices for effective communication?
- What maintenance procedures promote longer radio life?

1.1
Software Version

All the features described in the following sections are supported by the software version:

R01.20.01.0000 or later.

Contact your dealer or administrator for more information.

Chapter 2

Introduction

This user guide is written as per the highest tier model offered to the region.

The following table describes ways to access features for different radio models. You receive different indications depending on the radio model.

Table 2: The Feature Access and Indications of Different Radio Model

	Alphanumeric Display	**Numeric Display**
Radio Model	**Figure 1: DM1600**	**Figure 2: DM1400**
Feature Access	- Menu - Programmable Button - Keypad Microphone	- Programmable Button - Keypad Microphone
Feature Indication	- Tone - LED indicator - Display - Voice Announcement or Text-to-Speech	- Tone - LED indicator - Voice Announcement or Text-to-Speech

NOTE: To understand which feature is available with the **Programmable Button**, you can refer to the Programmable Buttons on page 20 topic.

Chapter 3

Radio Care

This section describes the basic handling precaution of the radio.

Table 3: IP Specification

IP Specification	Description
IP54	Allows your radio to withstand adverse field conditions such as being exposed to water splashed from all directions or dust protected for 2–8 hours.

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

- Keep your radio clean and exposure to water should be avoided to help ensure proper functionality and performance.

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

- These surfaces should be cleaned whenever a periodic visual inspection reveals the presence of smudges, grease, and/or grime.

  ⚠ **CAUTION:** The effects of certain chemicals and their vapors can have harmful results on certain plastics. Avoid using aerosol sprays, tuner cleaners, and other chemicals.

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

Chapter 4

Getting Started

This chapter provides instructions on how to prepare your radio for use.

4.1
Turning the Radio On

Procedure:

Press the **Power** button.

Result:
Your radio shows the following indications:

- If the Tones/Alerts function is enabled, a tone sounds.

- The green LED illuminates.

- The display screen illuminates.

Postrequisites:
If your radio does not turn on, ensure that the battery is charged and properly attached. Contact your dealer if your radio still does not turn on.

4.2
Turning the Radio Off

Procedure:

Press and hold the **Power** button.

Result:
Your radio may take up to 7 seconds to completely turn off.

4.3
Resetting the Radio

Prerequisites: Your radio is locked and unresponsive to button presses.

Procedure:

Press and hold the **Power** button for at least 7 seconds.

4.4
Adjusting the Volume

Procedure:

Perform one of the following actions:

- To increase the volume, press the **Volume Up** button.

- To decrease the volume, press the **Volume Down** button.

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

Chapter 5

Radio Overview

Radio overview explains the buttons, icons, and LED indications of your radio.

Figure 3: Alphanumeric Display Model
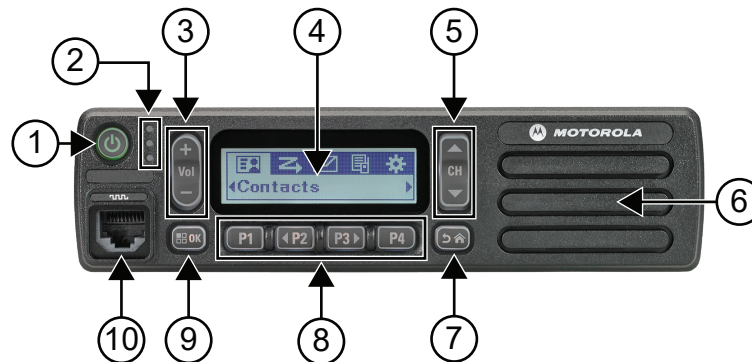
Table 4: Callout Legend

Label	Feature	Description
1	Power button	To turn your radio on and off.
2	LED Indicators	The red, yellow, and green light-emitting diodes indicate operating status.
3	Volume Up or Down buttons	To adjust volume.
4	Display	The display provides visual information of the radio.
5	Channel Up or Down buttons	Navigate to the next channel. In the menu, it is the up or down navigation button.
6	Speaker	Outputs all tones and audio that are generated by the radio (for example, features like keypad tones and voice audio).
7	Back/Home button	Press to return to previous screeen. Press and hold to return to Home screen.
8	Programmable Button 1 to 4. (P1, P2, P3, and P4)	These buttons are field programmable using the Customer Programming Software (CPS). In the menu, P2 and P3 are the left or right navigation button.
9	Menu/OK button	Press to access Menu feature. In the menu, use this key to select.
10	Accessory Connector	Interface point for the accessory to be used with the radio.

Figure 4: Numeric Display Model
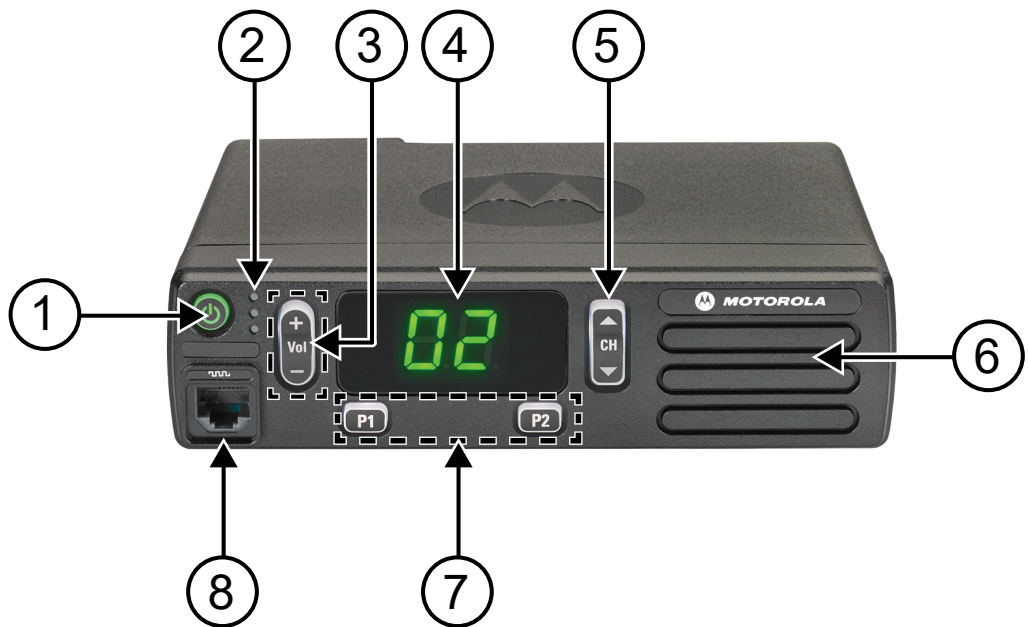
Table 5: Callout Legend

Label	Feature	Description
1	Power button	To turn your radio on and off.
2	LED Indicators	The red, yellow, and green light-emitting diodes indicate operating status.
3	Volume Up or Down buttons	To adjust volume.
4	Display	The display shows two digit numeric information.
5	Channel Up or Down buttons	Navigate to the next channel. In the menu, it is the up or down navigation button.
6	Speaker	Outputs all tones and audio that are generated by the radio (for example, features like keypad tones and voice audio).
7	Programmable Button 1 and 2. (P1 and P2)	These buttons are field programmable using the Customer Programming Software (CPS).
8	Accessory Connector	Interface point for the accessory to be used with the radio.

5.1
Keypad Microphone Overview

You can attach a Keypad Microphone to your radio. Some features required a Keypad Microphone to perform.

Figure 5: PMMN4089_ Enhanced Keypad Microphone

Table 6: Keypad Microphone Overview

Label	Button Name	Description
1	Push-to-Talk (PTT) button	To execute voice operations (for example, Group Call and Private Call).
2	Microphone	Allows the voice to be sent when PTT or voice operations are activated.
3	Number keys	Press these keys repeatedly until the desired letter, number, punctuation, or symbol appears.
4	* or delete key	During numeric entry, press this key to enter *.
		During text entry, press this key to delete a character.
5	0 key	Press this key to enter 0.
		Press and hold this key to enable or disable Caps Lock.
6	# or space key	During numeric entry, press this key to enter #.
		During text entry, press this key to insert a space.
		Press and hold this key to change text entry method.
7	Programmable Buttons	These buttons are field programmable using the Customer Programmer Software (CPS).

5.2
Programmable Buttons

You can program the programmable buttons as shortcuts to the following radio functions through programming software.

📝 **NOTE:** Contact your dealer for more information.

Table 7: Assignable Radio Functions

Function	Description
All Alert Tones	Allows you to toggle all tones and alerts to on or off.
Analog Scrambling	Allows you to toggle the Analog Scrambling feature to on or off.
Analog Scrambling Code	Allows you to toggle the Analog Scrambling Code feature to on or off.
Backlight Brightness	Allows you to adjust the brightness level.
Call Alert.	Allows you to direct access to the contacts list and select the required contact to send a call alert.
Call Log	Allows you to select the call log list.
Channel Announcement	Allows you to play zone and channel announcement voice messages in the current channel.
Channel Down	Allows you to navigate to the previous channel.
Channel Up	Allows you to navigate to the next channel.
Confirm	Allow you to confirm a feature.
Contacts	Provides direct access to the contacts list.
Emergency Off	Allows you to terminate an outgoing emergency call.
Emergency On	Allows you to set up an emergency call.
Manual Dial	Allows you to initiate Private Call by entering the subscriber ID.
Mic AGC	Allows you to toggle the internal microphone automatic gain control (AGC) to on or off.
Monitor	Allows you to monitor a channel.
Notifications	Allows you to direct access to the notification list.
Nuisance Delete	Allows you to temporarily remove an unwanted channel from the scan list, except the Selected Channel. The nuisance deleted channel will be restored into the scan list, for instance, when radio is powered off and back on again (not applicable in Capacity Plus).
One Touch Access	Allows you to direct access to the predefined call features.
Permanent Monitor	Allows you to monitor a selected channel for all radio traffic until function is disabled (not applicable in Capacity Plus).
Power Level	Allows you to toggle the transmit power to high or low.
Privacy	Allows you to toggle the privacy to on or off.
Radio Alias and ID	Provide radio alias and ID.
Repeater or Talkaround	Allows you to toggle between using a repeater and directly communicating with another radio.

Function	Description
Scan	Allows you to toggle the scan to on or off.
Scrambling	Allows you to toggle the Scrambling feature between on or off which is applicable to Analog mode only and not available for the North America region.
Scrambling Code Toggle	Allows you to toggle the Scrambling Code feature between 3.39 kHz or 3.29 kHz (applicable to Analog mode only and not available for NA region).
Status	Allows you to select the status list menu.
Text Message	Allows you to select the text message menu.
Tight/Normal Squelch	Allows you to toggle between tight or normal squelch (applicable to Analog mode only).
Trill Enhancement	Allows you to toggle the trill enhancement to on or off.
Voice Announcement	Allows you to toggle the Voice Announcement to on or off.
Voice Operating Transmission (VOX)	Allows you to toggle the VOX to on or off.
Zone Selection	Allows you to select from a list of zones.

5.3
Icons

Icons are only available for radio with display.

Your radio display shows the radio status, text entries, and menu entries.
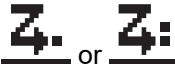
5.3.1
Display Icons

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

Table 8: Display Icons

Icon	Description
	Emergency
	Monitor
	Notification
	Received Signal Strength Indicator (RSSI)

Icon	Description
	Scan[1]
	Scan Priority 1 or Priority 2[1]
	Secure
	Talkaround[1]
	Tones Disable
	Unsecure
	Vote Scan

5.3.2
Call Icons

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

Table 9: Call Icons

Icons	Description
	Private Call
	Group Call/All Call

5.3.3
Mini Notice Icons

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

Table 10: Mini Notice Icons

Icon	Description
	Failed Transmission (Negative)
	Successful Transmission (Positive)

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[1] Not available in Capacity Plus.

Icon	Description
	Transmission in Progress (Transitional)

5.3.4
Sent Items Icons

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

Table 11: Sent Items Icons

Icon	Description
	In Progress
	Send Failed
	Sent Successfully
	Individual or Group Message Unread

5.4
LED Indications

The LED Indicator shows the operational status of your radio.

A qualified technician can permanently disable the LED indication by preprogramming it.

Table 12: LED Indications

Indication	Status
Blinking Red	• The radio has failed the self-test upon powering up. • The radio is receiving an emergency transmission. • The radio is transmitting in low battery state. • The radio has moved out of range if Auto-Range Transponder System is configured.
Solid Yellow	• The radio is monitoring a conventional channel.
Blinking Yellow	• The radio has yet to respond to a Call Alert. • The radio is scanning for activity. • The radio has Flexible Receive List enabled.
Double Blinking Yellow	• The radio is actively searching for a new site. • The radio has yet to respond to a Group Call Alert.

Indication	Status
	● The radio is locked.
Solid Green	● The radio is powering up.
	● The radio is transmitting.
	● The radio is sending a Call Alert or an emergency transmission.
Blinking Green	● The radio is receiving a call or data.
	● The radio is detecting activity over the air.
	NOTE: The activity may or may not affect the programmed channel of the radio due to the nature of the digital protocol.
Double Blinking Green	The radio is receiving a privacy-enabled call or data.

Chapter 6

System Overview

System overview explains what type of systems and modes available in the radio.

6.1
Conventional Analog and Digital Modes

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

Certain features are unavailable when switching from digital to analog mode and analog to digital mode, whereas some are available in both.

There are minor differences on how each feature works but they do not affect the performance of your radio.

6.2
IP Site Connect

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

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

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

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

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 channels in the roam list during the automatic roam operation to locate the best site. A roam list supports a maximum of 16 channels, including the selected channel.

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

Chapter 7

Zone and Channel Selections

A zone is a group of channels. You can program each channel with different features that support different groups of users.

Table 13: Number of Supported Zones and Channels

Model	Zone	Channels
Alphanumeric Display	25	160
Numeric Display	1	16

7.1
Selecting Zones

Procedure:

From the menu, select **Zone** → `<required Zone>`.

Result: The display shows `<Zone>` `Selected`.

7.2
Selecting Zones Using Alias Search

Procedure:

1. From the menu, select **Zone**.

2. Enter the required characters for the alias.

Result:
The display shows `<Zone>` `Selected`.

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

.

7.3
Selecting Channels

Procedure:

Press the **Channel Up** or **Channel Down** buttons.

📝 **NOTE:** If **Virtual Channel Stop** is enabled, your radio stops proceeding beyond the first or the last channel, and a tone is heard.

Result: Your radio switches to your preferred channel.

7.4

Selecting Channels Using Direct Channel Dial

Procedure:

At the home screen, enter the *<required channel number>*→ **Menu/OK**.

Types of Radio Calls

There are several ways that you can make a call with your radio depending on the types of calls and system available on your radio.

Table 14: Types of Radio Calls

Call Type	Description
Group Call	A Group Call is a point-to-multipoint call operation. Your radio must be configured as a member of the group for you to communicate with each other.
Broadcast Voice Call	A Broadcast Voice Call is a one-way voice call from any user to an entire talkgroup. The Broadcast Call feature allows only the call initiating user to transmit to the talkgroup, while the recipients of the call cannot respond.
Private Call	A Private Call is a call from an individual radio to another individual radio. You can set up a Private Call after performing a radio presence check or call immediately.
Selective Call	A Selective Call is a call from an individual radio to another individual radio. This feature is only supported in Analog system.
All Call	An All Call is a call from an individual radio to every radio on the site or every radio at a group of sites. This feature is used to make an important announcement.
Unaddressed Call	An Unaddressed Call is a group call to one of the 16 predefined group IDs.
Open Voice Channel Mode (OVCM)	An OVCM is a call from a radio that is not preconfigured to work in a particular system during a group or individual call. The OVCM group call supports broadcast calls.

When a call is interrupted, you hear a continuous Talk Prohibit Tone. Releasing the **PTT** button allows you to receive the call.

Channel Free Indication feature can be programmed on your radio by your dealer. If the Channel Free Indication feature is enabled, you hear a short alert tone when the recipient releases the **PTT** button, indicating the channel is free for you to respond.

8.1
Making Calls on the Radio

Procedure:

Perform one of the following actions based on the type of calls:

Option	Actions
Making group calls, private calls, unaddressed calls, or selective calls	**a.** Select a channel with an active ID or alias. **b.** To call, press and hold the **PTT** button. **c.** Wait for the Talk Permit Tone to end, and speak into the microphone. **d.** To listen, release the **PTT** button.
Making broadcast calls, all calls, or OVCM calls	**a.** Select a channel with an active group ID or alias. **b.** To call, press and hold the **PTT** button.

If your radio does not detect voice activity for a predetermined period, the call ends.

8.2
Making Calls with Contact List

Procedure:

Perform one of the following actions based on the type of calls:

Option	Actions

Making group calls or private calls with Contact List	**a.** From the menu, select **Contacts**.
	b. Perform one of the following actions:
	    ● To do alias search, enter the required characters for the alias.
	    ● To search for the alias manually, scroll through the contact list with the **P2** or **P3** button.
	c. To call, press and hold the **PTT** button.
	d. Wait for the Talk Permit Tone to end, and speak into the microphone.
	e. To listen, release the **PTT** button.

Option	Actions

Making broadcast calls or all calls with Contact List	a. From the menu, select **Contacts**.
	
	b. Perform one of the following actions:
	
	    ● To do alias search, enter the required characters for the alias.
	
	    ● To search for the alias manually, scroll through the contact list with the **P2** or **P3** button.
	
	c. To call, press and hold the **PTT** button.
	
	d. Wait for the Talk Permit Tone to end, and speak into the microphone.

8.3
Making Calls with Manual Dial

The following steps are applicable to Private Call only.

Procedure:

1. From the menu, select **Contacts** → **Manual Dial** → **Radio Number**.

2. To enter or edit the ID, enter the required numbers.

3. To call, press and hold the **PTT** button.

4. Wait for the Talk Permit Tone to end, and speak into the microphone.

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

8.4
Making Calls with Programmable Number Keys

Procedure:

Perform one of the following actions based on the type of calls:

Option	Actions
Making group calls or private calls with Programmable Number Keys	a. From the home screen, to make a call to the predefined alias, press and hold the programmed number key. b. To call, press and hold the **PTT** button. c. Wait for the Talk Permit Tone to end, and speak into the microphone. d. To listen, release the **PTT** button.

Option	Actions
Making broadcast calls or all calls with Programmable Number Keys	**a.** From the home screen, to make a call to the predefined alias, press and hold the programmed number key. **b.** To call, press and hold the **PTT** button. **c.** Wait for the Talk Permit Tone to end, and speak into the microphone.

8.5
Receiving and Responding to Calls on the Radio

When you receive calls, your radio shows the following indications:

- The green LED blinks.

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

- The display shows the ID and alias and call status.

  📝 **NOTE:** You cannot respond to a Broadcast Call or All Call.

Procedure:

1. To respond, press and hold the **PTT** button.

2. Wait for the Talk Permit Tone to end, and speak into the microphone.

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

8.6
Accepting or Declining Private Calls

When you receive Private Calls configured as Full Off Air Call Set-Up (FOACSU), your radio shows the following indications:

- The green LED blinks.

- The display shows the alias and the Private Call icon.

Accepting Private Calls

Procedure:

1. To accept Private Calls, perform one of the following actions:

   - Select **Accept**.

   - Press and hold the **PTT** button.

2. Wait for the Talk Permit Tone to end, and speak into the microphone.

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

Declining Private Calls

Procedure:

To decline Private Calls, perform one of the following actions:

- Select **Reject**.
- Select the **Back/Home** button.

Chapter 9

Advanced Features

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

9.1
Analog Message Encode

Your radio can send preprogrammed messages from the Message list to a radio alias or the dispatcher.

9.1.1
Sending MDC Encode Messages to Dispatchers

Procedure:

From the menu, select **Message** → **Quick Text** → *<required message>*.

Result:
If the request is successful, your radio shows the following indications:

● A positive indicator tone sounds.

● The display shows a positive mini notice.

If the request is unsuccessful, your radio shows the following indications:

● A negative indicator tone sounds.

● The display shows a negative mini notice.

9.2
Analog Status Update

Your radio can send preprogrammed messages from the Status List indicating your current activity to a radio contact (for 5-Tone systems) or the dispatcher (for Motorola Data Communication systems).

For Motorola Data Communication (MDC) systems, the last acknowledged message is kept at the top of the Status list. The other messages are arranged in alphanumeric order.

9.2.1
Sending Status Updates to Predefined Contacts

Procedure:

Perform one of the following actions:

● For Motorola Data Communication (MDC) systems, from the menu, select **Status** → *<required status>* → **Set as Default** → **Menu/OK**.

● For 5-Tone systems, from the menu, select **Status** → *<required status>* → **Set as Default**.

Result:
For MDC systems, if the request is successful, your radio shows the following indications:

● A positive indicator tone sounds.

- The display shows a positive mini notice.

For MDC systems, if the request is unsuccessful, your radio shows the following indications:

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

For 5-Tone systems, if the request is successful, your radio display shows a ✔ beside the acknowledged status.

For 5-Tone systems, if the request is unsuccessful, your radio display shows a ✔ beside the previous status.

9.3
Auto-Range Transponder System

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

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

Your radio provides indications as follows:

Table 15: Auto-Range Transponder System Indications

Indication	Description
First-Time Alert	- A tone sounds. - The display shows channel alias and `In Range`.
ARTS-in-Range Alert	- A tone sounds, if programmed. - The display shows channel alias and `In Range`.
ARTS-Out-of-Range Alert	- A tone sounds. - The red LED rapidly blinks. - The display shows `Out of Range` alternating with the Home screen.

9.4
Call Alert Operation

Call Alert paging enables you to alert the recipient to call you back when they can. This feature is applicable for subscriber aliases or IDs only.

9.4.1
Making Call Alerts

Procedure:

Perform one of the following actions:

Option	Actions
Making Call Alerts with Contact List	From the menu, select **Contacts** → *<required ID or alias>* → **Call Alert**.
Making Call Alerts with Manual Dial	a. From the menu, select **Contacts** → **Manual Dial**. b. Enter the ID. c. Select **Call Alert**.

Result:
If the request is successful, the display shows a positive mini notice.

If the request is unsuccessful, the display shows a negative mini notice.

9.4.2
Responding to Call Alerts

When you receive a Call Alert, your radio shows the following indications:

● A repetitive tone sounds.

● The yellow LED blinks.

● The display shows a notification list of the Call Alert and the ID of the caller.

Procedure:

Depending on the configuration by your dealer, perform one of the following actions:

● Respond to the caller with a Private Call by pressing the **PTT** button.

● Continue with Talkgroup communication by pressing the **PTT** button. To respond to the Call Alert, navigate to the Missed Call log in the Call Log menu.

9.5
Call Indicator Settings

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

9.5.1
Activating or Deactivating Call Ringers

You can activate or deactivate call ringers for Private Calls, Text Messages, Call Alerts, Telemetry Status with Text, and Selective Calls.

Activating Call Ringers

Procedure:

1. From the menu, select **Utilities → Radio Settings → Tones/Alerts → Call Ringers**.

2. Select one of the following options:
   - **Call Alert**
   - **Private Call**
   - **Selective Call**
   - **Messages**

3. Select the required tone.

Result:
If you activate call ringers, your radio display shows a ✔ and the selected tone.

Deactivating Call Ringers

Procedure:

1. From the menu, select **Utilities → Radio Settings → Tones/Alerts → Call Ringers**.

2. Select one of the following options:
   - **Call Alert**
   - **Private Call**
   - **Selective Call**
   - **Messages**

3. Select **Off**.

Result:
If you deactivate call ringers, your radio display shows a ✔ beside `Off`.

9.5.2
Escalating Alarm Tone Volume

You can program your radio to continually alert you when the radio calls remain unanswered. This alert automatically increases the alarm tone volume over time. This feature is called Escalert.

Procedure:

From the menu, select **Utilities → Radio Settings → Tones/Alerts → Escalert**.

Result:
If Escalert is enabled, the display shows a ✔ beside `Enabled`.

If Escalert is disabled, the ✔ disappears beside `Enabled`.

9.6
Call Log Features

Your radio tracks all recent outgoing, answered, and missed Private Calls. The call log feature is used to view and manage recent calls.

Missed Call Alerts can be included in call logs depending on the system configuration on your radio. You can perform the following tasks in each call list:

- View Details
- Delete Calls
- Store Alias or IDs to Contacts

9.6.1
Viewing Recent Calls

Procedure:

1. From the menu, select **Call Log**.

2. Select one of the following lists:
    - **Missed**
    - **Answered**
    - **Outgoing**

3. View calls by scrolling through the list.

Result: The display shows the most recent entry.

9.6.2
Storing Aliases or IDs from the Call List

Procedure:

1. From the menu, select **Call Log** → *<required list>* → *<required ID or alias>* → **Store**.

2. When you see a blinking cursor, enter the rest of the characters of the alias.

    You can store an ID without an alias.

Result:
The display shows a positive mini notice.

9.6.3
Deleting Calls from the Call List

Procedure:

From the menu, select → **Call Log** → *<required list>* → *<required ID or alias>* → **Delete Entry?** → **Yes**.

> 📝 **NOTE:** If you select **No**, your radio returns to the previous screen. If the list is empty, a tone sounds and the display shows `List Empty`.

Result: The display shows `Entry Deleted`.

9.6.4
Viewing Details from the Call List

Procedure:

From the menu, select → **Call Log** → *<required list>* → *<required ID or alias>* → **View Details**.

9.7
Contacts Settings

The Contacts menu provides an address book function on your radio. Each entry corresponds to an ID for making calls. The entries are alphabetically sorted.

Each entry supports different call types depending on your settings. The contact entries display Call Type, Call Alias, and Call ID information.

You can assign entries to programmable number keys as quick dial. You see a check mark before each number key that is assigned to an entry. If the check mark is before the `Empty` interface, a number key is not assigned to the entry.

Personal Computer (PC) Calls and Dispatch Calls are data-related. These calls are only available with an application.

Your radio supports Analog and Digital contacts, with a maximum of 500 members for each Contacts Lists.

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

9.7.1
Adding New Contacts

Procedure:

1. From the menu, select **Contacts** → **New Contact** → *<required contact type>*.

   The contact type options are **Radio Contact** or **Phone Contact**.

2. Enter the contact number.

3. Enter the contact name.

4. Select the required ringer type.

Result:
A positive tone sounds. The display shows a positive mini notice. For Connect Plus, the display shows `Contact Saved`.

9.7.2
Setting Default Contacts

Procedure:

From the menu, select → **Contacts** → *<required ID or alias>* → **Set as Default**.

Result:
If the setting is successful, your radio shows the following indications:

- A positive indicator tone sounds.

- The display shows a positive mini notice.

- The display shows a ✔ beside the selected contact.

9.7.3
Assigning Entries to Programmable Number Keys

Procedure:

1. From the menu, select **Contacts** → *<required ID or alias>* → **Program Key**.

2. Select the chosen number key.

3. If the chosen number key is already assigned to an entry, perform one of the following actions:

   - To overwrite the existing number key assignment, select **Yes**.

   - To retain the existing number key, select **No** and select another number key.

   If you overwrite the existing number key assignment, your radio shows the following indications:

   - A positive tone sounds.

   - The display shows `Contact Saved` and a positive mini notice.

9.7.4
Removing Associations Between Entries and Programmable Number Keys

Procedure:

1. From the menu, select **Contacts** → *<required ID or alias>* → **Program Key** → **Empty**.

   The display shows `Clear from all keys`.

2. Select **Yes**.

Result:
A positive tone sounds. The display shows `Contact Saved` and then automatically returns to the previous menu.

> **NOTE:** When an entry is deleted, the association between the entry and programmed number key is removed.

9.8
Emergency Operation

Emergency Alarms are used to indicate critical situations. You can initiate an Emergency Alarm at any time even when there is activity on the current channel.

You can only assign one type of Emergency Mode to the Emergency button for each channel. Your radio supports the following Emergency Modes:

Table 16: Emergency Modes

Emergency Mode	Description
Emergency Alarm	An Emergency Alarm is not a voice call. This alarm is an emergency notification sent to radios that are programmed to receive them.
Emergency Alarm with Call	Your radio transmits an Emergency Alarm. When the Emergency Alarm is acknowledged, the group of radios can communicate over the assigned emergency channel. Press and hold the **PTT** button to talk.
Emergency Alarm with Voice to Follow	Your radio transmits an Emergency Alarm. When the Emergency Alarm is acknowledged, your radio microphone is automatically activated which is known as Hot Mic. Hot Mic allows you to communicate with the group of radios without pressing the **PTT** button. **NOTE:** ● If the Emergency Cycle Mode is enabled, repetitions of Hot Mic and receiving period are made for a programmed duration. ● If you press and hold the **PTT** button during the programmed Hot Mic receiving period, your radio proceeds to make a call and stops Hot Mic receiving period timer. Your radio remains in emergency mode. Once **PTT** button is released, Hot Mic receiving period timer restarts. ● If the Emergency Alarm request fails, the radio does not retry to send the request, and enters the Hot Mic directly.
Silent Emergency Alarm	Your radio transmits an emergency notification without any audio or visual indicators.
Silent Emergency Alarm with Call	Your radio transmits an emergency notification without any audio or visual indicators. Your radio suppresses all audio and visual indicators of the emergency until you press and hold the **PTT** button to talk.
Silent Emergency Alarm with Voice to Follow	Your radio transmits an emergency notification without any audio or visual indicators. When the Emergency Alarm is acknowledged, the Hot Mic is activated. You can communicate with the group of radios without pressing the **PTT** button. **NOTE:** The indicators only appear when you press the **PTT** button.

Your dealer can set the Emergency On or Off function and button-press duration of the Emergency button. Contact your dealer for more information.

Your dealer can program the Emergency Search tone. When the tone is programmed, the Emergency Search tone sounds. The tone mutes when your radio transmits or receives voice, and stops when your radio exits Emergency mode.

9.8.1
Sending Emergency Alarms

Procedure:

Press the programmed **Emergency On** button or **Emergency** foot switch.

Result:
If the alarm is successfully sent, your radio shows the following indications:

● The Emergency tone sounds.

- The green LED blinks.
- The display shows `Alarm Sent`.

If the alarm is unsuccessful after all retries, your radio shows the following indications:

- A negative tone sounds.
- The display shows `Alarm Failed`.

9.8.2
Sending Emergency Alarms with Call

Procedure:

1. Press the programmed **Emergency On** button or **Emergency** foot switch.

   If the alarm is successfully sent, your radio shows the following indications:

   - The Emergency tone sounds.
   - The green LED blinks.
   - The display shows `Alarm Sent`.

2. To call, press and hold the **PTT** button.
3. Wait for the Talk Permit Tone to end, and speak into the microphone.
4. To listen, release the **PTT** button.

   If your radio does not detect voice activity for a predetermined period, the call ends.

9.8.3
Sending Emergency Alarms with Voice to Follow

Procedure:

1. Press the programmed **Emergency On** button or **Emergency** foot switch.

   If the alarm is successfully sent, the Emergency tone sounds and Hot Mic is activated.

2. Speak into the microphone without pressing the **PTT** button.

   Your radio automatically stops transmitting when:

   - The cycling duration between hot mic and receiving calls expires if Emergency Cycle Mode is enabled.
   - The hot mic duration expires if Emergency Cycle Mode is disabled.

9.8.4
Receiving Emergency Alarms

When you receive an Emergency Alarm, your radio shows the following indications:

- A tone sounds.
- The red LED blinks.

- The display shows the Emergency icon, and the Emergency caller alias or if there is more than one alarm, all emergency caller aliases are displayed in an Alarm List.

Procedure:

1. When the Emergency Alarm List appears, perform one of the following actions:
    - Select **OK** button.
    - Select the *<required ID>*.

2. Select **OK** button to view the action options.

9.8.5
Responding to Emergency Alarms

The recipient can only support one Emergency Alarm at a time. If more than one alarm is received, the second Emergency Alarm overrides the first alarm.

When you receive an Emergency Alarm, your radio shows the following indications:

- A tone sounds.
- The red LED blinks.
- The display shows the Emergency Alarm List, Emergency Talkgroup ID, and ID of the transmitting radio.

Prerequisites: Enable the Emergency Alarm Indication.

Procedure:

1. Transmit non-emergency voice to the same group that the Emergency Alarm targeted by pressing the **PTT** button.

    > **NOTE:** Only the sender of the emergency alarm can transmit emergency voice. All recipients and other radios transmit non-emergency voice to allow other radios to send and receive Emergency Alarms in the same group.

2. Wait for the Talk Permit Tone to end, and speak into the microphone.

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

Result:
When the sender of the emergency responds, your radio shows the following indications:

- For Other Systems, the green LED blinks.
- The display shows the **Group Call** icon, Emergency Talkgroup ID, and the ID of the transmitting radio.

9.8.6
Reinitiating the Emergency Mode

Procedure:

Perform one of the following actions:

- Change the channel while the radio is in Emergency mode.

    > **NOTE:** You can reinitiate emergency mode only if you enable emergency alarm on the new channel.

- Press the programmed **Emergency On** button during an emergency initiation or transmission state.

Result: The radio exits the Emergency mode, and reinitiates Emergency.

9.8.7
Exiting the Emergency Mode

Your radio automatically exits emergency mode when you are having the following scenarios:

- An acknowledgment is received from the system (for emergency alarms only).

- All retries to send the alarm are exhausted.

- Turning off your radio. When you turn on your radio, the emergency will not reinitiate automatically.

- Change your current channel to a channel with no Emergency.

Procedure:

Press the programmed **Emergency Off** button.

Result:
If you exited the Emergency successfully, your radio shows the following indications:

- The tone ceases.

- The red LED extinguishes.

9.9
Entering the Front Panel Programming

You can customize certain feature parameters in the Front Panel Programming (FPP) to enhance the use of your radio.

Procedure:

1. From the menu, select **Utilities** → **Program Radio**.

2. Enter your current eight-digit password.

3. Select the required setting.

9.10
Lone Worker

This feature prompts an emergency if there is no user activity (button press or channel selector activation) for a predefined time.

When there is no user activity for a predefined time, the radio prewarns you using an audio indicator once the inactivity timer expires.

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

9.11
Permanent Monitor

The Permanent Monitor feature is used to continuously monitor a selected channel for activity.

9.11.1
Setting the Permanent Monitor

Procedure:

Press the programmed **Permanent Monitor** button.

Result:
When your radio enters the mode, your radio shows the following indications:

● An alert tone sounds.

● The yellow LED illuminates.

● The display shows `Permanent Monitor On` and the Monitor icon.

When your radio exits the mode, your radio shows the following indications:

● An alert tone sounds.

● The yellow LED extinguishes.

● The display shows `Permanent Monitor Off`.

9.12
Notification List

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

The display shows the Notification icon when the Notification list has one or more events.

The list supports a maximum of 40 unread events. When the list is full, the next event automatically replaces the oldest event. After the events are read, they are removed from the Notification list.

The maximum number of notifications are 30 text messages and 10 missed calls or call alerts. This maximum number depends on individual feature (job tickets, text messages, missed calls, or call alerts) list capability.

> **NOTE:** Your radio suspends Scan when the Notification list is displayed. Scanning resumes when your radio exits the Notification list. Select **Back/Home** button or wait for the menu timer to expire to exit the Notification list.

9.12.1
Accessing the Notification List

Procedure:

From the menu, select **Notification**.

Result: The display shows all the available events.

9.13
Scan

Depending on the supported system available on your radio, your radio may have different behavior on Scan.

Channel Scan

Channel Scan is available for Other Systems.

When you start a scan, your radio scans through the programmed scan list for the current channel looking for voice activity. If you are on a digital channel, and your radio locks onto an analog channel, your radio automatically switches from digital mode to analog mode during the call and the same behavior occurs if you are on analog channel.

Table 17: Scan Methods

Method	Description
Main Channel Scan (Manual)	Your radio scans all the channels or groups in your scan list. When scanning, your radio may, depending on the settings, automatically start on the last scanned active channel or group, or on the channel where scan was initiated.
Auto Scan (Automatic)	Your radio automatically starts scanning when you select a channel or group that has Auto Scan enabled.

When you miss a call from a talkgroup or a channel that is in your scan list, you might be having the following situations:

- Scan feature is not on.

- Scan list member has been disabled through the menu.

- You are already participating in another call.

> **NOTE:** If your radio joins a call for a Zone Scan List member from a different Zone and Call Hang Timer expires before you are able to respond, you must navigate to the Zone and Channel of the Scan List Member and start a new call to respond.

9.13.1
Turning the Scan On

Procedure:

From the menu, select **Scan** → **Turn On**.

Result:
If scan is turned on, your radio shows the following indications:

- The yellow LED blinks.

- The display shows `Scan On` and the scan icon.

9.13.2
Turning the Scan Off

Procedure:

From the menu, select **Scan** → **Turn Off**.

Result:
If scan is turned off, your radio shows the following indications:

- The LED extinguishes.

- The display shows `Scan Off` and the scan icon disappears.

9.13.3

Scan Talkback

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

Depending on how you configure the Scan Talkback feature, you will see two different scenarios if you press the PTT button when your radio scans into a call from the selectable group scan list.

Table 18: Scan Talkback Type

Type	Description
Scan Talkback Disabled	During an ongoing scanned call, if the **PTT** button is pressed, the scanned call is terminated and a new call is launched.
Scan Talkback Enabled	During an ongoing scanned call, if the **PTT** button is pressed, you can talkback to the scanned call.

> **NOTE:**
> If you face the following scenarios:
>
> 1. Scan into a call for a group that is not assigned to a channel position in the currently selected zone.
>
> 2. Miss the Hang Time of the call.
>
> Perform the following actions:
>
> 1. Switch to the proper zone.
>
> 2. Select the channel position of the group to talk back to that group.

9.13.4

Nuisance Channels

Nuisance Channel is a channel that generates unwanted call continually.

You can temporarily remove the unwanted channel from the scan list and restore it back later on. This capability does not apply to the channel designated as the Selected Channel.

9.13.4.1

Deleting Nuisance Channels

Prerequisites: Your radio is scanned into the Nuisance Channel.

Procedure:

1. Press the programmed **Nuisance Delete** button until you hear a tone.

2. Release the programmed **Nuisance Delete** button.

9.13.4.2

Restoring Nuisance Channels

Procedure:

Perform one of the following actions:

- Restart your radio.

- Turn off and then turn on the scan.
- Change the channel using the **Channel Up or Down** button.

9.13.5
Vote Scan

Vote Scan provides wide coverage in areas with 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.

During a vote scan, your radio shows the following indications:

- The yellow LED blinks.
- The display shows the Vote Scan icon.

9.13.6
Scan Lists

You can create and assign individual channels or groups in Scan Lists. Your radio scans for voice activity by cycling through the channel or group sequence specified in the scan list for the current channel or group. Scan List also known as Receive Group List.

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 analog and digital entries.

9.13.6.1
Viewing the Scan List

Procedure:

1. From the menu, select **Scan → View/Edit List**.
2. Perform one of the following actions:
   - To do alias search, enter the required characters for the alias.
   - To search for the alias manually, scroll through the contact list with the **P2** or **P3** button.

9.13.6.2
Editing Priority for the Scan List

Procedure:

1. To view and edit the priority of the talkgroup, from the menu, select **Scan → View/Edit List → *<required alias>* → Edit Priority**.
2. Perform one of the following actions:
   - To edit the required alias as Priority 1, select **Priority 1**.
   - To edit the required alias as Priority 2, select **Priority 2**.
   - To edit the required alias as no priority, select **None**.
3. If another talkgroup has been assigned to Priority 1 or Priority 2, you can overwrite the current priority when the display shows `Overwrite Existing?`.
   - To overwrite, select **Yes**.

- To return to previous screen, select **No**.

9.13.6.3
Adding New Entries to the Scan List

Procedure:

1. From the menu, select **Scan** → **View/Edit List** → **Add Member** → *<required alias>*.

2. Select the *<required priority level>* → **Menu/OK**.

3. Perform one of the following actions:

   - To add another, select **Yes**.

   - To save the current list, select **No**.

9.13.6.4
Deleting Entries from the Scan List

Procedure:

1. From the menu, select **Scan** → **View/Edit List** → *<required alias>* → **Delete**.

2. Perform one of the following actions:

   - To delete the alias, select **Yes**.

   - To return to previous screen, select **No**.

9.14
Received Signal Strength Indicator

This feature allows you to view the Received Signal Strength Indicator (RSSI) values.

The display shows the RSSI icon at the top right corner.

9.14.1
Viewing RSSI Values

Procedure:

From the Home Screen, press **Back/Home** button three times and press and hold **Back/Home** button once.

Result: The display shows the current RSSI values.

9.15
Text Messaging

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

There are two types of text messages, Digital Mobile Radio (DMR) Short Text Message and text message. The maximum length of a DMR Short Text Message is 23 characters. The maximum length of a text message

is 280 characters, including the subject line. The subject line only appears when you receive messages from e-mail applications.

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

9.15.1
Viewing Text Messages

Procedure:

1. From the menu, select **Messages**.

2. Perform one of the following actions:

    ● For Text Messages or Telemetry Status, select **Inbox** → *`<required messages>`*.

    ● For Sent Text Messages, select **Sent Items** → *`<required messages>`*.

Result:
If the Inbox, Drafts, or Sent Items folder is empty:

● If the Keypad Tone is enabled, a tone sounds.

● The display shows `List Empty`.

If the Inbox, Drafts, or Sent Items folder is not empty, the display shows a subject line if the message is from an email application.

For Telemetry Status, you cannot reply to the message and your display shows `Telemetry: <Status Text Message>`.

9.15.2
Composing Text Messages

Procedure:

1. From the menu, select **Messages** → **Compose**.

2. Compose your message.

3. Perform one of the following actions:

    ● To save a text message, select **Back/Home** → **Save**.

    ● To discard a text message, select **Back/Home** → **Discard**.

    NOTE: If you accidentally select the **Back/Home** button, you can select `Edit` to continue composing your text message.

    If your text message is saved, you can view and edit your text message in the Draft folder.

    If your text message is discarded, your text message is deleted.

9.15.3
Sending Text Messages

Prerequisites: Compose your message.

Procedure:

Perform one of the following actions:

Option	Actions
Sending Text Messages	1. From your composed message, select the **Menu/OK** button. 2. Perform one of the following actions: ○ Select the ***\<required ID or alias>***. ○ Select **Manual Dial** and enter the ID.
Sending Sent Text Messages	From your sent message, select **Menu/OK** → **Resend**.
Sending Quick Text Messages	1. From the menu, select **Messages** → **Quick Text**. 2. Perform one of the following actions: ○ Select the ***\<required ID or alias>***.
Resending Text Messages	Select **Resend**.

Result:

If your text message is successfully sent, your radio shows the following indications:

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

If your text message fails to send, the display shows the following options:

- `Resend`
- `Forward`
- `Edit`

9.15.4
Responding to Text Messages

When you receive a text message, your radio displays the following items:

- The Notification List with the ID or alias of the sender.
- The Message icon.

> **NOTE:** If you press the **PTT** button, your radio exits the Text Message alert screen and makes a Private or Group Call to the sender.

Procedure:

Perform one of the following actions:

- To read the text message, select **Read**.
- To read the text message later, select **Read Later**.
- To delete the text message, select **Delete**.

9.15.5
Forwarding Text Messages

Procedure:

1. From the **Resend** option screen, select **Messages**.

2. To forward a Text Message from the Inbox or Sent Item folder, select ***<required message>*** → **Forward**.

Result:
If your text message is successfully forwarded, your radio shows the following indications:

- A positive tone sounds.

- The display shows positive mini notice.

If your text message fails to forward, the display shows the following indications:

- A negative tone sounds.

- The display shows negative mini notice.

9.15.6
Deleting Text Messages

Procedure:

1. From the menu, select **Messages**.

2. Perform one of the following actions:

   - To delete text messages, select **Inbox** → ***<required text message>*** → **Menu/OK** → **Delete**.

   - To delete all text messages, select **Inbox** → **Delete All**.

   - To delete sent text messages, select **Sent Items** → ***<required text message>*** → **Menu/OK** → **Delete**.

   - To delete all sent text messages, select **Sent Items** → **Delete All**.

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Chapter 10: Utilities

Chapter 10

Utilities

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

10.1
Talkaround

This feature allows you to continue communicating when your repeater is non-operational, or when your radio is out of range from the repeater but within the talk range of other radios.

The talkaround setting is retained even after powering down.

10.1.1
Toggling Between Repeater and Talkaround Mode

Procedure:
1. From the menu, select **Radio Settings** → **Talkaround**.
2. Select the **Menu/OK** button to toggle between Talkaround or Repeater mode.

Result:
When Talkaround mode is enabled, a ✔ appears beside `Enabled`.

When Talkaround mode is disabled, the ✔ disappears beside `Enabled`.

10.2
Setting Radio Tones and Alerts

Procedure:
1. From the menu, select **Radio Settings** → **Tones/Alerts**.
2. Select one of the following options:
   - **All Tones**
   - **Talk Permit**
   - **Keypad Tone**
   - **Power Up Tone**
   - **Vol.Offset** → `<required volume>`.

Result: A ✔ appears beside the setting.

10.3
Analog Scrambling

This analog-only feature prevents eavesdropping by unauthorized users on a channel.

Your radio must have analog scrambling enabled on the channel to send and receive an analog scrambling-enabled transmission. On an analog scrambling-enabled channel, the radio is not able to receive clear or unscrambled transmissions.

Your radio supports two analog scrambling codes that can be toggled by using the programmable button.

10.3.1
Setting the Analog Scrambling

Procedure:

1. From the menu, select **Utilities** → **Radio Settings** → **Scramble**.
2. Perform one of the following actions:
   - To enable Analog Scrambling, select the **Menu/OK** button.
   - To disable Analog Scrambling, select the **Menu/OK** button.

Result:
If the Analog Scrambling is enabled, a ✔ appears beside `Enabled`.

If the Analog Scrambling is disabled, the ✔ disappears beside `Enabled`.

10.3.2
Setting Analog Scrambling Codes

Procedure:

From the menu, select **Utilities** → **Radio Settings** → **Scramble** → *`<required code>`*.

10.4
Setting Power Levels

Procedure:

1. From the menu, select **Radio Settings** → **Power**.
2. Perform one of the following actions:
   - To enable communication with radios located at a considerable distance from you, select **High**.
   - To enable communication with radios in closer proximity, select **Low**.

10.5
Adjusting Display Settings

Procedure:

From the menu, select **Utilities** → **Radio Settings** → **Display** → **Brightness**.

10.6

Turning Horns/Lights On

Your radio is able to notify you of an incoming call through the horns and lights feature. When activated, an incoming call sounds the horn and turns on the light of your vehicle. This feature needs to be installed through your radio rear accessory connector by your dealer.

Procedure:

From the menu, select **Utilities** → **Radio Settings** → **Horns/Lights** → **Turn On**.

Result: If horns and lights feature is turned on, the display shows a ✔ beside `Enabled`.

10.7

Turning Horns/Lights Off

Procedure:

From the menu, select **Utilities** → **Radio Settings** → **Horns/Lights** → **Turn Off**.

Result: If horns and lights feature is turned off, the ✔ disappears beside `Enabled`.

10.8

Setting Squelch Levels

You can adjust the squelch level to filter out unwanted calls with low signal strength or channels with noise higher than normal background.

Procedure:

1. From the menu, select **Radio Settings** → **Squelch**.

2. Perform one of the following actions:

    - For a normal squelch level, select **Normal Squelch**.

    - To filter out unwanted calls or background noise, select **Tight Squelch**.

10.9

Setting LED Indicators

Procedure:

1. From the menu, select **Radio Settings** → **LED Indicator**.

2. Perform one of the following actions:

    - To enable LED Indicator, select **Menu/OK** button.

    - To disable LED Indicator, select **Menu/OK** button.

Result:
If the LED Indicator is enabled, a ✔ appears beside `Enabled`.

If the LED Indicator is disabled, your radio shows the following indications:

- The ✔ disappears beside `Enabled`.

- The display backlight and keypad backlight are automatically turned off.

10.10

Setting Languages

Procedure:

From the menu, select **Radio Settings** → **Languages** → *<required language>*.

Result: A ✔ appears beside the selected language.

10.11

Voice Operating Transmission

Voice Operating Transmission (VOX) allows you to initiate hands-free voice-activated calls on a programmed channel. When your VOX-capable accessory detects voice, your radio automatically transmits for a programmed period.

> **NOTE:**
> This feature is not applicable in Citizen Band channels that are in the same frequency.
>
> Contact your dealer or administrator for more information.

10.11.1

Setting the Voice Operating Transmission

Procedure:

1. From the menu, select **Radio Settings** → **VOX**

2. Perform one of the following actions:

   - To enable VOX, select **On**.

   - To disable VOX, select **Off**.

Result: If VOX is turned on, the display shows a ✔ beside On.

10.12

Voice Announcement

This feature enables the radio to audibly indicate the current Zone or Channel assigned. This audio indicator can be customized per customer requirements.

10.12.1

Setting the Voice Announcement

Procedure:

1. From the menu, select **Radio Settings** → **Voice Announcement**.

2. Perform one of the following actions:

   - To enable Voice Announcement, select the **Menu/OK** button.

   - To disable Voice Announcement, select the **Menu/OK** button.

Result:
If the Voice Announcement is enabled, a ✔ appears beside Enabled.

If the Voice Announcement is disabled, the ✔ disappears beside `Enabled`.

10.13
Setting the Microphone Automatic Gain Control

Procedure:

1. From the menu, select **Utilities** → **Radio Settings**

2. Perform one of the following actions:

   - For Analog Microphone Automatic Gain Control, select **Mic AGC-A**.

   - For Digital Microphone Automatic Gain Control, select **Mic AGC-D**.

3. Perform one of the following actions:

   - To enable Mic AGC, select the **Menu/OK** button.

   - To disable Mic AGC, select the **Menu/OK** button.

Result:
If the Mic AGC is enabled, a ✔ appears beside `Enabled`.

If the Mic AGC is disabled, the ✔ disappears beside `Enabled`.

10.14
Setting the Trill Enhancement

Procedure:

1. From the menu, select **Utilities** → **Radio Settings** → **Trill Enhance**.

2. Perform one of the following actions:

   - To enable Trill Enhancement, select **On**.

   - To disable Trill Enhancement, select the **Off**.

10.15
Privacy

This feature prevents 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 clear.

Your radio must have privacy enabled on the channel to send a privacy-enabled transmission, although this is not a requirement for receiving a transmission.

Some radio models may not offer Privacy feature, or may have different configuration. Contact your dealer for more information.

> **NOTE:**
> Only one type of privacy can be assigned at a time.

The following table describes the type of privacy and the settings that appear on your radio.

Table 19: Privacy Types and Settings

Type	Setting
Basic Privacy	`Privacy`

10.15.1
Setting Privacy

Procedure:

1. From the menu, select **Radio Settings**.

2. Depending on the configured type of privacy, select your privacy setting.

3. Perform one of the following actions:

   - To enable Privacy, select the **Menu/OK** button.

   - To disable Privacy, select the **Menu/OK** button.

Result:
If Privacy is enabled, a ✔ appears beside `Enabled`.

If Privacy is disabled, the ✔ disappears beside `Enabled`.

10.16
Password Lock

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

Your radio supports a four-digit password input.

Your radio is unable to receive calls in locked state.

10.16.1
Accessing Radios with Password

Prerequisites: Turn on your radio.

Procedure:

1. Enter your four-digit password.

2. Select the **Menu/OK** button.

Result:
If you enter the password correctly, your radio turns on.

If you enter the password incorrectly, a tone sounds, the yellow LED illuminates, and the display shows `Wrong Password`.

> 📝 **NOTE:**
> You may repeat the steps to enter the password. You are given three attempts before your radio enters into a locked state for 15 minutes. The display shows `Radio Locked`.
>
> During locked state, your radio responds to inputs from the **Power** button and the programmed **Backlight** button only.
>
> If you restart your radio during the locked state, the timer restarts.

10.16.2
Unlocking Radios in Locked State

Procedure:

To unlock your radio in locked state, perform one of the following actions:

Option	Actions
Unlocking Radios in Locked State if your radio is turned on	**a.** Wait for 15 minutes. **b.** Access the radio by following the steps in Accessing Radios with Password.
Unlocking Radios in Locked State if your radio is turned off	**a.** Turn on your radio. 📝 **NOTE:** Your radio restarts the 15 minutes timer for locked state. **b.** Wait for 15 minutes. **c.** Access the radio by following the steps in Accessing Radios with Password.

10.16.3
Setting the Password Lock

Procedure:

1. From the menu, select **Radio Settings** → **Passwd Lock** → *<required password>*.

   📝 **NOTE:** When using this feature for the first time, the display shows `New Password Setup` to set a new password. You must set a new password before setting the Password Lock feature.

2. Perform one of the following actions:
   - To enable Password Lock, select **Turn On**.
   - To disable Password Lock, select **Turn Off**.

10.16.4
Changing Passwords

Procedure:

1. From the menu, select **Radio Settings** → **Passwd Lock** → *<required password>* → **Change PWD**.

2. Enter a new four-digit password.

3. To confirm the new password, re-enter the same four-digit password.

Result:

If the password is successfully changed, the display shows `Password Changed`.

If the password change is unsuccessful, the display shows `Password Do Not Match` and returns to the previous menu.

10.17

Accessing the Radio Information

Procedure:

1. From the menu, select **Utilities** → **Radio Info**.

2. To access the radio information, perform one of the following actions:

   - To check on your radio ID and alias, select **My ID**.

   - To check on the firmware and Codeplug versions, select **Versions**.