

PROFESSIONAL DIGITAL TWO-WAY RADIO SYSTEM

MOTOTRBO™ DGP SERIES CONNECT PLUS DISPLAY PORTABLE USER GUIDE



Declaration of Conformity

DECLARATION OF CONFORMITY

Per FCC CFR 47 Part 2 Section 2.1077(a)



Responsible Party

Name: Motorola Solutions, Inc.

Address: 1303 East Algonquin Road, Schaumburg, IL 60196, U.S.A.

Phone Number: 1-800-927-2744

Hereby declares that the product:

Model Name: **DGP 6150/DGP 6150+**

conforms to the following regulations:

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

Class B Digital Device

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

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

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

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

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

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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>

Software Version

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

See ***Checking the Firmware Version*** on page 73 to determine your radio's software version.

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

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

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<https://businessonline.motorolasolutions.com>

Go to:

Motorola Online>Resource Center>Product Information>Manuals>MOTOTRBO>Connect Plus

Getting Started

Take a moment to review the following:

How to Use This Guide	page 1
What Your Dealer/System Administrator Can Tell You	page 1

■ How to Use This Guide

This User Guide covers the basic operation of MOTOTRBO Portables that are equipped with a Connect Plus Option Board, and are operating in a Connect Plus zone.

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.

■ 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?

Preparing Your Radio for Use

Assemble your radio by following these steps:

Charging the Battery	page 2
Attaching the Battery	page 2
Attaching the Antenna	page 3
Attaching the Belt Clip	page 4
Attaching the Universal Connector Cover (Dust Cover)	page 4
Powering Up the Radio	page 5
Adjusting the Volume	page 5

■ Charging the Battery

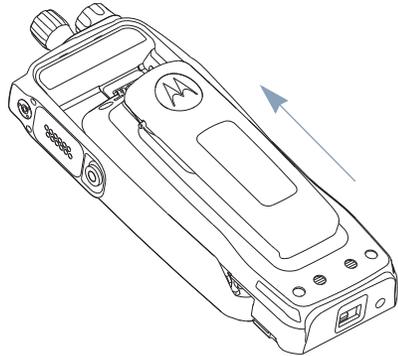
Your radio is powered by a Nickel Metal-Hydrate (NiMH) or Lithium-Ion (Li-Ion) battery. To avoid damage and comply with warranty terms, charge the battery using a Motorola charger *exactly* as described in the charger user guide.

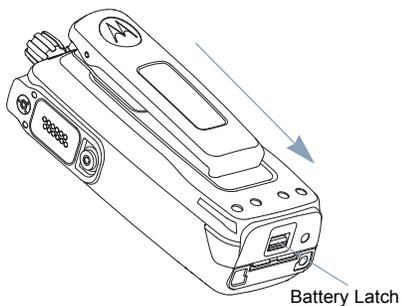
Charge a new battery 14 to 16 hours before initial use for best performance.

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.

■ Attaching the Battery

Align the battery with the rails on the back of the radio. Press the battery firmly, and slide upward until the latch snaps into place. Slide battery latch into lock position.

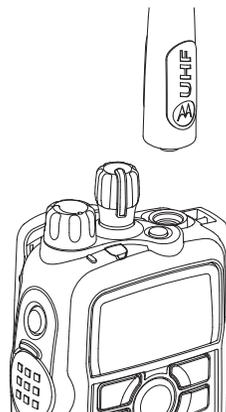




To remove the battery, turn the radio off. Move the battery latch into unlock position and hold. Slide the battery down and off the rails.

■ Attaching the Antenna

With the radio turned off, set the antenna in its receptacle and turn clockwise.



To remove the antenna, turn the antenna counterclockwise. Make sure you turn off the radio and remove the universal connector cover (dust cover) first.



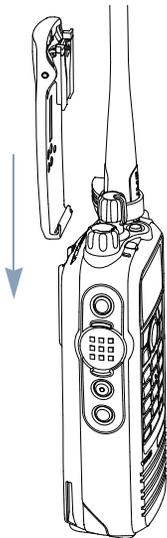
Caution

If antenna needs to be replaced, ensure that only the MOTOTRBO antennas are used. Neglecting this will damage your radio. See **Antennas** on page 80 for a list of available antennas.

■ Attaching the Belt Clip

Align the grooves on the clip with those on the battery and press downward until you hear a click.

To remove the 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.



Place the universal connector cover loop over the attached antenna. Slide it all the way down to the base of the antenna.

Insert the hooked end of the cover into the slots above the universal connector. Press downward on the cover to seat the lower tab properly into the RF connector.

Turn the thumbscrew clockwise to secure the connector cover to the radio.

To remove the universal connector cover, press down on the cover and turn the thumbscrew counterclockwise. Lift the cover up, slide the connector cover loop upwards, and remove it from the attached antenna.

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

■ Powering Up the Radio

Rotate the **On/Off/Volume Control Knob** clockwise until you hear a click.

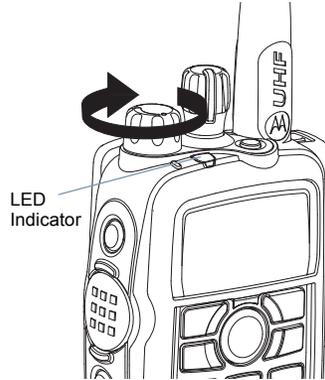
MOTOROLA and MOTOTRBO <TM> appears momentarily on the radio's display, followed by the channel number and Option Board firmware version. The radio must locate and register with a Connect Plus site before the radio user can initiate and receive calls.

After successfully registering on a site, the radio sounds a beep, displays the site number, and then displays the ID or alias for the selected channel.

The LED blinks green and the Home screen lights up 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 70).

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 All Tones/Alerts On or Off** on page 68).

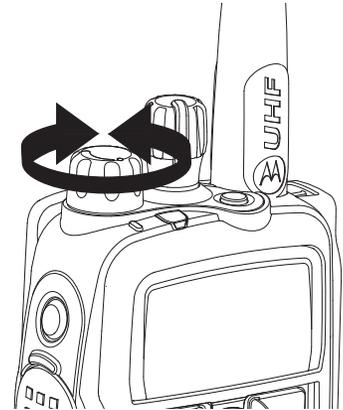
If your radio does not power up, check your battery. Make sure it is charged and properly attached. If your radio still does not power up, contact your dealer.

*To turn off the radio, rotate the 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 the knob counterclockwise.

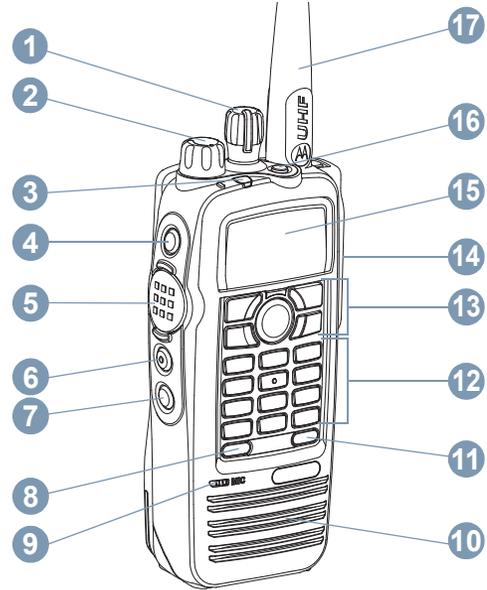


Identifying Radio Controls

Take a moment to review the following:

Radio Controls	page 6
Programmable Buttons	page 7
Accessing the Programmed Functions	page 9
Using the Keypad	page 10
Push-To-Talk (PTT) Button	page 11
Switching Between Connect Plus and Non-Connect Plus Modes.	page 11

Radio Controls



- 1 Channel Selector Knob
- 2 On/Off/Volume Control Knob
- 3 LED Indicator

- 4 Side Button 1*
- 5 Push-to-Talk (PTT) Button
- 6 Side Button 2*
- 7 Side Button 3*
- 8 Front Button P1*
- 9 Microphone
- 10 Speaker
- 11 Front Button P2*
- 12 Keypad
- 13 Menu Navigation Keys
- 14 Universal Connector for Accessories
- 15 Display
- 16 Emergency Button*
- 17 Antenna

* These buttons are programmable.

■ Programmable Buttons

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

- Press – Pressing and releasing rapidly (0.05 seconds).
- Long press – Pressing and holding for the programmed duration (between 0.25 seconds and 3.75 seconds).
- Hold down – Keeping the button pressed.

Assignable Radio Functions

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

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

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

Contacts – Provides direct access to the Contacts list.

Emergency – Initiates an Emergency call or Emergency Alert, and also cancels an Emergency call or Emergency Alert if the Emergency request has yet to be transmitted.

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

Man Down Alarms Reset – Resets (cancels) the Alert tone and resets the Man Down timers, but it does not turn the Man Down Alarms off. Requires purchase of Connect Plus Man Down feature.

Manual Dial – Initiates a call by keying in any subscriber ID.

One Touch Call – Initiates a predefined Call Alert, Private Call, or Quick Text message.

Phone Manual Dial - Initiates a Private Phone Call by keying in the phone number.

Privacy On/Off – Used to toggle transmit privacy On or Off for the current channel selector position. The privacy setting only affects transmitted voice calls from this position, not received calls.

Radio Check – Determines if a radio is active in a system.

Radio Enable – Allows a target radio to be remotely enabled.

Radio Disable – Allows a target radio to be remotely disabled.

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

Roam Request – Requests to search for a different site.

Scan – Toggles Selectable Group Scan on or off.

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

Text Message – Selects the text message menu.

Zone – Allows selection from a list of zones.

Assignable Settings or Utility Functions

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

Backlight – Toggles display backlight on or off.

Keypad Lock – Toggles keypad between locked and unlocked.

Power Level – Toggles transmit power level between high and low.

Privacy Menu – Toggles transmit privacy on or off.

■ Accessing the Programmed Functions

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

- A short or long press of the relevant programmable buttons.

OR



- Use the Menu Navigation Buttons as follows:
 - 1 To access the menu, press the  button. Press the appropriate **Menu Scroll** button ( or ) to access the menu functions.
 - 2 To select a function or enter a sub-menu, press the  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.

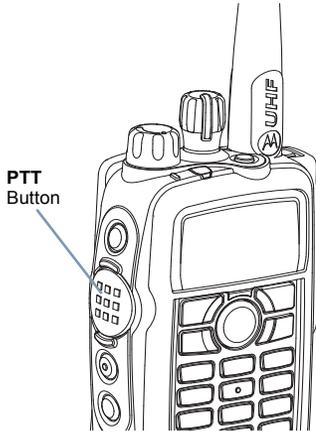
■ Using the Keypad

You can use the 3 x 4 alphanumeric keypad to access your radio's features. You can use the keypad to enter subscriber aliases or IDs, and text messages. Many characters require that you press a key multiple times. The table below shows the number of times a key needs to be pressed to generate the required character.

Key	Number of Times Key is Pressed												
	1	2	3	4	5	6	7	8	9	10	11	12	13
1 .?	1	.	,	?	!	@	&	'	%	-	:	*	#
2 abc	A	B	C	2									
3 def	D	E	F	3									
4 ghi	G	H	I	4									
5 jkl	J	K	L	5									
6 mno	M	N	O	6									
7 pqrs	P	Q	R	S	7								
8 tuv	T	U	V	8									
9 wxyz	W	X	Y	Z	9								
0 CAPS	0	NOTE: Press to enter "0" and long press to activate the CAPS lock. Another long press to turn off the CAPS lock.											
* DEL	* or del	NOTE: Press during text entry to delete the character. Press during numeric entry to enter a "*" .											
# —	# or space	NOTE: Press during text entry to insert a space. Press during numeric entry to enter a "#".											

■ Push-To-Talk (PTT) Button

The **PTT** button on the side of the radio has two basic functions:



- 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 20).

If the Talk Permit Tone (see **Turning the Talk Permit Tone On or Off** on page 68) 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 the Channel Free Indication tone if your call is interrupted.

*You can turn off the Channel Free Indication tone by disabling all radio tones and alerts (see **Turning the Radio All Tones/Alerts On or Off** on page 68).*

■ Switching Between Connect Plus and Non-Connect Plus Modes

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

Identifying Status Indicators

Your radio indicates its operational status through the following:

Display Icons	page 12
Sent Item Symbols	page 13
Sent Item Symbols	page 13
LED Indicator	page 13
Alert Tones	page 14
Indicator Tones	page 14

■ Display Icons

The full dot matrix, black and white, liquid crystal display (LCD) of your radio shows radio status, text entries, and menu entries.

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



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.



Power Level

Radio is set at Low power.

Radio is set at High power.



Option Board

The Option Board is enabled.



Option Board Non-Function

The Option Board is disabled.



GPS Available

The GPS feature is enabled. The icon stays lit when a position fix is available.



GPS Not Available/Out of Range

The GPS feature is enabled but is not receiving data from the satellite.



Scan

Scan feature is enabled.



Unread Message

User has unread message(s) in the Inbox.



Emergency

Radio is in Emergency initiation mode.



Site Roaming

Searching for a site.



Battery

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



Secure

The Privacy feature is enabled.

Unsecure

The Privacy feature is disabled.

■ Call Icons

The following icon appears on the radio's display during a call.



Phone Call as Private Call

Indicates a Private Phone Call in progress.

■ Sent Item Symbols

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



Sent Successful

The text message is sent successfully.

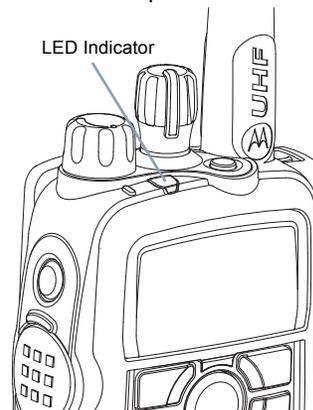


Sent Failed

The text message was not sent successfully.

■ LED Indicator

The LED indicator shows the operational status of your radio.



Blinking red – Radio is transmitting at low battery condition, has failed the self-test upon powering up, or has received an Emergency Call or Emergency Alert.

Rapidly blinking red – Radio is receiving an over-the-air file transfer (Option Board firmware file, Network Frequency file or Option Board Codeplug file), or upgrading to a new Option Board firmware file.

Blinking green and yellow – Radio is receiving a Call Alert, received a text message, or Scan is enabled.

Rapidly blinking yellow – Radio is searching for a new site

Solid green – Radio is transmitting.

Blinking green – Radio is powering up or detecting activity over the air. LED blinks in an even pattern (blink, blink, blink) while monitoring the Control Channel or receiving unscrambled transmissions. LED blinks in an uneven pattern (blink, blink, pause) while receiving scrambled transmissions.

■ Alert Tones

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

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

Making and Receiving Calls

Once you understand how your MOTOTRBO Portable is configured, you are ready to use your radio.

Use this navigation guide to familiarize yourself with the basic Call features:

Selecting a Site	page 15
Selecting a Zone	page 16
Selecting a Radio Channel, Subscriber ID, or Group ID	page 17
Receiving and Responding to a Radio Call	page 17
Making a Radio Call	page 20

■ Selecting a Site

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

Roam Request

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

This is programmed by your dealer.

Use the following procedure for a Roam Request.

Procedure:

- 1 Press the programmed **Roam Request** button.
- 2 You hear a tone, indicating the radio has switched to a new site. The display shows `Site ID <Site Number>`.

Site Lock On/Off

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

Use the following procedure for Site Lock.

Procedure:

- 1 Press the programmed **Site Lock** button.
- 2 You hear a positive indicator tone, indicating the radio has locked to the current site. The display shows `Site Locked`.
OR
You hear a negative indicator tone, indicating the radio is unlocked. The display shows `Site Unlocked`.

Site Restriction

Your Connect Plus radio system administrator has the ability to decide which network sites your radio is and is not allowed to use. He/she does not have to reprogram your radio to change your list of allowed and disallowed sites. If your radio attempts

to register at a disallowed site, you will see a brief message stating: Site (number given) Not Allowed. The radio then searches for a different network site.

■ Selecting a Zone

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

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

- Group Call
- Multigroup Call
- Site All Call
- Private Call

Non-Connect Plus zones can be used for analog mode or non-Connect Plus digital modes.

Use the following procedure to select a zone.

Procedure:

Press the programmed Zone button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.

- 2  or  to Zone and press  to select.

- 3 The current zone is displayed and indicated by a ✓.

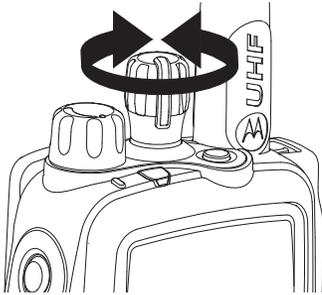
- 4  or  to the required zone and press  to select.

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

Using Multiple Networks

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

■ Selecting a Call Type



Procedure:

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

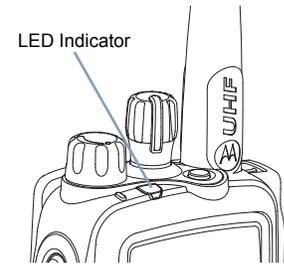
NOTE: When in Connect Plus mode, the Channel Selector Knob is used to select the call type that is started when you press PTT. This can be a Group Call, Multigroup Call, Site All Call or Private Call, depending on how your radio is programmed. If you change the Channel Selector Knob to a different position (that has a call type assigned to it), this causes the radio to re-register with the Connect Plus site. The radio registers with the Registration Group ID that has been programmed for the new Channel Selector Knob position. If you select a

position that has no call type assigned to it, your radio sounds a continuous tone and the display shows "unprogrammed". Because your radio does not operate when selected to an unprogrammed channel, use the Channel Selector Knob to select a programmed channel instead.

■ Receiving and Responding to a Radio Call

Once the call type is displayed, you can proceed to receive and respond to calls.

*The green LED lights up solid green while the radio is transmitting and blinks green when the radio is receiving a call. The blinking pattern is even (blink, blink, blink) when receiving an unsecure (unscrambled) transmission. The blinking pattern is uneven (blink, blink, pause) when receiving a privacy-enabled (scrambled) transmission. To unscramble a privacy-enabled call, your radio must have the same Key Value and Key ID (programmed by your dealer), as the transmitting radio (the radio you are receiving the call from). See **Enhanced Privacy** on page 62 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.

Procedure:

When you receive a Group Call (while on the Home screen):

- 1 The LED blinks green.
- 2 The first line of the display shows the caller's alias or ID, and the RSSI icon. The second line displays the group alias or ID.
- 3 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
- 4 If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the transmitting radio releases the **PTT** button, indicating the channel is free for you to respond.
- 5 Press the **PTT** button to respond to the call. The LED lights up solid green.
- 6 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.
- 7 Release the **PTT** button to listen.
- 8 If there is no voice activity for a predetermined period of time, the call ends.

See **Making a Group Call** on page 20 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.

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.

In the Connect Plus operation, the controller performs a presence check before setting up the call.

Procedure:

When you receive a Private Call:

- 1 The LED blinks green.
- 2 The first line of the display shows the subscriber alias or ID, and the RSSI icon. The second line displays *Private Call*.
- 3 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
- 4 If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the transmitting radio

releases the **PTT** button, indicating the channel is free for you to respond.

- 5 Press the **PTT** button to respond to the call. The LED lights up solid green.
- 6 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.
- 7 Release the **PTT** button to listen.
- 8 If there is no voice activity for a predetermined period of time, the call ends.
- 9 The display shows `Call Ended`.

See **Making a Private Call** on page 21 for details on making a Private Call.

Receiving a Site All Call

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

Procedure:

When you receive a Site All Call:

- 1 A tone sounds and the LED blinks green.
- 2 The first line of the display shows the caller alias or ID. The second line displays `Site All Call`.

- 3 Once the Site All Call ends, the radio returns to the previous screen before receiving the call. If the Channel Free Indication feature is enabled, you will 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 a Site All Call.

See **Making a Site All Call** on page 21 for details on making a Site All Call.

NOTE: During a Site All Call, you will **not** be able to use any programmed button functions until the call ends.

Receiving and Responding to a Phone Call

NOTE: If Phone Call permission has been enabled for your radio and/or Group, you are able to respond to a telephone user. Check with your dealer or system administrator for more information.

Phone Call as Private Call

Procedure:

When you receive a Phone Call as Private Call:

- 1 The display shows `Phone Call`. You may also hear ringing, depending on your radio's volume level and tone configuration.
- 2 Press the **PTT** button to talk and release it to listen.

- 3 The Phone Call can be ended by the phone user or the radio user.
- 4 Press  to end the call.

When the call is over, the display shows Phone Call Ended.

Phone Call as Group Call

Depending on your Group permission(s) in the system, a phone user can initiate or join a Group Call. Transmissions from the phone user are similar to transmissions from another radio. For more information, see the section called Receiving and Responding to a Group Call.

NOTE: The phone user cannot understand scrambled transmissions. It is recommended that the radio users should turn Privacy OFF while the Group Call has a phone user as participant.

■ Making a Radio Call

You can select a channel, subscriber ID, or group by using:

- The Channel Selector Knob
- A programmed **One Touch Call** button (Call Alert, Private Call, or Text Message)
- The Contacts list (see **Contacts Settings** on page 35)

- Manual Dial (via Contacts) – This method is for Private Calls only and is dialed using the keypad (see **Making a Private Call from Contacts** on page 35)

Making a Call with the Channel Selector Knob

Making a Group Call

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

Procedure:

- 1 Turn the Channel Selector Knob to select the group alias or ID.
- 2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
- 3 Press the **PTT** button to make the call. The LED lights up solid green. The display shows the group alias or ID.
- 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. You see the group alias or ID on your display.
- 6 If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the target radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

OR

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

 **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.

If this feature is not enabled, you will hear a negative indicator tone, when making a Private Call via the Contacts list, Call Log, **One Touch Call** button, or the Channel Selector Knob.

Procedure:

- 1 Turn the Channel Selector Knob to select the subscriber alias or ID.

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

- 3 Press the **PTT** button to make the call. The LED lights up solid green. The first line displays the subscriber alias or ID. The second line displays *Private Call*.

- 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 will hear a short alert tone the moment the target radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

OR

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

- 7 The display shows *Call Ended*.

 **Making a Site All Call**

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

Procedure:

- 1 Turn the Channel Selector Knob to select the Site All Call group alias or ID.

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

- 3 Press the **PTT** button to make the call. The LED lights up solid green. The display shows the Site All Call group alias or ID.

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

Users on the site cannot respond to a Site All Call.

Making a Multigroup Call

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

Procedure:

- 1 Turn the Channel Selector Knob to select the Multigroup alias or ID.
- 2 Press the **PTT** button to make the call. The LED lights up solid green. The display shows the Multigroup alias or ID.
- 3 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.

Users on the groups cannot respond to a Multigroup Call.

Making a Private Call with a One Touch Call Button

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

NOTE: Programmable buttons press must be initiated from the Home screen.

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

Procedure:

- 1 Press the programmed **One Touch Call** button to make a Private Call to the pre-defined Private Call alias or ID.
- 2 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
- 3 Press the **PTT** button to make the call. The LED lights up solid green. The display shows the Private Call alias or ID.
- 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 will hear a short alert tone the moment the target radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.
OR
If there is no voice activity for a predetermined period of time, the call ends.

Making a Phone Call by Phone Manual Dial

Depending on how your radio is programmed, there are two possible ways to make a Private Phone Call by using the Phone Manual Dial feature.

Procedure:

- 1 Press the **Phone Manual Dial** programmable button, and then go to Step 6.
OR
Press  and follow the following steps.
- 2  or  (if necessary) to **Contacts** and press .
- 3  or  to **Manual Dial** and press .
- 4  or  (if necessary) to **Phone Number** and press .
- 5 The first line of the display shows **Phone Number:**. The second line of the display shows a cursor.
Use the keypad to enter a telephone number. When entering the phone number you can insert a pause between digits by pressing the , followed immediately by the . The radio displays **P** to indicate the pause.
Press  to proceed.
- 6 The first line of the display shows **Calling**. The second line of the display shows the dialed number, and the **Phone Call** icon.
- 7 If successful, you will hear audio from the phone line (ringing, busy tone, etc.). The display shows **Phone Call**.
OR
If unsuccessful, a tone sounds and the display shows **Phone Call Failed** (or other message).

- 8 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
- 9 Press the **PTT** button to talk and release it to listen.
- 10 To enter extra digits, if requested by the Phone Call:
Buffer Dial Method: Press any keypad key (0-9, *, #) to begin the input of extra digits. The first line of the display shows **Extra Digits:**. The second line of the display shows a cursor. Enter the extra digits and press  to proceed.
OR
Live Dial Method: Press and hold **PTT**, and then press and release each extra digit. The radio sends a DTMF tone for each extra digit. Release **PTT** when finished.
- 11 The Phone Call can be ended by the phone user or the radio user.
- 12 Press  to end the call.
- 13 When the call is over, the display shows **Phone Call Ended**.

 **Making a Privacy-Enabled (scrambled) Call**

Toggle privacy on using the programmed privacy button or by using the menu. Your radio must have the Privacy feature enabled for the currently selected channel position to send a privacy-enabled transmission. When privacy is enabled for the currently selected channel position, all voice transmissions made by your radio will be scrambled. This includes Group Call,

Multigroup Call, talk-back during scanned calls, Site All Call, Emergency Call, and Private Call. Only receiving radios with the same Key Value and Key ID as your radio will be able to unscramble the transmission. See **Enhanced Privacy** on *page 62* for more information on privacy as well as instructions on enabling/disabling the feature.

Busy Queue

When a call is initiated and approved with no available channels in Connect Plus mode, the call is placed in a queue. The call will proceed as normal when a channel becomes available.

NOTE: The radio will stay in “Busy” mode until the call is assigned, or until the user presses the **Busy Queue Cancellation** button. Check with the dealer or system administrator to find out if your radio has been programmed with a **Busy Queue Cancellation** button.

Advanced Features

Use this navigation guide to learn more about advanced features available with your radio:

Home Channel Reminder	page 25
Auto Fallback	page 26
Radio Check	page 28
Remote Monitor	page 29
Selectable Group Scan	page 30
Editing Priority for a Talkgroup	page 34
Contacts Settings	page 35
Call Indicator Settings	page 37
Call Log Features	page 38
Call Alert Operation	page 39
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Man Down Alarms	page 46
Beacon Feature	page 49
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Home Channel Reminder

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

If this feature is enabled via the CPS, the Home Channel Reminder tone and announcement sound, the first line of the display shows `Non` and the second line shows `Home Channel` periodically when the radio is not set to the home channel for a period of time.

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

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

Muting the Home Channel Reminder

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

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

The first line of the display shows `HCR` and the second line shows `Silenced`.

Setting a New Home Channel

When the Home Channel Reminder occurs, you can set a new home channel by performing one of the following actions:

- Press the Reset Home Channel programmable button.

The first line of the display shows the channel alias and the second line shows `New Home Ch.`

- Set a new home channel via the menu:

Procedure:

- 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 `Home Channel` and press  to select.
- 5 Select from the list of valid channels.
- 6 The display shows  beside the selected home channel alias.

Auto Fallback

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

If one of these failures occurs, your radio attempts to roam to a different Connect Plus site. This search process may result in your radio finding an operable Connect Plus site, or it may result in your radio finding a “Fallback Channel” (if your radio is enabled for Auto Fallback). A Fallback Channel is a repeater that is normally part of an operable Connect Plus site, but is currently unable to communicate with either its site controller or the Connect Plus network. In Fallback mode, the repeater operates as a “stand-alone” digital repeater. Auto Fallback Mode supports non-emergency Group Calls only. No other call types are supported in Fallback Mode.

Indications of Auto Fallback Mode

When your radio is using a Fallback channel, you will hear the intermittent “Fallback Tone” approximately once every 15 seconds (except while transmitting). Your display will periodically show a brief message, “Fallback Channel”. You will also notice that your radio only permits PTT on the selected Group Contact (Group Call, Multigroup Call, or Site All Call). It does not allow you to make other types of calls.

Making / Receiving Calls in Fallback Mode

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

NOTE: Calls are heard only by radios that are monitoring the same Fallback channel and selected to the same Group. Calls are not networked to other sites or other repeaters.

Emergency voice calls or Emergency Alerts are not available in Fallback mode. If you press the emergency button in Fallback mode, the radio will provide an invalid key press tone. Display-equipped radios also show the message, "Feature not available".

Private (radio to radio) calls are not available in Fallback mode. If you attempt a call to a private contact, you will receive a denial tone. At this point you should select a desired group contact. Other non-

supported calls include Remote Monitor, Call Alert, Radio Check, Radio Enable, Radio Disable, Text messaging, Location Updates, and packet data calls.

Enhanced Traffic Channel Access (ETCA) is not supported in Auto Fallback mode. If two or more radio users press PTT at the same time (or at almost the same time), it is possible that both radios will transmit until PTT is released. In this event, it is possible that none of the transmissions will be understood by receiving radios.

Returning to Normal Operation

If the site returns to normal trunking operation while you are in range of your Fallback repeater, your radio will automatically exit Auto Fallback mode. A registration "beep" will be heard when your radio successfully registers. If you believe that you are in range of an operable site (that is not in Fallback mode), you may press the Roam Request button (if programmed for your radio) to force your radio to search for and register on an available site. If no other site is available, your radio will return to Auto Fallback mode after searching is complete. If you drive out of coverage of your Fallback repeater, your radio will enter Search mode (display will indicate "Searching").

■ 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

NOTE: Programmable buttons press must be initiated from the Home screen.

Procedure:

Use the programmed **Radio Check** button.

- 1 Press the programmed **Radio Check** button.

- 2  or  to the required subscriber alias or ID and press  to select.

- 3 The display shows `Radio Check: <Subscriber Alias or ID>`, indicating that Radio Check is in progress.

- 4 Wait for acknowledgement.

- 5 If the target radio is active in the system, a tone sounds and the display shows `Target Radio Available`.
OR
If the target radio is not active in the system, a tone sounds and the display shows `Destination ID Not Available`.

- 6 Radio returns to the subscriber alias or ID screen.
-

OR

Procedure:

Use the menu.

- 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.

OR

 or  to `Manual Dial` and press  to select. The display shows `Radio Number`. Press  to select. If there was previously dialed ID, the ID appears along with a blinking cursor. Use the keypad to edit the ID. Press  to select.

OR

 or  to `Manual Dial` and press  to select. The display shows `Radio Number`. Key in the subscriber alias or ID and press .

- 4  or  to `Radio Check` and press  to select.

 - 5 The display shows `Radio Check: <Subscriber Alias or ID>`, indicating that Radio Check is in progress. The LED lights up solid green.

 - 6 Wait for acknowledgement.
-

- 7 If the target radio is active in the system, a tone sounds and the display shows `Target Radio Available`.
OR
 If the target radio is not active in the system, a tone sounds and the display shows `Target Radio Not Available`.
-
- 8 The radio returns to the subscriber alias or ID screen.
-

■ Remote Monitor

Use the Remote Monitor feature to turn on the microphone of a target radio (subscriber alias or IDs only). No audible or visual indication is given to the target radio. You can use this feature to remotely monitor any audible activity surrounding the target radio.

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

📄 Initiating Remote Monitor

NOTE: Programmable buttons press must be initiated from the Home screen.

Procedure:

Use the programmed **Remote Monitor** button.

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

- 2  or  to the required subscriber alias or ID and press  to select.

- 3 While waiting for an acknowledgment the radio will display `Remote Mon` on the first line, and `<Subscriber Alias or ID>` on the second line.

- 4 Radio sounds an alert tone and the display briefly shows `Remote Monitor Successful`.
OR
 Radio sounds an alert tone and the display shows `Remote Monitor Failed`.

- 5 If successful:
 Once the timer expires, the radio sounds a tone and displays `Ending Remote Monitor`.
 Then, the radio briefly displays `Remote Monitor Ended`.
OR
 If unsuccessful:
 The controller repeats the attempt until the programmed number of retries expires.

OR

Procedure:

Use the menu.

- 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.

- OR**
 or  to `Manual Dial` and press  to select. The

display shows `Radio Number`. Press **OK** to select.
 If there was previously dialed ID, the ID appears along with a cursor. Use the keypad to edit the ID. Press **OK** to select.

OR

◀ or **▶** to `Manual Dial` and press **OK** to select. The display shows `Radio Number`. Press **OK** to select. Key in the subscriber alias or ID and press **OK** to select.

- 4 **◀** or **▶** to `Remote Mon` and press **OK** to select. Radio sounds an alert tone and the LED blinks green.
- 5 While waiting for acknowledgement the radio will display `Remote Mon` on the first line and `<Subscriber Alias or ID>` on the second line.
- 6 Radio sounds an alert tone and the display briefly shows `Remote Monitor Successful`. **OR**
 Radio sounds an alert tone and the display shows `Remote Monitor Failed`.
- 7 If successful:
 Once the timer expires, the radio sounds a tone and displays `Ending Remote Monitor`.
 Then, the radio briefly displays `Remote Monitor Ended`.
OR
 If unsuccessful:
 The controller repeats the attempt until the programmed number of retries expires.

■ Selectable Group Scan

This feature allows your radio to monitor and join group calls, other than the currently selected group. If this feature is used, your radio will be programmed with a list of groups to scan when Selectable Group Scan, or Scan, is enabled. This is your scan list. Your radio may also be programmed to allow you to edit members of your programmed scan list. If so programmed, you can add groups to the scan list (and remove groups from the list) via the menu. You can also enable or disable scan for individual scan list members. Only groups that are assigned to a Channel Selector position can be on your scan list.

Scan can be turned on or off from the menu, or by pressing a programmed **Scan On/Off** button.

This feature functions only when the radio is not currently involved in a call. If you are presently listening to a call, your radio cannot scan for other group calls, and is therefore unaware they are in progress. Once your call is finished, your radio returns to the control channel time slot, and is able to scan for groups that are in the scan list.

Turning Scan On or Off

If Scan is turned on, the Scan icon appears on your display. When Scan is on and you are not participating in a call, the LED blinks yellow continuously and slowly.

The procedure for turning Scan on or off depends on how your radio is programmed. If programmed with a **Scan On/Off** button, use the button to toggle the feature on or off. If your radio has been programmed so that Scan can be turned on or off via the menu, follow the procedure below.

Procedure:

- 1  to access the menu.

- 2  or  to Scan option.

- 3 Press  to select. The display will read Scan On or Scan Off.

- 4 Press  to select Scan on or off. The display will momentarily show Scan On or Scan Off depending on your selection.

NOTE: This procedure turns the Scan feature On or Off for all Connect Plus zones with the same Network ID as your currently selected zone. It is important to note that even when the Scan feature is turned on via this procedure, scan may still be disabled for some (or all) groups on your scan list. See the next section for more information.

Editing the Scan List

Your scan list determines which groups can be scanned. The list is usually created when your radio is programmed. If your radio has been programmed to allow you to edit the scan list, you can add groups to the scan list and remove groups from the scan list via the menu. In addition, the edit scan list feature allows you to selectively enable/disable scan for individual groups on the list.

Enabling, Disabling or Deleting a Scan List Group

If your radio has been programmed to allow you to edit the scan list, you can Enable, Disable or Delete a group that is currently on the zone scan list.

Enable: Turns scan “on” for this specific group, even though scan may be turned off for other groups.

Disable: Turns scan “off” for this specific group, even though scan may be turned on for other groups. This allows you disable scan for the group, while leaving it on the scan list. By leaving the group on the scan list, scan can easily be re-enabled for the group at a later time.

Delete: Removes the group from the zone scan list. This is helpful when the scan list is full, and you want to delete a group to make room for a different group.

Procedure:

- 1  to access the menu.

- 2  or  to Scan option and press  to select.
- 3  or  to <View/Edit List> and press  to select.
- 4 The first line of the display shows the Connect Plus zone, the total number of entries in the scan list, and which entry is currently selected. E.g. Zone 1 3/16*. An asterisk indicates that scan functionality is currently enabled for the group. The second line of the display shows the group alias.
- 5  or  to the desired group and press  to view the options for that group. If the group is currently enabled, <Disable> is displayed. If the group is currently disabled, <Enable> is displayed. Press the right or left arrow to view the <Delete> option.
- 6 To Disable/Enable scan for the group: While the <Disable> or <Enable> option is displayed, press  to accept the prompt and to Enable (or Disable) scan for that group. When scan is disabled for a group, the asterisk on the group's scan list entry disappears. When scan is enabled for a group, the asterisk reappears.
- 7 To Delete the group from the scan list: While the <Delete> option is displayed, press  to accept the prompt. The group is removed from the scan list of the currently selected zone.

NOTE: If the scan list entry happens to be the radio's currently selected group, the radio listens for activity on this group regardless of whether the list entry currently

shows an asterisk or not. Whenever a Connect Plus radio is not in a call, the radio listens for activity on its Selected Group, Multigroup and Site All Call. This operation cannot be disabled.

Add or Delete a Group via the Add Members Menu

If your radio has been programmed to allow you to edit the scan list, you can use the Add Members menu to add a group to the scan list of the currently selected zone, or to delete a group from the scan list of the currently selected zone.

Procedure:

- 1  to access the menu.
- 2  or  to Scan option and press  to select.
- 3  or  to <Add Members> and press  to select.
- 4 The display shows "Add Members from Zone n" (n = the Connect Plus zone number of the first Connect Plus zone in your radio with the same Network ID as your currently selected zone). If the group you want to add to the scan list is assigned to a channel selector position in that zone, go to step 6. If the group you want to add to the scan list is assigned to a channel selector position in a different Connect Plus zone, go to step 5.
- 5  or  to scroll a list of Connect Plus zones that have the same Network ID as the currently selected zone.

- 6 After locating the Connect Plus zone where the desired group is assigned to a channel selector position, press  to select.

- 7 Your radio displays the first entry in a list of groups assigned to a channel position in that zone. The groups on the list are called “scan candidates”, because they can be added to the scan list of your currently selected zone (or they are already on the zone scan list). If the zone doesn’t have any groups that can be added to the scan list, the radio displays **No Candidates**.

- 8  or  to scroll through the list of candidate groups. If a plus sign (+) is displayed immediately before the group alias, this indicates the group is currently on the scan list for the selected zone. If the plus sign (+) is not displayed immediately before the alias, the group is not currently on the scan list, but can be added.

- 9 Press  when the desired group alias is displayed. If this group is not currently on the scan list for the currently selected zone, the **Add (Group Alias)** message is displayed. If this group is already on the scan list for the currently selected zone, the **Delete (Group Alias)** message is displayed.

- 10 Press  to accept the displayed message (**Add** or **Delete**). If deleting a group from the list, you will know the operation is successful because the plus sign (+) will no longer display immediately before the alias. If adding a group to the list, you will know the operation is successful

because the plus sign (+) will display before the alias. If you are attempting to add a group, and the list is already full, the radio displays **List Full**. If this should occur, it will be necessary to delete a group from the scan list prior to adding a new one.

- 11 When finished, press  as many times as necessary to return to the desired menu.

NOTE: The Connect Plus radio does not allow a duplicate group number or a duplicate group alias to be placed on a zone scan list (or to be shown as a “scan candidate”). Because of this rule, the list of “scan candidates” described in steps 7 and 8 sometimes changes after adding or deleting a group from the zone scan list.

Understanding Scan Operation

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

- Scan feature is not turned on (check for the scan icon on the display).
- Scan list member has been disabled via the menu (see **Editing the Scan List** on page 31).
- You are participating in a call already.

- No member of the scanned group is registered at your site (Multisite systems only).

Talking Back During Scanned Calls

If your radio scans into a call from your selectable group scan list, and if you press **PTT** during the scanned call, your radio's operation depends on whether Scan Talkback was enabled or disabled during radio programming. For more information on how your radio is programmed, please contact your radio dealer (or your radio system administrator).

Scan Talkback Disabled: Your radio leaves the scanned call and attempts to transmit on the contact for your currently selected channel position. After the call on your currently selected contact, the radio waits until its Scan Hang Timer expires before it joins another call from the selectable group scan list.

Scan Talkback Enabled: If you press **PTT** during the Group Hang Time of the scanned call, your radio attempts to transmit to the scanned group.

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

■ Editing Priority for a Talkgroup

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

There are two levels of priority for the talkgroups: P1 and P2. P1 has higher priority than P2.

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

Procedure:

- 1  to access the menu.
- 2  or  to Scan option.
- 3 Press  to select.
- 4  or  to View/Edit List and press  to select.
- 5  or  to the required talkgroup and press  to select.
- 6  or  to Edit Priority and press  to select.

- 7  or  to the required priority level and press  to select.

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

■ Contacts Settings

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

Each Connect Plus zone supports up to 100 contacts. The following contact types are available in Connect Plus:

- Private Call
- Group Call
- Multigroup Call
- Site All Call Voice
- Site All Call Text
- Dispatch Call

The Dispatch Call contact type is used to send a text message to a dispatcher PC through a third-party Text Message Server.

NOTE: You can add, delete, or edit Subscriber IDs (Private IDs) for the Connect Plus Contacts List.

If the Privacy feature is enabled for the current channel selector position, you can make a privacy-enabled voice call. Only receiving radios with the same Key Value and Key ID as your radio will be able to unscramble the transmission. See **Enhanced Privacy** on page 62 for more information.

Making a Private Call from Contacts

Procedure:

- 1  to access the menu.

- 2  or  to **Contacts** and press  to select. The entries are alphabetically sorted.

- 3  or  to the required subscriber alias or ID.
OR
 or  to **Manual Dial** and press  to select. The display shows **Radio Number**. Press  to select. If there was previously dialed subscriber alias or ID, the alias or ID appears along with a cursor. Use the keypad to edit the ID.
OR
 or  to **Manual Dial** and press  to select. The display shows **Radio Number**. Press  to select. Use the keypad to enter a new subscriber 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 green and the display shows `Calling <Subscriber Alias or ID>` while the call is being set up. Once the call is set up, the first line displays `Private Call`. The second line displays `<Subscriber alias or ID>`.

OR

If the call can not be placed, the display shows `Party Not Available`.

- 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 continues to show the transmitting user's ID.

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

OR

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

- 9 The display shows `Call Ended`.

Making a Private Call by Alias Search

You can also use alias or alphanumeric search to retrieve the required subscriber alias.

This feature is only applicable while in Contacts.

Procedure:

- 1  to access the menu.
- 2  or  to `Contacts` and press  to select. The entries are alphabetically sorted.
- 3 Key in the first character of the alias.
- 4  or  to the required alias.
- 5 Hold the radio vertically 1 to 2 inches (2.5 to 5.0 cm) from your mouth.
- 6 Press the **PTT** button to make the call. The LED lights up solid green and the display shows `Calling <Subscriber Alias or ID>` while the call is being set up. Once the call is set up the first line displays `Private Call`. The second line displays `<Subscriber Alias or ID>`.
- OR**
If the call can not be made, you hear a short tone and see `Party Not Available`.
- 7 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone.
- 8 Release the **PTT** button to listen. When the target radio responds, the LED blinks green.
- 9 If the Channel Free Indication feature is enabled, you will hear a short alert tone the moment the target radio releases the **PTT** button, indicating the channel is free for you to respond. Press the **PTT** button to respond.

OR

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

10 The display shows `Call Ended`.

■ Call Indicator Settings

☰ Activating and Deactivating Call Ringers for Private Calls

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

Procedure:

- 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 `Tones/Alerts` and press  to select.
- 5  or  to `Call Ringers` and press  to select.
- 6  or  to `Private Call` and press  to select.
- 7 The display shows `Turn On`. Press  to enable Call Ringers for Private Calls. The display shows `Private Call Ringer On`.

OR

The display shows `Turn Off`. Press  to disable Call Ringers for Private Calls. The display shows `Private Call Ringer Off`.

☰ Activating and Deactivating Call Ringers for Text Message

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

Procedure:

- 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 `Tones/Alerts` and press  to select.
 - 5  or  to `Call Ringers` and press  to select.
 - 6  or  to `Text Message` and press  to select.
 - 7 The current tone is indicated by a ✓.
 - 8  or  to the preferred tone and press  to select. The display shows `Tone <Number> Selected` and a ✓ appears to the left of the selected tone.
- OR**
-  or  to `Turn Off` and press  to select. The display shows `Text Message Ringer Off` and a ✓ appears to the left of `Turn Off`.

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.

Procedure:

- 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 `Ring Style` and press  to select.

- 5 A ✓ indicates the current selected tone.

- 6  or  to the required tone and press  to select.

- 7 The display shows `Contact Saved`.

The radio sounds out each ring style as you navigate through the list.

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.

Viewing Recent Calls

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

Procedure:

- 1  to access the menu.

- 2  or  to `Call Log` and press  to select.

- 3  or  to preferred list and press  to select.

- 4 The display shows the most recent entry at the top of the list.

- 5  or  to view the list.

*Press the **PTT** button to start a Private Call with the currently selected alias or ID.*

Missed Call Screen

Whenever a call is missed, your radio displays a missed call message. Select `View` to view it immediately or `View Later` to view at a later time.

NOTE: The missed call message is displayed only when on the Home screen.

The radio exits the Missed Call screen and sets up a Private Call if you press the **PTT** button while viewing a missed call number.

Procedure:

- 1 The display shows `Missed Calls`, along with `View?`.
- 2 Press to view the missed call ID. The missed call log list appears on the display.
Press to delete the entry.
OR
 or to `View Later` and press to select. You return to the Home screen.

Deleting a Call from a Call List**Procedure:**

- 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 `Delete Entry?` and press to select.
- 6 Press to select `Yes` to delete the entry. The display shows `Entry Deleted`.
OR
 or to `No` and press to return to the previous screen.

When you select a call list and it contains no entries, the display shows *List Empty*, and sounds a low tone if *Keypad Tones* are turned on (see **Turning Keypad Tones On or Off** on page 66).

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 to subscriber aliases or IDs only and is accessible through the menu via `Contacts` or manual dial.

Receiving and Acknowledging a Call Alert

When you receive a Call Alert page, you see `Call Alert` that alternates with the alias or ID of the calling radio on the display.

NOTE: The call alert is displayed only when on the Home screen.

Procedure:

- 1 You hear a repetitive tone. The LED blinks yellow and green.
- 2 Press the **PTT** button to start a Private Call to the radio that sent the Call Alert.
OR
Press to select `Ignore?` and to exit the Call Alert.

Making a Call Alert from the Contacts List

Procedure:

- 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.
OR
 or  to `Manual Dial` and press  to select. The display shows `Radio Number`. Press  to select. A cursor appears. Enter the subscriber ID you want to page and press .

- 4  or  to `Call Alert` and press  to select.

- 5 The display shows `Call Alert: <Subscriber Alias or ID>`, indicating that the Call Alert has been sent.

- 6 If the Call Alert acknowledgement is received, a tone sounds and the display shows `Call Alert Successful`.
OR
 If the Call Alert acknowledgement is not received, a tone sounds and the display shows `Call Alert Failed`.

Making a Call Alert with the One Touch Call Button

NOTE: Programmable buttons press must be initiated while on the Home screen.

Procedure:

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

- 2 The display shows `Call Alert: <Subscriber Alias or ID>`, indicating that the Call Alert has been sent.

- 3 If the Call Alert acknowledgement is received, a tone sounds and the display shows `Call Alert Successful`.
OR
 If the Call Alert acknowledgement is not received, a tone sounds and the display shows `Call Alert Failed`.

■ Emergency Operation

An Emergency call or Emergency Alert is used to indicate a critical situation. You can initiate an Emergency at any time on any screen display, even when there is activity on the current channel. Pressing the **Emergency** button initiates the programmed Emergency mode. The programmed Emergency mode may also be initiated by triggering the optional ManDown feature. The Emergency feature may be disabled in your radio.

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

- **Emergency Call** – You must press the **PTT** button to talk on the assigned emergency time slot.
- **Emergency Call with Voice to Follow** – For the first transmission on the assigned emergency time slot, the microphone is automatically unmuted and you may talk without pressing the **PTT** button. The microphone will stay “hot” in this fashion for a time period programmed into the radio. For subsequent transmissions in the same Emergency call, you must press the **PTT** button.
- **Emergency Alert** – An Emergency Alert is not a voice call. It is an emergency notification that is sent to radios that are configured to receive these alerts. The radio sends an emergency alert via the control channel of the currently registered site. The Emergency Alert is received by radios in the Connect Plus network that are programmed to receive them (no matter which network site they are registered to).

Only **ONE** of the Emergency modes can be assigned to the **Emergency** button per Connect Plus zone. In addition, each Emergency mode has the following types:

- **Regular** – Radio initiates an Emergency call or Emergency Alert and shows audio and/or visual indicators.
- **Silent** – Radio initiates an Emergency call or Emergency Alert without any audio or visual indicators. The radio will suppress all audio or visual indications of the Emergency until you press the **PTT** button to start a voice transmission.
- **Silent with Voice** – The same as Silent operation, except that the radio will also unmute for some voice transmissions.

NOTE: If your radio is programmed for “Silent” or “Silent with voice” emergency initiation, in most cases it will automatically exit silent operation after the Emergency Call or Emergency Alert is finished. The exception to this rule is when “Emergency Alert” is the configured Emergency Mode and “Silent” is the configured Emergency Type. If your radio is programmed in this manner, the silent operation will continue until you cancel silent operation by pressing PTT or the button configured for “Emergency Off”.

Emergency voice calls and Emergency Alerts are not supported when operating in Fallback mode. For more information see the **Auto Fallback** section on page 26.

Receiving an Emergency Call

Your radio may be programmed to sound an alert tone and also display information about the call. If so programmed, when receiving an Emergency call, the display shows *Emergency* and alternates with the alias or ID of the sender and the Emergency group ID.

Depending on how your radio has been programmed, the visual indications may persist until you press a special button sequence to clear the Emergency indications.

NOTE: Short press , then press the programmed **Emergency Off** button to clear the Emergency received indications.

The Emergency Off function is on the same button used to start the Emergency call. If Emergency On is a short press, then Emergency Off is a long press. If Emergency On is a long press, then Emergency Off is a short press.

In addition, if the radio is programmed for Emergency Alert Tone, an alternating tone sounds when an Emergency call is received. The tone may be silenced by pressing any button.

Initiating an Emergency Call

Procedure:

To start a call on the Emergency group:

- 1 Press the programmed **Emergency** button. The Emergency Search Tone sounds. It is temporarily muted when the radio transmits or receives voice. The tone stops when the radio exits Emergency mode.
-

NOTE: The Emergency Search Tone is an optional feature, it can be enabled or disabled via the CPS programming software. This feature is disabled, if Silent Emergency is enabled. The CPS can also program tone to sound to through the speaker of the radio (default) or wired accessory. Check with your dealer or system administrator to determine how your radio has been programmed.

- 2 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth and press the **PTT** button to initiate a voice transmission on the Emergency group.
-
- 3 When you release the **PTT** button, the Emergency call continues for the time allotted for the Emergency Call Hang Time. If you press the **PTT** button during this time, the Emergency call continues.
-

*If your radio is set to Silent, it will not display any audio or visual indicators during Emergency mode until you press the **PTT** button to initiate a voice transmission.*

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

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

Initiating an Emergency Call with Voice to Follow

Your radio must be programmed for this type of operation.

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

Procedure:

To start a call on the *Emergency group*:

- 1 Press the programmed **Emergency** button. The *Emergency Search Tone* sounds. It is temporarily muted when the radio

transmits or receives voice. The tone stops when the radio exits *Emergency mode*.

NOTE: The *Emergency Search Tone* is an optional feature, it can be enabled or disabled via the CPS programming software. This feature is disabled, if *Silent Emergency* is enabled. The CPS can also program tone to sound to through the speaker of the radio (default) or wired accessory. Check with your dealer or system administrator to determine how your radio has been programmed.

- 2 The radio’s display will show *Emergency* and alternate with the group ID for the *Emergency call*.
- 3 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth and speak.
- 4 Microphone will remain active for the “hot mic” time specified in your radio’s codeplug programming. During this time, the LED lights up green.
- 5 Press and hold the **PTT** button to talk longer than the programmed duration.

Responding to an Emergency Call

Procedure:

When receiving an *Emergency call*:

- 1 If *Alert Tone* is sounding, press any button to stop the *Emergency Alert tone*.

- 2 Hold the microphone 1 to 2 inches (2.5 to 5.0 cm) from your mouth and press the **PTT** button to initiate a voice transmission on the Emergency group. All radios that are monitoring this Emergency group will hear your transmission.

- 3 Wait for the Talk Permit Tone to finish (if enabled) and speak clearly into the microphone. The LED lights up green. Your radio remains in the Emergency mode.

- 4 Release the **PTT** button to listen. You see *Emergency*, the initiator's ID or alias and the group ID or group alias on your display.

- 5 If emergency indications continue to display on your screen after the Emergency call is over, use the button sequence described in *Silent with Voice – The same as Silent operation, except that the radio will also unmute for some voice transmissions.* on page 41 to cancel the emergency indications.

- 6 The radio returns to the Home screen.

NOTE: If you do not respond to the Emergency call within the time allotted for the Emergency Call Hang Time, the Emergency call will be completed. You will not have an indication of this on the radio. In this case, when you press the **PTT** button, you will be talking on your currently selected group. This is true even if your radio's display still shows all of the Emergency call received indications (prior to you clearing it).

Exiting Emergency Mode

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

If your radio was configured for Emergency with Voice to Follow, use the "hot mic" period to explain your error, then press and release the **PTT** button to discontinue the transmission. The Emergency call will be discontinued after the Emergency Call Hang Time expires.

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

Receiving an Emergency Alert

Your radio may be programmed to sound an alert tone and also display information about the Emergency Alert. If so programmed, when receiving an Emergency Alert, the display alternates between the following:

Line 1: "Emergency Alert"

Line 2: The currently selected contact Alias or ID,
and

Line 1: The alias or ID of the sender

Line 2: The Emergency Group alias.

The visual indications will persist until you press a special button sequence to clear the Emergency indications.

NOTE: Short press the  button, then press* the programmed **Emergency Off** button to clear the Emergency received indications.

*The Emergency Off function is on the same button used to initiate the Emergency Alert. If “Emergency On” is a short press, then “Emergency Off” is a long press. If “Emergency On” is a long press, then “Emergency Off” is a short press.

In addition, if the radio is programmed for **Emergency Alert Receive (Alert Indication)**, an alternating tone will sound when an Emergency Alert is received. The tone may be silenced by pressing any button.

Initiating an Emergency Alert

Procedure:

To send an Emergency Alert on the Emergency group:

- 1 Press the orange Emergency button. The Emergency Search Tone sounds. It is temporarily muted when the radio

transmits or receives voice. The tone stops when the radio exits Emergency mode.

NOTE: The Emergency Search Tone is an optional feature, it can be enabled or disabled via the CPS programming software. This feature is disabled, if Silent Emergency is enabled. The CPS can also program tone to sound to through the speaker of the radio (default) or wired accessory. Check with your dealer or system administrator to determine how your radio has been programmed.

- 2 The radio's display shows the Emergency icon and Emergency Pending until the Emergency Alert is sent, then it shows “Sending Emergency Alert” until the Emergency Alert is received by the site controller and broadcast.

- 3 Once the Emergency Alert is successfully sent and is being broadcast for other radios to hear, a positive indicator tone is played and the radio's display shows Emergency Alert Successful.

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

Responding to an Emergency Alert

An Emergency Alert from a radio indicates that the user is in an urgent situation. You may respond to the alert by initiating a private call to the radio who declared the emergency, initiating a group call to their talkgroup, sending the radio a Call Alert, initiating a Remote Monitor of that radio, etc. The proper response is determined by your organization and the individual situation.

■ Man Down Alarms

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

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

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

The purpose of the Man Down Alarms is to alert others when you might be in danger. This is accomplished by programming your radio to detect a certain angle of tilt, lack of movement, or

movement, depending on which Man Down Alarm(s) is/are enabled. If your radio detects a disallowed movement type, and if the condition is not corrected in a certain period of time, the radio starts to play an Alert Tone (if so programmed). At this point you should immediately take one or more of the corrective actions discussed below, depending on which Man Down Alarm(s) has/have been enabled for your radio. If you do not take corrective action within a certain period of time, your radio will automatically start an Emergency (either an Emergency Call or Emergency Alert).

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

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

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

NOTE: Man Down Alarms are not supported when operating in Fallback mode. For more information see the **Auto Fallback** section on page 26.

Turning Man Down Alarms On and Off

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

- When using the programmable button to toggle the Man Down Alarms On, your radio plays a tone that rises in pitch and shows a brief message, *Man Down Alrms Enabled*.
- When using the programmable button to toggle the Man Down Alarms Off, your radio plays a tone that falls in pitch and shows a brief message, *Man Down Alrms Disabled*.

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

If your radio has been programmed so that Man Down Alarms can be turned On and Off via the menu, follow the procedure below.

Procedure:

Man Down Alarms is turned On/Off from the menu:

- 1  to access the menu.
- 2  or  to locate the *Utilities* option.
- 3 Press  to select.
- 4  or  to locate the *Radio Settings* option.
- 5 Press  to select.
- 6  or  to locate the *Man Down Alarm* option.
- 7 Press  to select.
- 8 The display now shows *Enable/Disable*.
- 9 Press .
- 10 If Man Down Alarms is currently On, the display reads *Man Down Alarm Disable*. If Man Down Alarms is currently Off, the display reads *Man Down Alarm Enable*.
- 11 Press  to toggle the current state of Man Down Alarms. The display momentarily shows *Man Down Alarm Disabled* or *Man Down Alarm Enabled* to confirm the new state.

NOTE: If you press the Menu button while the display shows Tilt Alarm Pending, Anti Movement Alarm Pending, or Movement Alarm Pending, you will be taken directly to step 7.

Resetting the Man Down Alarms

If your radio has been programmed with either the Man Down Alarms Reset button, or the Man Down Alarms menu option, it is possible to reset the Man Down Alarms without turning them On or Off. This stops any Man Down Alert Tone that is currently playing, and it also resets the Alarm timers. However, it is still necessary to correct the movement violation by taking the appropriate corrective action described in the Man Down Alarms section. If the movement violation is not corrected within a period of time, the Alert Tone starts playing again.

The procedure for resetting the Man Down Alarms depends on how your radio is programmed. If programmed with a Man Down Alarms Reset button, use the button to Reset the Man Down Alarms. This applies to all of the Man Down Alarms enabled for your radio.

When using the programmable button to reset the Man Down Alarms, the radio shows a brief message, Man Down Alarms Reset.

If your radio has been programmed so that Man Down Alarms can be Reset via the menu, follow the procedure below.

Procedure:

Reset Man Down Alarms from the menu:

-  to access the menu.
-  or  to locate the Utilities option.

- 3 Press  to select.

- 4  or  to locate the **Radio Settings** option.

- 5 Press  to select.

- 6  or  to locate the **Man Down Alarm** option.

- 7 Press  to select.

- 8 The display now shows <Enable/Disable>.

- 9  or  to locate the **Man Down Alarm Reset** option.

- 10 Press  to select **Man Down Alarm Reset**.
The display momentarily shows **Man Down Alarm Reset** to confirm your selection.

NOTE: If you press the Menu button while the display shows **Tilt Alarm Pending, Anti Movement Alarm Pending, or Movement Alarm Pending**, you will be taken directly to step 7.

■ Beacon Feature

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

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

If your radio automatically starts an Emergency Call or Emergency Alert due to one of the Man Down Alarms, and if your radio is also enabled for the Beacon feature, the radio starts to periodically emit a high pitched tone approximately once every ten seconds. The interval can vary depending on whether you are talking on your radio. The purpose of the Beacon tone is to help searchers locate you. If your radio has also been enabled for the “Visual Beacon”, the radio’s backlight comes on for a few seconds every time the Beacon tone plays.

You can stop your radio from playing the Beacon tone by using a programmable button, if your radio has been configured in this manner. This is discussed in the next two sections. If your radio does not have the programmable button or menu option, you can stop the Beacon tone by turning the radio off, and then on again, or by changing to a different zone (if your radio has been programmed for more than one zone.)

Turning Beacon On and Off

The procedure for turning the Beacon On and Off depends on how your radio is programmed. If programmed with a Beacon On/Off button, use the button to toggle the Beacon On and Off.

- When using the programmable button to toggle the Beacon On, your radio plays a tone that rises in pitch and shows a brief message, **Beacon Enabled**.

- When using the programmable button to toggle the Beacon Off, your radio plays a tone that falls in pitch and shows a brief message, `Beacon Disabled`.

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

If your radio has been programmed so that the Beacon can be turned On and Off via the menu, follow the procedure below.

Procedure:

The Beacon is turned On/Off from the menu:

- 1  to access the menu.
- 2  or  to locate the `Utilities` option.
- 3 Press  to select.
- 4  or  to locate the `Radio Settings` option.
- 5 Press  to select.
- 6  or  to locate the `Beacon` option.
- 7 Press  to select.
- 8 The display now shows `Enable/Disable`.
- 9 Press .
- 10 If Beacon is currently On, the display reads `Beacon Disable`. If Beacon is currently Off, the display reads `Beacon Enable`.

- 11 Press  to toggle the current state of Beacon. The display momentarily shows `Beacon Disabled` or `Beacon Enabled` to confirm the new state.

Resetting the Beacon

If your radio has been programmed with either the Beacon Reset button, or the Beacon menu option, it is possible to reset the Beacon. This stops the Beacon Tone (and also the Visual Beacon) without turning the Beacon feature Off.

The procedure for resetting the Beacon depends on how your radio is programmed. If programmed with a Beacon Reset button, use the button to Reset the Beacon.

When using the programmable button to reset the Man Down Alarms, your radio shows a brief message, `Beacon Reset`.

If your radio has been programmed so that the Beacon can be Reset via the menu, follow the procedure below.

Procedure:

Reset Beacon feature from the menu:

- 1  to access the menu.
- 2  or  to locate the `Utilities` option.
- 3 Press  to select.
- 4  or  to locate the `Radio Settings` option.
- 5 Press  to select.

- 6  or  to locate the **Beacon** option.

- 7 Press  to select.

- 8 The display now shows <Enable/Disable>.

- 9  or  to locate the **Beacon Reset** option.

- 10 Press  to select **Beacon Reset**.
The display momentarily shows **Beacon Reset** to confirm your selection.

■ Text Message Features

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

The **maximum** length of characters for a text message, including the subject line (seen when receiving message from an e-mail application), is **138**.

The radio exits the current screen once the inactivity timer expires. Any text message in the writing/editing screen will automatically be saved to the Drafts folder.

NOTE: Press  to return to the previous screen or long press  to return to the Home screen. You cannot return to the previous screen or Home screen if the radio is in the process of sending the message.

Writing and Sending a Text Message

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.
 - 2  or  to Messages and press  to select.
-

- 3  or  to Write and press  to select.
-

- 4 A cursor appears.

Use the keypad to type your message.

Press  to move one space to the left.

Press  to move one space to the right.

Press the # key to insert a space.

Press the *DEL key to delete any unwanted characters.

- 5 Press  once the message is composed.
-

- 6  or  to Send and press  to send the message.

OR

 or  to Save and press  to save the message to the Drafts folder.

OR

 to edit the message.

 again to delete the message or save it to the Drafts folder.

- 7  or  to the required alias or ID and press  to select.

OR

 or  to Manual Dial and press  to select. The display shows Radio Number. Press  to select. Key in the subscriber ID and press .

- 8 The display shows Sending Message confirming your message is being sent.
-

9 If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.

*If the menu was used to send the quick text message and the text message fails to send, the radio returns to the Resend option screen (see **Managing Fail-to-Send Text Messages** on page 56).*

*If the programmed button was used to send the quick text message and the text message fails to send, the radio returns to the Home screen (see **Managing Sent Text Messages** on page 57)*

Sending a Quick Text Message

Your radio supports a maximum of ten (10) Quick Text messages as programmed by your dealer.

While Quick Text messages are predefined, you can edit each message before sending it.

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

1  to access the menu.

2  or  to Messages and press  to select.

3  or  to Quick Text and press  to select.

4  or  to the required Quick Text and press  to select.

5 A cursor appears.

Use the keypad to edit the message, if required.

Press  to move one space to the left.

Press  to move one space to the right.

Press the # key to insert a space.

Press the *DEL key to delete any unwanted characters.

6 Press  once the message is composed.

7  or  to Send and press  to send the message.

OR

 or  to Save and press  to save the message to the Drafts folder.

OR

 to edit the message.

8  or  to the required alias or ID and press  to select.

OR

 or  to Manual Dial and press  to select. The display shows Radio Number. Press  to select.

Key in the subscriber alias or ID and press .

9 The display shows **Sending Message**, confirming your message is being sent.

10 If the message is sent successfully, a tone sounds and the display shows **Message Sent**.

OR

If the message cannot be sent, a low tone sounds and the display shows **Message Send Failed**.

*If the menu was used to send the quick text message and the text message fails to send, the radio returns to the **Resend** option screen (see **Managing Fail-to-Send Text Messages** on page 56).*

*If the programmed button was used to send the quick text message and the text message fails to send, the radio returns to the Home screen (see **Managing Fail-to-Send Text Messages** on page 56).*

Sending a Quick Text Message with the One Touch Call Button

Procedure:

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

- 2 The display shows **Sending Message** confirming your message is being sent.

- 3 If the message is sent successfully, a tone sounds and the display shows **Message Sent**.

OR

If the message cannot be sent, the display shows **Message Send Failed**.

*If the text message fails to send, the radio returns to the Home screen (see **Managing Fail-to-Send Text Messages** on page 56).*

Accessing the Drafts Folder

You can save a text message to send it at a later time.

If a mode change causes the radio to exit the text message writing/editing screen while you are in the process of writing or editing a text message, your current text message is automatically saved to the Drafts folder.

The most recent saved text message is always added to the top of the Drafts list.

The Drafts folder stores a maximum of ten (10) last saved messages. When the folder is full, the next saved 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 Saved Text Message

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.
- 2  or  to **Messages** and press  to select.
- 3  or  to **Drafts** and press  to select.
- 4  or  to the required message and press  to select.

Editing and Sending a Saved Text Message

Procedure:

- 1 Press  again while viewing the message.
- 2  or  to **Edit** and press  to select.
A cursor appears.
Use the keypad to edit your message.
Press  to move one space to the left.
Press  to move one space to the right.
Press the # key to insert a space.
Press the *DEL key to delete any unwanted characters.
Press  once the message is composed.

OR

-  or  to **Send** and press  to select.
- 3  or  to the required alias or ID and press  to select.

OR

 or  to **Manual Dial** and press  to select. The display shows **Radio Number**. Press  to select.
Key in the subscriber alias or ID and press .

- 4 The display shows **Sending Message** confirming your message is being sent.
- 5 If the message is sent, a tone sounds and the display shows **Message Sent**.

OR

If the message is not sent, a low tone sounds and the display shows **Message Send Failed**.

If the text message fails to send, it is moved to the Sent Items folder and marked with a Send Failed icon.

Deleting a Saved Text Message from Drafts

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.
- 2  or  to **Messages** and press  to select.
- 3  or  to **Drafts** and press  to select.
- 4  or  to the required message and press  to select.

- 5 Press **OK** again while viewing the message.
- 6 **◀** or **▶** to **Delete** and press **OK** to delete the text message.

Managing Fail-to-Send Text Messages

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

- **Resend**
- **Forward**
- **Edit**

Resending a Text Message

Procedure:

- 1 Press **OK** to resend the same message to the same subscriber/group alias or ID.
- 2 If the message is sent successfully, a tone sounds and the display shows **Message Sent**.
OR
If the message is not sent, a low tone sounds and the display shows **Message Send Failed**.

Forwarding a Text Message

Select **Forward** to send the message to another subscriber/group alias or ID.

Procedure:

- 1 **◀** or **▶** to **Forward** and press **OK** to select.
- 2 **◀** or **▶** to the required alias or ID and press **OK** to select.
OR
◀ or **▶** to **Manual Dial** and press **OK** to select. The display shows **Radio Number**. Press **OK** to select. Key in the subscriber ID and press **OK**.
- 3 The display shows **Sending Message** confirming your message is being sent.
- 4 If the message is sent, a tone sounds and the display shows **Message Sent**.
OR
If the message is not sent, a low tone sounds and the display shows **Message Send Failed**.

Editing a Text Message

Select **Edit** to edit the message before sending it.

NOTE: If a subject line is present (for messages received from an e-mail application), you cannot edit it.

Procedure:

- 1 **◀** or **▶** to **Edit** and press **OK** to select.
- 2 A cursor appears beside the message. Use the keypad to edit your message.

Press  to move one space to the left.
Press  to move one space to the right.
Press the # key to insert a space.
Press the *DEL key to delete any unwanted characters.

3 Press  once message is composed.

4  or  to Send and press  to send the message.

OR

 or  to Save and press  to save the message to the Drafts folder.

OR

 to edit the message.

 again to save it to the Drafts folder. If you chose No then you will return to previous screen.

5  or  to the required alias or ID and press  to select.

OR

 or  to Manual Dial and press  to select. The display shows Radio Number. Press  to select. Key in the subscriber ID and press .

6 The display shows Sending Message confirming your message is being sent.

7 If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.

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: Press  at any time to return to the previous screen or long press  at any time to return to the Home screen.

Viewing a Sent Text Message

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

1  to access the menu.

2  or  to Messages and press  to select.

3  or  to Sent Items and press  to select.

- 4  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 Symbols** on page 13).

Sending a Sent Text Message

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

- Resend
- Forward
- Edit
- Delete

Procedure:

- 1 Press  again while viewing the message.
- 2  or  to Resend and press  to select.
- 3 The display shows Sending Message confirming that the same message is being sent to the same target radio.
- 4 If the message is sent, a tone sounds and the display shows Message Sent.

OR

If the message is not sent, a low tone sounds and the display shows Message Send Failed.

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: 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 a Site Call All Call.

Press  or  to access the Forward, Edit, or Delete option screen:

- Select *Forward* to send the selected text message to another subscriber/group alias or ID (see **Forwarding a Text Message** on page 56).
- Select *Edit* to edit the selected text message before sending it (see **Editing a Text Message** on page 56).
- Select *Delete* to delete the text message.

Deleting All Sent Text Messages from Sent Items

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.
- 2  or  to Messages and press  to select.
- 3  or  to Sent Items and press  to select.
- 4  or  to Delete All and press  to select.
- 5 At Delete Message?, press  to select Yes. The display shows Sent Items Cleared.

OR

At Delete Message?,  or  to No and press  to return to the previous screen.

When you select Sent Items and it contains no text messages, the display shows *List Empty*.

Receiving a Text Message

When your radio receives a message, the display shows the alias or ID of the sender and the message [X] symbol at the far left of the screen. A tone will sound and the LED will continue to blink yellow and green until a button is pressed.

NOTE: The incoming text message alert is displayed only when in the Home screen.

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

- Read

- Read Later
- Delete

Reading a Text Message

Procedure:

- 1  or  to Read? and press  to select.
- 2 Selected message in the Inbox opens.
A subject line may be shown if the message is from an e-mail application.
- 3 Press  to reply, forward, or delete the text message.
OR
Press  to return to the Home screen.

Press  or  to access the Read Later or Delete option screen:

- Select Read Later to return to the Home screen.
- Select Delete to delete the 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.

Your radio supports the following options for text messages:

- Reply

- Forward
- Delete
- Delete All

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

NOTE: Press  at any time to return to the previous screen or long press  at any time to return to the Home screen.

Viewing a Text Message from the Inbox

Procedure:

- 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 Press  to select the current message, and press  again to reply, forward, or delete that message.
- OR**
- Long press  to return to the Home screen.

Unread messages are indicated with an exclamation mark (!).

Replying to a Text Message from the Inbox

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.
 - 2  or  to Messages and press  to select.
 - 3  or  to Inbox and press  to select.
 - 4  or  to the required message and press  to select.
A subject line may be shown if the message is from an e-mail application.
 - 5 Press  once more to access the sub-menu.
 - 6  or  to Reply and press  to select.
 - 7  or  to Write and press  to select.
A cursor appears. Use the keypad to write your message.
- OR**
-  or  to Quick Text and press  to select.
A cursor appears. Use the keypad to edit your message, if required.
- 8 Press  once message is composed.

- 9 The display shows *Sending Message* confirming your message is being sent.
-
- 10 If the message is sent successfully, a tone sounds and the display shows *Message Sent*.
OR
If the message cannot be sent, a low tone sounds and the display shows *Message Send Failed*.
-

*If the message fails to send, the radio returns you to the *Resend option* screen (see **Managing Fail-to-Send Text Messages** on page 56).*

Deleting a Text Message from the Inbox

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.

 - 2  or  to *Messages* and press  to select.

 - 3  or  to *Inbox* and press  to select.

 - 4  or  to the required message and press  to select.
A subject line may be shown if the message is from an e-mail application.
-

- 5 Press  once more to access the sub-menu.

 - 6  or  to *Delete* and press  to select.

 - 7 At *Delete Message?*,  or  to *Yes* and press  to select.

 - 8 The display shows *Message Deleted*.

 - 9 The screen returns to the *Inbox*.
-

Deleting All Text Messages from the Inbox

Procedure:

Press the programmed **Text Message** button and proceed to Step 3.

OR

Follow the procedure below.

- 1  to access the menu.

 - 2  or  to *Messages* and press  to select.

 - 3  or  to *Inbox* and press  to select.

 - 4  or  to *Delete All* and press  to select.

 - 5 At *Delete Message?*,  or  to *Yes* and press  to select.

 - 6 The display shows *Inbox Cleared*.
-

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

Sending a Site All Call Text Message

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

Follow the procedure below.

- 1  to access the menu.
- 2  or  to Messages and press  to select.
- 3  or  to Write and press  to select.
- 4 A cursor appears. Use the keypad to edit the message.
Press  to move one space to the left.
Press  to move one space to the right.
Press the # key to insert a space.
Press the *DEL key to delete any unwanted characters.
- 5 Press  once message is composed.
- 6  or  to Send and press  to send message.
- 7  or  to Site All Text and press  to select.
- 8 The display shows Sending Message confirming your message is being sent.
- 9 If the message is sent, a tone sounds and the display shows Message Sent.
OR
If the message is not sent, a low tone sounds and the display shows Message Send Failed.

*If the message fails to send, the radio returns to the Resend option screen (see **Managing Fail-to-Send Text Messages** on page 56).*

■ Enhanced Privacy

If enabled, this feature helps to prevent eavesdropping by unauthorized users via a software-based scrambling solution. Only the voice portions of a call are scrambled. Your radio must have privacy enabled on the selected channel position to send a privacy-enabled transmission. While selected to a privacy-enabled channel position, the radio is still able to receive clear (unscrambled) transmissions. If your radio is configured with a matching Key ID and Key Value, it can correctly unscramble voice transmissions, even when transmit Privacy is not enabled for the currently selected channel position.

There are several different ways that a channel position can become enabled (or disabled) for privacy. It can be enabled (or disabled) for privacy via radio programming, or it can be enabled (or disabled) for privacy by the radio user via the Privacy on/off button or the Privacy menu option. You can observe the privacy status of a channel position by looking at the Privacy icon while your radio is not currently in a call. See the next section for more information. When transmitting scrambled audio, the talk permit tone is slightly lower in pitch than it is when transmitting unscrambled audio.

Privacy Icon

When the radio is idle (not currently transmitting or receiving), a

 indicates that transmit privacy is enabled for the currently selected channel position. If you press PTT, the radio will transmit scrambled voice.

When the radio is idle (not currently transmitting or receiving),

an  indicates that privacy is disabled for the currently selected channel position. If you press PTT, the radio will transmit unscrambled voice.

When receiving a call, a  indicates that scrambled audio is being received. If your radio is programmed with a matching Key ID and Key Value, the radio will unscramble the transmission and you will hear normal audio through the speaker. However, if your radio is not programmed with a matching Key ID and Key Value, you will hear either garbled

audio or silence. When receiving a call, an  indicates that unscrambled audio is being received.

NOTE: If there is a privacy setting mismatch between audio being received and the privacy setting for the selected channel position, the padlock icon will flash (open or closed, depending on the mismatch). For example, a co-worker disables privacy on the “Production” group position in their radio. Your radio has privacy enabled for the current channel position. In this case the open

padlock will flash when you receive unscrambled transmissions from that coworker. This indicates that although you are receiving an unscrambled transmission, your own transmissions will be scrambled. A flashing Closed padlock means that you are receiving a scrambled transmission, but your own transmissions will be unscrambled.

LED Operation

When transmitting, the green LED displays solid green, regardless of whether the transmission is scrambled or unscrambled. When receiving scrambled transmissions, the green LED will blink at an uneven rate (flash, flash, pause). This pattern repeats for the duration of the transmission. If the transmission is clear, then the green LED blinks at an even rate (flash, flash, flash). This pattern repeats for the duration of the transmission.

Enable/Disable Privacy

Procedure:

Press the programmed Privacy On/Off button to toggle privacy on or off for the selected channel position.

OR

Follow the procedure below.

- 1 Press  button.
- 2 Press  or  to locate the Utilities option.

- 3 Press  to select Utilities.

- 4 Press  or  (if necessary) to locate Radio Settings option.

- 5 Press  to select Radio Settings.

- 6 Press  or  to locate the Enh. Privacy option and press  to select.

- 7 The display shows Turn On or Turn Off, depending on whether Privacy is currently turned off or on.

- 8 Press  to toggle the current Privacy setting.

- 9 The display briefly shows Enh. Privacy On or Enh. Privacy Off to indicate the new privacy setting.

NOTE: Toggling the privacy setting on or off affects the currently selected channel position only. The radio tracks the privacy setting (on or off) for each channel position separately.

■ 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

Procedure:

Use the programmed **Radio Disable** button.

- 1 Press the programmed **Radio Disable** button.

- 2  or  to the required alias or ID and press  to select.

- 3 The display shows Radio Disable: <Subscriber Alias or ID>.

- 4 Wait for acknowledgment.

- 5 If successful, a tone sounds and the display shows Radio Disable Successful.
OR
If not successful, a low tone sounds and the display shows Radio Disable Failed.

OR

Procedure:

Use the menu.

- 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.
OR
 or  to **Manual Dial** and press  to select. The display shows **Radio Number**. Press  to select. Key in the subscriber alias or ID and press .

- 4  or  to **Radio Disable** and press  to select.

- 5 The display shows **Radio Disable: <Subscriber Alias or ID>**.

- 6 Wait for acknowledgment.

- 7 If successful, a tone sounds and the display shows **Radio Disable Successful**.
OR
If not successful, a low tone sounds and the display shows **Radio Disable Failed**.

Radio Enable

Procedure:

Use the programmed **Radio Enable** button.

- 1 Press the programmed **Radio Enable** button.

- 2  or  to the required alias or ID and press  to select.

- 3 The display shows **Radio Enable: <Subscriber Alias or ID>**.

- 4 Wait for acknowledgment.

- 5 If successful, a tone sounds and the display shows **Radio Enable Successful**.
OR
If not successful, a low tone sounds and the display shows **Radio Enable Failed**.

OR

Procedure:

Use the menu.

- 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.
OR
 or  to **Manual Dial** and press  to select. The display shows **Radio Number**. Press  to select. Key in the subscriber alias or ID and press .

- 4  or  to **Radio Enable** and press  to select.

- 5 The display shows `Radio Enable: <Subscriber Alias or ID>`.
- 6 Wait for acknowledgment.
- 7 If successful, a tone sounds and the display shows `Radio Enable Successful`.
OR
If not successful, a low tone sounds and the display shows `Radio Enable Failed`.

■ Utilities

📖 Locking and Unlocking the Keypad

You can lock your radio's keypad to avoid inadvertent key entry.

NOTE: The incoming alerts such as text message alert, call alert, and missed call alert do not show if the keypad is locked.

Procedure:

- 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 `Keypad Lock` and press  to select.

- 5 The display shows `Keypad Locked` and returns to the Home screen.
- 6 To unlock the keypad, press  followed by an *.
- 7 The display shows `Keypad Unlocked` and returns to the Home screen.

📖 Checking the Language

You can check your radio's display language.

Procedure:

- 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 `Language` and press  to select.
The current selection is marked with a ✓ before the name of the language.

📖 Turning Keypad Tones On or Off

You can enable and disable keypad tones, if needed.

Procedure:

- 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 Tones/Alerts and press  to select.

5  or  to Keypad Tones and press  to select.

6 The display shows Turn On. Press  to enable keypad tones. The display shows Keypad Tone On.

OR

The display shows Turn Off. Press  to disable keypad tones. The display shows Keypad Tone Off.

NOTE: If keypad tones have been turned off in a non-Connect Plus zone, they cannot be turned on in Connect Plus until they are re-enabled in the non-Connect Plus zone.

Setting the Power Level

You can toggle your radio's power setting between high or low for each channel.

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

Procedure:

Press the programmed **Power Level** button to toggle transmit power level between high and low.

OR

Follow the procedure below.

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 Change your current setting as prompted on the display.

6 Press  to select a new power level.

7 Screen returns to the previous menu.

Long press  to return to the Home screen. The power level icon is visible.

Controlling the Display Backlight

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

Procedure:

Press the programmed **Backlight** button to toggle the backlight settings.

OR

Follow the procedure below.

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 Backlight and press  to select.

- 5 The display shows Auto On. Press  to enable the display backlight. The display shows Backlight On.
OR
The display shows Turn Off. Press  to disable the display backlight. The display shows Backlight Off.

NOTE: To disable the display backlight, turn off the backlight setting in both Connect Plus mode and non-Connect Plus mode.

*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 70).*

Turning the Radio All Tones/Alerts On or Off

You can enable and disable all radio tones and alerts if needed.

Procedure:

Press the programmed **All Tones/Alerts** button to toggle all tones on or off.

OR

Follow the procedure below.

- 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 Tones/Alerts and press  to select.

- 5  or  to All Tones and press  to select.

- 6 The display shows Turn On. Press  to enable all tones and alerts. The display shows All Tones On.
OR
The display shows Turn Off. Press  to disable all tones and alerts. The display shows All Tones Off.

Turning the Talk Permit Tone On or Off

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

Procedure:

- 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 Tones/Alerts and press  to select.

- 5  or  to Talk Permit and press  to select.

- 6 The display shows Turn On. Press  to enable the Talk Permit Tone. The display shows Talk Permit Tone On.
OR

The display shows **Turn Off**. Press  to disable the Talk Permit Tone. The display shows **Talk Permit Tone Off**.

NOTE: Your radio may have a “Pre-Tone” feature enabled. The Pre-Tone is a series of short beeps prior to the Talk Permit Tone. The Pre-Tone starts when the user presses PTT and ends when the radio receives a response from the system. It is followed by the Talk Permit Tone (when a channel is assigned), the Busy Tone (if the call is placed in the Busy Queue), or a Negative Indicator tone (if the call request fails or is denied).
If the Pre-Tone has been enabled in your radio, turning the Talk Permit Tone on (via the menu) also turns the Pre-Tone on. Turning the Talk Permit Tone off (via the menu) also turns the Pre-Tone off.

Turning the Call Ringer Tones On/Off or Changing Ringer Style

Call Alert

Procedure:

- 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 **Tones/Alerts** and press  to select.

- 5  or  to **Call Ringers** and press  to select.
- 6  or  to **Call Alert** and press  to select.
- 7  or  to select ring tone and press  to select.

The current selection is marked with a ✓ before the tone number. As the tones are displayed they will sound the tone style.

Private Call

Procedure:

- 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 **Tones/Alerts** and press  to select.
- 5  or  to **Call Ringers** and press  to select.
- 6  or  to **Private Call** and press  to select.
- 7 The display shows **Turn On**. Press  to enable the Private Call Ringer. The display shows **Private Call Ringer On**.
OR
The display shows **Turn Off**. Press  to disable the Private Call Ringer. The display shows **Private Call Ringer Off**.

Text Message

Procedure:

- 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 Tones/Alerts and press  to select.
- 5  or  to Call Ringers and press  to select.
- 6  or  to Text Message and press  to select.
- 7  or  to select ring tone and press  to select.

The current selection is marked with a ✓ before the tone number. As the tones are displayed they will sound the tone style.

Turning the LED Indicator On or Off

You can enable and disable the LED Indicator if needed.

Procedure:

- 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 LED Indicator and press  to select.

- 5 The display shows Turn On. Press  to enable the LED Indicator. The display shows All LEDs On.
OR
The display shows Turn Off. Press  to disable the LED Indicator. The display shows All LEDs Off.

The display backlight, buttons, and keypad backlighting are automatically turned off if the LED indicator is disabled (see **Controlling the Display Backlight on page 67**).

Accessing General Radio Information

Your radio contains information on the following:

- Battery
- My number (Radio ID)
- Firmware Version
- Codeplug Version
- Option Board Firmware Version
- Option Board Frequency Version
- Option Board Hardware Version
- Option Board Codeplug Version
- Updates

NOTE: Press  at any time to return to the previous screen or long press  to return to the Home screen.

Accessing the Battery Information

Displays information on your radio battery.

Procedure:

- 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.
- 5 The display shows the battery information.

OR

For **IMPRES** batteries **ONLY**: If the battery requires reconditioning in an IMPRES charger, a low tone is played when pressing  on Remaining Capacity. After the reconditioning process, the display then shows the battery information.

For **IMPRES** batteries **ONLY**:

Press  on Battery Info to access the *Remaining Capacity* and view battery capacity level, indicated by a horizontal bar and percentage reading.

Checking the Degree of Tilt (Accelerometer)

If the portable radio has been enabled for the Man Down Alarms, there is a menu option to check how the radio measures the degree of tilt. This is a helpful feature when the dealer or Radio System Administrator uses the MOTOTRBO Connect Plus Option Board CPS programming software to configure the activation angle that will trigger the tilt alarm.

Procedure:

Check the angle of tilt in degrees:

- 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 Accelerometer.
- 5 Tilt the radio at the angle you think should trigger the Tilt Alarm.
- 6  to select Accelerometer.
- 7 The display now shows the radio's angle of tilt (deviation from perpendicular vertical position) in degrees (example: 62 Deg.) Based on this, use MOTOTRBO Connect Plus Option Board CPS to configure the Activation Angle for 60 degrees (which is the closest programmable value). The Tilt Alarm timers are triggered when the Activation Angle is 60 degrees, or greater.

NOTE: The measurement on the display shows the degree of tilt at the moment you press  to accept the Accelerometer option. If you change the angle of the radio after pressing , the radio will not change the measurement shown on its display. It continues to display the measurement taken when  was pressed.

Checking the Radio Model Number Index

This index number identifies your radio's model-specific hardware. Your radio system administrator may ask for this number when preparing a new Option Board codeplug for your radio.

Procedure:

- 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 Model Index and press  to select.
- 5 The display shows the Model Number Index.

Displaying the Site ID (Site Number)

The radio briefly shows the Site ID as it registers with a Connect Plus site. Following registration, the radio does not generally indicate the Site number. To display the registered Site number, do the following:

Procedure:

- 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 Site Number and press  to select.
- 5 The display shows the Network ID and the Site Number.

NOTE: If you are not currently registered at a site, the display shows Not Registered.

Checking the Site Info

The Site Info feature provides information that can be useful to a service technician. It consists of the following information:

- Repeater number of current Control Channel repeater.
- RSSI: Last signal strength value measured from Control Channel repeater.
- Neighbor List (NL) sent by Control Channel repeater (five numbers separated by commas).

If a system technician or administrator asks you to use this feature, please report the displayed information exactly as it appears on the screen.

Procedure:

- 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 Site Info and press  to select.

- 5 The display shows the Site Info.

NOTE: If you are not currently registered at a site, the display shows `Not Registered`.

 **Checking My Number (Radio ID)**

Displays the ID of your radio.

Procedure:

- 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 My Number and press  to select.

- 5 The display shows the radio ID.

 **Checking the Firmware Version**

Displays the firmware version on your radio.

Procedure:

- 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 Firmware Ver. and press  to select.

- 5 The display shows the current firmware version.

 **Checking the Codeplug Version**

Displays the codeplug version on your radio.

Procedure:

- 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 CP Ver. and press  to select.

- 5 The display shows the current codeplug version

Checking the Option Board Firmware Version

Displays the option board firmware version on your radio.

Procedure:

- 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 Opt Bd FW Ver and press  to select.
- 5 The display shows the current option board firmware version.

Checking the Option Board Frequency File Version

Displays the option board frequency file version on your radio.

Procedure:

- 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 Opt Bd Freq Ver and press  to select.
- 5 The display shows the current option board frequency file version.

Checking the Option Board Hardware Version

Displays the option board hardware version on your radio.

Procedure:

- 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 Opt Bd HW Ver and press  to select.
- 5 The display shows the current option board hardware version.

Checking the Option Board Codeplug Version

Displays the option board codeplug version on your radio.

Procedure:

- 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 Opt Bd CP Ver and press  to select.
- 5 The display shows the current option board codeplug version.

Checking the CRC of the Option Board OTA Codeplug File

Follow the instructions below if your radio system administrator asks you to view the Option Board OTA (over-the-air) Codeplug File CRC (Cyclic Redundancy Check). This menu option only appears if the Option Board received its last codeplug update OTA.

Procedure:

- 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 Opt Bd CP CRC and press  to select.

- 5 The display shows some letters and numbers. Communicate this information to your radio system administrator exactly as shown.

Checking for Updates

Connect Plus provides the ability to update certain files (Option Board Codeplug, Network Frequency File and Option Board Firmware File) over-the-air. Check with the dealer or network administrator to determine whether this feature has been enabled for your radio.

Any display Connect Plus radio has the ability to show its current Option Board OTA Codeplug CRC, Frequency File

version or Option Board firmware file version via a menu option. In addition, display radios that have been enabled for over-the-air file transfer can display the version of a "pending file". A "pending file" is a Frequency File or Option Board firmware file that the Connect Plus radio knows about via system messaging, but the radio has not yet collected all of the file packets. If a display Connect Plus radio has a pending file, the menu provides options to:

- see the version number of the pending file
- see what percentage of packets has been collected so far
- request the Connect Plus radio to resume collecting file packets

If the radio is enabled for Connect Plus over-the-air file transfer, there may be times when the radio automatically joins a file transfer without first notifying the radio user. While the radio is collecting file packets, the LED rapidly blinks red. The screen alternates between displaying the alias for the current Channel Selector Knob position and "File Transfer".

NOTE: The Connect Plus radio cannot collect file packets and receive calls at the same time. If you wish to cancel the file transfer, press and release the **PTT** button. This causes the radio to request a call on the selected Contact Name, and it will also cancel the file transfer for that radio until the process resumes at a later time.

There are several things that can make the file transfer process start again. The first example applies to all over-the-air file

types. The other examples apply only to the Network Frequency File and Option Board Firmware File:

- The radio system administrator re-initiates the over-the-air file transfer.
- The Option Board's pre-defined timer expires, which causes the Option Board to automatically resume the process of collecting packets.
- The timer has not yet expired, but the radio user requests the file transfer to resume via the menu option.

After the Connect Plus radio finishes downloading all file packets, it must upgrade to the newly acquired file. For the Network Frequency File, this is an automatic process and does not require a radio reset. For the Option Board Codeplug File, this is an automatic process that will cause a brief interruption to service as the Option Board loads the new codeplug information and re-acquires a network site. How quickly the radio upgrades to a new Option Board firmware file depends on how the radio has been configured by the dealer or system administrator. The radio will either upgrade immediately after collecting all file packets, or it will wait until the next time that the user turns the radio on. Check with your dealer or system administrator to determine how your radio has been programmed.

The process of upgrading to a new Option Board firmware file takes several seconds, and it requires the Connect Plus Option Board to reset the radio. Once the upgrade starts, the radio user will not be able to make or receive calls until the process is completed.

Firmware File

Firmware Up to Date

Procedure:

- 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 Updates and press  to select.
- 5  or  to Firmware and press  to select.
- 6 The display shows `Firmware is Up to Date.`

Pending Firmware – Version

Procedure:

- 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 Updates and press  to select.
- 5  or  to Firmware and press  to select.
- 6  or  to Version and press  to select.

7 If there is no pending Firmware File, the display shows
Firmware is Up to Date.

OR

If there is a pending Firmware File, the user will have
additional menu options: %Received and Download.

Pending Firmware – % Received

Procedure:

- 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 Updates and press  to select.
- 5  or  to Firmware and press  to select.
- 6  or  to %Received and press  to select.
- 7 The screen displays the percentage of firmware file packets collected so far. When at 100%, the radio needs to be power cycled On and Off to initiate the firmware upgrade.

Pending Firmware – Download

Procedure:

- 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 Updates and press  to select.

5  or  to Firmware and press  to select.

6  or  to Download and press  to select.

7 The screen displays Start Download.

8  or  to Yes to start the download.

OR

 or  to No to return to the previous menu.

9 The screen displays Download in Progress.

10 Press  to return to the previous screen.

NOTE: If the Connect Plus radio has previously left an OTA Option Board Firmware File Transfer with a partial file, the unit automatically rejoins the file transfer (if still ongoing) when an internal timer expires. If you want the unit to rejoin an ongoing file Option Board Firmware File transfer prior to expiration of this internal timer, use the Download option as described above.

Frequency File

Frequency File Up to Date

Procedure:

- 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 Updates and press  to select.
- 5  or  to Frequency and press  to select.
- 6 If there is no pending Frequency File, the display shows Freq. File is Up to Date.

OR

If there is a pending Frequency File, the user will have additional menu options: Version, %Received and Download.

Frequency File Pending – Version

Procedure:

- 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 Updates and press  to select.

- 5  or  to Frequency and press  to select.
- 6  or  to Version and press  to select.
- 7 The display shows Freq. File on the first line and <Version> of the pending frequency file on the second.

Frequency File Pending – % Received

Procedure:

- 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 Updates and press  to select.
- 5  or  to Frequency and press  to select.
- 6  or  to %Received and press  to select.
- 7 The screen displays the percentage of frequency file packets collected so far.

Frequency File Pending – Download

Procedure:

- 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 Updates and press  to select.

 - 5  or  to Frequency and press  to select.

 - 6  or  to Download and press  to select.

 - 7 The screen displays Start Download.

 - 8  or  to Yes to start the download.
- OR**
-  or  to No or  to return to the previous menu.

 - 9 The screen displays Download in Progress.

 - 10 Press  to return to the previous screen.

NOTE: If the Connect Plus radio has previously left an OTA Network Frequency File Transfer with a partial file, the unit automatically rejoins the file transfer (if still ongoing) when an internal timer expires. If you want the unit to rejoin an ongoing Network Frequency File transfer prior to expiration of this internal timer, use the Download option as described above.

Accessories

Your radio is compatible with the accessories listed in this chapter. Contact your dealer for details.

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Batteries	page 81
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Earbuds and Earpieces	page 82
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■ Antennas

The diagram on the right shows the location of the color indicator for the following antennas. See the footnote at the end of the list for the colors.



- Combination VHF/GPS, 136 – 147 MHz, Helical Antenna⁴ (PMAD4067_)
- Combination VHF/GPS, 147 – 160 MHz, Helical Antenna³ (PMAD4068_)
- Combination VHF/GPS, 160 – 174 MHz, Helical Antenna⁵ (PMAD4069_)

- VHF Wideband, 136 – 174 MHz, Double Helical Antenna⁶ (PMAD4088_)
- VHF, 136 – 147 MHz, Stubby Antenna⁴ (PMAD4093_)
- VHF, 147 – 160 MHz, Stubby Antenna³ (PMAD4094_)
- VHF, 160 – 174 MHz, Stubby Antenna⁵ (PMAD4095_)
- Combination UHF/GPS, 403 – 433 MHz, Folded Monopole Antenna¹ (PMAE4018_)
- Combination UHF/GPS, 403 – 433 MHz, Stubby Antenna¹ (PMAE4021_)
- UHF1, 403 – 470 MHz, Whip Antenna³ (PMAE4022_)
- Combination UHF1/GPS, 430 – 470 MHz, Stubby Antenna² (PMAE4023_)
- Combination UHF1/GPS, 430 – 470 MHz, Folded Monopole Antenna² (PMAE4024_)
- Combination UHF2/GPS, 450 – 527 MHz, Stubby Antenna⁷ (PMAE4048_)
- UHF2, 450 – 527 MHz, Whip Antenna⁷ (PMAE4049_)
- Combination UHF2/GPS, 450 – 495 MHz, Folded Monopole Antenna⁸ (PMAE4050_)
- Combination UHF2/GPS, 495 – 527 MHz, Folded Monopole Antenna⁶ (PMAE4051_)

- Combination 800/900/GPS, 806 – 941 MHz, Helical Antenna⁹ (PMAF4003_)
- Public Safety Microphone UHF Stubby Antenna¹, 403 – 433 MHz (PMAE4046_)
- Public Safety Microphone UHF Stubby Antenna², 430 – 470 MHz (PMAE4047_)
- Public Safety Microphone VHF Antenna⁵, 150 – 174 MHz (PMAD4086_)
- Public Safety Microphone VHF Antenna⁴, 136 – 153 MHz (PMAD4087_)

Color Code:

1 Red	3 Black	5 Blue	7 Brown	9 Purple
2 Green	4 Yellow	6 White	8 Orange	

Batteries

- IMPRES Li-Ion, 1500 mAh Submersible (IP57) Battery (PMNN4066_)*
- IMPRES Li-Ion, 1400 mAh Submersible (IP57) Battery, Intrinsically Safe (FM) (PMNN4069_)
- IMPRES Li-Ion, 2200 mAh Submersible (IP57) Battery (PMNN4077_)
- NiMH, 1300 mAh Submersible (IP57) Battery (PMNN4065_)*

* Not applicable to the 800/900 band.

Carry Devices

- Belt Clip for 2-Inch Belt Width (PMLN4651_)
- Belt Clip for 2.5-Inch Belt Width (PMLN4652_)
- Nylon Carry Case with 3-Inch Fixed Belt Loop for Display Radio (PMLN5015_)
- Soft Leather Carry Case with 2.5-Inch Swivel Belt Loop for Display Radio (PMLN5016_)
- Soft Leather Carry Case with 3-Inch Swivel Belt Loop for Display Radio (PMLN5017_)
- Soft Leather Carry Case with 3-Inch Fixed Belt Loop for Display Radio (PMLN5018_)

- Hard Leather Carry Case with 2.5-Inch Swivel Belt Loop for Display Radio (PMLN5019_)
- Hard Leather Carry Case with 3-Inch Swivel Belt Loop for Display Radio (PMLN5020_)
- Hard Leather Carry Case with 3-Inch Fixed Belt Loop for Display Radio (PMLN5021_)
- 2.5-Inch Replacement Swivel Belt Loop (PMLN5022_)
- 3-Inch Replacement Swivel Belt Loop (PMLN5023_)
- 1.75-Inch Black Leather Belt (4200865599)

■ Chargers

- IMPRES Multi-Unit Charger, US Plug (WPLN4212_)
- IMPRES Multi-Unit Charger, Euro Plug (WPLN4213_)
- IMPRES Multi-Unit Charger, UK Plug (WPLN4214_)
- IMPRES Multi-Unit Charger, Argentina Plug (WPLN4216_)
- IMPRES Multi-Unit Charger with Display, US Plug (WPLN4219_)
- IMPRES Multi-Unit Charger with Display, Euro Plug (WPLN4220_)
- IMPRES Multi-Unit Charger with Display, UK Plug (WPLN4221_)
- IMPRES Multi-Unit Charger with Display, Argentina Plug (WPLN4223_)

- IMPRES Single-Unit Charger, US Plug (WPLN4232_)
- IMPRES Single-Unit Charger, UK Plug (WPLN4233_)
- IMPRES Single-Unit Charger, Euro Plug (WPLN4234_)
- IMPRES Single-Unit Charger, Argentina Plug (WPLN4236_)

■ Earbuds and Earpieces

- Receive-Only Earbud (AARLN4885_)
- D-Shell Receive-Only Earpiece (PMLN4620_)
- Receive-Only Earpiece (RLN4941_)
- Over-the-Ear Receiver for Remote Speaker Microphone (WADN4190_)
- D-Shell Earset (PMLN5096_)
- IMPRES Temple Transducer (PMLN5101_)
- Small Custom Earpiece for Surveillance Kits, Right Ear (RLN4760_)
- Medium Custom Earpiece for Surveillance Kits, Right Ear (RLN4761_)
- Large Custom Earpiece for Surveillance Kits, Right Ear (RLN4762_)
- Small Custom Earpiece for Surveillance Kits, Left Ear (RLN4763_)

- Medium Custom Earpiece for Surveillance Kits, Left Ear (RLN4764_)
- Large Custom Earpiece for Surveillance Kits, Left Ear (RLN4765_)
- Standard Earpiece, Black (RLN6279_)
- Standard Earpiece, Beige (RLN6280_)
- Replacement Foam Ear Pad and Windscreen (RLN6283_)
- Earpiece with Acoustic Tube Assembly, Beige (RLN6284_)
- Earpiece with Acoustic Tube Assembly, Black (RLN6285_)
- Earpiece with High Noise Kit, Beige (RLN6288_)
- Earpiece with High Noise Kit, Black (RLN6289_)

■ Headsets and Headset Accessories

- Ultra-Lite Headset (PMLN5102_)
- Heavy Duty Noise-Canceling Headset (FM) (PMLN5275_)
- Lightweight Headset (RMN5058_)

■ Remote Speaker Microphones

- Remote Speaker Microphone (PMMN4024_)
- IMPRES Remote Speaker Microphone (PMMN4025_)

- Remote Speaker Microphone, Submersible (IP57) (PMMN4040_)*
- IMPRES Public Safety Microphone, 30-Inch Cable (PMMN4041_)*
- IMPRES Public Safety Microphone, 24-Inch Cable (PMMN4042_)*
- IMPRES Public Safety Microphone, 18-Inch Cable (PMMN4043_)*
- IMPRES Remote Speaker Microphone, with Volume, IP57 (PMMN4046_)
- IMPRES Submersible Public Safety Microphone, 30-Inch Cable (PMMN4047_)*
- IMPRES Submersible Public Safety Microphone, 24-Inch Cable (PMMN4048_)*
- IMPRES Submersible Public Safety Microphone, 18-Inch Cable (PMMN4049_)*
- IMPRES Remote Speaker Microphone, Noise-Canceling (PMMN4050_)
- Remote Speaker Microphone Replacement Coil Cord Kit (For Use with PMMN4024_ and PMMN4040_) (RLN6074_)
- Remote Speaker Microphone Replacement Coil Cord Kit (For Use with PMMN4025) (RLN6075_)

* Not applicable to the 800/900 band.

■ Surveillance Accessories

- IMPRES 3-Wire Surveillance, Black (PMLN5097_)
- IMPRES 3-Wire Surveillance, Beige (PMLN5106_)
- IMPRES 3-Wire Surveillance Kit with Clear, Comfortable Acoustic Tube, Black (PMLN5111_)
- IMPRES 3-Wire Surveillance Kit with Clear, Comfortable Acoustic Tube, Beige (PMLN5112_)
- Receive Only Surveillance Kit, Black (Single Wire) (RLN5878_)
- Receive Only Surveillance Kit, Beige (Single Wire) (RLN5879_)
- IMPRES 2-Wire Surveillance Kit, Black (RLN5880_)
- IMPRES 2-Wire Surveillance Kit, Beige (RLN5881_)
- IMPRES 2-Wire Surveillance Kit with Clear, Comfortable Acoustic Tube, Black (RLN5882_)
- IMPRES 2-Wire Surveillance Kit with Clear, Comfortable Acoustic Tube, Beige (RLN5883_)
- Surveillance Low Noise Kit (RLN5886_)
- Surveillance High Noise Kit (RLN5887_)

■ Miscellaneous Accessories

- Universal Chest Pack (HLN6602_)
- Waterproof Bag, Includes Large Carry Strap (HLN9985_)
- Shoulder Strap (Attaches to D-Rings on Carry Case) (NTN5243_)
- Small Clip, Epaulet Strap (RLN4295_)
- Break-A-Way Chest Pack (RLN4570_)
- Universal RadioPAK and Utility Case (Fanny Pack) (RLN4815_)
- Replacement Ear Tips, Clear, Pack of 25 (For Use with RLN5886_) (RLN6282_)
- Replacement Strap for RLN4570_ and HLN6602_ Chest Packs (1505596Z02)
- Accessory Dust Cover (1571477L01)
- Replacement Foam Plugs, Pack of 50 (For Use with RLN5887_) (5080384F72)
- Universal RadioPAK Extension Belt (4280384F89)

Batteries and Chargers Warranty

The Workmanship Warranty

The workmanship warranty guarantees against defects in workmanship under normal use and service.

All MOTOTRBO Batteries	One (1) Year
IMPRES Chargers (Single-Unit and Multi-Unit, Non-Display)	18 Months
IMPRES Chargers (Multi-Unit with Display)	18 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:

DGP Series Digital Portable Radios	Two (2) Years
Product Accessories (Excluding Batteries and Chargers)	One (1) Year

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.

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.

V. WHAT THIS WARRANTY DOES NOT COVER:

- A) Defects or damage resulting from use of the Product in other than its normal and customary manner.
- B) Defects or damage from misuse, accident, water, or neglect.

- C) Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
- D) Breakage or damage to antennas unless caused directly by defects in material workmanship.
- E) 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.
- F) Product which has had the serial number removed or made illegible.
- G) Rechargeable batteries if:
 - (1) any of the seals on the battery enclosure of cells are broken or show evidence of tampering.
 - (2) 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.
- H) Freight costs to the repair depot.
- I) 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 type acceptance labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.
- J) Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
- K) 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 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:

- A) that MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim;
- B) that MOTOROLA will have sole control of the defense of such suit and all negotiations for its settlement or compromise; and
- C) 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.

VII. GOVERNING LAW:

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



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