APX 6500
O2 CONTROL HEAD

MOTOROLA
Zone 4
Channel 11
Emergency
Zone | Resp | H/L | Call

Broome County, AMB.

This declaration is applicable to your radio only if your radio is labeled with the FCC logo shown below.

DECLARATION OF CONFORMITY

Per FCC CFR 47 Part 2 Section 2.1077(a)

Responsible Party

Name: Motorola Solutions, Inc.

Address: Motorola Solutions, Inc., 1303 East Algonquin Road Schaumburg, IL60196, U.S.A.

Phone Number: 1-800-927-2744

Hereby declares that the product:

Model Name: **APX 6500**

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.

DECLARATION OF CONFORMITY

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.

Additional FCC Notes to Users

The following FCC information applies to Bluetooth radio options

IC Model Name: PMHN4193A

Description: O2 Bluetooth Option Board

FCC ID: AZ492FT6002

IC: 109U-92FT6002

Conforms to the following regulations: FCC Part 15, Section 15.19, 15.12, and 15.105

Note: Changes or modifications not expressly approved by Motorola may void the users authority, as authorized by the FCC, to operate this device and should not be made. See 47 CFR Part 15.21. Information to user. The users manual or instruction manual for an intentional or unintentional radiator shall caution the user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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. See 47 CFR Part. 15.19(3).

This device has been tested and found to comply with the limits of Part 15.15 of the FCC rules. Parties responsible for equipment compliance should note that the limits specified in this part will not prevent harmful interference under all circumstances.

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. See Part 15.105b 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.

Industry Canada (IC) Statements:

This Class B digital apparatus complies with ICES-003 and Radio Standards Specification (RSS) 210.

PRODUCT SAFETY AND RF EXPOSURE COMPLIANCE

Before using this product, read the operating instructions for safe usage contained in the Product Safety and RF Exposure booklet enclosed with your radio.

ATTENTION!

This radio is restricted to occupational use only to satisfy FCC RF energy exposure requirements.
Before using this product, read the RF energy awareness information and operating instructions in the Product Safety and RF Exposure booklet enclosed with your radio (Motorola Publication part number 6881095C99) to ensure compliance with RF energy exposure limits.

For a list of Motorola-approved antennas and other accessories, visit the following website: http://www.motorola.com/APX

SOFTWARE VERSION

All the features described in the following sections are supported by the radio's software version **R08.05.00** or later.
See **Accessing Radio Information** to determine your radio's software version.
Check with your dealer or system administrator for more details of all the features supported.

Notice to Users (FCC and Industry Canada)

This device complies with Part 15 of the FCC rules and RSS 210 of the Industry Canada rules per the conditions listed below:
1 This device may not cause harmful interference.
2 This device must accept any interference received, including interference that may cause undesired operation.
3 Changes or modifications made to this device, not expressly approved by Motorola, could void the user's authority to operate this equipment.

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GETTING STARTED

This Interactive End User Toolkit (IEUTK) covers the basic operation of the **APX 6500 O2 Control Head**.

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.

Adobe Flash player is required to run the demos included with this kit.
Please refer to the Adobe website (http://get.adobe.com/flashplayer/) to update/download/install the Adobe Flash Player.

Notations Used in This Tutorial

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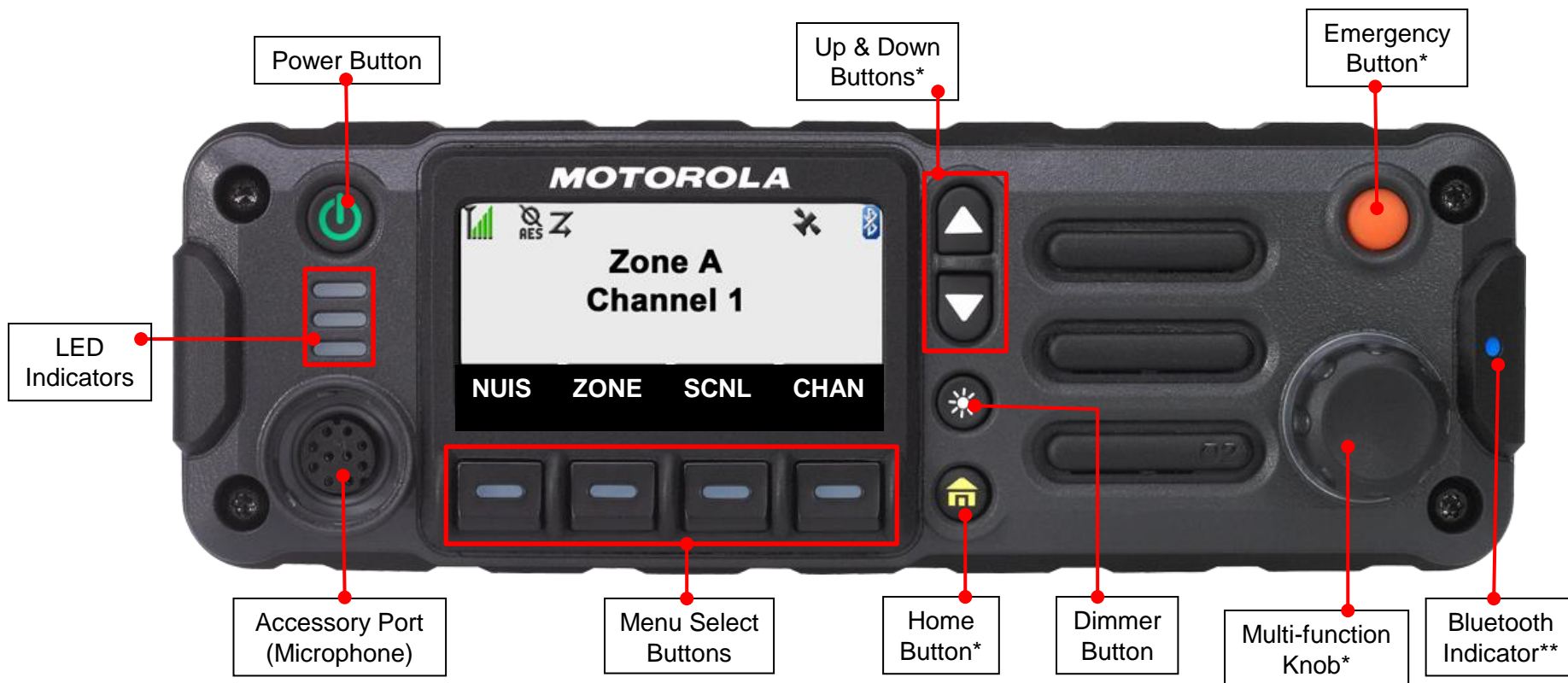

An operational procedure, practice, or condition, etc., which may result in injury or death if not carefully observed.

An operational procedure, practice, or condition, etc., which may result in damage to the equipment if not carefully observed.

Note: An operational procedure, practice, or condition, etc., which is essential to emphasize.

RADIO PARTS AND CONTROLS

❑ O2 Control Head

Power Button

Up & Down Buttons*

Emergency Button*

LED Indicators

MOTOROLA

Zone A
Channel 1

NUIS   ZONE   SCNL   CHAN

Accessory Port (Microphone)

Menu Select Buttons

Home Button*

Dimmer Button

Multi-function Knob*

Bluetooth Indicator**

FLEET MAP

	Z1	Z2	Z3	Z4	Z5	Z6
C1						
C2						
C3						
C4						
C5						
C6						
C7						
C8						
C9						
C10						
C11						
C12						
C13						
C14						
C15						
C16						

PREPARING YOUR RADIO FOR USE

❑ Turning on/off the Radio

Press the **Power Button** briefly to power on the radio.

After a short time, the red, yellow and green LEDs light up. The display then shows Zone and channel text, and menu items display on the screen.

The backlight will turn on to the last selected dim level.

Note:
Pressing the Power Button before the LED lights up will be ignored.

If **FAIL ##/##** appears in the display, the radio will not function until the condition has been corrected.

If **ERROR ##/##** appears, some non-critical data has been changed.

If the power-up test is unsuccessful, you see **Error XX/YY** (**XX/YY** is an alphanumeric code).

Turn off the radio, check the battery, and turn the radio back on. If the radio fails the power-up test again, record the **Error XX/YY** code and contact your dealer.

If **CH MISMATCH** appears, means that either the Control Head has been connected to an incompatible transceiver, or vice versa.

If your radio does not power up, contact your dealer.

To turn off the radio, press the **Power Button** after the LEDs light up.

Power Button

PREPARING YOUR RADIO FOR USE

❑ Validating Compatibility During Power Up

The radio validates and updates the software and hardware of your control head(s) during power up.

Follow the procedure below when your radio runs this task.

Procedure:

1 The display shows **Maintenance mode remote device**; promptly followed by other maintenance statuses.
2 The display shows **Update done please reset** upon completion.
   OR
   The display shows **Update failed please reset** when it fails to update.
3 Press the **Power Button** to reset.
   The radio runs the usual power up operation if the software updates are complete.
   OR
   The radio runs the Maintenance Mode if the updates are not complete and repeat step 1.

PREPARING YOUR RADIO FOR USE

☐ Adjusting the Volume

To increase the volume, rotate the **Multi-function Knob (MFK)** clockwise.

The display shows volume bars and volume level when you change the volume.

To decrease the volume, rotate the **Multi-function Knob** counterclockwise.

Multi-function Knob (MFK)

IDENTIFYING RADIO CONTROLS

❑ Accessing the Preprogrammed Functions

You can access various radio functions through one of the following ways:
• A short or long press of the relevant programmable buttons.
  OR
• Use the **Menu Select Buttons** (⬭).

Using the Menu Select Buttons

The **Menu Select Buttons** allow to access the menu entries of features.

Note: Check with your dealer or system administrator for the list of features activated in your radio.

Your radio may be preprogrammed differently from the following example, but the steps for selecting a zone may appear as shown below:

• Press the **Menu Select** button (⬭) directly below **Zone**.

IDENTIFYING RADIO CONTROLS

Using the Navigation Buttons

Home Button

The 🏠 button returns you to the Home (default) screen. In most cases, this is the current mode.
For selected radio features, the 🏠 button is also used to save user-edited radio settings or information before returning you to the Home screen.

Note: Some features do not require you to press 🏠 to go to the Home screen. Refer to the individual feature sections in this manual for further details on saving user-edited radio settings or information.

Dimmer Button

Use this button to adjust the brightness of the display.
Long press to toggle between day and night mode.

Up and Down Buttons

By default, the ▲ and ▼ buttons are used as up and down arrow input. These buttons are programmable.
They can be programmed to navigate through zones, channels and to increase and decrease the volume of the radio.

4-Way Navigation Button (on keypad mic)

Use this button to scroll up ▲, down ▼, left ◀ or right ▶.
Press and release one of the button to scroll from one entry to the next one.
Press and hold one of the button to have the radio toggles through the list automatically (release the button to stop).

IDENTIFYING STATUS INDICATORS

❑ Status Icons

The liquid crystal display (LCD) of your radio shows the radio status, text entries, and menu entries.

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

Receiving
Radio is receiving a call or data.

Transmitting
Radio is transmitting a call or data.

Call Received
Radio has received an Individual Call.

Received Signal Strength Indicator (RSSI)
The number of bars displayed represents the received signal strength for the current site, for trunking only. The more stripes in the icon, the stronger the signal.

Direct
• **On** = Radio is currently configured for direct radio to radio communication (during conventional operation only).
• **Off** = Radio is connected with other radios through a repeater.

Monitor (Carrier Squelch)
Selected channel is being monitored (during conventional operation only).

In-Call User Alert
• **On** = The feature is enabled. Voice muting of the affiliated trunking talkgroup or selected conventional channel is activated.
• **Off** = The feature is disabled. Voice muting of the affiliated trunking talkgroup or selected conventional channel is deactivated.

Power Level
• L = Radio is set at Low power.
• H = Radio is set at High power.

Scan
Radio is scanning a scan list.

Priority-One Channel Scan
• **Blinking dot** = Radio detects activity on channel designated as Priority-One.
• **Steady dot** = Radio detects activity on channel designated as Priority-Two.

IDENTIFYING STATUS INDICATORS

Vote Scan Enabled
The vote scan feature is enabled.

Secure Operation
• **On** = Secure operation.
• **Off** = Clear operation.
• **Blinking** = Receiving an encrypted voice call.

AES Secure Operation
• **On** = AES Secure operation.
• **Off** = Clear operation.
• **Blinking** = Receiving an encrypted voice call.

Location Signal
• **On** = Location feature is enabled, and location signal is available.
• **Off** = Location feature is disabled.
• **Blinking** = Location feature is enabled, but no location signal is available.

User Login Indicator (IP Packet Data)
• **On** = User is currently associated with the radio.
• **Off** = User is currently not associated with the radio.
• **Blinking** = Device registration or user registration with the server failed
due to an invalid username or pin.

Data Activity
Data activity is present.

Hexadecimal
Indicates that the text entry is currently in hexadecimal mode.

Bluetooth On
Bluetooth is on and ready for Bluetooth connection.

Bluetooth Connected
Bluetooth is currently connected to the external Bluetooth device.

MFK is in Mode Change feature
Turn the MFK to change the channel.

MFK is in Volume Change feature
Turn the MFK to adjust the volume.

IDENTIFYING STATUS INDICATORS

❑ **LED Indicator**

The LED indicator shows the operational status of your radio.

IDENTIFYING STATUS INDICATORS

Solid red – Radio is transmitting.

Blinking red – Radio is transmitting at low battery condition.

Rapidly blinking red – Radio has failed the self test upon powering up or encountered a fatal error.

Solid yellow (Conventional Only) – Channel is busy.

Blinking yellow – Radio is receiving a secured transmission.

Solid green – Radio is powering up, or is on a non-priority channel while in the Scan List Programming mode.

Blinking green – Radio is receiving an individual or telephone call, or is on a Priority-Two channel while in the Scan List Programming mode.

Rapidly blinking green – Radio is on a Priority-One channel while in the Scan List Programming mode.

❑ Intelligent Lighting Indicators

This feature temporary changes the radio's display backlight color and the alert text background color to help signal that a radio event has occurred.

Note: This feature must be preprogrammed by a qualified radio technician.

Backlight and Bar Color	Notification	When
Orange	Emergency Alerts	The radio initiates an emergency alarm or call.
		The radio receives an emergency alarm or call.
		The radio initiates the Man Down Post-Alert timer.
Red	Critical Alerts	The radio battery is low.
		The radio is out of range.
		The radio enters fail-soft mode.
		The radio is unable to establish a full connection with the system.
		The radio is unable to authenticate or register with the system.
Green	Call Alerts	The radio receives a private call.
		The radio receives a phone call.
		The radio receives a call alert.
		The radio receives a selective call.

IDENTIFYING STATUS INDICATORS

Orange	Emergency Alerts	
Red	Critical Alerts	
Green	Call Alerts	

IDENTIFYING STATUS INDICATORS

❑ Multi-function Knob - Concentric Ring LED

The concentric ring LED blinks green when the **MFK** is using the secondary feature. See Multi-function Knob (MFK) to understand the functionality of **MFK**.

If Intelligent Lighting is activated, the concentric ring LED will not blink green when the **MFK** is in the secondary mode. The LED turns into solid color of orange, red or green depending on the status of Intelligent Lighting.

Concentric Ring LED

Multi-function Knob (MFK)

Emergency Alerts

Critical Alerts

Call Alerts

IDENTIFYING STATUS INDICATORS
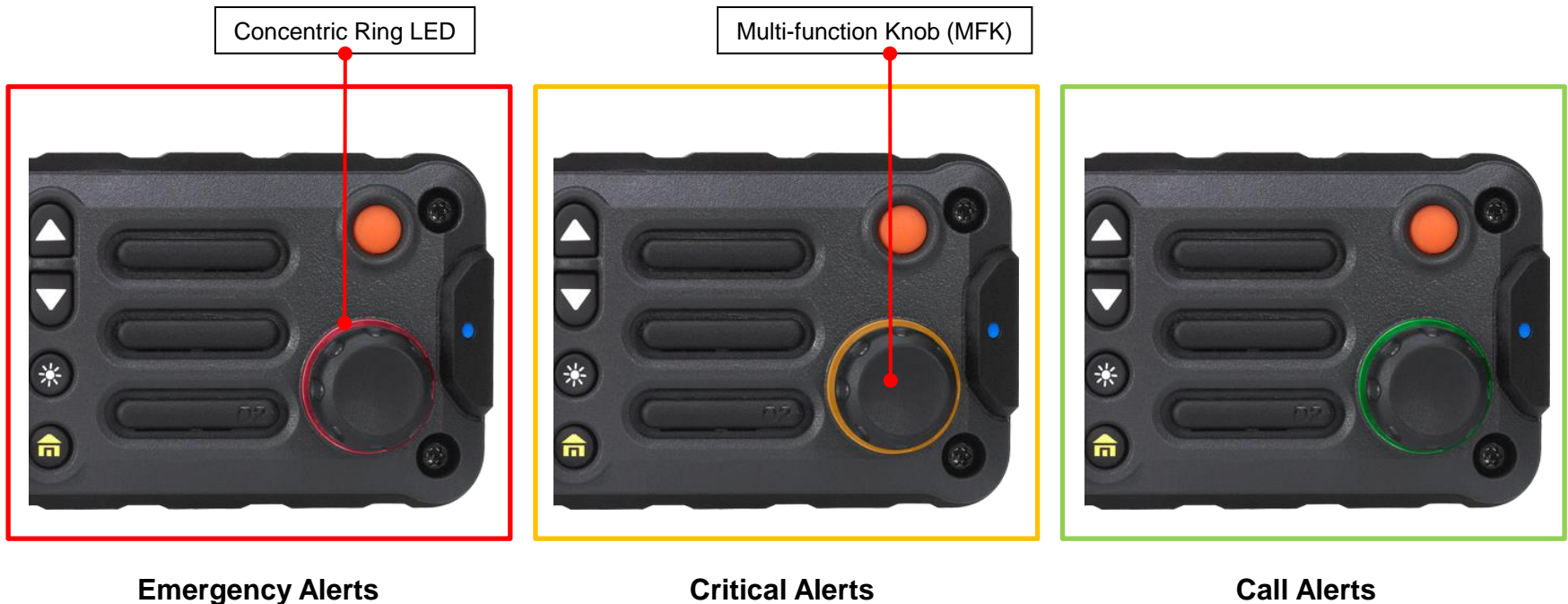
❑ Alert Tones

An alert tone is a sound or group of sounds. Your radio uses alert tones to inform you of your radio's conditions. The following table lists these tones and when they occur.

You Hear	Tone Name	Heard
Short, Low-Pitched Tone 🔊 **Play**	Radio Self Test Fail	When radio fails its power-up self test.
	Reject	When unauthorized request is made.
	Time-Out Timer Warning	Four seconds before time out.
	No ACK Received	When radio fails to receive an acknowledgment.
	Individual Call Warning Tone	When radio is in an individual call for greater than 6 seconds without any activity.
	Talk Prohibit/**PTT** Inhibit	(When **PTT** button is pressed) transmissions are not allowed.
Long, Low-Pitched Tone 🔊 **Play**	Time-Out Timer Timed Out	After time out.
	Out of Range	(When **PTT** button is pressed) the radio is out of range of the system.
	Invalid Mode	When radio is on an unpreprogrammed channel.
A Group of Low-Pitched Tones 🔊 **Play**	Busy	When system is busy.

IDENTIFYING STATUS INDICATORS

You Hear	Tone Name	Heard
Short, Medium-Pitched Tone 🔊 **Play**	Valid Key-Press	When correct key is pressed.
	Radio Self Test Pass	When radio passes its power-up self test.
	Clear Voice	At beginning of a non-coded communication.
	Priority Channel Received	When activity on a priority channel is received.
	Emergency Alarm Entry	When entering the emergency state.
	Central Echo	When central controller has received a request from a radio.
Long, Medium-Pitched Tone 🔊 **Play**	Volume Set	When volume is changed on a quiet channel.
	Emergency Exit	When exiting the emergency state.
A Group of Medium-Pitched Tones 🔊 **Play**	Fail-soft	When the trunking system fails.
	Automatic Call Back	When voice channel is available from previous request.
	Keyfail	When encryption key has been lost.
	Console Acknowledge	When status, emergency alarm, or reprogram request ACK is received.
	Received Individual Call	When Call Alert or Private Call is received.
	Site Trunking	When a SmartZone trunking system fails.
	Call Alert Sent	When Call Alert is received by the target radio.

GENERAL RADIO OPERATION

❏ Selecting a Zone

A zone is a group of channels.

Procedure:

[Menu]

1 ◀ or ▶ to **Zone**.

2 Press the **Menu Select** button directly below **Zone.**

3 ▲ or ▼ to the required zone.
 OR
 Rotate the **MFK** to the desired zone.

4 Press the **Menu Select** button directly below **Sel** to confirm the displayed zone.

5 Press the **PTT** button to transmit on the displayed zone.

❑ Selecting a Radio Channel

A channel is a group of radio characteristics, such as transmit/receive frequency pairs.

Procedure:

OR
[Menu]
1 ◀ or ▶ to **Chan**.

2 Press the **Menu Select** button directly below **Chan.**

3 ▲ or ▼ to the required channel.

4 Press the **PTT** button to transmit on the displayed channel.

GENERAL RADIO OPERATION

❑ Receiving and Responding to a Radio Call

Once you have selected the required channel and/or zone, you can proceed to receive and respond to calls.

The LED lights up solid red while the radio is transmitting. In conventional mode, the LED lights up solid yellow when the radio is receiving a transmission. In trunking mode, there is no LED indication when the radio receives a transmission.

If the radio is receiving a secure transmission, the LED blinks yellow.

LEDs

Red
Yellow
Green

GENERAL RADIO OPERATION

❑ Repeater or Direct Operation

The **REPEATER** operation increases the radio's range by connecting with other radios through a repeater.
The transmit and receive frequencies are different.

The **DIRECT** or "talkaround operation" allows you to bypass the repeater and connect directly to another radio.
The transmit and receive frequencies are the same.
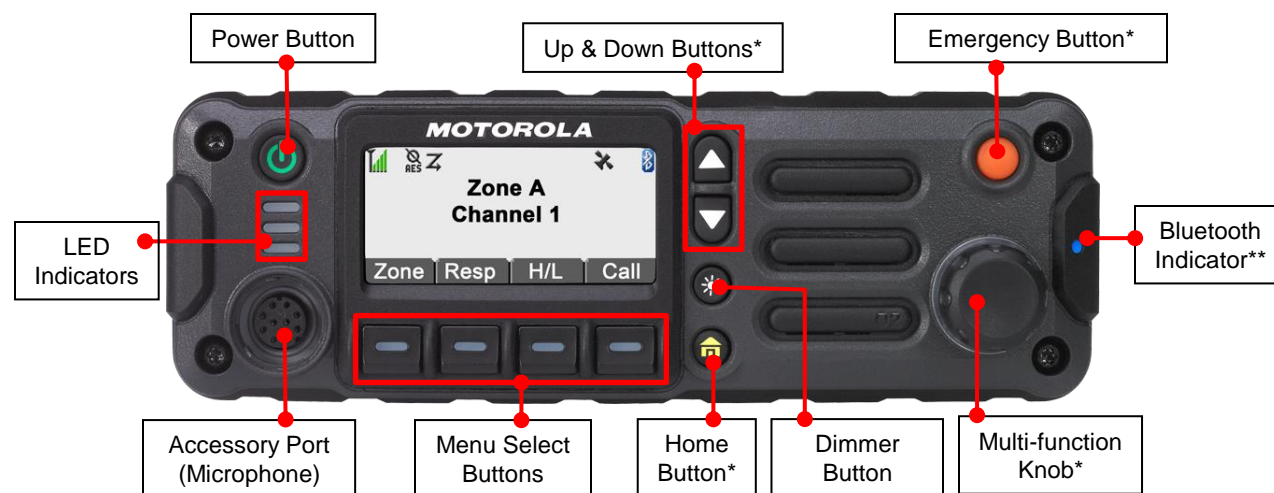
ADVANCED FEATURES

❑ Scan Lists

Scan lists are created and assigned to individual channels/groups.

Your radio scans for voice activity by cycling through the channel/group sequence specified in the scan list for the current channel/group.

Your radio supports different types of Scan Lists:
- Trunking Priority Monitor Scan List
- Conventional Scan List
- Talkgroup Scan List

A maximum of 200 Scan Lists can be programmed in your radio.
These lists must be preprogrammed by a qualified radio technician.

Power Button

Up & Down Buttons*

Emergency Button*

LED Indicators

Bluetooth Indicator**

Accessory Port (Microphone)

Menu Select Buttons

Home Button*

Dimmer Button

Multi-function Knob*

ADVANCED FEATURES

❑ Scan Lists

Viewing a Scan List

Procedure:

1 ◀ or ▶ to **ScnL.**

2 Press the **Menu Select** button directly below **ScnL.**

3 ▲ or ▼ to view the members on the list.

4 Press 🏠 to exit the current display and return to the Home screen.

ADVANCED FEATURES

☐ Scan Lists

Editing the Scan List

This feature lets you change scan list members and priorities.

Procedure:

1 ◀ or ▶ to **ScnL**.

2 Press the **Menu Select** button directly below **ScnL**.
The display shows the lists that can be changed.

3 ▲ or ▼ to the entry you want to edit.

4 Press the **Menu Select** button directly below **Sel** to add and/ or change the priority of the currently displayed channel in the scan list.
OR
Press the **Menu Select** button directly below **Del** to delete the currently displayed channel from the scan list.
OR
Press the **Menu Select** button directly below **Rcl** to view the next member of the scan list.

5 ▲ or ▼ to select more channels to be added or deleted.
OR
Use the **MFK** to select additional channels to be added or deleted.
OR
Use the keypad to go directly to additional channels to be added or deleted.

6 Press 🏠 to exit scan list programming and return to the Home screen.

ADVANCED FEATURES

❑ Scan Lists

Changing the Scan List Status

Procedure:

1 Long press the preprogrammed Scan side button.

2 ◀ or ▶ to the member you want to edit.

3 Press the ✓ button or press the **Menu Select** button directly below **Sel** once to add the currently displayed channel to the scan list.
OR
Press the ✓ button or press the **Menu Select** button directly below **Sel**, one or more times to change the scan list status icon of the currently displayed channel.

4 ▲ or ▼ to select more channels to be added or deleted.

5 Press 🏠 to exit scan list programming and return to the Home screen.

ADVANCED FEATURES

❏ Scan

Turning Scan On or Off

This feature allows you to monitor traffic on different channels by scanning a preprogrammed list of channels.

Procedure:

[Preprogrammed Button]
1 Press the preprogrammed **Scan** button.

OR
[Menu]
1 ◀ or ▶ to **Scan**.

2 Press the **Menu Select** button directly below **Scan**.

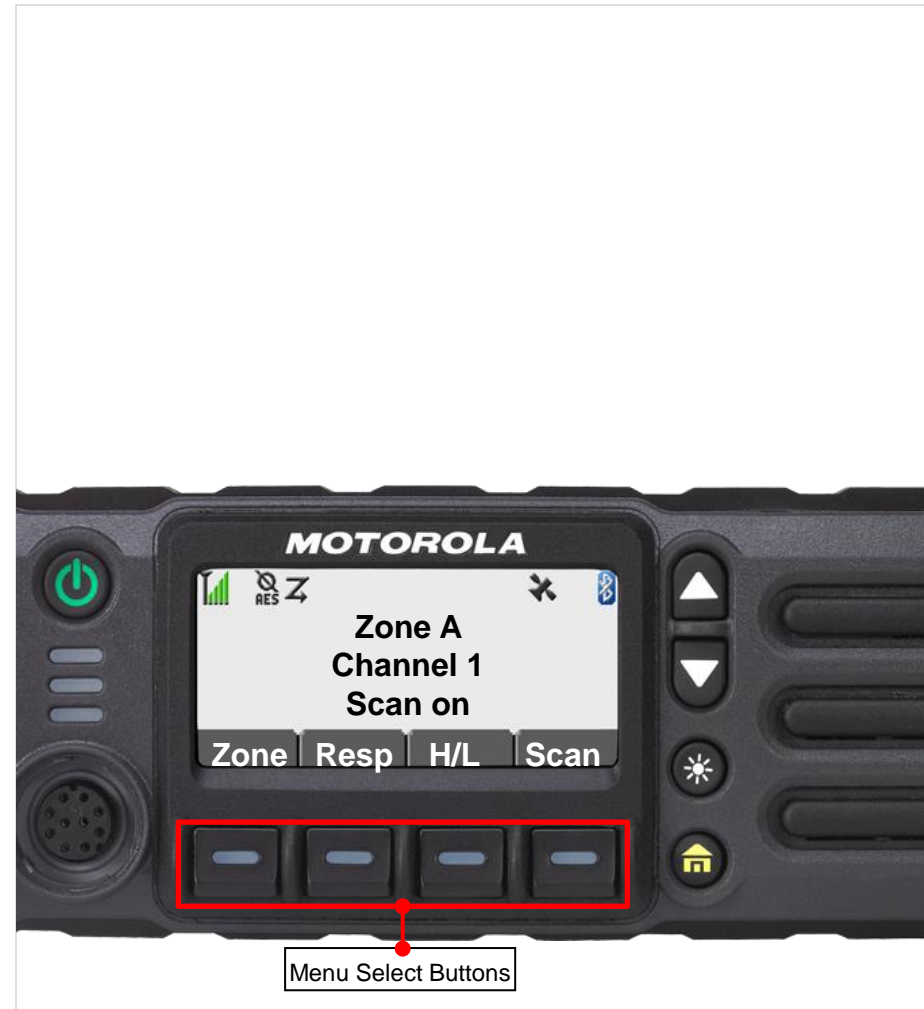*The display shows Scan off if scan is disabled.*
Press the **Menu Select** button directly below **Scan** to enable scan.
OR
The display shows Scan on and the scan status icon if scan is enabled.
Press the **Menu Select** button directly below **Scan** to disable scan.

The radio returns to the Home screen.

Menu Select Buttons

CONTENTS   **< PREV**   **NEXT >**

ADVANCED FEATURES

❑ Scan

Transmitting While the Scan is On

Radio Programmed for Non-Talkback Scan

Procedure:

1 Press the **PTT** button at any time to transmit on the selected channel or fixed channel.

To make a Call Alert page, or Private Conversation call while scanning, press either the **Menu Select** button directly below **Page** or **Call**.

The call is entered on the selected channel and scanning is halted until the call is exited by pressing 🏠 or pressing the **Menu Select** button below either **Page** or **Call**.
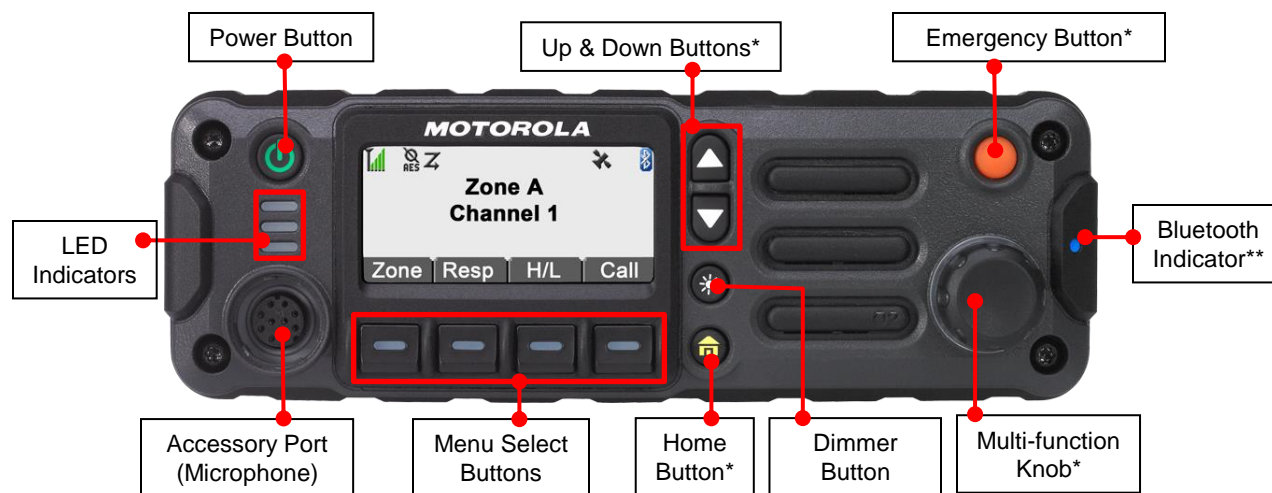
ADVANCED FEATURES

❑ Scan

Deleting a Nuisance Channel

If a channel continually generates unwanted calls or noise (termed a "nuisance" channel), you can temporarily remove the unwanted channel from the scan list.

This capability does not apply to priority channels or the designated transmit channel.

Procedure:

1 When the radio is locked onto the channel to be deleted, ◀ or ▶ to **Nuis**.

2 Press the **Menu Select** button directly below **Nuis**. *The radio continues scanning the remaining channels in the list.*

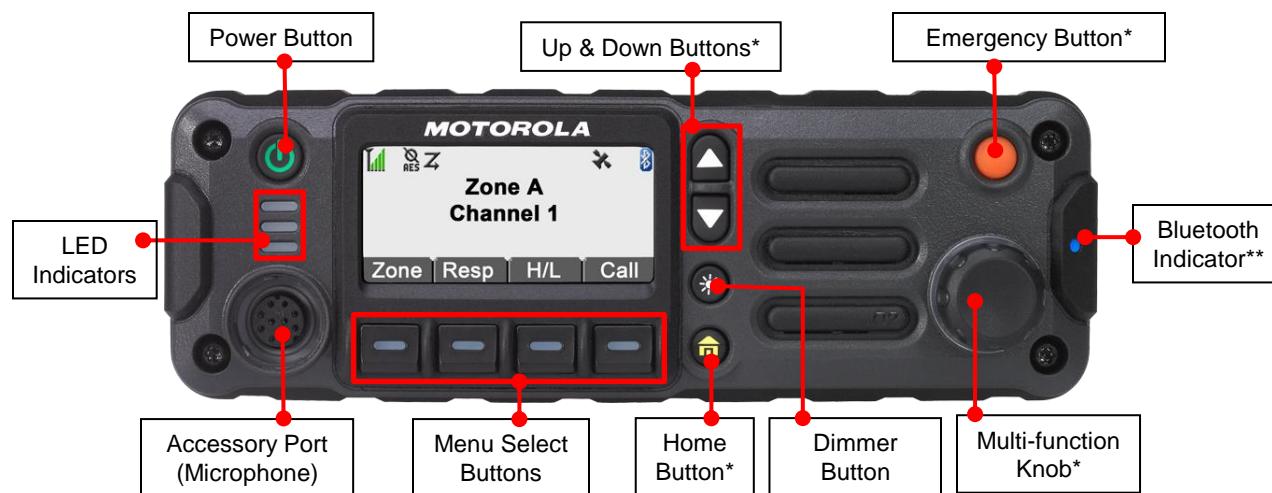Power Button

Up & Down Buttons*

Emergency Button*

MOTOROLA

Zone A
Channel 1

Zone | Resp | H/L | Call

LED Indicators

Bluetooth Indicator**

Accessory Port (Microphone)

Menu Select Buttons

Home Button*

Dimmer Button

Multi-function Knob*

ADVANCED FEATURES

❑ Scan

Restoring a Nuisance Channel

Procedure:

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

- Turn the radio off and then turning it on again.
  OR
- Change modes.
  OR
- Turn off the radio, and then turn it back on.

Nuisance mode delete can be disabled by the system administrator.

Power Button

Up & Down Buttons*

Emergency Button*

LED Indicators

Bluetooth Indicator**

Accessory Port (Microphone)

Menu Select Buttons

Home Button*

Dimmer Button

Multi-function Knob*

ADVANCED FEATURES

❑ **Emergency Operation HOT MIC: Conv: 30 Seconds Tactical**
Trunking: 15 Seconds Revert

The Emergency feature is used to indicate a critical situation.

If the **Orange** button is preprogrammed to send an emergency signal, this signal overrides any other communication over the selected channel.

Your radio supports the following Emergency modes:
- Emergency Alarm with Emergency Call
- Special Considerations for Emergencies

Note: To exit emergency at any time, press and hold the preprogrammed **Emergency** button for about a second.

ADVANCED FEATURES

❑ Emergency Operation

Sending an Emergency Alarm with Emergency Call

This feature allows you to send an Emergency Alarm to another radio. Upon acknowledgement, both radios can communicate over a preprogrammed Emergency channel.

If the radio has both emergency call and alarm features enabled, it automatically proceeds to the call mode after the alarm is acknowledged.

Procedure:

1 Press the preprogrammed **Emergency** button.

*You hear a short medium-pitched tone and the display shows **Emergency** and the current zone or channel.*
OR
You hear a short low-pitched tone to indicate the selected channel does not support emergency and rejects to launch emergency mode.

*When you receive the dispatcher's acknowledgment, the display shows **Ack received**.*
You hear four tones, and the radio exits the Emergency Alarm mode then enters the Emergency Call mode.

2 Press and hold the **PTT** button.
Speak clearly into the microphone.

3 Release the **PTT** button to end the transmission and wait for a response from the dispatcher.

4 To exit Emergency Call, press and hold the preprogrammed **Emergency** button for about a second.

Turning the radio off also cancels the emergency state.

ADVANCED FEATURES

❑ Emergency Operation

Special Considerations for Emergencies

- If you press the emergency button while in a channel that has no emergency capability, a low-pitched tone sounds.

- If the unit is out of the range of the system and/or the emergency alarm is not acknowledged, a tone sounds and the display shows **No acknowledge**.

- If you press the emergency button, then change to a mode that has no emergency capability, the display shows **No emergency** and a continuous low-pitched tone sounds until a valid emergency mode is selected or until the emergency is cancelled.

- When an emergency is active, changing to another mode where emergency is enabled (trunked or conventional) causes an emergency alarm and/or emergency call to be active on the new mode.

ADVANCED FEATURES

❑ Trunking System Controls

Using the Fail-soft System

The fail-soft system ensures continuous radio communications during a trunked system failure.

If a trunking system fails completely, the radio goes into fail-soft operation and automatically switches to its fail-soft channel.

The fail-soft condition is indicated by a faint beeping tone every nine seconds (radio un-squelched) until the trunking system returns to normal operation.

To continue, in Fail-soft, to communicate with other talkgroup, refer to the following procedure.

Procedure:

1 Rotate the **MFK** to change to a different repeater frequency.

2 Press the **PTT** button to talk, and release the button to listen.

When the trunking system returns to normal operation, your radio automatically leaves fail-soft operation and returns to trunked operation.
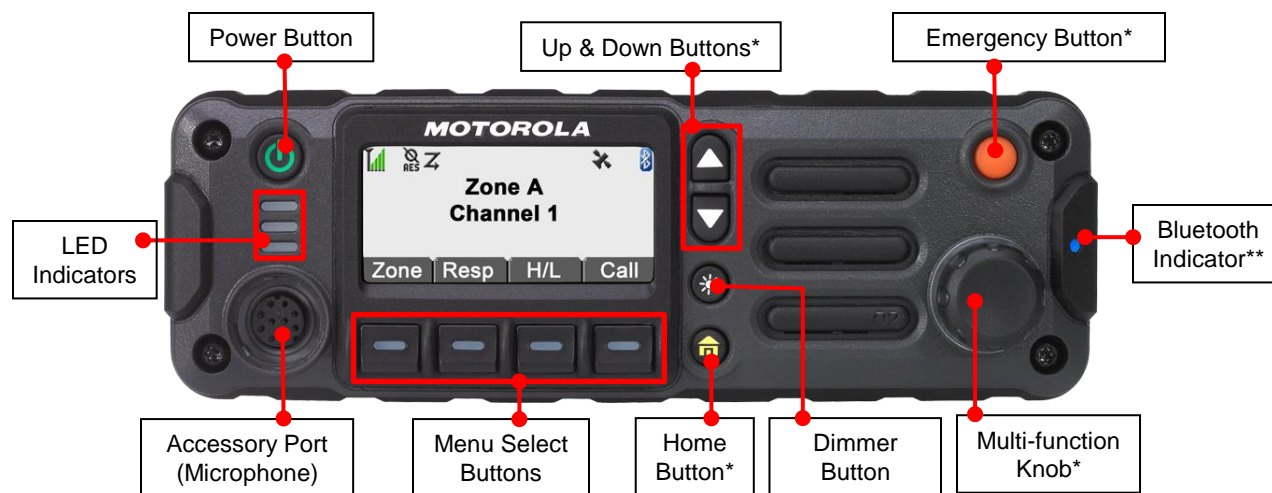
ADVANCED FEATURES

❑ Trunking System Controls

Using the Site Trunking Feature

If the zone controller loses communication with any site, that site reverts to site trunking.

The display shows the currently selected zone/channel combination and **SITE TRUNKING**.

Note: When this occurs, you can communicate only with other radios within your trunking site.

Power Button

Up & Down Buttons*

Emergency Button*

LED Indicators

Bluetooth Indicator**

Accessory Port (Microphone)

Menu Select Buttons

Home Button*

Dimmer Button

Multi-function Knob*

☐ **Trunking System Controls**

Going Out of Range

Out of range when your radio goes out of the range of the system, it can no longer lock onto a control channel.

Procedure:

1 *You hear a low-pitched tone.*
AND/OR
*The display shows the currently selected zone/channel combination and **Out of range**.*

Your radio remains in this out-of-range condition until:

It locks onto a control channel.
OR
It locks onto a fail-soft channel.
OR
It is turned off.

UTILITIES

❑ Controlling the Display Backlight

You can enable or disable the radio's display backlight as needed, if poor light conditions make the display difficult to read.

Depending on how your radio is preprogrammed, you can also maintain a minimum backlight level on the radio's display.

Procedure:

1 Press the **Dimmer** button to adjust the brightness of the display.
Long press to toggle between day and night mode.

Dimmer Button

UTILITIES

❑ Using the Time-Out Timer

This feature turns off your radio's transmitter. You cannot transmit longer than the preset timer setting.

If you attempt to do so, the radio automatically stops your transmission, and you hear a talk-prohibit tone.

The timer is defaulted at 60 seconds, but it can be preprogrammed from 3 to 120 seconds, in 15-second intervals, or it can be disabled entirely for each radio mode, by a qualified radio technician.

Note: You will hear a brief, low-pitched, warning tone four seconds before the transmission times out.

Procedure:

1 Hold down the **PTT** button longer than the preprogrammed time.
You hear a short, low-pitched warning tone, the transmission is cut-off, and the LED goes out until you release the PTT button.

2 Release the **PTT** button.
The LEDs relight and the timer resets.

3 Press the **PTT** button to re-transmit.
The time-out timer restarts and the LED lights up solid red.