



**MOTOROLA**

**GM3188**

User Guide

6804113J31-O

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**LED Indicators**

| LED State/Color                    | Indication                           |
|------------------------------------|--------------------------------------|
| <b>Radio Call</b>                  |                                      |
| Red                                | Transmitting                         |
| Flashing Red                       | Receiving                            |
| Flashing Red                       | Channel Busy                         |
| <b>Scan</b>                        |                                      |
| Flashing Green                     | Scanning for activity                |
| <b>Call Alert</b>                  |                                      |
| Flashing Yellow                    | Indicates receiving a Call Alert     |
| <b>Selective Call</b>              |                                      |
| Flashing Yellow                    | Indicates receiving a Selective Call |
| <b>Sticky Monitor/Open Squelch</b> |                                      |
| Yellow                             | While monitoring                     |
| <b>High/Low Power</b>              |                                      |
| Dot on Display                     | Indicates High Power                 |
| Dot Not On Display                 | Indicates Low Power                  |

**Audio Indicators for Programmable Buttons**

| Programmable Button     | Positive Indicator Tone         | Negative Indicator Tone   |
|-------------------------|---------------------------------|---------------------------|
| Scan                    | <b>Start</b> scan               | <b>Stop</b> scan          |
| Power Level             | <b>High</b> power selected      | <b>Low</b> power selected |
| Squelch                 | <b>Tight</b> Squelch            | <b>Normal</b> Squelch     |
| Repeater/<br>Talkaround | <b>Does not use</b><br>repeater | <b>Uses</b> repeater      |
| VOX                     | <b>VOX enabled</b>              | <b>VOX disabled</b>       |
| Local/Distance          | <b>Local</b> Mode               | <b>Distance</b> Mode      |

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## SAFETY INFORMATION

### PRODUCT SAFETY AND RF EXPOSURE COMPLIANCE



Caution

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

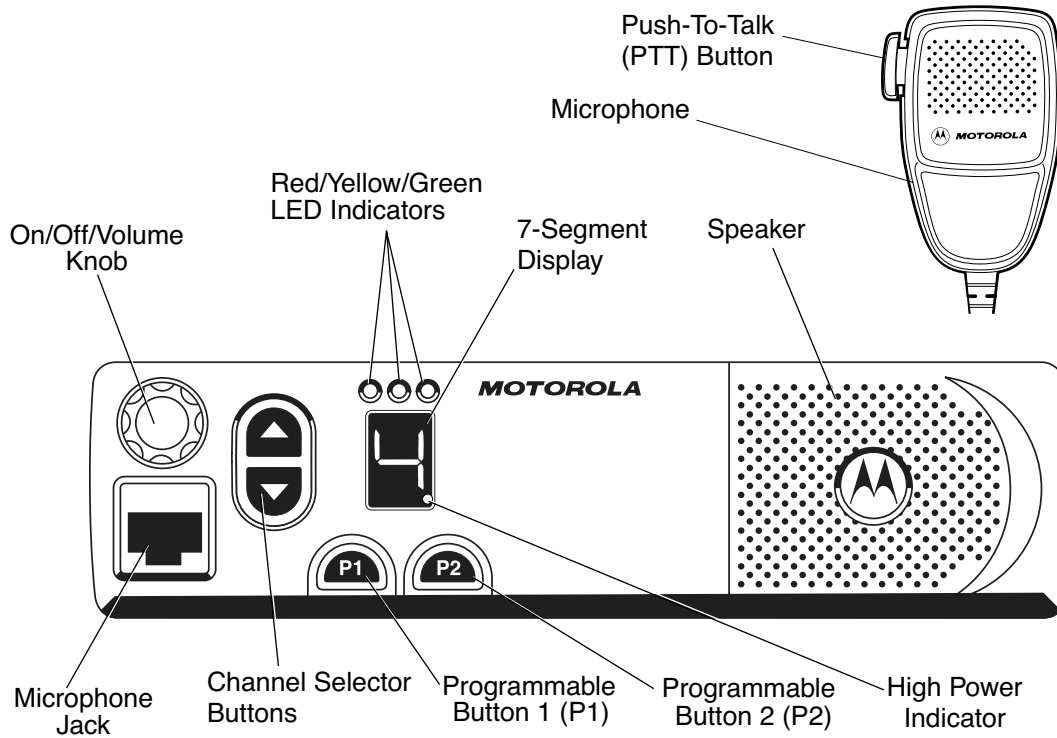
### ATTENTION!

**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 6804110J47) to ensure compliance with RF energy exposure limits.

For a list of Motorola-approved antennas, batteries, and other accessories, visit the following web site which lists approved accessories: <http://www.motorola.com/cgiss/index.shtml>.

# RADIO OVERVIEW

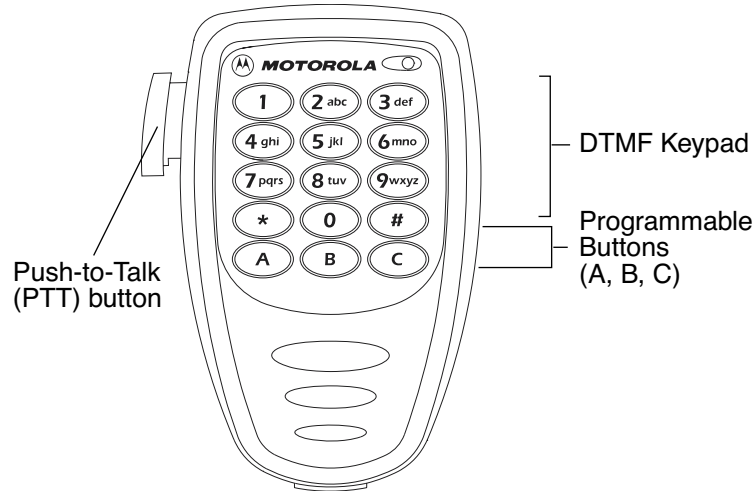
## PARTS OF THE RADIO



### Optional Enhanced Keypad Microphone (RMN5029)

Your radio may be ordered with an optional DTMF (Dual-Tone Multi-Frequency) microphone that has a direct entry keypad.

This keypad microphone has three programmable buttons (A, B, C) below the keypad that can be programmed to conveniently activate select radio features also available for the programmable **P1** and **P2** buttons.





### On/Off/Volume Knob

Turns the radio on or off, and adjusts the radio's volume.



### Seven Segment Display

The seven segment display indicates what channel is active and the power level.

### Channel Selector Buttons



Used for channel selection. Pressing a channel selector button causes its associated channel indicator to light.

Each press of the  button increments the channel. Each press of the  button decrements the channel.

### LED Indicators

Indicates power up, transmit, receive, scan, monitor status, busy, power, Call Alert™ receive, and Selective Call receive.

### Basic Features

| LED State/Color                    | Indication                           |
|------------------------------------|--------------------------------------|
| <b>Radio Call</b>                  |                                      |
| Red                                | Transmitting                         |
| Flashing Red                       | Receiving                            |
| Flashing Red                       | Channel Busy                         |
| <b>Scan</b>                        |                                      |
| Flashing Green                     | Scanning for activity                |
| <b>Call Alert</b>                  |                                      |
| Flashing Yellow                    | Indicates receiving a Call Alert     |
| <b>Selective Call</b>              |                                      |
| Flashing Yellow                    | Indicates receiving a Selective Call |
| <b>Sticky Monitor/Open Squelch</b> |                                      |
| Yellow                             | While monitoring                     |
| <b>High/Low Power</b>              |                                      |
| Dot on Display                     | Indicates High Power                 |
| Dot Not On Display                 | Indicates Low Power                  |

## Programmable Buttons

Your radio has two programmable buttons. Your dealer can program these buttons as shortcuts to various radio features.

Check with your dealer for a complete list of functions your radio supports.

Programmable buttons include the (P1) and (P2) buttons (see page 3).

These buttons can access up to two features, depending on the type of button press:

- short press—quickly pressing and releasing the programmable buttons
- long press—pressing and holding the programmable buttons for a period of time (default 1 1/2 seconds or programmed value)
- hold down—pressing and holding down the programmable buttons while checking status or making adjustments

A summary of programmable radio features and corresponding page references appear beginning on page 7.

In the “Button” column, have your dealer record the name of the programmable button next to the feature that has been programmed to it.

The dealer can use the abbreviations (P1, P2) shown in the radio illustration on page 3.

Also, where appropriate, have your dealer indicate whether the button press requires a short press, a long press, or needs to be held down.

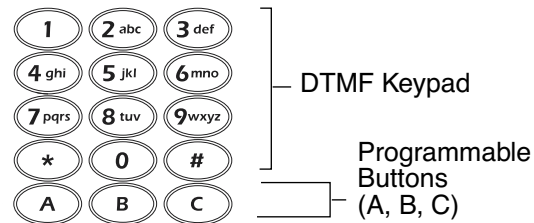
## Push-to-Talk (PTT) Button

Press and hold down this button on the microphone to talk (transmit); release it to listen.

## Microphone

Hold the microphone 1 to 2 inches (2.5 to 5 cm) from your mouth, and speak clearly into it.

## Use with Enhanced Keypad Microphone (RMN5029)



These keys are used to:





- Send DTMF tones (see page 14)
- Directly access preprogrammed features

| Function                                | Short Press  | Long Press                                | Hold Down | Page | Button |
|---|--|---|-----------|------|--------|
| Volume Set                              | Sound a tone for adjusting your radio's volume level.†   |   |           | 9    |        |
| Sticky Monitor                          | Toggle silent monitor operation (also turn off open squelch monitor when it has been activated).   | Turn on open squelch monitor.             | —         | 10   |        |
| Repeater/<br>Talkaround                 | Toggle between using a repeater or transmitting directly to another radio.†  |   | —         | 12   |        |
| Power Level                             | Toggle transmit power level between High and Low. An indication for high power is a dot on the display. The dot does not appear while in low power.† |   | —         | 12   |        |
| Voice Operated<br>Transmission<br>(VOX) | Toggle VOX on and off.†  |   | —         | 11   |        |
| Squelch                                 | Toggles your radio's squelch level between tight and normal squelch.   |   | —         | 13   |        |
| Local/Distance                          | Toggle between local mode and distance mode.†  |   | —         | 13   |        |
| Scan/Nuisance<br>Channel Delete         | Toggle scan on and off.  | Delete a nuisance channel while scanning. | —         | 15   |        |

† This function is activated by EITHER a short OR a long press, but not both.

## INDICATOR TONES

High pitched tone  Low pitched tone

|   |                         |
|---|-------------------------|
|  | Self Test Pass Tone     |
|  | Self Test Fail Tone     |
|  | Positive Indicator Tone |
|  | Negative Indicator Tone |

Some programmable buttons use tones to indicate one of two modes:

| Button      | Positive Indicator Tone    | Negative Indicator Tone   |
|-------------|----------------------------|---------------------------|
| Scan        | <b>Start</b> scan          | <b>Stop</b> scan          |
| Power Level | <b>High</b> power selected | <b>Low</b> power selected |
| Squelch     | <b>Tight</b> Squelch       | <b>Normal</b> Squelch     |

| Button              | Positive Indicator Tone      | Negative Indicator Tone |
|---------------------|------------------------------|-------------------------|
| Repeater/Talkaround | <b>Does not use</b> repeater | <b>Uses</b> repeater    |
| VOX                 | <b>VOX enabled</b>           | <b>VOX disabled</b>     |
| Local/Distance      | <b>Local</b> Mode            | <b>Distance</b> Mode    |

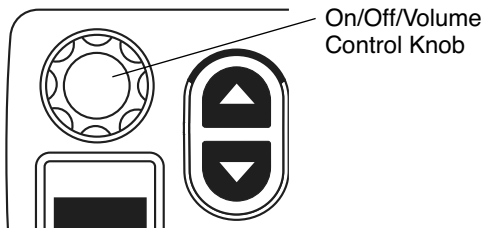
## IMPROVED AUDIO FEATURES

### Comping

Comping is a feature that allows further improvement of voice quality. It compresses your voice at transmission, and expands it when receiving while simultaneously reducing extraneous noise. However, to enjoy this benefit, **all** transmitting and receiving radios must have this feature activated.

## GETTING STARTED

### TURNING THE RADIO ON OR OFF



| ON  | OFF   |
|---|---|
| <p>Rotate the <b>On/Off/Volume Control</b> knob clockwise. If power-up is successful, you will hear the Self-Test Pass Tone ( <input type="checkbox"/> <input type="checkbox"/> ) and see the green LED indicator light momentarily.</p> <p>If the radio fails to power up, you will hear the Self Test Fail Tone ( <input type="checkbox"/> ).</p> | <p>Rotate the <b>On/Off/Volume Control</b> knob counterclockwise until you hear a click and both the display and LED indicators turn off.</p> |

### ADJUSTING THE VOLUME

Turn the **On/Off/Volume Control** knob clockwise to increase the volume, or counterclockwise to decrease the volume.

—or—

**Note:** Your dealer can preprogram one of the programmable buttons to Volume Set.



- 1 Hold down the **Volume Set** button (see page 7). You will hear a continuous tone.
- 2 Turn the **On/Off/Volume Control** knob to the desired volume level.
- 3 Release the **Volume Set** button.

### SELECTING A RADIO CHANNEL

Your radio offers eight channels.

**Note:** Due to government regulations, some channels may not be programmed. See your dealer for more information.

#### To Select a Channel

Press the  button or  button to select the desired channel.

## SENDING A CALL

- 1 Turn your radio on.
- 2 Select the desired channel.
- 3 Hold the microphone vertically 1 to 2 inches (2.5 to 5 cm) from your mouth. Press the **PTT** button to talk; release it to listen.

## RECEIVING A CALL

- 1 Turn your radio on.
- 2 Adjust the radio's volume, if necessary (see page 9).
- 3 Select the desired channel.
- 4 To respond, hold the microphone vertically 1 to 2 inches (2.5 to 5 cm) from your mouth. Press the **PTT** button to talk; release it to listen.

## MONITORING

It is important to monitor traffic before transmitting to ensure that you do not “talk over” someone who is already transmitting.

- 1 A short press of the preprogrammed **Monitor** button places the radio in Sticky Permanent Monitor mode.
  - You hear a high-pitched tone.

A short press of the **Monitor** button cancels Sticky Permanent Monitor mode and returns the radio to normal operation.

- 3 To place the radio in open squelch mode, press and hold the preprogrammed **Monitor** button until you hear a high-pitched tone.
- 4 Momentarily press the **Monitor** button to return to normal operation.

## VOX OPERATION

When hands-free operation is desired, your radio can transmit by voice alone using the VOX feature when you speak through a voice activated external microphone that is connected to your radio.

- 1 To enable or disable VOX operation, press the preprogrammed **VOX** button (see page 7).  
**Note:** Pressing the **PTT** button disables VOX.

–or–

- 2 Select a channel that has been preprogrammed by your dealer to enable VOX.  
**Note:** You do not need to press a preprogrammed **VOX** button.  
**Note:** Pressing the **PTT** button disables VOX.
- 3 Select a channel that has not been preprogrammed by your dealer to disable VOX.

## RADIO CALLS

### SELECTIVE RADIO INHIBIT

Your radio is equipped with a security feature that can temporarily render the unit inoperative when an inhibit signal is sent from the base station.

This feature is commonly used to disable radios:

- In case of theft
- When your vehicle is being serviced
- For system control reasons

**Note:** When your radio has been disabled by the base station, the seven segment display indicates 0 and all controls will be inoperative except for the **On/Off** button.

### REPEATER OR TALKAROUND MODE

Talkaround Mode enables you to communicate with another radio when either:

- The repeater is not operating

–or–

- Your radio is out of the repeater's range but within communicating distance of another radio. An audible indicator is heard when changing between modes.

To select either Repeater Mode or Talkaround Mode:

Press the preprogrammed **Repeater/Talkaround** button (see page 7) to toggle between Repeater Mode and Talkaround Mode.

### SETTING THE POWER LEVEL

Each channel in your radio has a predefined transmit power level that can be changed.

- High power
- Low power

To set the power level, press the preprogrammed **Power Level** button (see page 7) to toggle between *low* and *high*. *A dot appears on the display indicating high power.*



## SETTING TIGHT OR NORMAL SQUELCH

Use this feature to filter out nuisance (unwanted) calls and/or background noise. However, tightening squelch could cause calls from remote locations to be filtered out as well. In this case, normal squelch may be more desirable.

Press the preprogrammed **Squelch** button (see page 7) to toggle between tight and normal squelch.

## RECEIVING A SELECTIVE CALL

When you receive a selective call:

- The yellow LED indicator flashes, if programmed by your dealer.
- You hear two high-pitched tones.

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

## RECEIVING A CALL ALERT PAGE

When you receive a Call Alert page:

- The yellow LED indicator flashes, if programmed by your dealer.
- You hear four high-pitched tones.

To answer the page, press the **PTT** button; to cancel the page, press any other key.

## SETTING LOCAL OR DISTANCE MODE

Use this feature between Local mode (low sensitivity) and Distance mode (normal sensitivity). When Local mode is set, you will not hear weak transmissions. When Distance mode is set you will hear all transmissions, including weaker signals.

Press the preprogrammed **Local/Distance** button (see page 7) to toggle between Local and Distance mode.

## SENDING DTMF TONES

### Use with Enhanced Keypad Microphone (RMN5029)

Use this feature to send DTMF tones to a repeater.

- 1 Press and hold the microphone's PTT button.
- 2 Press and release the required DTMF buttons.
- 3 Release the microphone's PTT button.

## SCAN

You can monitor multiple channels and receive any calls that are transmitted on them.

Channels can be programmed into a scan list by your dealer. Your radio automatically switches to a scan list channel when it detects activity on it.

### STARTING OR STOPPING SCAN

The green LED indicator blinks during a scan operation and stops blinking when the radio switches to a channel.

You can start or stop a scan operation by:

- 1 To start or stop a scan operation, press the preprogrammed **Scan** button (see page 7).

—or—

- 2 Select a channel that has been preprogrammed by your dealer to start Auto Scan.

**Note:** You do not need to press a preprogrammed **Scan** button.

- 3 Select a channel that has not been preprogrammed by your dealer to stop Auto Scan.

### TALKBACK

The Talkback feature allows you to respond to a transmission while scanning. If transmission is detected on a channel while scanning, the radio will stop on that channel for a preprogrammed period of time. During this “hangtime” you may respond by pressing the **PTT** button.

**Notes:** If transmission ceases or if the **PTT** button is not pressed for a preprogrammed duration, the radio continues to scan. The LED scan indicator stops blinking while the radio is in hangtime.

## DELETING A NUISANCE CHANNEL

**Note:** Your dealer must have preprogrammed a button to **Nuisance Delete** to access this feature.

If a channel continually generates unwanted calls or noise (a “nuisance” channel), you can temporarily remove it from the scan list:

- 1 While the radio is on the Nuisance Channel, press the preprogrammed **Nuisance Channel Delete** button until you hear a tone.
- 2 Release the **Nuisance Channel Delete** button. The nuisance channel is deleted.

**Note:** You cannot delete a priority channel or last remaining channel in the scan list.

## Restoring Channels to the Scan List

- 1 Press the **Scan** button to stop the scan.
- 2 Press the **Scan** button again to start scanning again. The Deleted Nuisance Channels are restored to the scan list.