

GM3688

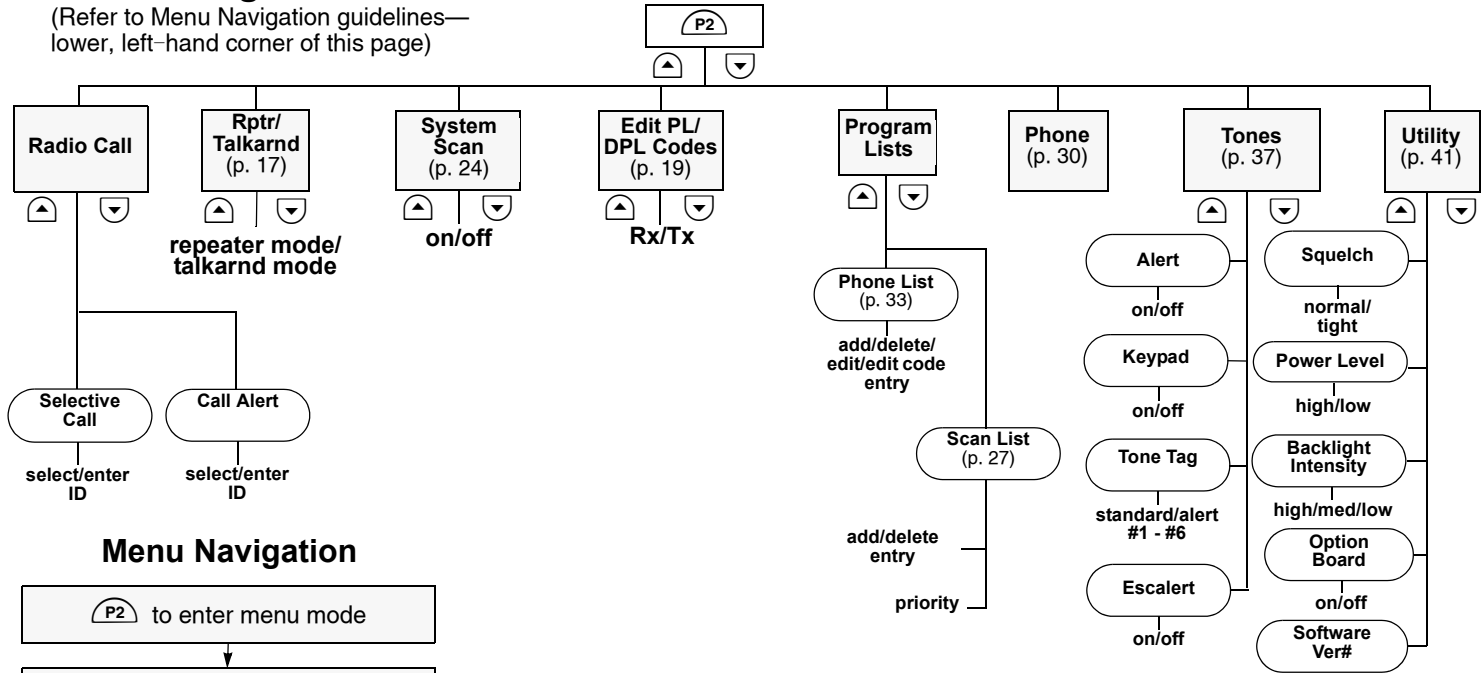
User Guide

COMPUTER SOFTWARE COPYRIGHTS

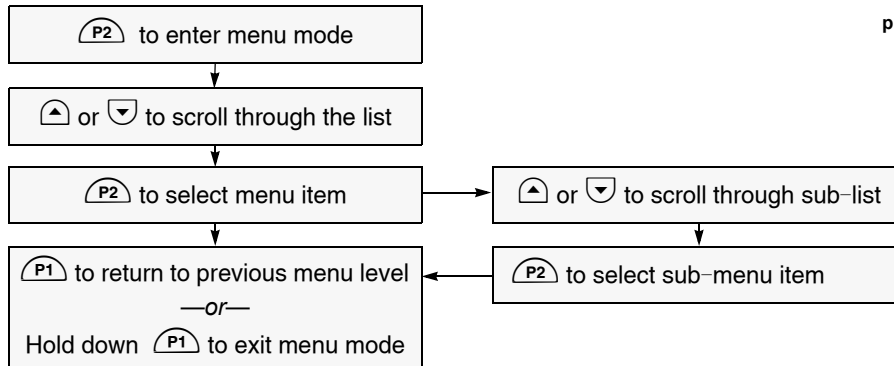
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Menu Navigation Chart

(Refer to Menu Navigation guidelines—
lower, left-hand corner of this page)



Menu Navigation



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SAFETY

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 684112J96) 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>.

INTRODUCTION

CONVENTIONAL RADIO SYSTEMS

Conventional radio systems typically refer to unit-to-unit communications through a single channel. Conventional systems also allow radio users to extend communication coverage by relaying their messages through a repeater. To ensure coordinated use by multiple users, each radio user must monitor the channel or repeater before transmitting to verify that the system is not currently busy.

GM3688 RADIO FEATURES

Radio Wide Features

- 64 Channels
- 8-Character Alphanumeric Display
- 4 Programmable Feature Buttons
- 2 Memory Channels
- Telephone Interconnect
- User-programmable Phone, Scan Lists, TPL/DPL
- Option Board Expandability
- Busy Channel Lockout
- High/Low Power Settings
- Local/Distance Mode

4

- Time-Out Timer
- Monitor and Sticky Permanent Monitor
- System Scan with 2 Priority Levels and Revert Scan

Signaling Features

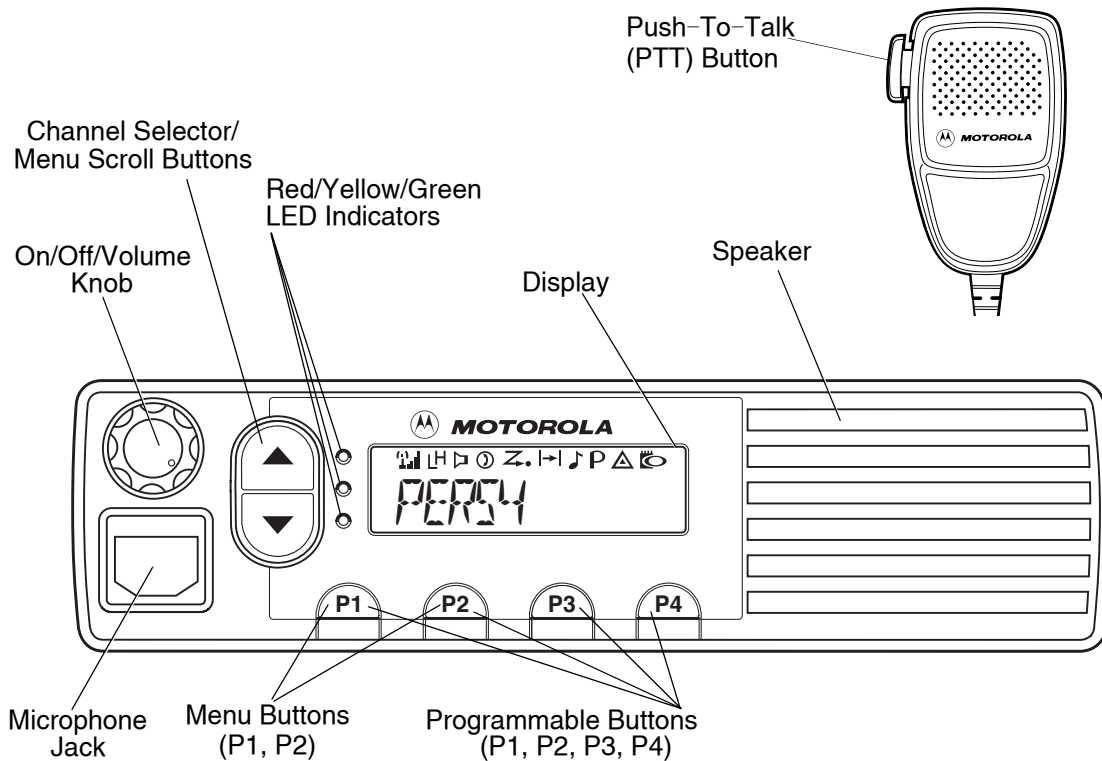
- MDC 1200 Signaling

- Emergency Alert	- PTT ID Encode/Decode
- Selective Radio Inhibit	- Radio Check Decode
- Quik-Call II Signaling

- Call Alert	- Radio Call List
- Selective Call	- Call Tone Tagging
- DTMF Signaling

- DTMF PTT ID Encode	- DTMF Selective Call Encode
- DTMF Call Alert Encode	

RADIO OVERVIEW

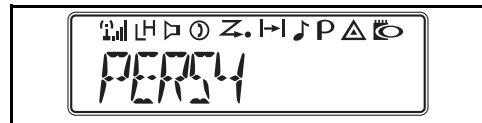


LED INDICATORS

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

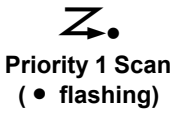
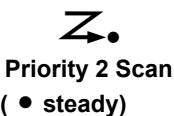


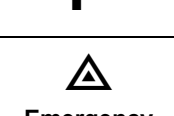


LED State/Color	Indication
Radio Call	
Red	Transmitting
Flashing Red	Receiving
Flashing Red	Channel Busy
Scan	
Flashing Green	Scanning for activity
Call Alert	
Flashing Yellow	Indicates receiving a Call Alert
Yellow	Indicates sending a Call Alert
Selective Call	
Flashing Yellow	Indicates receiving a Selective Call
Yellow	Indicates sending a Selective Call
Sticky Monitor/Open Squelch	
Yellow	While monitoring

DISPLAY



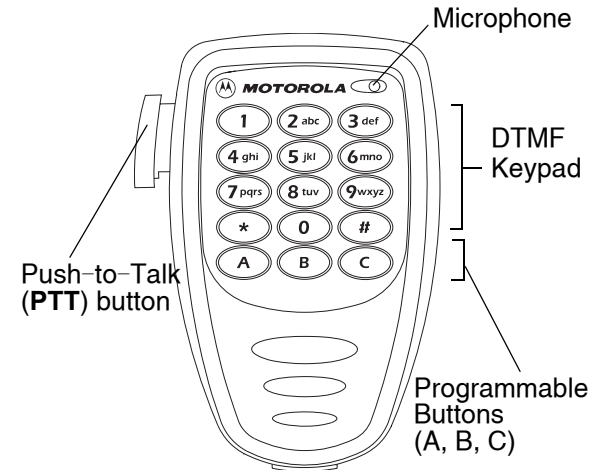
The top row displays menu and radio status information:

Symbol	Indication
 Signal Strength	The more bars, the stronger the signal being received by your radio.
LH Power Level	Low Power "L" or High Power "H" is activated.
 Monitor	The selected channel is being monitored.
 Phone	Phone mode is selected.
 Scan	Indicates that the Scan feature has been activated.

Symbol	Indication
 Priority 1 Scan (• flashing)	Indicates scan has stopped and landed on an active Priority 1 channel.
 Priority 2 Scan (• steady)	Indicates scan has stopped and landed on an active Priority 2 channel.
 Talkaround	You are not transmitting through a repeater
 Call Received	A Selective Call or Call Alert has been received.
 Not Used	Not Used
 Emergency	An Emergency Alarm is being sent.
 Option Board	An Option Board has been activated.

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.



The keypad is used for:

- Dialing a phone number.
- Entering information when programming phone lists.
- Directly accessing preprogrammed features (see page 11).







Each key can generate several different characters. For example, to enter the character “C,” press the **2 abc** button three times. (Refer to the Entering Characters Using the DTMF Microphone Keypad table.)

Entering Characters Using the DTMF Microphone Keypad

Number of Times Button is Pressed					
Button	1	2	3	4	5
0	0				
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
*	*	<	>		
#	#	+	-	-	


INDICATOR TONES

High pitched tone Low pitched tone

	Self Test Pass Tone
	Self Test Fail Tone
	Positive Indicator Tone
	Negative Indicator Tone
	Good Key Press
	Bad Key Press





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

Programmable Buttons	Positive Indicator Tone	Negative Indicator Tone
Scan	Start	Stop
Power Level	High	Low
Squelch	Tight	Normal

Programmable Buttons	Positive Indicator Tone	Negative Indicator Tone
Repeater/Talkaround	Does not use repeater	Uses repeater
VOX	Enabled	Disabled
Local/Distance	Local	Distance
Sticky Monitor/Open Squelch	—	Enabled
Home Revert Memory Channel (1&2)	—	Enabled
Store Memory Channel (1&2)	—	Stored
Menu Mode 	—	Accessed
Radio Call	—	Enabled
Scan List Edit	—	Enabled
Speed Dial	—	Enabled
Phone Mode	—	Enabled
Option Board	Enabled	Disabled
Escalert	Enabled	Disabled

PROGRAMMABLE BUTTONS

Your radio has four programmable buttons. Your dealer/programmer can program these buttons as shortcuts to various radio features. Check with your dealer/programmer for a complete list of functions your radio supports. Programmable buttons include:

- The four front buttons (, , , and )
- The three buttons (A, B, and C) of the optional DTMF microphone.

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

- **Short Press** — quickly pressing and releasing the programmable buttons,

or

- **Long Press** — pressing and holding the programmable buttons for a preprogrammed period of time,

or

- **Hold Down** — pressing and holding down the programmable buttons while checking status or making adjustments.






The table on page 11 summarizes the programmable features available and shows the page number where the feature is explained.

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




The dealer/programmer can use the abbreviations (P1, P2, P3, or P4) shown in the radio illustration on page 5.

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


Programmable Features

Function	Indicator	Short Press	Long Press	Hold Down	Page	Button
Menu Mode	—	 button enters Menu Mode and selects menu options.  button is automatically re-assigned to exit Menu Mode.†		—	14	
Volume Set	—	—	—	Sounds a tone for adjusting your radio's volume level.	15	
Monitor		Toggle silent monitor operation (also turn off open squelch monitor when it has been activated).	Turn on open squelch monitor.	—	16	
Repeater/ Talkaround		Toggle between using a repeater or transmitting directly to another radio.†		—	17	
Home Revert Memory Channel (1&2)	—	Provides direct channel access.	—	—	18	
Store Memory Channel (1&2)	—	—	Stores current channel.	—	18	
Local/Distance	—	Toggle between local mode and distance mode.†		—	18	

Programmable Features (Continued)

Function	Indicator	Short Press	Long Press	Hold Down	Page	Button
† This function is activated by EITHER a short OR a long press, but not both.						
Voice Operated Transmission (VOX)	—	Toggle VOX on and off.†		—	18	
Radio Call	—	Directly access the radio call menu.†		—	20, 21	
Scan/Nuisance Channel Delete		Toggle scan on and off.	Delete a nuisance channel while scanning.	—	24, 26	
Edit Scan List	—	Directly access the Scan Edit menu to add, delete, or prioritize channels.†		—	27	
Phone		Directly access Phone mode.†		—	30,31	
Speed Dial		Directly Access Phone mode to quickly access phone list for speed dial.†		—	32	
Escalart On/Off	—	Toggles escalart on and off.†		—	40	
Squelch	—	Toggles squelch level between tight and normal squelch.†		—	42	
Power Level	LH	Toggle transmit power level between High and Low.†		—	42	





Programmable Features (Continued)


Function	Indicator	Short Press	Long Press	Hold Down	Page	Button
Option Board		Toggle the option board on and off.†		—	43	

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

MENU BUTTONS

Menu Button

If preprogrammed by your dealer/programmer, the two front buttons ( and ) can be used, in conjunction with other programmable features, to access and select menu options () and exit menu mode (.

The  button can be preprogrammed by your dealer/programmer to either a short or long press to access the Menu Mode.



Menu Scroll Buttons







Used to scroll while in Menu Mode.

Refer to the menu navigation chart for menu selectable features at the back of this manual.


Navigate the Menu

 or  to scroll through the menu options. If you scroll past the last option, the selection wraps around and starts again.



When you reach the required option, a short press of the  button selects that option and enters the Sub-menu.

 or  to scroll through the sub-menu options. Select the option with a short press of the  button.

EXIT THE MENU

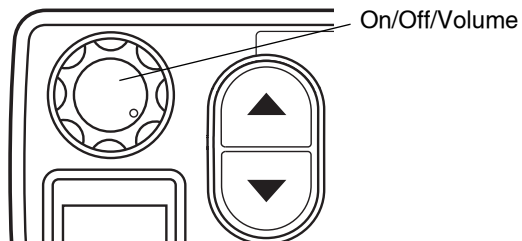
While in Menu Mode, the  button is automatically assigned to completely exit the Menu Mode by a long press or by a series of short presses to exit from a sub-level of the menu hierarchy.




The radio also exits the menu mode if there has been no inputs via the navigation buttons for the “Inactivity Time” or after a selection has been made.

Once you have exited Menu Mode, the  and  buttons return to normal programmable condition.

GETTING STARTED

TURN THE RADIO ON OR OFF



ON	OFF
<p>Rotate the On/Off/Volume Control knob clockwise. If power-up is successful, you will hear the Self-Test Pass Tone ( ) and see the green LED indicator and display icons light momentarily.</p> <p>If the radio fails to power up, you will hear the Self Test Fail Tone (). The radio will need to be returned for re-programming.</p>	<p>Rotate the On/Off/Volume Control knob counterclockwise until you hear a click and both the display and LED indicators turn off.</p>

ADJUST THE VOLUME

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

– or –



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

- 1 Hold down the **Volume Set** button (see page 11).
 - 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.



SELECT A RADIO CHANNEL

Up to a total of 64 channels can be programmed into your radio.

Select a Channel

 or  to select the desired channel.

RECEIVE

- 1 Turn your radio on.
- 2 Adjust the radio's volume, if necessary (see page 15).
- 3  or  to select the desired channel.
 - Make sure the **PTT** button is released.
- 4 Listen for voice activity.
 - The red LED indicator flashes while your radio is receiving.
- 5 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.

MONITOR

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

Silent Monitor



- 1 A short press of the preprogrammed **Monitor** button places the radio in Silent Monitor mode.
 - You hear a high-pitched tone.
- 2 A short press of the **Monitor** button cancels Silent Monitor mode and returns the radio to normal operation.

Open Squelch Monitor

- 1 To place the radio in Open Squelch mode, press and hold the preprogrammed **Monitor** button until you hear a high-pitched tone.
 - If no activity is present, you will hear “white noise.”
- 2 Momentarily press the **Monitor** button to return to normal operation.

Note: Depending on how your radio has been programmed, per channel for transmit and receive conditions, when the microphone has been taken off-hook, the radio will go into Open Squelch mode.


TRANSMIT

- 1 Turn your radio on.
- 2  or  to 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.
 - The red LED indicator lights steady while the call is being sent.
- 4 Release the **PTT** button to listen.

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.



Note: The  symbol appears on the display when Talkaround Mode is selected.

Select either Repeater Mode or Talkaround Mode

Press the preprogrammed **Repeater/Talkaround** button (see page 11) to toggle between Repeater Mode and Talkaround Mode.

– or –

- 1  to enter menu mode.
- 2  or  until 
- 3  to select the current setting.
- 4  or  until 

– or – until 
- 5  to select the current setting.

HOME REVERT MEMORY CHANNEL (1 & 2)

The Home Revert Memory Channel feature allows you to instantly access up to two of your favorite channels at the touch of a button.

To Activate Home Revert Memory Channel

Press the preprogrammed **Home Revert Memory Channel 1** button or **Home Revert Memory Channel 2** button (see page 11).

STORE MEMORY CHANNEL (1 & 2)

The Store Memory Channel (1 & 2) feature allows you to store a channel for the Home Revert Memory Channel feature.

▲ or ▼ to select the desired channel. Press the preprogrammed **Store Memory Channel 1** button or **Store Memory Channel 2** button to store that channel (see page 11).

SET LOCAL OR DISTANCE MODE

Use this feature between Local mode (low sensitivity) and Distance mode (normal sensitivity). Local mode reduces interference from other radios in close proximity. Distance mode improves the radio's range.

Press the preprogrammed **Local/Distance** button (see page 11) to toggle between Local and Distance mode.

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.

Note: A voice activated external microphone must be connected to your radio prior to power-up of the radio in order to activate the VOX feature.



To enable or disable VOX operation on a channel, press the preprogrammed **VOX** button (see page 12).

Note: Pressing the **PTT** button disables VOX.
– or –

You can select channels to enable or disable VOX as preprogrammed by your dealer/programmer.

- 1  or  to select a channel that has been preprogrammed to enable VOX.

Note: Pressing the **PTT** button disables VOX.

- 2  or  to select a channel that has **not** been preprogrammed to disable VOX.

PROGRAM PL/DPL CODES

Use this feature to edit the Private-Line/Digital Private-Line codes for a selected channel.


- 1  to enter menu mode.



- 2  or  until 

- 3  to select 

- 4  or  until 

– or – until 


- 5  to select the current setting.

- 6  or  to scroll through the standard TPL frequencies or DPL codes.

– or –

Enter a non-standard or standard 4-digit TPL frequency or the 3-digit octal code (numbers 0-7 only) for DPL via the DTMF microphone keypad.

- 7  to confirm selection.

- 8  until you exit menu mode.

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

When your radio has been rendered inoperative by the base station, all controls will be inoperative except for the **On/Off/Volume** knob and the display shows INHIBIT.

RECEIVE A SELECTIVE CALL 🎵

When you receive a Selective Call:

- The display shows 🎵 and the preprogrammed name or ID of the calling radio.
- The yellow LED indicator flashes, if programmed by your dealer/programmer.

- You hear two high-pitched tones.

- 1 To acknowledge the call, press and release the **PTT** button.
- 2 Press and hold the **PTT** button to talk; release to listen.


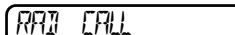
SEND A SELECTIVE CALL

You can send a Selective Call to a particular radio or to a group of radios, as programmed by your dealer/programmer.


Press the preprogrammed **Radio Call** button (see page 12), and proceed to step 4.

– or –



- 1  to enter menu mode

- 2  or  until 

- 3  to select 

- 4  or  until 

- 5  to select 


- 6  or  to locate the desired ID in the Radio Call List.

- or -

When using the enhanced keypad microphone, enter a valid DTMF digit to move to that location in the list. The call sends automatically. Skip to step 8.


- 7 Press the **PTT** button to send the call.

- 8 Press and hold the **PTT** button to talk; release to listen.

- 9 When the call is completed,  until you exit menu mode.

RECEIVE A CALL ALERT™ PAGE

When you receive a Call Alert page:

- The display shows  and the preprogrammed name or ID of the calling radio.
- The yellow LED indicator flashes, if programmed by your dealer/programmer.
- You hear four high-pitched tones.

To acknowledge the page, press and release the **PTT** button; to cancel the page, press any other key.



SEND A CALL ALERT PAGE

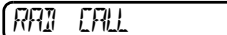
You can alert another person by sending a Call Alert page.

Press the preprogrammed **Radio Call** button (see page 12) and proceed to step 4.

- or -



- 1  to enter menu mode


- 2  or  until




- 3  to select






- 4  or  until



- 5  to select



- 6  or  to locate the desired ID in the Radio Call List.
- or -
- When using the enhanced keypad microphone, enter a valid DTMF digit to move to that location in the list. The page sends automatically. Skip to step 8.
- 7 Press the **PTT** button to send the page.
- 8 When the page is completed,  until you exit menu mode.

REPEATER ACCESS


Use with Enhanced Keypad Microphone (RMN5029)

Use this feature to send DTMF tones to a repeater.


- 1 Enter your access code using the DTMF microphone keypad and press and hold the **PTT** button.
- 2 Press and release the required DTMF buttons.
- 3 Release the microphone's **PTT** button.

EMERGENCY ALERTS

Your radio offers choices for initiating and responding to Emergency Alert communications. An Emergency Alert can be programmed to:

- Show  and sound a tone
- or-
- Show the normal display
- or-
- Activate the microphone so that all activity can be transmitted (for a predetermined amount of time). See your dealer/programmer for more information.


Note: All choices listed are preprogrammable. See your dealer/programmer for more details.

- The  symbol appears on the display when your radio is in the Emergency Alert state.

All emergency features are preprogrammed. See your dealer/programmer for further information on the emergency features that are available.

SEND AN EMERGENCY ALERT

A priority Emergency Alert can be sent to a specific radio or dispatch center by pressing either a foot switch or a push button accessory.

- The display shows: 


Note: Emergency alerts have priority over all other calls.

CLEAR AN EMERGENCY ALERT

An Emergency Alert can be cleared by long pressing either a foot switch or a push button accessory.

SCAN

Your radio is equipped with the Scan feature, which allows you to search for, lock onto, and monitor voice activity on channels. Scan lists are assigned per channel, by your dealer/programmer. Your radio automatically switches to a channel, within that scan list, when it detects activity. You can also edit these lists through your radio's menu (see page 27).

- The green LED indicator blinks during scan mode; it stops blinking when the radio switches to an active channel.
- The  symbol appears on the display while in scan mode.
- Your dealer/programmer can preprogram your radio where if the microphone is taken off-hook while in Scan mode, the scanning activity becomes suspended until the microphone is replaced.

There are two types of Scan available in your radio:

- System Scan
- 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 and land on that channel for a preprogrammed period of time after activity has ceased. This is referred to as "hangtime". During this hangtime you may respond by pressing the **PTT** button.

Note: The LED scan indicator stops blinking while the radio is in hangtime. If the **PTT** button is not pressed after the preprogrammed hangtime, the radio reverts back to scan.

START SYSTEM SCAN

Press the preprogrammed **Scan** button to start System Scan (see page 12).

– or –

1  or  to select a channel that contains a Scan list.


2  to enter menu mode.

3  or  until 

4  to select 

The display shows the current scan status.

5  or  until 


6  to select the current setting.

STOP SYSTEM SCAN

Press the preprogrammed **Scan** button to stop System Scan (see page 12).

– or –


1  to enter menu mode.


2  or  until 

3  to select 

The display shows the current scan status.

4  or  until 



5  to select the current setting.

- The  symbol disappears from the display.



Note: Your dealer/programmer can preprogram your radio when exiting System Scan to automatically revert to the last scan channel that had activity on it or to automatically revert to the channel where scan was initiated.


START AUTO SCAN

Auto Scan automatically starts scanning once a channel with Auto Scan enabled is selected.

 or  to select a channel that has been preprogrammed for Auto Scan by your dealer/programmer.

STOP AUTO SCAN

 or  to select a channel that has not been preprogrammed for Auto Scan by your dealer/programmer.

- The  symbol disappears from the display.

DELETE A NUISANCE CHANNEL

Note: Your dealer/programmer must preprogram 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 temporarily delete the channel that has been preprogrammed by your dealer/programmer as your

designated scan channel, a priority channel, or the last remaining channel in the scan list.



Restore Channels to the Scan List

- 1 Power off the radio. Once the radio is powered on again, the deleted nuisance channels are restored to the scan list.

–or–

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

– or –



- 4  or  to select a channel that has **not** been preprogrammed by your dealer/programmer to stop Scan. Once you return to the original channel, the deleted nuisance channels are restored to the scan list.

EDIT A SCAN LIST

Your radio can support up to 16 Scan lists. Each Scan list can contain up to 16 channels. The same channel can be included in several Scan lists, and the same Scan list can be assigned to several channels. Scan lists are assigned per channel, by your dealer/programmer. When you edit a Scan list, you can either add, delete, or prioritize channels.

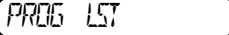
Note: Your radio cannot receive any calls while you are editing a Scan list.

ADD OR DELETE CHANNELS IN A SCAN LIST

1  or  to select a channel that contains a Scan list you want to edit.

2  to enter menu mode.

3  or  until 

4  to select 


5  or  until 



Note: One Scan list per channel is available.

6  to select 

7  or  until 


– or – until 

8  to select the current setting.

9  or  until you see the channel you want to add or delete.

10  to confirm your selection.

11 If you added a channel,

you see: 

– or –

If you delete a channel,

you see: 

12  to confirm the deletion.

you see: 

- 13  to return to 
 – or – 
 14  until you exit menu mode.

PRIORITIZE A CHANNEL IN A SCAN LIST






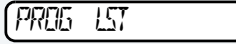













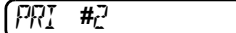
You may want to check the activity on one or two channels more frequently than others. You can do this by prioritizing them:


Priority Channel	Scanning Sequence
None specified	Ch1 → Ch2 → Ch3 → Ch4 → ... Ch1
Channel 2 (Priority 1)	Ch2 → Ch1 → Ch2 → Ch3 → Ch2 → Ch4 → Ch2 → ... Ch1
Channel 2 (Priority 1) and Channel 8 (Priority 2)	Ch2 → Ch1 → Ch8 → Ch3 → Ch2 → Ch4 → Ch8 → ... Ch1

Note: If you are receiving on a non-priority channel and traffic becomes active on a priority channel, your radio will automatically switch to that priority channel and indicate the activity with a short tone.



Set Priority Channels


Note: You cannot have the same priority on two different channels.

- 1  to enter menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until 
- 5  to select 
- 6  or  until 
- 7  to select 
- 8  or  until 
 – or – until 


9  to select the desired priority level.


You see the current priority channel.

10  or  until you see the channel you want to prioritize.

11  to prioritize that channel.

you see:


12  to return to

13  until you exit menu mode.

SCAN

PHONE

Your radio allows you to place and receive telephone calls through a repeater (depending on phone line availability). You can edit the phone list through your radio's menu (see page 33).

-  appears on the display when you are in Phone mode.

Your dealer/programmer can preprogram your radio in one of three ways to enter your access/de-access code to the repeater.

Immediate Auto – your radio will transmit the access/deaccess code automatically upon entering phone mode or disconnecting a phone call. You will hear a series of tones, and see your access/deaccess code on the display, indicating that an access/deaccess code is being sent automatically.

Delayed Auto – your radio will transmit the access code upon a **PTT** button press. The de-access code is sent automatically when you exit phone mode.

Manual – Enter your access/deaccess code using the DTMF microphone keypad and press the **PTT** button.









RECEIVE A PHONE CALL


When a phone call is received, a ringing tone sounds, alerting you to answer the phone call.

Press the preprogrammed **Phone** button (see page 12), and skip to step 6.

– or –

Press the **PTT** button, and if the Hot Keypad feature has been preprogrammed by your dealer/programmer, do the following:

- 1  or  to select a channel that has been programmed for telephone.
- 2  to enter menu mode.
- 3  or  until 
- 4  to select 

Note: The  appears on the display.

- 5** Your dealer/programmer can preprogram your radio in one of three ways to enter your access code to the repeater.
- Immediate Auto** – automatically sends the access code.
- Delayed Auto** – your radio will transmit the access code upon a **PTT** button press.
- Manual** – Enter your access code using the DTMF microphone keypad and press the **PTT** button.

- 6** Hold the radio in a vertical position with the microphone 1 to 2 inches (2.5 to 5 cm) away from your mouth. Press and hold the **PTT** button to talk. Release the **PTT** button when the other party wants to talk, both parties will need to speak in turn.

- 7** To disconnect a phone call, do one of the following:
- If your radio has Immediate Auto or Delayed Auto programmed, go to step 8.
- or –
- Enter the deaccess code using the DTMF microphone keypad and press the **PTT** button.


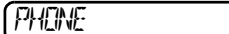
- 8** To exit Phone Mode:
- Press the preprogrammed **Phone** button (see page 12).
- or –
- Press and hold **(P1)** to disconnect the call.
- Note:** **(1)** disappears from the display.

MAKE A PHONE CALL **(1)**

Press the preprogrammed **Phone** button (see page 12), and skip to step 6.

– or –

Press the **PTT** button, and if the Hot Keypad feature has been preprogrammed by your dealer/programmer, do the following:

- 1** **(▲)** or **(▼)** to select a channel that has been programmed for telephone.
- 2** **(P2)** to enter menu mode.
- 3** **(▲)** or **(▼)** until 
- 4** **(P2)** to select 

- 5** Your dealer/programmer can preprogram your radio in one of three ways to enter your access code to the repeater.

Immediate Auto – automatically sends the access code.

Delayed Auto – your radio will transmit the access code upon a **PTT** button press.



Manual – Enter your access code using the DTMF microphone keypad and press the **PTT** button.

- 6** When you hear a dial tone:

Enter the phone number using the DTMF microphone keypad.

The number will scroll to the left,

– or –

 or  to select a number from the phone list.





Note: Only the first 8 digits are displayed.

– or –

- a. Press and release the preprogrammed **Speed Dial** button.
- b. Press the key (0 to 9) corresponding to the number you want to call.



Note: To redial the last number dialed (if not using Speed Dial), press and release the **PTT** button immediately after the access code is sent. The radio sends the last number dialed.

– or –

If you entered your access code using the DTMF keypad, press  once to access the last number dialed; then press and release the **PTT** button.

- 7** Press and release the **PTT** button, if required for your radio.

- 8** Hold the radio in a vertical position with the microphone 1 to 2 inches (2.5 to 5 cm) away from your mouth. Press and hold the **PTT** button to talk. Release the **PTT** button when the other party wants to talk, both parties will need to speak in turn.




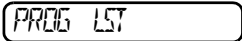

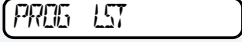


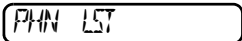

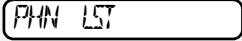


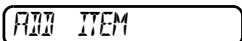

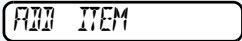



- 9** To disconnect a phone call, do one of the following:
 If your radio has Immediate Auto or Delayed Auto programmed, go to step 10.
 – or –
 Enter the deaccess code using the DTMF microphone keypad and press the **PTT** button.
- 10** To exit Phone Mode:
 Press the preprogrammed **Phone** button (see page 12).
 – or –
 Press and hold  to disconnect the call.
Note:  disappears from the display.

EDIT THE PHONE LIST

Your radio contains a Phone list that holds up to 25 phone numbers. You can edit the Phone list in three ways through your radio's menu:

- Add an entry
- Delete an entry
- Edit an existing entry

Add an Entry

- 1**  to enter menu mode.
- 2**  or  until 
- 3**  to select 
- 4**  or  until 
- 5**  to select 
- 6**  or  until 
- 7**  to select, 
 you see: 
- 8** Use the DTMF microphone keypad to enter the name (see Entering Characters Using the DTMF Microphone Keypad on page 8).
- 9**  to store the name,
 you see: 

10 Use the DTMF microphone keypad to enter the phone number. You can also add a Pause Indicator (press **#** three times until the # character on the display changes to a “-”).

11 **P2** to store the phone number.

you see:

LOC XX

12 **▲** or **▼** until you see the location in the list where you want to store the phone number.

13 **P2** to store the location.

you see:

SAVED

14 **P1** to return to
- or -

ADD ITEM

P1 until you exit menu mode.

Delete an Entry

1 **P2** to enter menu mode.

2 **▲** or **▼** until

PROG LST

3 **P2** to select

PROG LST

4 **▲** or **▼** until

PHN LST

5 **P2** to select

PHN LST

6 **▲** or **▼** until

DELETE

7 **P2** to select

DELETE

8 **▲** or **▼** until you see the entry you want to delete.

9 **P2** to select the entry,

you see:

DELETE

10 **P2** again to confirm the deletion,

you see:




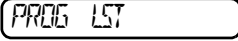

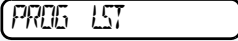







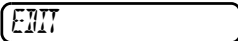





DELETED




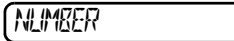
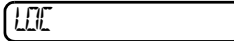




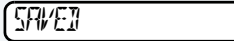



11 **P1** to return to
- or -

DELETE

P1 until you exit menu mode.






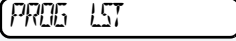


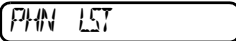




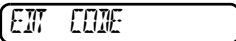


Edit an Entry



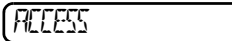
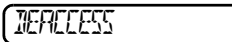






- 1  to enter menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until 
- 5  to select 
- 6  or  until 
- 7  to select 
- 8  or  until you see the entry you want to edit.
- 9  to select the entry.

- 10  or  until 
(to edit the name),
– or – until 
(to edit the phone number),
– or – until 
(to edit the location in the phone list).
- 11  to confirm your selection.
- 12 Use the DTMF microphone keypad to edit the entry (see Entering Characters Using the DTMF Microphone Keypad on page 8),
– or –
 or  until you see the location where you want to store the phone number.
- 13  to store the information.
you see: 
- 14  to return to 
– or –
 until you exit menu mode.

Edit Access/Deaccess Codes

You can edit the access/de-access codes that are used to connect or disconnect you from a repeater.



- 1  to enter menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until 
- 5  to select 
- 6  or  until 
- 7  to select 

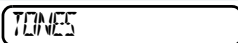
- 8  or  until 
 – or – until 
- 9  to select the current setting.
- 10 Enter the number using the DTMF keypad microphone.
- 11  to select the entry.
 you see: 
- 12  or  to edit another code.
- 13  until you exit menu mode.

TONE PREFERENCES

You can use the radio's menu to access user-adjustable settings to customize the tones on your radio by:



1  to enter menu mode.


2  or  until






3  to select



4  or  until you see the feature you want to change (see the table on page 38).

5  to select the feature. You see the feature's current setting.

6  or  to see a list of available settings.









7  to select the desired setting.


8  until you exit the menu mode.

Tone Settings


Feature	What it Does	Settings
TONE	Turns all alert tones on or off.	ON OFF
KP ^T TONE	Turns the keypad tones on or off.	ON OFF
TONE TAG	Assigns a specific tone when receiving a specific type of radio call.	STANDARD ALERT 1-6
ESCALERT	Increases the volume of the alarm tones when a radio call is not answered.	ON OFF


You can use the radio's menu to access user-adjustable settings to customize the tones on your radio by:

- 1  to enter menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until you see the feature you want to change (see the table on page 38).

5  to select the feature. You see the feature's current setting.

6  or  to see a list of available settings.

7  to select the desired setting.




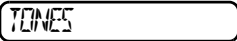

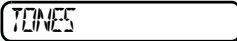


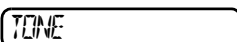

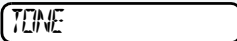





8  until you exit the menu mode.

Tone Settings

Feature	What it Does	Settings
TO NE	Turns all alert tones on or off.	ON OFF
KPD TONE	Turns the keypad tones on or off.	ON OFF
TO NE TAG	Assigns a specific tone when receiving a specific type of radio call.	STANDARD ALERT 1-6
ESCALERT	Increases the volume of the alarm tones when a radio call is not answered.	ON OFF





TONES ON/OFF














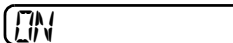


You can program your radio to enable or disable all alert tones.

- 1  to enter Menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until 
- 5  to select 
- 6  or  until 
 – or – until 
- 7  to select the desired setting.

KEYPAD ON/OFF TONES

You can program your radio to enable or disable all keypad tones.

Note: Tones for the programmable buttons , , , and  can not be disabled.



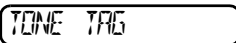
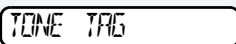

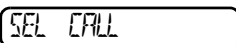
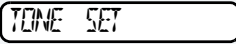
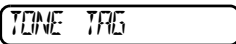
- 1  to enter Menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until 
- 5  to select 
- 6  or  until 
 – or – until 
- 7  to select the desired setting.

CALL TONE TAGGING

You can program your radio to sound a particular alert tone when receiving a Selective Call or Call Alert (call tone tagging).

Note: Seven alert tones are available to select from in the list.

- 1  to enter menu mode.

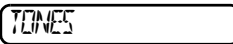

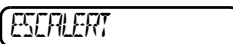
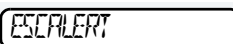
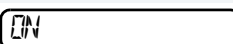
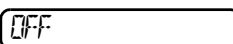
- 2 ▲ or ▼ until 
- 3 P2 to select 
- 4 ▲ or ▼ until 
- 5 P2 to select 
- 6 ▲ or ▼ until 
- or – until 
- 7 P2 to select the desired setting.
- 8 ▲ or ▼ until you see and hear the tone you want to use for this type of call.
- 9 P2 to select the desired setting,
you see: 
- 10 P1 to return to 
- 11 P1 until you exit the menu mode.

ESCALERT

You can program your radio to increase the volume of the alarm tones when a radio call is not answered.

Press the preprogrammed **Escalert** button (see page 12) and proceed to step 5.



– or –

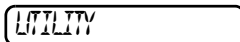
- 1 P2 to enter menu mode.
- 2 ▲ or ▼ until 
- 3 P2 to select 
- 4 ▲ or ▼ until 
- 5 P2 to select 
- 6 ▲ or ▼ until 
- or – until 
- 7 P2 to select the desired setting.

USER SETTINGS

You can use the radio's menu to access user-adjustable settings to customize some of your radio features by:



1  to enter menu mode.


2  or  until






3  to select



4  or  until you see the feature you want to change (see the table on page 41).

5  to select the feature. You see the feature's current setting.

6  or  for available settings.

7  to select the desired setting.

Utilities Features

















Feature	What it Does	Settings
SQUELCH	Changes the squelch of the radio to tight or normal.	TIGHT NORMAL
PWR LVL	Changes the power level of the radio to high or low.	HIGH LOW
OPT BRD	Enables or disables an option board.	ON OFF
BKLT INT	Changes the brightness of the backlight.	HIGH MED LOW
SOFTWARE	Displays the radio's software version number.	XX XX XX

SET SQUELCH LEVEL

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 12) to toggle between tight and normal squelch.

– or –

- 1  to enter menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until 
- 5  to select 
- 6  or  until 
- or– until 
- 7  to select the current setting.

SET POWER LEVEL









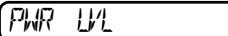

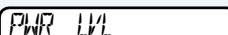
Each channel in your radio has a predefined transmit power level that can be changed.

- *High power* (**H**) allows you to reach a radio that is farther away.
- *Low power* (**L**) to reach a radio within close proximity.

Note: The **L** or **H** symbol appears on the display when High/Low Power Level is selected.

To set the power level, press the preprogrammed **Power Level** button (see page 12) to toggle between low and high power.

– or –


- 1  to enter menu mode.
- 2  or  until 
- 3  to select 
- 4  or  until 
- 5  to select 

6 ▲ or ▼ until
 -or- until

7 **P2** to select the current setting.

OPTION BOARD ON/OFF

Use this feature to enable or disable an option board.

- The  symbol appears on the display when the option board feature is On.

Press the preprogrammed **Option Board** button (see page 13) to toggle the option board on or off.

- or -

1 **P2** to enter menu mode.
 2 ▲ or ▼ until
 3 **P2** to select
 4 ▲ or ▼ until
 5 **P2** to select

6 ▲ or ▼ until
 -or- until

7 **P2** to select the current setting.


SET THE BACKLIGHT INTENSITY



Use this feature to change the brightness of the backlight.

1 **P2** to enter menu mode.
 2 ▲ or ▼ until
 3 **P2** to select
 4 ▲ or ▼ until
 5 **P2** to select
 6 ▲ or ▼ until
 -or- until
 -or- until
 7 **P2** to select the current setting.


DISPLAY THE SOFTWARE VERSION

Use this feature to view the current software version of your radio.



1  to enter menu mode.

2  or  until





3  to select



4  or  until



5  to view the software version.

6  until you exit menu mode.
