

CDM1550[™]







Professional Series Mobile Radio User Guide

CONTENTS

Safety
Product Safety and RF Exposure Compliance1
Radio Overview 3
Parts of the Radio
LED Indicators
Getting Started 13
Turning the Radio On or Off13Adjusting the Volume13

Selecting a Zone	. 14 . 14 . 15 . 15
Radio Calls	.17
Making a Selective Call Receiving a Selective Call Sending a Call Alert Page Receiving a Call Alert Page Radio Check Sending a Status Sending a Message Receiving a Message Responding to emergency alerts Decoding an Emergency Alarm Multiple Queued Emergencies Three Minute Timer	. 17 . 17 . 18 . 18 . 19 . 20 . 21 . 21 . 22 . 22 . 22
After the Timer Expires	.22
Clearing an Emergency Alert	.23 .23 .24 .24 .25 .25 .25 .26 .27

i

Name and Call/Message Tone Tagging	.27
Scan	.31
Starting or Stopping Scan Talkback Deleting a Nuisance Channel Restoring a Channel to the Scan List Editing a Scan List Adding or Deleting Channels in a	.31 .32 .32 .32 .32
Scan List.	.33
Setting Priority Channels	. 34 . 34
Phone	.37
Making a Phone Call Modifying the Phone List Adding an Entry (when using the	. 37 . 38
enhanced keypad microphone only) Deleting an Entry	. 38 . 39
enhanced keypad microphone only) Editing an Access/Deaccess Code (when using the enhanced keypad	.40
microphone only)	.41
Audio/Tone Settings	.43
Utilities	.45

Setting the Time47Displaying the Time48Selecting the Display Language48
Warranty
Limited Warranty
Accessories53
Audio
Mounting
Antennas
Control Station

ii

SAFETY

SAFETY

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 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: <u>http://commerce.motorola.com/</u>consumer/QWhtml/acc_cat.html.

Notes



English

RADIO OVERVIEW

RADIO OVERVIEW

PARTS OF THE RADIO



3

Optional Enhanced Keypad Microphone (RMN4026)

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

This enhanced keypad microphone has three buttons (A, B, C) below the keypad that can be programmed to conveniently activate select radio features.



4

On/Off/Volume Knob

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

Channel Selector/Menu Navigation Buttons

\land or 🛇

Used for channel scrolling. When in menu mode, used for menu navigation.

LED Indicators

Indicates channel, scan, and monitor status, as well as receipt of a selective call.

Programmable Buttons

Your radio has several 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,

 \mathbb{P}^2 , \mathbb{P}^3 , and \mathbb{P}^4 buttons (see page 3).

Some 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 appears beginning on page 6.

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, P3, P4) 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.

Function	Indicator	Short Press	Long Press	Hold Down	Page	Button
Volume Set	_	_	Sound a tone for adjusting your radio's volume level.	13		
Direct Zone Access		Direct entry to zone selecti	on menu.†	—	14	
Home Revert	-	Takes you directly to a pre- zone/channel combination.	-programmed _t	—	15	
Direct Channel Access	_	Toggle the direct access ch (Enhanced keypad micropl	—	15		
PRTT (Priority Request-to-Talk)	_	Sends a priority access request to the dispatcher.	—	15		
Emergency	A	Initiate Emergency Alert.	—	24		
Power Level	LH	Toggle transmit power leve and Low. [†]	—	27		
Repeater/ Talkaround	→	Toggle between using a re mitting directly to another r	—	26		
Scan/Nuisance Channel Delete	Z	Toggle scan on and off.	Delete a nui- sance channel while scanning.	_	31	
Phone	0	Access Phone Mode. [†]	_	37		

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

Function	Indicator	Short Press	Hold Down	Page	Button	
Speed Dial	—	Access your phone list dire	ctly.†	_	37	
Monitor	Д	Toggle silent monitor operation (also turn off open squelch monitor when it has been acti- vated).	_	_		
Option Board (if one is installed)	Ď	Toggle between activating a the option board. [†]	_	_		
Radio Call	—	Access the radio call menu	_	_		
Light	—	Adjust brightness level (off	_	_		
Auxiliary Control (1/2)	—	Activates or deactivates a accessory connector. [†] (Se	—			
Status	—	Direct entry to the status m	_	_		
One-Touch Sta- tus	_	Immediately sends a prepr tus. [†]	—			
Message	—	Direct entry to the message	_	_		
One-Touch Message	_	Immediately sends a prepr sage. [†]	—	_		
Horn and Lights	—	Toggles external alarm feat triggered alarm. [†]	_	_		

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

Push-to-Talk (PTT) Button

Press and hold down this button to talk; 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.

Menu Keys



Menu/Select Key 🗐/•

Used to enter Menu Mode. When in Menu Mode, this key is also used to make menu selections.



Used to move to the previous Menu level (short press) or to exit Menu Mode (long press).



Used for channel scrolling. When in Menu Mode, used for menu navigation.



Moves the cursor right or inserts a space when editing or Zone scrolling.



Moves the cursor left or used as a backspace key when editing or Zone scrolling.

8

Use with Enhanced Keypad Microphone (RMN4026)



These keys are used to:

- Dial a phone number
- Make a radio call
- Enter information when programming radio lists
- Directly access preprogrammed features

Each key can generate several different characters. For example, to enter the character "C," press the (2^{abc}) key three times. (Refer to the following table.)

	Nur	nber of T	imes	Key	is Pre	essed											
Key	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
\bigcirc	0	()	<	~												
	1	&	%	#	*												
2 abc	А	В	С	2	а	b	С	2	Å	Á	Â	Ç	à	á	â	Ç	
3 def	D	E	F	3	d	е	f	3	È	É	Ê	è	é	ê	ë		
4 ghi	G	Н	Ι	4	g	h	i	4	Ì	Í	Ì	Í	î	Ï			
5 jkl	J	K	L	5	j	k	I	5									
(6mno	Μ	N	0	6	m	n	0	6	Ñ	Ò	Ó	Ô	ñ	Ò	Ó	Ô	Ö
7 pqrs	Ρ	Q	R	S	7	р	q	r	s	7							
8 tuv	Т	U	V	8	t	u	V	8	Û	Ú	Û	ù	ú				
9wxyz	W	Х	Y	Z	9	w	х	У	z	9	Y	у					
(\ast)	*	/	+	-	=												
#	#	Blank Space	-		!	?	3	"	,	;	:						

Entering Characters Using the Keypad

English

LCD Screen



The top screen row displays radio status information:

Symbol	Indication
Companding	The Companding feature is activated. When in narrow band, this feature improves audio quality.
LH Power Level	Low Power " L " or High Power " H " is activated.
□ Carrier Squelch (CSQ)	The radio is on a CSQ channel, monitor is active, or the microphone is off-hook.
) Phone	Phone Mode is selected.

Symbol	Indication
▲	An Emergency Alert is
Emergency	being sent.
Call Received	A Selective Call or Call Alert has been received.
Z Scan	The Scan feature is active. Flashes when Scan is suspended.
Z	During Scan, indicates
Priority 1 Scan	that the scan has locked
(● flashing)	on to a priority 1 channel.
Z •	During Scan, indicates
Priority 2 Scan	that the scan has locked
(• steady)	on to a priority 2 channel.

11

Symbol	Indication
 → Talkaround	The radio is not transmitting through a repeater.
Programming Mode	The radio is in Program List editing mode.
Signal Strength	Indicates signal strength. The more bars, the stronger the signal.
Ontion Board	Option board is enabled.
	Not currently assigned.
Ø	Not currently assigned.

AUDIO INDICATORS FOR PROGRAMMABLE BUTTONS



Low-High Tone



High-Low Tone

In addition to having associated visual indicators, some programmable buttons use tones to indicate one of two modes:

Button	Low-High Tone	High-Low Tone
Scan	Start scan	Stop scan
Power Level	High power selected	Low power selected
Option Board	Enabled	Disabled
Repeater/ Talkaround	Does not use repeater	Uses repeater

GETTING STARTED

TURNING THE RADIO ON OR OFF



ADJUSTING THE VOLUME

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

-or-

- 1 Hold down the **Volume Set** button (see page 6). 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 ZONE

A zone is a group of up to 16 channels. Before you can access a channel in a zone, you must select the zone in one of three ways:

Method 1

- 1 (1) to enter Menu Mode.
- 2 🔊 or 🤍 until
- 3 (I/•) to select

Zone

Zone

- 4 *or until you see the desired zone name.*
- 5 (1) to select the zone.

Method 2 (if programmed by your dealer [see pages 6-7]).

- 1 Press the Direct Zone Access button.
- $2 \bigcirc or \bigcirc$ until you reach the desired zone.
- 3 (a) to select the zone.

Method 3

Press C to select the previous zone. If pressed while the first zone is selected, the radio will wrap around to the last zone.

Press () to select the next zone. If pressed while the last zone is selected, the radio will wrap around to the first zone.

SELECTING A RADIO CHANNEL

Your radio offers 128 channels (8 zones of 16 channels each).

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

There are three ways to select a channel:

Method 1

- **1** Select the appropriate Zone, if required.
- 2 *or until you reach the desired channel, shown on the screen.*

Method 2 (if programmed by your dealer [see pages 6 -7]).

1 Press the Home Revert button.

Method 3 (if programmed by your dealer [see pages 6 -7]).

- 1 Press the Direct Channel Access button.
- 2 Enter the desired channel using the enhanced keypad microphone.
- **3** (a) to confirm your selection.

SENDING A CALL

- 1 Turn your radio on.
- 2 \bigcirc or \bigcirc 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 to talk; release it to listen.

If your system uses the request-to-talk feature, use the following method to send a call:

- **1** Turn your radio on.
- 2 \bigcirc or \bigcirc to select the desired channel.
- 3 Press the PTT (for priority requests to talk, the PRTT button) and wait for the talk permit tone.
- 4 Hold the microphone vertically 1 to 2 inches (2.5 to 5 cm) from your mouth. Press the PTT to talk; release it to listen.
- 5 Release the **PTT** to listen.

RECEIVING A CALL

- 1 Turn your radio on.
- 2 Adjust the radio's volume if necessary (see page 13).
- 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 to talk; release it to listen.

GETTING STARTED

Notes

RADIO CALLS

MAKING A SELECTIVE CALL

You can make a selective call to a particular radio or group of radios, provided the signaling protocol supports it.

To make a Selective Call:



6 Or V to locate the desired ID in the Radio Call List.

-or-

when using the enhanced keypad microphone only, enter the ID number of the radio you want to call.

- 7 Press the **PTT** to send the call. The radio sounds a continuous tone.
- 8 Press the **PTT** to talk; release it to listen.



RECEIVING A SELECTIVE CALL

When you receive a selective call:

- You will hear two alert tones.
- The LED Indicator flashes yellow.
- The LCD screen displays and the preprogrammed name or ID of the calling radio, if available.

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

To send a Call Alert page:



6 Or to locate the desired ID in the Radio Call List;

-or-

when using the enhanced keypad microphone only, enter the ID number of the radio you want to page.

Press the PTT to send the page.

You will see

Call In Prog

8 If the Call Alert page is received, you will see Acknowledge
If not, you will see No Acknowledge
9 Sto return to Call Alert -or-Hold down Sto exit Menu Mode.

RECEIVING A CALL ALERT PAGE

When your radio receives a Call Alert page, it sounds four alert tones continuously and the following are displayed until you respond: the ♪ symbol, and the ID of the calling radio alternating with *Call Received*.

Press the **PTT** to answer the page, or press any other key to clear it.

Note: Your radio will display only the last Call Alert page received. Also, your radio will not receive any Selective Calls until you clear the page.

RADIO CHECK

This feature allows you to determine if a radio is in range without disturbing the user of the radio. Radio Check can also be used when attempts with Selective Call and Call Alert fail. (This feature is available only if your signaling protocol supports it.)

To perform a Radio Check:



6 Or V to locate the desired ID in the Radio Call List;

-or-

when using the enhanced keypad microphone only, enter the ID number of the radio you are checking. 7 Press the PTT. You will see Call In Prog
8 If the Radio Check is received, you will see Acknowledge
If not, you will see No Acknowledge
9 Sto return to Radio Check -or-Hold down Sto exit Menu Mode.

SENDING A STATUS

This feature gives you the ability to send a status update to the base. The status feature makes more efficient use of the channel compared to voice transmissions. Status updates of up to 14 characters may be programmed by your dealer.

To send a Status:



- 4 Or v to locate the desired status in the preprogrammed list.
 - -or- when using the enhanced keypad microphone only,

enter the number of the status you wish to send.

-or- if programmed by your dealer (see pages 6-7),

press the button that has been preprogrammed for a specific status.

Note: You cannot retransmit the current status update.

SENDING A MESSAGE

This feature gives you the ability to send and receive preprogrammed messages. Data messages make more efficient use of channels compared to voice transmissions. Messages of up to 14 characters may be programmed by your dealer. To send an electronic (data) message:

- 1
 Image: The select

 2
 Image: The select

 3
 Image: The select
- 4 *or to* locate the desired message in the preprogrammed list.
 - *-or* when using the enhanced keypad microphone only,

enter the number of the message you wish to send.

-or- if programmed by your dealer (see pages 6-7),

press the button that has been preprogrammed for a specific message.

RECEIVING A MESSAGE

When your radio receives a message:

- You will hear two alert tones.
- The yellow LED indicator flashes.
- The LCD screen

displays



alternating with the preprogrammed alias.

Note: If you receive a message that is programmed into your radio, the display will alternate with the following:

lessage	#_

and

No	A1	i	as	
U O		-	<u>a</u> 5	

RESPONDING TO EMERGENCY ALERTS

Your radio offers choices for initiating and responding to Emergency Alert communications. Choices may include:

 Emergency Cycles - Allows the radio to automatically cycle between transmit and receive mode over a preprogrammed number of times by keying with voice after it has received an Acknowledge to the alarm you send. The default number of transmits is one (10, maximum); the default value of the retransmit interval is 5 seconds (one, minimum; 60, maximum).

- Emergency Alarm/Call Gives you access to a voice resource, on a priority basis, over all other types of call traffic.
- Emergency Remote Monitor Enables the dispatcher to activate the transmit circuit of your radio, during an Emergency, to hear the situation through your microphone. See page 23 for more about sending an Emergency Remote Monitor.
- Remote Monitor Enables the dispatcher to activate the transmit circuit of your radio, during a normal dispatch, to hear the situation through your microphone. See page 24 for information about sending a Remote Monitor.
- **Note:** All the choices listed above are dealer preprogrammed. See your dealer for more details.

Decoding an Emergency Alarm

If preprogrammed by your dealer, and provided the signaling protocol supports it, your radio decodes (responds to) an Emergency Alarm or Emergency Call by:

- Sounding a unique, repeating alert tone
- Activating an external alarm
- Displaying alternating message parts on a single line, similar to the following example:

■ the word Emergency, followed by

- Emergency Alias from the Radio Call List (example, MDC CALL Ø1), followed by
- Timestamp of the Emergency Alert (example, 03:55).

 Flashing the ▲ icon (while decoding only; lights steady when encoding)

Multiple Queued Emergencies

Clearing the existing displayed Emergency shows the next in the queue, if one exists. The display updates and shows "Emerg (queued number) of (total number)". If no additional Emergencies are queued, the radio exits Emergency mode and resumes normal mode.

Three Minute Timer

Responding to an Emergency starts a threeminute timer. The radio does not generate another Emergency Alert tone against that Emergency Alias or ID until the three-minute period expires. If cleared within 3 minutes, the alarm will regenerate the alert. If the radio receives another Emergency Alert from the same Alias or ID, the radio acknowledges the Emergency but does not restart the tone, activate the external alarm, or display updated information.

After the Timer Expires

If the three-minute timer has expired for a specific Emergency Alias or ID, and the radio decodes an Emergency that is currently in queue, the radio:

- Acknowledges the Emergency
- Restarts the Emergency Alert tone
- · Activates the external alarm
- Updates the time stamp on the matching Emergency
- Note: If the Radio Call List does not include an alias for the radio ID, the ID displays. Radios that do not support the signaling protocol sound the alert tone, activate the external alarm and display data.

CLEARING AN EMERGENCY ALERT <u>入</u>

To clear an Emergency Alert:

- 1 Press any button on the radio to cancel the Emergency Alert tone.
- 2 Press (or activate) an external pushbutton or foot switch.

Note: You must press an external switch to clear the visible Emergency Alias and display the next queued Emergency Alias, if present. You must clear all decoded Emergency Alerts before encoding (sending) your own Emergency Alert.

SENDING AN EMERGENCY REMOTE MONITOR

As your radio responds to an Emergency Alert, only the Emergency Queue menu is available.

To access the Emergency Queue menu:

- Ito enter Menu Mode.
- 2 The radio displays the list of aliases currently in the Emergency queue, similar to that shown, oldest to newest.

MDC CALL 01

- 3 Or or to view the next oldest Emergency Remote Monitor packet and to choose the packet to send.
- 4 Press the PTT to send the packet.

SENDING AN EMERGENCY

A priority Emergency Alert can be sent to a specific radio or dispatch center by pressing:

- A button preprogrammed by your dealer (see pages 6-7).
- The foot switch
- A pushbutton accessory

Emergency Alerts have priority over all other calls.

The \triangle symbol will appear on the display when your radio is in the Emergency Alert state.

An Emergency Alert can be programmed to:

- Show ▲ and sound a tone
 - -or-
- Show the normal display
- -or-

24

Activate the microphone so that all activity

can be transmitted (for a predetermined amount of time). See your dealer for more information.

To cancel the Emergency Alert, press and hold down the **Emergency** button.

SENDING A REMOTE MONITOR

The Remote Monitor gives the ability to activate the transmit circuit of your radio – both silently and normally – and key it. The Remote Monitor feature depends on how your radio responds to the Remote Monitor Command. Upon receiving a Remote Monitor Command, the radio:

- 1. Keys the transmitter
- 2. Acknowledges the command
- 3. Sends the PTT-ID
- 4. Activates the microphone.
- **Note:** If a remote microphone is attached, it responds.

Remote Monitor capability depends on which of two modes are preprogrammed:

- Silent Mode When the command is sent in Silent Mode, and the receiving radio keys and transmits for the time set by the Remote Monitor Command, the receiving radio will not generate an indicator of the event.
- Non-Silent Mode When the command is sent in Non-Silent Mode, and the receiving radio keys and transmits for the time set by the Remote Monitor Command, the receiving radio will generate an indicator of the event.

The amount of time that the radio remains in receive mode or in transmit mode is set by the Remote Monitor Command and the time settings in the radio. When in this state, touching any button on the radio takes it out of the Remote Monitor mode. See your dealer for more details.

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, all controls will be inoperative except for the On/Off button. When the radio is powered up, the display will

show:

Radio Disabled

EDITING A RADIO CALL LIST 🗔

The ID numbers in your Radio Call List are preprogrammed by your dealer. However, you can edit the names associated with these IDs using the enhanced keypad microphone. The symbol will appear on the display when you are editing.

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

To edit a Call List entry:

1 (I) to enter Menu Mode.



- 10 Use your keypad to edit the entry (see page 9).
- 11 (a) to save your changes. You will see (Entry Saved

12 () to return to Edit Entry? -or-Hold down () to exit Menu Mode.

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. The |→| symbol appears on the display when Talkaround Mode is selected.

To select either Repeater Mode or Talkaround Mode:

Press the preprogrammed **Repeater/ Talkaround** button (see page 6) to toggle between Repeater Mode and Talkaround Mode.

-or-

1 (1) to enter Menu Mode.



SETTING THE POWER LEVEL LH

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

- High power (**H**)
- Low power (L)

You can set the power level in two ways:

Method 1

Press the preprogrammed **Power Level** button (see page 6) to toggle between *low* and *high*.

-or-

Method 2

(I) to enter Menu Mode.



NAME AND CALL/MESSAGE TONE TAGGING

You can program your radio to sound a particular alert tone when:

- a specific user is calling—name tone tagging, or
- a message is being sent to your radio, or
- your radio is receiving a type of radio call call tone tagging.

There are seven alert tones to select from.

To tag a specific user's name or message:



- 6 or vuntil you see the name or message you want to tag.
- 7 (\Box) to confirm the selection.
- 8 or vuntil you hear one of the seven tones you want to use for this name or message.

 9
 Image: to confirm the selection.

 You will see
 Name: Tag: Set.

 or
 Msg: Tone: Tag

 10
 So to return to
 Name: Tone: Tag

 or
 Msg: Tone: Tag

 or
 Msg: Tone: Tag

 Hold down
 Tone: Tag

To tag a type of radio call:



- 6 or vuntil you see the call type you want to tag.
- 7 (\Box) to confirm the selection.
- 8 or vuntil you hear the tone you want to use for this type of call.

 9
 Image: bold of the selection.

 You will see
 Call Tone Tag

 10
 So to return to _______

 -or Hold down So to exit Menu Mode.

English

Notes



SCAN

Your radio can monitor multiple channels in a scan list. Your dealer can program up to 16 different channels into each scan list. When your radio detects activity on a scan list channel, it will automatically switch to that channel.

Note: The same channels can be assigned to different scan lists.

STARTING OR STOPPING SCAN \mathcal{Z}

The \checkmark symbol, and the number of the channel you are transmitting on, will appear on the display when you start a scan operation.

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

Note: If you enter Menu Mode while the radio is scanning, scanning will stop. It will resume when you exit Menu Mode. You can start or stop a scan operation either by:

pressing the preprogrammed **Scan** button (see page 6) to start or stop scanning;

-or-

Image: 1 Image:

English

SCAN

TALKBACK

The Talkback feature allows you to respond to a transmission while scanning. If a transmission on a channel is detected 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**.

Note: If transmission stops or if the **PTT** is not pressed for a preprogrammed duration, the radio will continue scanning. Also, the LED scan indicator stops blinking while the radio is in hangtime.

DELETING A NUISANCE CHANNEL

If a channel continually generates unwanted calls or noise (a "nuisance" channel), use the **Scan** button to temporarily delete the channel from the scan list.

- **Note:** You cannot delete a priority channel (see page 34) or the last remaining channel in a scan list.
 - 1 While the radio is on the nuisance channel, hold down the **Scan** button until you hear a tone.
 - 2 Release the **Scan** button. The nuisance channel is deleted.

Restoring a Channel to the Scan List

To restore a previously deleted channel to the scan list, restart the scan operation or turn your radio off and on again.

EDITING A SCAN LIST

A scan list is a group of up to 16 channels. Each channel can have a scan list assigned to it. The same channel can be included in several scan lists, and the same scan list can be assigned to several Channel Selector positions. For example:

	Position 2	Position 14
C h	1	1
a n	3	2
n e	5	3
l s	6	11

When you edit a scan list, you can either add, delete, or prioritize channels. The \square symbol will appear on the display while you are in edit mode.

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

32

Adding or Deleting Channels in a Scan List

To add or delete channels in a scan list:



If you deleted a channel, Delete? you will see (I) to confirm the deletion. Entry Deleted You will see 11 (S) to return to Add Entry? or to return to Delete Entry? -or-Hold down (S) to exit Menu Mode.

Entry Saved

10 If you added a channel,

you will see

-or-

- (\Box) to confirm your selection. 7
- 8 \bigcirc or \bigcirc until you see the channel you want to add or delete

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

(I) to confirm your selection. 9

SCAN

English

Prioritizing 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 assigning them priority:

Note: Even if there may be activity on a nonpriority channel, your radio will automatically switch to an active priority channel and indicate the activity with a short tone.

Priority Channel	Scanning Sequence
None specified	Ch1⊪+Ch2⊯+Ch3⊪+Ch4⊪+ Ch1
Channel 2 (Priority 1)	Ch 2 ➡Ch1➡Ch2➡Ch3➡ Ch 2 ➡Ch4➡Ch2➡…Ch1
Channel 2 (Priority 1) Channel 8 (Priority 2)	Ch 2 ➡Ch1➡Ch 8 ➡Ch3➡ Ch 2 ➡Ch4➡Ch 8 ➡…Ch1

Setting Priority Channels

Note: You cannot reprioritize a *Priority* 1 channel to *Priority* 2.



- **9** (a)/(•) to select the desired priority level.
- **10** *(intersection or (intersection))* or *(intersection)* until you see the channel you want to prioritize.



Note: If you want to reprioritize all channels, you must first delete each priority channel from the scan list, and then add it back.

Notes

36

PHONE

If your radio has access to a telephone system, you can make a phone call. To do this, your radio must send an access code to a station that connects it to a phone line. (Ask your dealer for more details.) After completing a call, your radio must send a deaccess code to hang up.

MAKING A PHONE CALL ()

You can make a phone call using the preprogrammed **Phone** button (see page 6) or the radio menu. The **()** symbol appears on the display when you are in Phone Mode.

To initiate a phone call:

Press the **Phone** button.

-or-

Do the following:

- 1 Switch to the desired channel.
- 2 (a) to enter Menu Mode.



Phone

4 (I) to select

Phone

5 You will hear a series of tones indicating that an access code is being sent automatically. You will also see your access code displayed; -or-

when using the keypad microphone only, enter your access code using the keypad.

6 When you hear a dial tone, enter or select a phone number:

when using the keypad microphone only, enter the phone number using the keypad.

 \bigcirc or \bigcirc to select a number from the phone list.

-or-

when using the keypad microphone only,

- a Press and release the preprogrammed **Speed Dial** button (see page 7) to use the Speed Dial feature.
- b Press the key (1 to 8) corresponding to the number you want to call,
 - -or-

press "0" if you want to call the last number dialed.

Note: To redial the last number dialed (if not using Speed Dial), do not choose a number. Proceed to step 7.

Alternatively, if you entered your access code using the keypad, press \bigcirc once to access the last number dialed; then press and release the PTT.

7 To end a phone call, do one of the following: If your radio has the deaccess code preprogrammed, proceed to step 8.

-or-

Enter the deaccess code using the keypad.

8 Press the Phone button to exit Phone Mode. -or-

Sto exit Phone Mode

and return to

Phone

-or-Hold down (3) to exit Menu Mode.

MODIFYING THE PHONE LIST

You can modify a phone list in one of the following ways:

- · Add an entry
- Delete an entry
- Edit an existing entry
- Edit an Access/Deaccess code

(1) to enter Menu Mode.

When you are modifying the phone list, the

symbol will appear on the display.

Note: Your radio cannot receive any calls while you are modifying the phone list.

Adding an Entry (when using the enhanced keypad microphone only)

To add an entry:

1





14 (৩) to return to −or−

Add Entry?

Hold down (3) to exit Menu Mode.

Deleting an Entry

To delete an entry:

- Image: The select of the select
- B Or Or Until you see the entry you want to delete.

9	(I) to select the entr	у.
	You will see	Delete?
	(again to confirm	the deletion.
	You will see	Entry Deleted
10	(1) to return to	Delete Entry?
	–or–	

Hold down (3) to exit Menu Mode.

Editing an Entry (when using the enhanced keypad microphone only)

To edit an entry:



7	(⊒/●) to select	Edit Entry?
8	<i>i or</i>	ee the entry you want to

- **9** (\Box) to select the entry.
- 10 or vuntil to edit the name,

Edit Name?	
------------	--

–or– until



to edit the phone number,

–or– until

Edit Location?

to edit the location in the phone list.

- **11** (\Box) to confirm your selection.
- Use the keypad to edit the entry (see page 9).
 −or Or Or until you see the location where you want to store the phone number.
- **13** to store the information.
- 14 (S) to return to

Edit Entry?

-or-Hold down (3) to exit Menu Mode.

PHONE

Editing an Access/Deaccess Code (when using the enhanced keypad microphone only)

To edit an access/deaccess code:



- 8 Enter the number using the enhanced keypad microphone.
- 9 (b) to select the entry.

 Notes

42

AUDIO/TONE SETTINGS

You can customize the audio and tone feature settings on your radio.



- 4 *intersection or intersection* until you see the feature you want to change. (Refer to the table below.)
- 5 (a) to select the feature. You will see the feature's current setting.
- 6 Or for available settings. (Refer to the table below.)
- 7 (1) to select the desired setting.

English

Audio/Tone Settings

Feature	What it Does	Settings
Alert Vol Lvl	Allows the volume level of the audio and the volume level of the alert tones to be set independently.	Ind Alert Off Ind Alert On
Tone Disable	Turns all tones on or off.	Tones On Tones Off
Name Tone Tag	Assigns a specific tone to all calls from a specific user (see page 27 for details).	Standard Alert #1-#7
Call Tone Tag	Assigns a specific tone when receiving a specific type of radio call (see page 29 for details).	Standard Alert #1-#7
Msg Tone Tag	Assigns a specific tone when receiving a specific message (see page 27 for details).	Standard Alert #1-#7
Escalert	Gradually increases the volume of the alarm tones when a call is not answered.	Escalert On Escalert Off
Companding (XPand™)	Approximates the same audio quality for 12.5kHz channels to that of 25kHz channels.	Compand On Compand Off
Keypad Tones	Turns keypad tones on or off.	Tones On Tones Off

UTILITIES

You can customize some of your radio's features by:

- 1 (1) to enter Menu Mode.
- 2 🛆 or 👽 until

3 (I/) to select



- 4 *or v* until you see the feature you want to change (see table below).
- 5 (1) to select the feature. You will see the feature's current setting.
- 6 \bigcirc or \bigcirc for available settings.
- 7 (1) to select the desired setting.

Utilities Features

Feature	What it Does	Settings
Power Level	Changes the power level of the radio to high or low (see page 27).	Power High Power Low
Clock	Sets the time (see page 47).	Set Time Display Clock
Reminder Alarm	Sets the alarm and turns it on or off (see page 47).	Alarm On Alarm Off Set Time

Utilities Features

Feature	What it Does	Settings
Language Selection	Allows you to select the language displayed on the display.	English Spanish Portuguese French
Option board	Activates/deactivates the option board installed in your radio.	Opt Board On Opt Board Off
Software Ver #	Displays the radio's software version number.	

SETTING THE TIME

To set the time:



8

When a setting (e.g., "hour") is blinking,

you can change it with \bigcirc or \bigcirc .

DISPLAYING THE TIME

To display the time:



8 (5) to exit the menu.

SELECTING THE DISPLAY LANGUAGE

To select the display language:

- 1 (1) to enter Menu Mode.
- 2 or v until Utilities
 3 (a) to select Utilities
- 🕯 🔊 or 👽 until



- 5 (1) to confirm your selection.
- 6 *or v* until desired language is displayed.
- 7 (a) to select desired language.
- 8 (5) to exit the menu.

WARRANTY

LIMITED WARRANTY

MOTOROLA COMMUNICATION PRODUCTS

I. WHAT THIS WARRANTY COVERS AND FOR HOW LONG:

MOTOROLA INC. ("MOTOROLA") warrants the MOTOROLA manufactured Communication Products listed below ("Product") against defects in material and workmanship under normal use and service for a period of time from the date of purchase as scheduled below:

CDM1550 Mobile Units	Two (2) Years
Product Accessories	One (1) Year

Motorola, at its option, will at no charge either repair the Product (with new or reconditioned parts), replace it (with a new or reconditioned Product), or refund the purchase price of the Product during the warranty period provided it is returned in accordance with the terms of this warranty. Replaced parts or boards are warranted for the balance of the original applicable warranty period. All replaced parts of Product shall become the property of MOTOROLA. This express limited warranty is extended by MOTOROLA to the original end user purchaser only and is not assignable or transferable to any other party. This is the complete warranty for the Product manufactured by MOTOROLA. MOTOROLA assumes no obligations or liability for additions or modifications to this warranty unless made in writing and signed by an officer of MOTOROLA. Unless made in a separate agreement between MOTOROLA and the original end user purchaser, MOTOROLA does not warrant the installation, maintenance or service of the Product.

MOTOROLA cannot be responsible in any way for any ancillary equipment not furnished by MOTOROLA which is attached to or used in connection with the Product, or for operation of the Product with any ancillary equipment, and all such equipment is expressly excluded from this warranty. Because each system which may use the Product is unique, MOTOROLA disclaims liability for range, coverage, or operation of the system as a whole under this warranty.

II. GENERAL PROVISIONS:

This warranty sets forth the full extent of MOTOROLA's responsibilities regarding the Product. Repair, replacement or refund of the purchase price, at MOTOROLA's option, is the exclusive remedy. THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER EXPRESS WARRANTIES. IMPLIED WARRANTIES. INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. ARE LIMITED TO THE DURATION OF THIS LIMITED WARRANTY, IN NO EVENT SHALL MOTOROLA BE LIABLE FOR DAMAGES IN EXCESS OF THE PURCHASE PRICE OF THE PRODUCT, FOR ANY LOSS OF USE, LOSS OF TIME. INCONVENIENCE. COMMERCIAL LOSS, LOST PROFITS OR SAVINGS OR OTHER INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE SUCH PRODUCT. TO THE FULL EXTENT SUCH MAY BE DISCLAIMED BY LAW

III. STATE LAW RIGHTS:

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES OR LIMITATION ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION OR EXCLUSIONS MAY NOT APPLY.

This warranty gives specific legal rights, and there may be other rights which may vary from state to state.

IV. HOW TO GET WARRANTY SERVICE:

You must provide proof of purchase (bearing the date of purchase and Product item serial number) in order to receive warranty service and, also, deliver or send the Product item, transportation and insurance prepaid, to an authorized warranty service location. Warranty service will be provided by Motorola through one of its authorized warranty service locations. If you first contact the company which sold you the Product (e.g., dealer or communication service provider), it can facilitate your obtaining warranty service. You can also call Motorola at 1-800-927-2744 US/Canada.

V. WHAT THIS WARRANTY DOES NOT COVER:

- A Defects or damage resulting from use of the Product in other than its normal and customary manner.
- B Defects or damage from misuse, accident, water, or neglect.
- C Defects or damage from improper testing, operation, maintenance, installation, alteration, modification, or adjustment.
- D Breakage or damage to antennas unless caused directly by defects in material workmanship.
- E A Product subjected to unauthorized Product modifications, disassemblies or repairs (including, without limitation, the addition to the Product of non-Motorola supplied equipment) which adversely affect performance of the Product or interfere with Motorola's normal warranty inspection and testing of the Product to verify any warranty claim.
- F Product which has had the serial number removed or made illegible.
- G Freight costs to the repair depot.

- H A Product which, due to illegal or unauthorized alteration of the software/ firmware in the Product, does not function in accordance with MOTOROLA's published specifications or the FCC type acceptance labeling in effect for the Product at the time the Product was initially distributed from MOTOROLA.
- I Scratches or other cosmetic damage to Product surfaces that does not affect the operation of the Product.
- J Normal and customary wear and tear.

VI. PATENT AND SOFTWARE PROVISIONS:

MOTOROLA will defend, at its own expense, any suit brought against the end user purchaser to the extent that it is based on a claim that the Product or parts infringe a United States patent, and MOTOROLA will pay those costs and damages finally awarded against the end user purchaser in any such suit which are attributable to any such claim, but such defense and payments are conditioned on the following:

- A that MOTOROLA will be notified promptly in writing by such purchaser of any notice of such claim;
- B that MOTOROLA will have sole control of the defense of such suit and all negotiations

WARRANTY

for its settlement or compromise; and

C should the Product or parts become, or in MOTOROLA's opinion be likely to become, the subject of a claim of infringement of a United States patent, that such purchaser will permit MOTOROLA, at its option and expense, either to procure for such purchaser the right to continue using the Product or parts or to replace or modify the same so that it becomes non-infringing or to grant such purchaser a credit for the Product or parts as depreciated and accept its return. The depreciation will be an equal amount per year over the lifetime of the Product or parts as established by MOTOROLA.

MOTOROLA will have no liability with respect to any claim of patent infringement which is based upon the combination of the Product or parts furnished hereunder with software, apparatus or devices not furnished by MOTOROLA, nor will MOTOROLA have any liability for the use of ancillary equipment or software not furnished by MOTOROLA which is attached to or used in connection with the Product. The foregoing states the entire liability of MOTOROLA with respect to infringement of patents by the Product or any parts thereof. Laws in the United States and other countries preserve for MOTOROLA certain exclusive rights for copyrighted MOTOROLA software such as the exclusive rights to reproduce in copies and distribute copies of such Motorola software. MOTOROLA software may be used in only the Product in which the software was originally embodied and such software in such Product may not be replaced, copied, distributed, modified in any way, or used to produce any derivative thereof. No other use including, without limitation, alteration, modification, reproduction, distribution, or reverse engineering of such MOTOROLA software or exercise of rights in such MOTOROLA software is permitted. No license is granted by implication, estoppel or otherwise under MOTOROLA patent rights or copyrights.

VII.GOVERNING LAW:

This Warranty is governed by the laws of the State of Illinois, USA.

ACCESSORIES

Motorola offers a number of accessories to enhance the productivity of your two-way radio. Many of the available accessories are listed below.

For a list of Motorola-approved antennas, batteries, and other accessories, visit the following web site which lists approved accessories: <u>http://commerce.motorola.com/</u> consumer/QWhtml/acc_cat.html.

AUDIO

RMN4025	Compact Remote Speaker Microphone
RMN4026	Enhanced Keypad Microphone
RMN4038	Heavy Duty Microphone
RSN4001	External Speaker 13W
HSN8145	External Speaker 7.5W

MOUNTING

-	
GLN7324	Low Profile Trunnion
RLN4780	High Profile Trunnion
HLN8097'	Removable Slide Mount
RLN4779	Key Lock Mount
RLN4782	DIN Mounting Kit (in dash)
RKN4077	Remote Mount Cable - 3 m
RKN4078	Remote Mount Cable - 5 m
RKN4079	Remote Mount Cable - 7 m

ANTENNAS

HAD4006A	VHF 136-144 MHz, 1/4 Wave Roof Mount
HAD4007A	VHF 146-150.8 MHz, 1/4 Wave Roof Mount
HAD4008A	VHF 150.8-162 MHz, 1/4 Wave Roof Mount
HAD4009A	VHF 162-174 MHz, 1/4 Wave Roof Mount
HAD4014A	VHF 146-172 MHz, 3.0dB Gain Roof Mount
HAE4002A	UHF 403-430 MHz, 1/4 Wave Roof Mount
HAE4003A	UHF 450-470 MHz, 1/4 Wave Roof Mount
HAE4004A	UHF 470-512 MHz, 3.5dB Gain Roof Mount
HAE4010A	UHF 406-420 MHz, 3.5dB Gain Roof Mount
HAE4011A	UHF 450-470 MHz, 3.5dB Gain Roof Mount
HAE4012A	UHF 470-494 MHz, 1/4 Wave Roof Mount
HAE4013A	UHF 494-512 MHz, 3.5dB Gain Roof Mount
09-02105F01	BNC Connector

RAB4002A	Lowband 29.7-36 MHz, 1/4 Wave Base Loaded
RAB4003A	Lowband 36-42 MHz, 1/4 Wave Base Loaded
RAB4004A	Lowband 42-50 MHz, 1/4 Wave Base Loaded

CONTROL STATION

GPN6145	Desktop Power Supply 1-25W (EMC)
HPN4002	Desktop Power Supply 1-25W
GPN6149	Desktop Power Supply 25-45W (EMC)
HPN4001	Desktop Power Supply 25-45W
RMN4030	Desktop Microphone
GLN7318	Desktop Tray without Speaker
GLN7326	Desktop Tray with Speaker

Note: A variety of interchangeable buttons are available for use in the P1-P4 locations on your radio (page 3). See your dealer for further details.

Sending a Call

- 1. Turn radio on and select appropriate zone and channel.
- 2. Press **PTT**, hold the microphone 1 to 2 inches (2.5 to 5 cm) from your mouth, and speak clearly into it.
- 3. Release PTT to listen.

Receiving a Call

- 1. Turn radio on and adjust volume to the desired level.
- 2. Select desired channel.
- 3. To respond to an incoming call, press **PTT**, hold the microphone 1 to 2 inches (2.5 to 5 cm) from your mouth, and speak clearly into it.

Deleting a Nuisance Channel During Scanning

- 1. While radio is on a nuisance channel, hold down preprogrammed **Scan** button until you hear a tone.
- 2. Release Scan button.

Making a Phone Call

- 1. Press Phone button, or select Phone from the menu.
- 2. If access code is not displayed, send access code if required.
- 3. Send phone number in one of the following ways:
 - Press and release **PTT** to send last dialed number. —or—
 - when using an enhanced keypad microphone only, press preprogrammed Speed Dial button, followed by a keypad key (1–8), to access first nine numbers in your phone list. (Press PTT if buffered dial.)
 —or—
 - when using an enhanced keypad microphone only, enter phone number using the keypad. (Press **PTT** if buffered dial.)
- 4. Press **PTT**, hold the microphone 1 to 2 inches (2.5 to 5 cm) from your mouth, and speak clearly into it.

Ending a Phone Call

- 1. Send deaccess code if required.
- 2. Press preprogrammed **Phone** button, or press (3).

Sending and Cancelling an Emergency Alert

- To activate Emergency Alert., press preprogrammed Emergency button.
- To cancel, press and hold down Emergency button.



CDM1550[™] Quick Reference Card

Record the functions for your radio's programmable buttons in the table provided below. For further information, see page 8 of this User Guide.



Button	Function	Short Press	Long Press	Hold Down	Page





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