MIP 5000 VoIP Radio Console Operator Manual

MOTOROLA

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ABOUT THIS MANUAL

This section contains an overview of the information in this document, including the following:

- "MIP 5000 VoIP Radio Console Overview"
- "This Manual"
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MIP 5000 VoIP Radio Console Overview

The Motorola MIP 5000 VoIP Radio Console system is a radio dispatch system composed of MIP 5000 Gateways and MIP 5000 VoIP Radio Console positions connected together using an IP computer network. Each MIP 5000 Gateway provides the interface between the IP network and the two-way radio. Each MIP 5000 VoIP Radio Console position provides a user-friendly graphical user interface (GUI) to control a two-way radio system over an IP network. The MIP 5000 VoIP Radio Console position consists of an off-the-shelf computer with speakers and a microphone, the Windows® operating system (Microsoft® Windows® XP Professional, Vista Business, or Windows 7) and Motorola MIP 5000 VoIP Radio Console software.

The MIP 5000 system supports up to 128 MIP 5000 Gateways and up to 100 MIP 5000 VoIP Radio Console positions. The backbone of the system can be any managed local area network (LAN) or wide area network (WAN) that uses IP and supports multicast addressing. Each MIP 5000 Gateway provides the interface to a single radio channel. Each MIP 5000 VoIP Radio Console position provides access to up to 24 radio channels at a time for a single dispatcher, depending on the software license purchased. Different combinations of channels can be accessed at a console position at different times by loading different console configuration files.

The MIP 5000 system is configured by a Console System Database Manager (CSDM) program that can be run on a computer anywhere on the network.

THIS MANUAL

This manual describes how to use the program to control radio communications.

NOTE

This manual assumes that you already know how to use Microsoft Windows. Your Windows documentation describes the general operation of the Windows user interface, therefore it is not repeated in this manual.

Chapter 1, describes your console:

- How the screen displays the control for radio communications
- How to press buttons, use menus, and resize windows

Chapter 2, explains how to perform specific tasks; for example:

- How to log in and log out and how to get on-line help
- How to make radio calls, issue pages and make patches

Chapter 3, provides detailed information about each control, button and indicator on the console.

Chapter 4, provides detailed information about each command in the menu bar.

OTHER MANUALS AND REFERENCE MATERIAL

Related manuals and reference material include:

- *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33)
- *MIP 5000 VoIP Radio Console Installation and Configuration Manual* (6881013Y35)

CHAPTER 1

MIP 5000 VoIP Radio Console User Interface

This section is a general overview of the common features and functions of the Motorola MIP 5000 VoIP Radio Console program. It includes procedures to customize the main window elements.

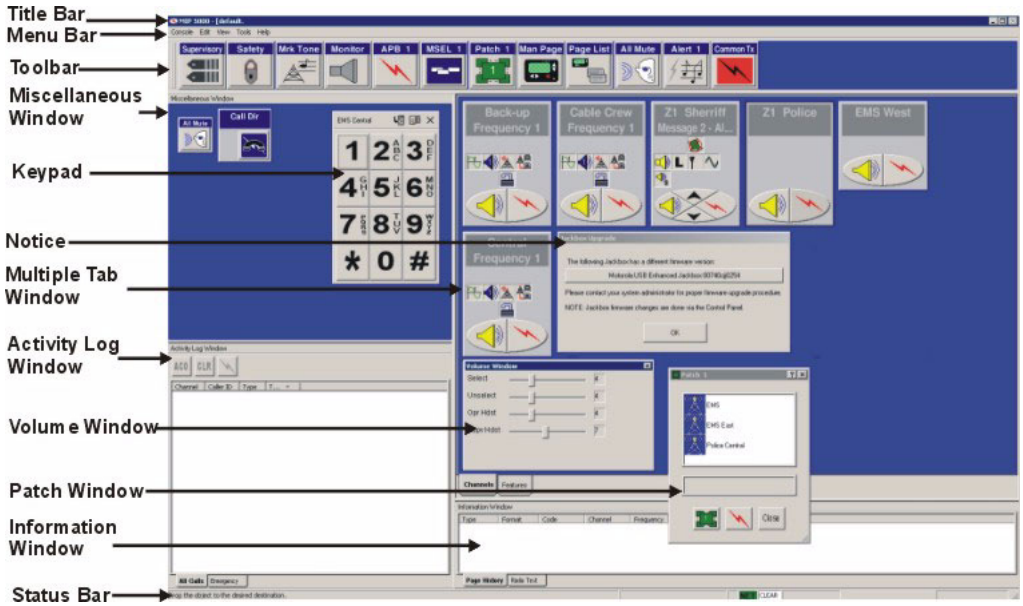
It is highly recommended that you read this before using your console for radio communications.

The common features and functions include:

MAIN WINDOW LAYOUT

Figure 1-1, “Typical Main Window Layout,” shows a typical screen configuration in the MIP 5000 VoIP Radio Console program. The components of the main window are described in the following sections:

FIGURE 1-1 TYPICAL MAIN WINDOW LAYOUT



NOTE

Your screen might look different, depending on how your system has been configured.

Title Bar

The title bar shows the currently loaded user configuration. During the trial period, the title bar also displays the time remaining in the trial, after which the program exits.

Figure 1-2 Title Bar

Figure 1-3 Title Bar During Trial Period

Menu Bar

The menu bar contains the drop-down menus for the MIP 5000 VoIP Radio Console. The menus are: **Console**, **Edit**, **View**, **Tools** and **Help**.

Figure 1-4 Menu Bar

Chapter 4, "Menu Commands" describes the menu bar and the operator menu commands in more detail.

Toolbar

The toolbar contains function buttons that perform specific functions within the MIP 5000 VoIP Radio Console. The supervisor assigns resources to the toolbar. All of the feature/functions resources available on the console can be placed into the toolbar except controls.

The toolbar can be positioned anywhere on the MIP 5000 VoIP Radio Console screen. The toolbar can float over the other windows or be docked within the main screen.

NOTE

It is recommended that you put the toolbar in its own row or column (and not docked inside other windows in the main screen) to ensure maximum visibility of the toolbar buttons.

If you are unable to view the toolbar, contact the supervisor.

FIGURE 1-5 EXAMPLE OF A TOOLBAR

STATUS BAR

The MIP 5000 VoIP Radio Console includes the Status Bar at the bottom of the program window. Figure 1-6, "Status Bar Diagram with Key," shows:

1. The purpose of, or instructions for, a screen component (instant help)
2. The current status of your console (system messages)
3. If the supervisor has not disabled the **Show RTCP alarm** feature, this field shows:

   Network Audio status: a green background indicates normal operation; a yellow background indicates a network audio error; the NET indicator flashes on a yellow background if the error affects this console;

   Place the pointer over the NET indicator to see the source of the error. Report errors to your supervisor.

   If the supervisor has disabled the **Show RTCP alarm** feature, this field always indicates normal operation, whether there is an error or not.
4. **Clear** button; this button does the following:
   - Clears the system messages in the status bar
   - Clears all channels that are members of an active Multiple Selection
5. The VU (Volume Unit) meter (to indicate signal strength of incoming and outgoing select audio)

   The VU meter is not affected by paging tones generated internally by the MIP 5000 VoIP Radio Console. Paging tones generated by an external pager connected to a USB jackbox, however, cause the VU meter to react as if the tones were valid voice audio.

FIGURE 1-6 STATUS BAR DIAGRAM WITH KEY

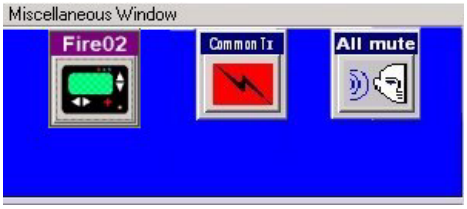
Miscellaneous Window

The Miscellaneous window stores frequently used Radio Channel controls and/or function buttons. This window allows critical resources to be viewed at all times. The supervisor assigns resources to this window.

This window can be positioned anywhere on the main window. The Miscellaneous window floats over the other windows or can be docked within the main window.

If you are unable to view the window, contact the supervisor.

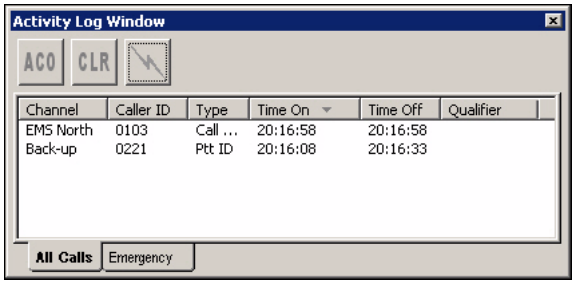
Figure 1-7 Miscellaneous Window



Activity Log Window

The Activity Log window lists all the incoming radio activity for the console as the signals arrive. It also lets you quickly re-establish communications with previous callers by selecting the entry and pressing the **Transmit** button. This window is where you respond to emergency alarms (silence the alarm, acknowledge the call, and clear the emergency).

Figure 1-8 Activity Log Window



A record of all DTMF Selective Calls appears in the Activity log window of every console with access to the channel, including consoles not targeted by the DTMF Selective Call.

Emergency calls or alarms appear in the activity log as red highlighted calls with **Emerg Call** or **Emerg Alarm** listed under the **Type** column.

Four possible tabs separate the activities in this window: **All Calls, Emergency, Select** and **Unselect** lists. If configured, each tab list displays the **Channel**, the **Caller ID (**identification), the **Type** of call, the time the call started (**Time On**), the time the call ended (**Time Off**), and the **Qualifier** for the call. The supervisor determines which tabs and columns are visible. See "Activity Log Window Settings" on page 2-16 for configuration information.

NOTE

The caller ID and the call type for the following categories of mobile radios do not appear in the Activity Log:

- MCS 2000 III
- CDM1550 LS+

The **Caller ID** and **Type** columns remain blank for calls from these radios. Instead, the received identification for these radios appears briefly in the label area of the Radio Channel control each time the mobile operator presses the PTT button.

PTT IDs appear in the Activity Log window for XTL5000 Consolette radios connected to Digital MIP 5000 gateways. Emergency Call and Emergency Alarm call types also appear in the Activity Log window for this model of radio. Both MDC 1200 and ASTRO ID types are supported.

When a PTT ID call originates from an Astro Spectra radio, the Caller ID appears in decimal format in the Activity Log window and in hexadecimal format on the radio itself.

TABLE 1-1 ACTIVITY LOG CALL TYPES

Type	Origin
Ptt ID	PTT ID
Call Alert	Call Alert
Voice Alert	Voice Alert
Selective Call	DTMF Selective Call
Emerg Alarm	Emergency Alarm
Emerg Call	Emergency Call
Acked Emerg	Emergency Alarm or Emergency Call acknowledged by a dispatcher
Clear Emerg	Emergency Alarm or Emergency Call cleared by a dispatcher
Status: XXX	User Status with received status code or ID
Message: XXX	Message with received status code or ID
Vehicle: XXX	Vehicle status with received vehicle ID

Table 1-1 Activity Log Call Types (continued)

Type	Origin
PC Started	Private Call Initiated on MOTOTRBO™ radio connected to gateway or Private Call Initiated on another MOTOTRBO radio not connected to gateway
PC In Progress	Private Call In Progress for MOTOTRBO radio
PC Stopped	Private Call Ended for MOTOTRBO radio
PC Failed	No Acknowledgement of Private Call initiated by MOTOTRBO radio
GC Started	Group Call Initiated on MOTOTRBO radio connected to gateway or Group Call Initiated on another MOTOTRBO radio not connected to gateway
GC In Progress	Group Call In Progress for MOTOTRBO radio
GC Stopped	Group Call Ended for MOTOTRBO radio
Call Alert Sent	Call Alert Initiated on MOTOTRBO radio connected to the gateway
CA Received	Call Alert Initiated on MOTOTRBO radio not connected to the gateway
CA Failed	No Acknowledgement of Call Alert initiated by MOTOTRBO radio
AC Started	All Call Initiated on MOTOTRBO radio connected to gateway or All Call Initiated on another MOTOTRBO radio not connected to gateway
AC Stopped	All Call Ended for MOTOTRBO radio

Qualifier Column for MOTOTRBO Calls

The supervisor can enable the display of the Qualifier column in the Activity Log window for MOTOTRBO radio information.

NOTE

No Qualifier is given for AC Stopped, PC Stopped, PC Failed, GC Stopped, CA Received, Emerg Alarm, and Emerg Call.

NOTE

Table 1-2 shows the following short forms for Call Events: PC (Private Calls), GC (Group Calls), and AC (All Calls).

TABLE 1-2 MOTOTRBO ACTIVITY LOG EVENTS IN DIGITAL MODE WITH QUALIFIERS

Event Origin	Caller ID Column	Type Column	Time On/Off Columns	Qualifier Column
		Call Events		
Start of incoming private/group/all call	Caller ID or Alias	PC Started AC Started	Time On = Time Off	<
		GC Started	Time On = Time Off	< Group ID (no aliasing)
Incoming private/ group call in progress	Caller ID or Alias	PC In Progress GC In Progress	Time On != Time Off Time Off is displayed when the remote subscriber releases the PTT button	<
Start of outgoing private/group/all call	Console Name	PC Started	Time On = Time Off	> Callee ID or Alias
		GC Started	Time On = Time Off	> Group ID (no aliasing)
		AC Started	Time On = Time Off	>
Outgoing private/ group call in progress	Console Name	PC In Progress GC In Progress	Time On != Time Off Time Off is displayed when the console operator releases the PTT button	>
Private/group/all call ended	N/A	PC Stopped GC Stopped AC Stopped	Time On = Time Off	N/A
Outgoing private call not acknowledged	N/A	PC Failed	Time On = Time Off	N/A
		Call Alert Events		
Incoming call alert received	Caller ID or Alias	CA Received	Time On = Time Off	N/A
Outgoing call alert sent successfully	N/A	CA Sent	Time On = Time Off	Callee ID or Alias
Outgoing call alert sending failed	N/A	CA Failed	Time On = Time Off	Callee ID or Alias

Table 1-2 MOTOTRBO Activity Log Events in Digital Mode with Qualifiers (continued)

Event Origin	Caller ID Column	Type Column	Time On/Off Columns	Qualifier Column
		Emergency Events		
Incoming emergency alarm	Caller ID or Alias	Emerg Alarm Acked Emerg Clear Emerg	Time On = Time Off	N/A
Incoming emergency call	Caller ID or Alias	Emerg Alarm Acked Emerg Clear Emerg	Time On = Time Off	N/A

The Activity Log window can be positioned anywhere on the MIP 5000 VoIP Radio Console screen. The Activity Log window can float over the other windows or be docked within the main window.

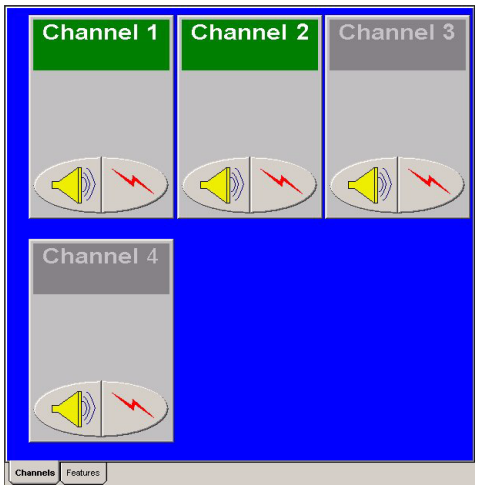
The supervisor can configure what appears in the Activity Log window.

If you are unable to view the window, contact the supervisor.

MULTIPLE TAB WINDOW

The Multiple Tab window consists of multiple pages with labeled tabs at the bottom. Each tabbed page holds buttons and controls that have been placed there by the supervisor. Clicking a tab makes the page it is attached to active, giving you access to the features and functions stored on that page. The tabs lets the supervisor arrange buttons and controls by task or frequency of use. This is the only window that cannot be removed from the main program window.

FIGURE 1-9 MULTIPLE TAB WINDOW



The Miscellaneous and Multiple Tab windows hold the majority of the functions that allow you to control all communications. If a resource is on multiple tabs, each resource on each tab shows the activity on that resource.

TAB INDICATORS

The tabs visible at the bottom of the Multiple Tab window can be set to change color when a call arrives on a radio channel whose control is on a tabbed page that is not currently visible. For an emergency radio call, the tab turns red and an aid symbol appears.

FIGURE 1-10 TAB INDICATORS

Information Window

The Information Window contains the default Page History window and the Radio Text window, which is available only for MOTOTRBO channels.

Page History Tab

The Page History tab logs all the pages sent from this console. This window contains the following information about the paged calls: type, paging format, code, radio channel involved in the page, frequency of the radio channel, status of the page, voice annotation and duration of the page.

If a page includes voice annotation, there is an entry for the sent page followed by an additional entry for the voice annotation. A voice annotation entry has “Voice Ann” in the **Type** column while the other columns contain no information. For page lists, an entry appears for each page in the list, but if there is voice annotation associated with any of the pages, only one voice annotation entry appears at the end after all of the pages are sent.

An asterisk beside a page in the **Type** column indicates that this page was sent with a **Single Page** button.

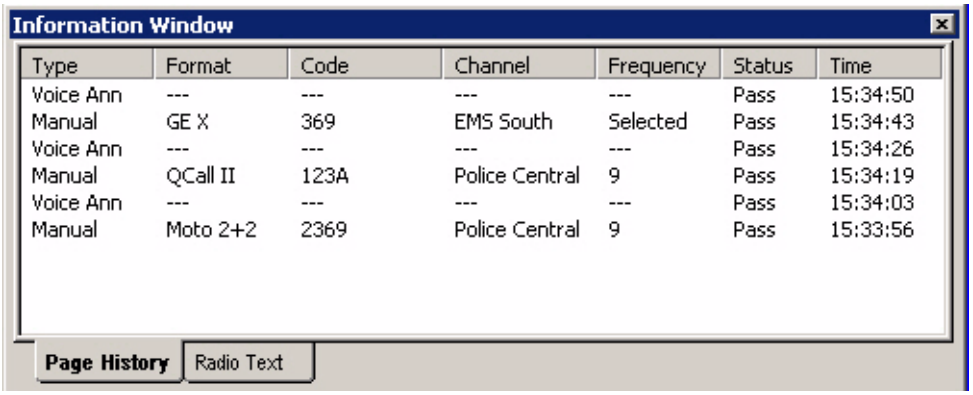
Successful pages appears in the Page History tab as black text with **Pass** under the **Status** column; pages that are not successfully transmitted appear in the Page History window in red text with **Fail** under the **Status** column.

The Page History tab can be positioned anywhere on the MIP 5000 VoIP Radio Console main window. The Page History tab can float over the other windows or be docked within the main window.

If you are unable to view the window, contact the supervisor.

Page history records for each day are stored in a text file named *yyyymmdd*.PHF, where *yyyy* is the four-digit year, *mm* is the two-digit month, and *dd* is the two-digit day of the month. The page history file can be viewed with Notepad or any word processing program. A new file is started each day at midnight. There is no practical limit to the number of page history files that can be stored.

Figure 1-11 Page History Tab



RADIO TEXT TAB

The Radio Text tab displays a channel's control head text from an associated MOTOTRBO Radio Channel control.

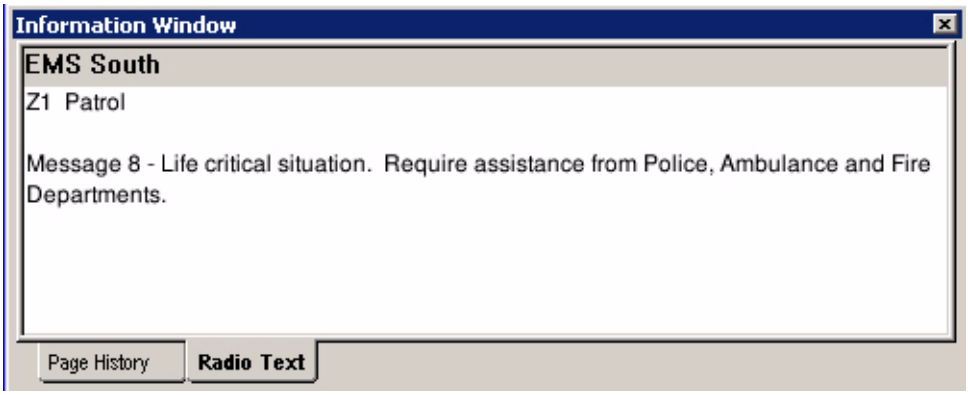
After you have activated reception of the radio text (by dragging and dropping the Radio Channel control into the Radio Text tab), the tab automatically updates with new text as it arrives, whether or not the particular MOTOTRBO Radio Channel control is selected. Special characters displayed in the radio control head appear in the Radio Text window.

NOTE

For a description of the special characters, see "MOTOTRBO Special Characters" on page 1-26.

To activate display of the text, you drag and drop the MOTOTRBO Radio Channel control to the Information Window. The Radio Text tab opens automatically. The association between the Radio Text tab remains until the channel is unmapped, a configuration file is loaded, or the radio text tab is removed. The Radio Text tab displays MOTOTRBO control head text only.

FIGURE 1-12 RADIO TEXT TAB

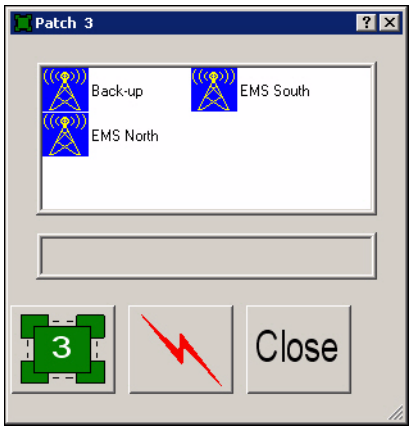


PATCH WINDOW

A Patch window lets you group together a set of Radio Channel controls and/or a Call Director control so all parties on the radio channels and/or that Call Director in the patch can hear and speak to each other. A patch can be thought of as a kind of conference call. Up to 16 channels or Call Director calls can be included in a patch.

You can add Radio Channel controls and a Call Director control, activate, transmit and clear a patch. MIP 5000 supports one Patch window without memory (Patch w/o M) and 10 Patch windows with memory (Patch #, where # can be a number from 1 to 10). A deactivated Patch with memory retains its channels after it has been activated. A deactivated Patch without memory does not retain its patches after reactivation.

FIGURE 1-13 PATCH WINDOW

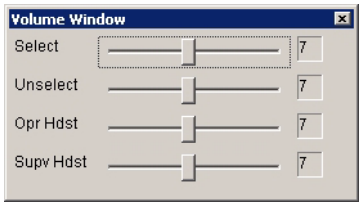


VOLUME WINDOW

This window allows you to adjust the select, unselect and headset ear piece speaker volumes. This window can be left floating on your main window or docked alongside or between other windows, depending on how your screen has been configured by the supervisor.

With the volume controls available on the main window, you can adjust volume levels at any time.

FIGURE 1-14 VOLUME WINDOW



NOTE

The Volume Window has no effect on headsets with built-in automatic gain control (AGC). Use the controls on these headsets to change the volume.

AGC maintains the sound volume at a predefined level, canceling any increase in alarm tone volume through the Escalert feature on MOTOTRBO radios.

To change the volume of a speaker, select the slider for that speaker and drag it left or right. Moving the slider to the right increases the volume, moving it the left reduces the volume. The number to the right of the slide control shows the associated numeric volume level (0 - 15).

NOTICES

When MIP 5000 VoIP Radio Console has important information to communicate to you, it displays a notice in the middle of the screen.

The following notices can appear:

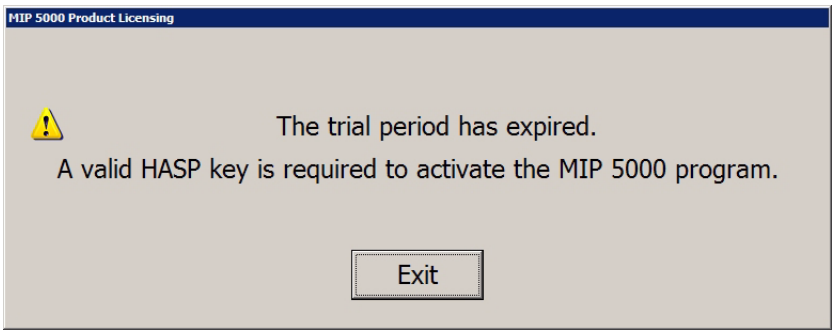
- MIP 5000 HASP Key
- Jackbox Upgrade

MIP 5000 HASP KEY

When first started, the MIP 5000 VoIP Radio Console program is able to run for a 30-day trial period without being licensed. During the trial period a console can access up to 24 channels, depending on the number of channels in the system. The current status of the MIP 5000 license can be seen on the **About** dialog box.

A HASP key is required to license the number of channels required. A HASP key is a security dongle that plugs into a USB port. If no HASP key is present after the trial period, the notice below appears and you are prevented from logging in. If you see this notice on your console, contact your Supervisor.

FIGURE 1-15 MIP 5000 HASP KEY NOTICE — TRIAL PERIOD HAS ENDED

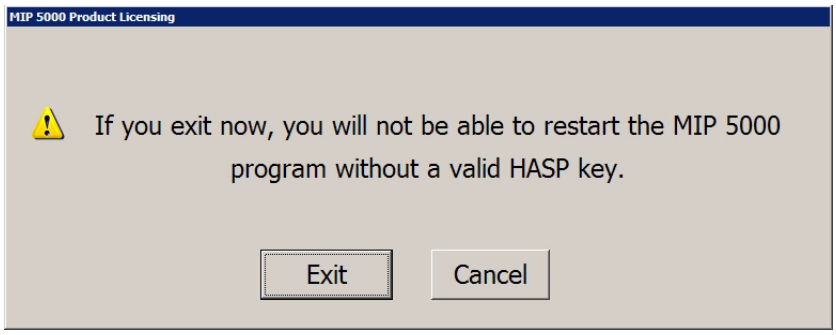


If the HASP license manager service does not respond in the time allotted, the notice below appears and you are prevented from logging in.

FIGURE 1-16 MIP 5000 HASP KEY NOTICE — LICENSE NOT AVAILABLE

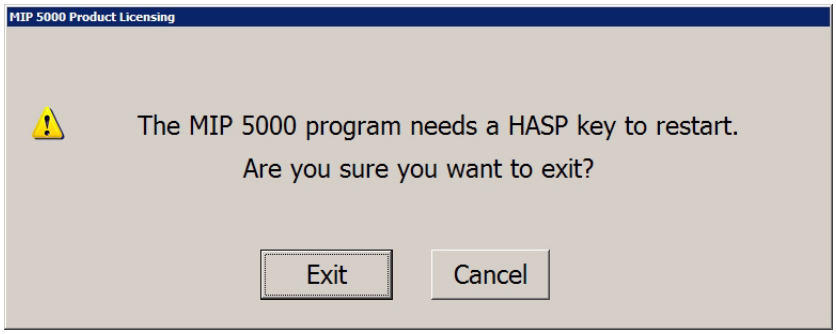
If the HASP key is removed, a 10-day grace period allows the console to run until the HASP key can be replaced. The grace period ends immediately if you exit the program. The notice below appears when you try to exit the MIP 5000 VoIP Radio Console program any time after the HASP key has been removed.

Figure 1-17 MIP 5000 HASP Key Notice — Exit while HASP Key Removed



You can click **Cancel** to return to the login screen. If you click **Exit** to close the program, a second warning appears, as shown below.

Figure 1-18 MIP 5000 HASP Key Notice — Exit No HASP Key Final Warning



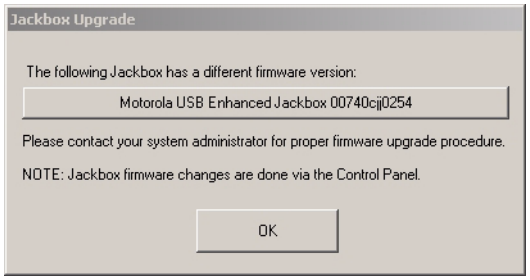
If you click **Exit**, the 10-day grace period that follows removal of the HASP key ends and the MIP 5000 VoIP Radio Console program can only be restarted after a valid HASP key has been inserted.

Jackbox Upgrade

The firmware in a USB jackbox can be set up for upgrade while in service. If a jackbox connected to your console finds a firmware upgrade on your console, it displays a **Jackbox Upgrade** notice.

If you see the following notice on your console, contact your supervisor or the system administrator.

FIGURE 1-19 MIP 5000 USB JACKBOX UPGRADE NOTICE



Click **OK** to close the notice.

RADIO CHANNEL CONTROL

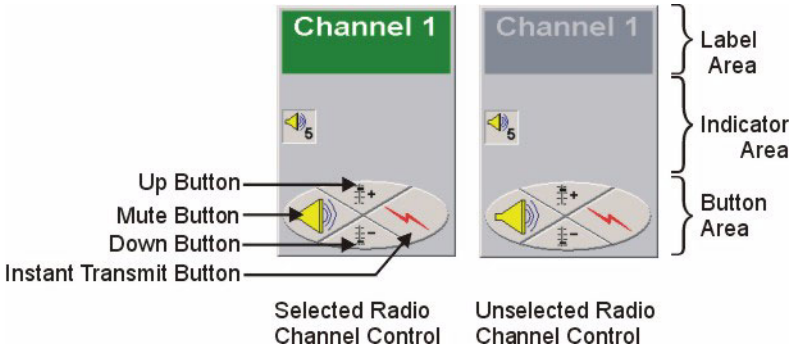
In the MIP 5000 VoIP Radio Console, each Radio Channel control represents one console audio channel. The control lets you manage the use of a radio channel with buttons and indicators, which enable you to make common channel adjustments and to monitor the status of the radio channel. The mobile and MOTOTRBO controls also have a keypad. The MIP 5000 VoIP Radio Console program contains the following types of Radio Channel controls:

- Analog Radio Channel control
- Mobile Radio Channel control
- MOTOTRBO Radio Channel control

The program can have up to 24 Radio Channel controls, depending on the software license purchased.

The Radio Channel control contains the buttons and indicators for the associated radio channel. It demonstrates the more common channel feature/function adjustments and lets you monitor the radio channel status.

FIGURE 1-20 RADIO CHANNEL CONTROL LAYOUT



Only one radio channel per console audio channel can be selected at a time (unless you have multi-selected channels or multiple channels in a patch). A Radio Channel control can appear in more than one place in the console user interface, but each instance represents the same radio channel.

It is only possible to select frequencies (radio channels) installed on the base station(s) connected to the specific console audio channel, and only one radio channel frequency per audio channel can be active at a time. All transmit, receive, and monitor functions apply to the frequency, or frequencies, of the selected radio channel. Although the console is capable of full-duplex operation, the configuration of the base station channel, as simplex, half-duplex or full-duplex (different transmit and receive frequencies), determines whether the console can transmit and receive at the same time.

Most of the areas of the Radio Channel control are configurable. The features/functions and frequencies of the Radio Channel control are initially set through the CSDM (so if a feature is not available to you, it might not have been set at the CSDM). From the console, you can choose from the available features/functions and assign frequency, button, and indicator aliases through the console. A supervisor sets up and configures channels using commands available only to supervisors.

Types of Radio Channels and Controls: Analog, Mobile, and MOTOTRBO

Radio channels controlled using Local MIP 5000 gateways and Tone MIP 5000 gateways are sometimes referred to as “analog” channels because the signaling (tone codes, for example) used to control them is continuous in nature. Radio channels controlled using Digital MIP 5000 gateways are sometimes referred to as “mobile” radios because the digital signals used to control them are transmitted by a mobile radio set rather than a base station.

Analog channels offer a smaller range of commands to dispatchers than digital channels, and this range is practically the same from one base station to the next. A single type of Radio Channel control is able to serve for both tone-controlled and local-controlled base stations.

Mobile channels can provide a greater range of commands to dispatchers, and the selection of commands vary from one model of mobile radio to another. To accommodate this variability, the Radio Channel control for mobile radio channels acts, to a certain degree, as an imitation of the control head of a mobile radio. All the buttons available on a control head and all the indicators that can be displayed on a control head are reproduced in simplified form on the Radio Channel control. A supervisor is able to apply aliases to the buttons and indicators that appear on the Radio Channel control so that they have the same names as those on the control head.

The MOTOTRBO gateway is controlled using a unique MOTOTRBO signaling type. The MOTOTRBO Radio Channel control reproduces the control head of the MOTOTRBO radio, enabling the console user to perform virtually all the same tasks as radio users. MOTOTRBO radio channels receive and transmit on both analog and digital radio frequency channels. As a result, the MOTOTRBO shortcut menus and indicators are unique to MOTOTRBO radios.

The three types of Radio Channel controls differ in the following respects:

Analog Radio Channel Controls	Mobile Radio Channel Controls	MOTOTRBO Radio Channel Controls
• Standardized shortcut menu	• Shortcut menu varies by radio model	• MOTOTRBO radio-specific shortcut menu
• Standardized indicators	• Indicators vary by radio model	• MOTOTRBO radio-specific indicators
• Maximum of two rows in label area	• Maximum of three lines in label area	• Maximum of three lines in label area

RADIO CHANNEL CONTROL COMPONENT DESCRIPTIONS

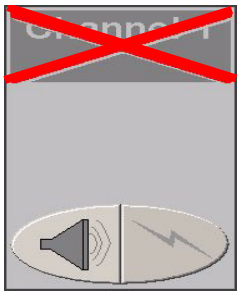
LABEL AREA

The label area at the top of the Radio Channel control, uniquely identifies the name of the radio/channel, the frequency (radio channel), status and the caller unit identification number (or Alias if available)/MDC message. The analog Radio Channel control has a two row label area, in which each row contains two lines. If the available information for a channel does not require all four lines, the information display is resized to accommodate the actual number of lines. For example, two lines are shown using a larger font that occupies two lines; three lines are shown as one line with a larger font and two lines with smaller fonts.

Each multi-frequency channel can be configured at the CSDM with up to 16 frequencies. A supervisor can also assign frequency names (aliases) in the program.

When a Radio Channel control that is mapped to a console fails, it appears dimmed and a red X appears in the label area of the Radio Channel control. When the Radio Channel control is reactivated or the failure is corrected, the Radio Channel control returns to its normal state.

FIGURE 1-21 FAILED RADIO CHANNEL CONTROLS



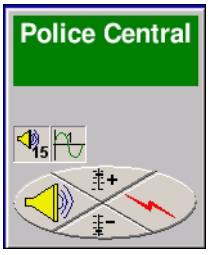
ANALOG RADIO CHANNELS

The analog Radio Channel control has two rows in its label area. Each row can display either one line of full-size text or two lines of half-size text. The radio channel name is displayed in full-size text on the first row whenever there are no inbound transmissions.

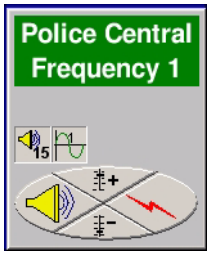
If the channel uses multiple frequencies, the frequency name is displayed in full-size text on the second row whenever there are no inbound transmissions. The channel name of multi-frequency channels and the frequency name are displayed in half-size text whenever a PTT ID is received.

When a PTT ID is received, it is displayed in the second row; over a whole row if no inbound call information (such as status, message number, or call type) is received at the same time. If a text message (such as MDC or STAT-ALERT messaging) is received, the PTT ID is displayed on the first line of the second row at half size. If an inbound call information is received, it is displayed on the second line of the second row.

FIGURE 1-22 ANALOG RADIO CHANNEL CONTROLS — ALL FULL-SIZE TEXT

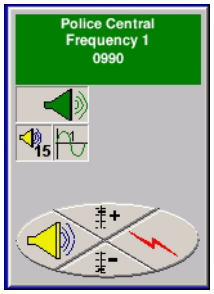


Channel Name only — One Frequency, No PTT ID, No Inbound Call Information

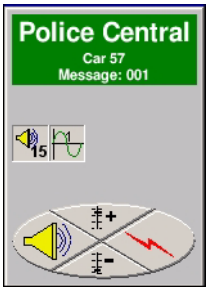


Channel Name and Frequency Name — No PTT ID, No Call Information

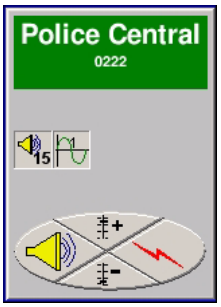
FIGURE 1-23 ANALOG RADIO CHANNEL CONTROLS — WITH HALF-SIZE TEXT



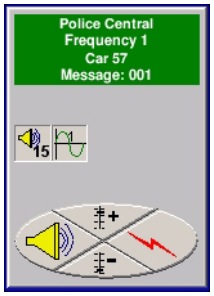
Channel Name and Frequency Name with PTT ID or Caller ID — No Inbound Call Information



Channel Name with PTT ID or Caller ID and Inbound Call Information— One Frequency



Channel Name and PTT ID or Caller ID — One Frequency, No Inbound Call Information



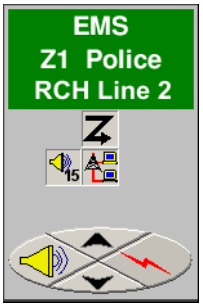
Channel Name and Frequency Name with PTT ID or Caller ID and Inbound Call Information

MOBILE RADIO CHANNELS

The mobile Radio Channel control has three rows if configured with the **Display Channel Name** option. Otherwise, it has two rows. The second and third rows display either text from the mobile radio control head connected to the Digital MIP 5000 Gateway or text sent by the calling subscriber radio, depending on the type of radio and its configuration. When the **Display Channel Name** option is disabled, these items shift up to replace the row that had been used for the channel name.

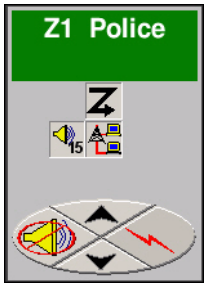
FIGURE 1-24 MOBILE RADIO CHANNEL CONTROLS — WITH DISPLAY CHANNEL NAME

Channel Name with a Single Line of Radio Control Head (RCH) Text from unit connected to gateway

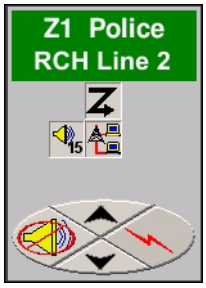


Channel Name with Two Lines of Radio Control Head (RCH) Text from unit connected to gateway

Figure 1-25 Mobile Radio Channel Controls — Without Display Channel Name



Single Line of Control Head Text (RCH) from unit connected to gateway



Two Lines of Radio Control Head text (from subscriber unit) or Control Head Text (from unit connected to gateway)

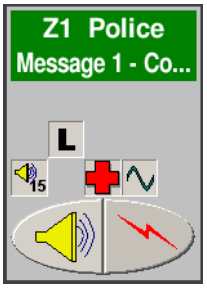
MOTOTRBO Radio Channels

The MOTOTRBO Radio Channel has three rows if configured with the **Display Channel Name** option. Otherwise, it has two rows that displays text from mobile radio control head connected to the MOTOTRBO Gateway.

When the **Display Channel Name** option is disabled, these items shift up to replace the row that had been used for the channel name.

Figure 1-26 MOTORBO Radio Channel Controls — With and Without Display Channel Name

Channel Name with two lines of Control Head Text (from unit connected to gateway)



Two lines of Control Head Text (from unit connected to gateway)

NOTE

Text from the MOTOTRBO radio head text display also appears in the MOTOTRBO keypad and the **Radio Text** tab of the console **Information Window** after the Radio Channel control is dragged and dropped into the tab.

Text displays in MOTOTRBO contain special characters that represent the characters that appear in the radio control head. For a complete list of characters, see "MOTOTRBO Special Characters" on page 1-26.

INDICATOR AREA

The indicator area in the center of the Radio Channel control, has two fixed and eleven configurable indicator spaces. The **Call** and **Transmit** indicator spaces are not configurable.

Many of the function buttons work with the Radio Channel control to activate their entitled function on the selected radio channel. Thus, many of the indicators show the use and status of this Radio Channel control. For example, when a patch is active, a patch indicator appears on the Radio Channel control(s) that is/are involved in the patch.

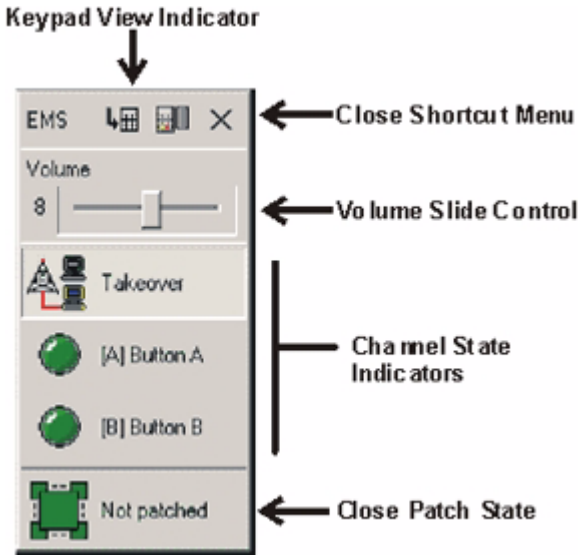
BUTTON AREA

The button area at the bottom of the Radio Channel control provides you with a possible combination of four buttons that allow you to control common radio channel and frequency adjustments. The **Mute** and **Instant Transmit** buttons are not configurable. Some radios types do not have the Up and Down buttons. For radios that have the **Up** and **Down** buttons, a supervisor can assign them to perform many different functions or remove them from the control.

RADIO CHANNEL SHORTCUT MENU

When you click on the indicator area of the Radio Channel control, a shortcut menu appears. The shortcut menu contains the controls specific to the radio. A supervisor can assign or remove controls on the shortcut menu. A Keypad View/Command View indicator in the Close Shortcut Menu area enables you to toggle between the Keypad and list of commands on mobile and MOTOTRBO controls.

Figure 1-27 Radio Channel Shortcut Menu



A channel-specific shortcut menu units allows you, for example, to adjust the channel volume, display the patch state of this radio channel, accesses previous radio callers (Unit ID), plus change and/or enable/disable the various indicators.

NOTE

Activating feature buttons (or commands) can sometimes affect an indicator. The buttons control either MIP 5000, base station or radio features. For further information about buttons, controls, and indicators, see “Buttons, Controls and Indicators” on page 3-1.

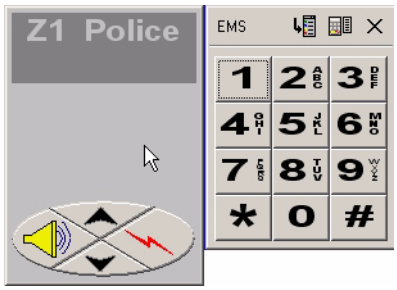
Keypad

MIP 5000 VoIP Radio Console features two types of keypads, depending on the Radio Channel that it is associated with:

- Mobile Keypad
- MOTOTRBO Keypad

Both types are accessible directly from the Radio Channel control Shortcut Menu through the Keypad View toggle button.

FIGURE 1-28 KEYPAD ACCESS



MOBILE KEYPAD

The mobile keypad is a numerical keypad for entering numbers (for instance, unit IDs).

FIGURE 1-29 MOBILE KEYPAD

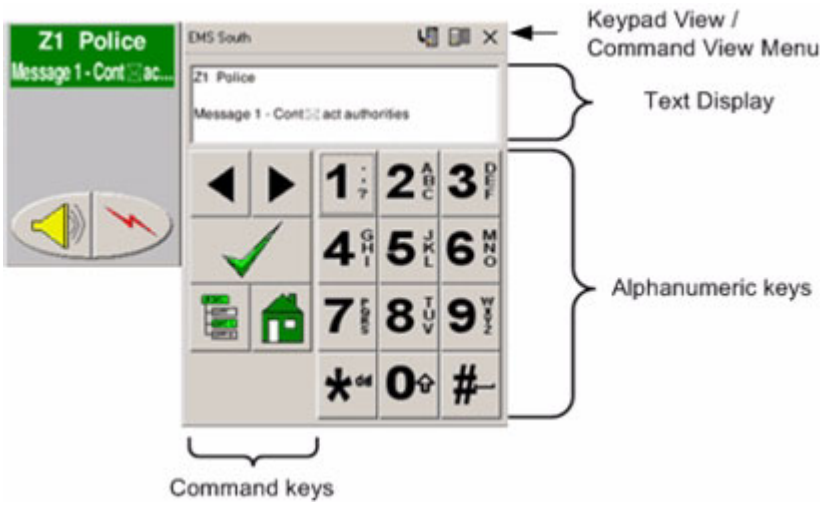
NOTE

The keypad cannot be used to dial telephone numbers.

MOTOTRBO KEYPAD

The MOTOTRBO keypad contains features that enable you to navigate the MOTOTRBO radio menu, enter text messages, and display radio and operator-generated text.

FIGURE 1-30 MOTOTRBO KEYPAD

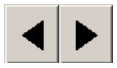


NOTE

Among the alphanumeric keys is the 0 key. A long press on the key puts the Radio Channel control text in CAPS-LOCK mode.

The keypad displays text from the radio control head. The **Left Arrow** and **Right Arrow** command keys enable you to scroll through messages that appear on the radio console display. Although the MOTOTRBO radio supports multiple languages, the appearance of characters from some languages—such as Chinese, Japanese, and Korean—might not be displayed properly in the keypad text display on the console.

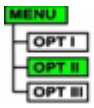
FIGURE 1-31 MOTOTRBO KEYPAD LEFT ARROW AND RIGHT ARROW KEYS



Other command keys enable you to navigate through the Radio Channel control menus and lists in the Text Display:

- The **Menu** key opens a list of high-level menu items that can be navigated using arrow keys on the keyboard.

FIGURE 1-32 MOTOTRBO KEYPAD MENU KEY



- **The OK** key indicator confirms the intended action and enables selection of a sub-menu item.

FIGURE 1-33 MOTOTRBO KEYPAD OK KEY

- The **Back/Home** key returns you to the top of the menu in the MOTOTRBO keypad.

FIGURE 1-34 MOTOTRBO KEYPAD BACK/HOME KEY

NOTE

The commands invoked by the Keypad keys can be configured to appear in the Shortcut menu.

MOTOTRBO SPECIAL CHARACTERS

To accurately display the text from the MOTOTRBO radio console head, the label area of the Radio Channel control reproduces special characters from the control head text display.

TABLE 1-3 MOTOTRBO SPECIAL CHARACTERS AND DESCRIPTIONS

MOTOTRBO Character	Description
	Group Call/All Call
	Private Call
	PC Call
	Dispatch Call

Table 1-3 MOTOTRBO Special Characters and Descriptions (continued)

MOTOTRBO Character	Description
	Sent Successfully
	Send Failed
	In-Progress
	Tick
	Scan 1
	Scan 2
	Contacts (Normal as shown) Selected Contacts appear in brackets [ ] Disabled Contacts appear with a diagonal bar \ through image
	Scan (Normal as shown) Selected Scan appear in brackets [ ] Disabled Scan appear with a diagonal bar \ through image
	Zone (Normal as shown) Selected Zone appear in brackets [ ] Disabled Zone appear with a diagonal bar \ through image
	Messages (Normal as shown) Selected Messages appear in brackets [ ] Disabled Messages appear with a diagonal bar \ through image

TABLE 1-3 MOTOTRBO SPECIAL CHARACTERS AND DESCRIPTIONS (CONTINUED)

MOTOTRBO Character	Description
	Call Log (Normal as shown)
	Selected Call Log appear in brackets [ ]
	Disabled Call Log appear with a diagonal bar \ through image
	Utilities (Normal as shown)
	Selected Utilities appear in brackets [ ]
	Disabled Utilities appear with a diagonal bar \ through image

Accessing the Radio Channel Control Shortcut Menu

Use this procedure to access the Radio Channel control shortcut menu:

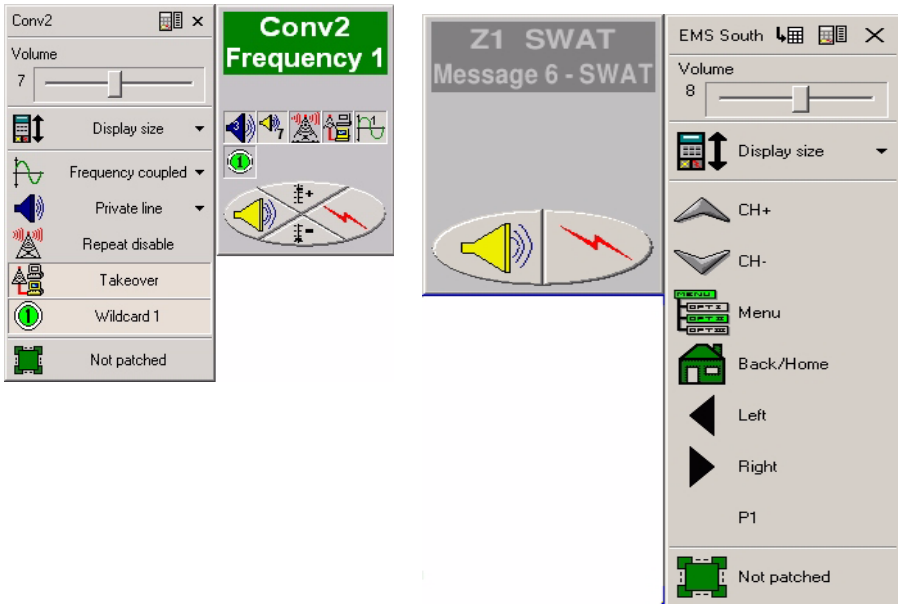
Procedure 1-1 How to Access the Radio Shortcut Menu

1 Choose the channel state indicator area on the Radio Channel control.

OR

Use SHIFT + F10 on your keyboard when the focus is on this channel.

Result: The radio shortcut menu appears.



Note

Features/functions are only available on radio channels that have been enabled at the CSDM. However, their availability also depends on the type of radio channel and mobile model.

Adjusting the Radio Channel Volume (Shortcut Menu)

To adjust the volume for this radio channel, use the volume slide control located at the top of the Radio Channel shortcut menu or, if configured, the **Up/Down** volume buttons on the Radio Channel control. See "Increasing and Decreasing the Radio Channel Control Volume" on page 2-27 for the procedure.

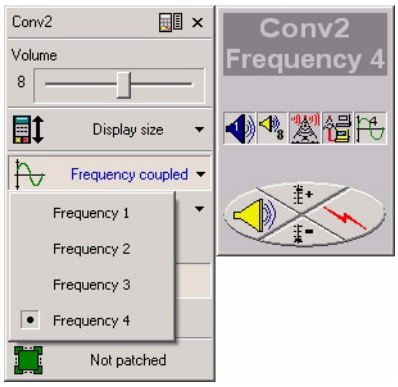
ACTIVATING RADIO CHANNEL CONTROL FEATURES (SHORTCUT MENU)

Follow this procedure to adjust the channel features available on the Radio Channel shortcut menu:

PROCEDURE 1-2 HOW TO CHANGE RADIO CHANNEL FEATURES (SHORTCUT MENU)

1 Access the Radio Channel control shortcut menu.

2 If a feature has a drop down menu associated with it, a down arrow appears beside the feature name. Choose the desired feature's down arrow to access the drop down menu and choose the desired option from the list. The option is now activated.



OR

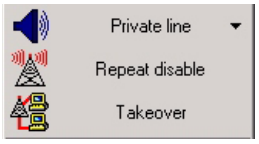
To enable/disable features choose the name area of the desired indicator:

2.1 If the name area is depressed, this indicates that this feature is active (enabled). On some features, the shortcut menu indicator changes to reflect the features state.

This feature appears in the status area of the Radio Channel control.

Procedure 1-2 How to Change Radio Channel Features (Shortcut Menu)

2.2 If the name area is not depressed (appears normal), this indicates that this feature is *not* active (disabled).



This feature's indicator is removed from the status area of the Radio Channel control; plus on some features, the shortcut menu indicator also changes to reflect the feature's new state.

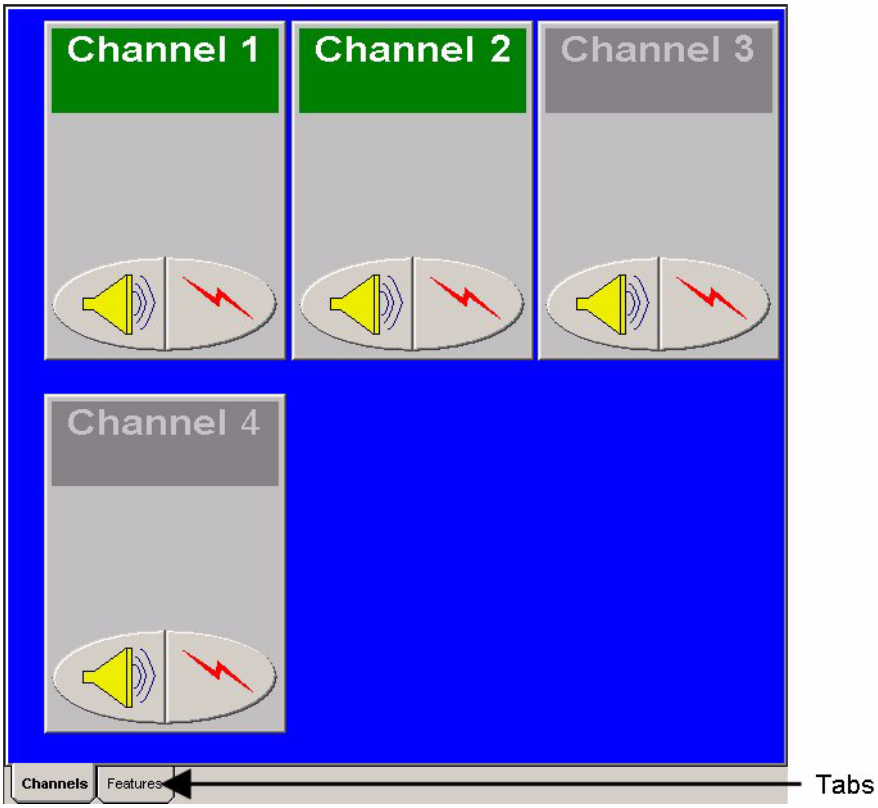
USING MIP 5000 WINDOWS

The main window types in the MIP 5000 VoIP Radio Console are:

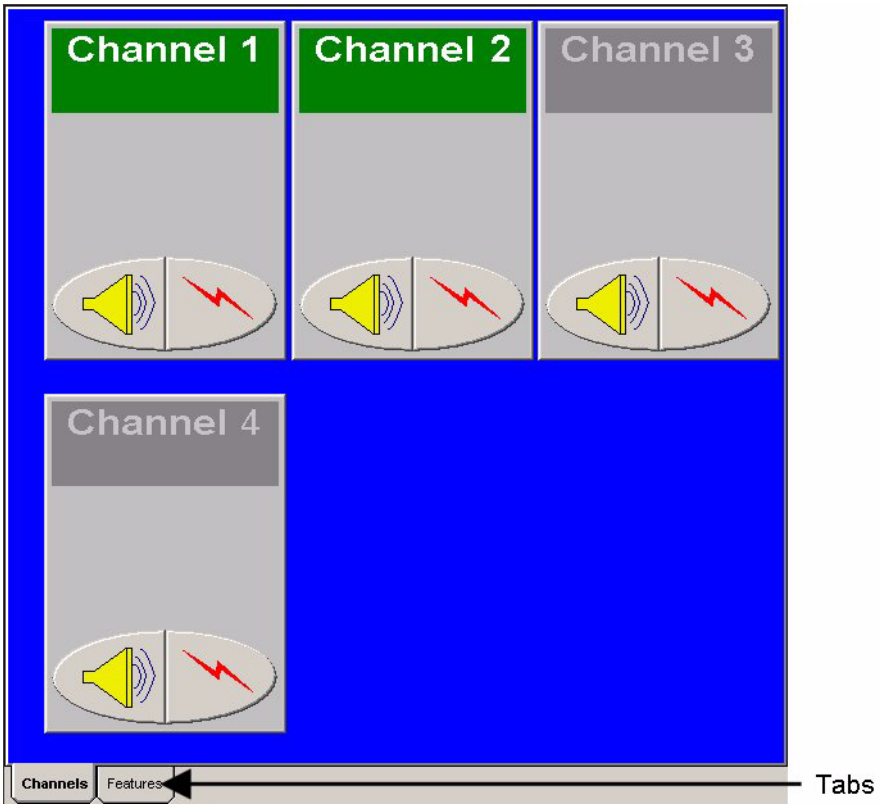
- Miscellaneous window
- Activity Log window
- Multiple Tab window
- Information Window
- Volume window

PROCEDURE 1-3 HOW TO HIGHLIGHT AND ACTIVATE MIP 5000 WINDOWS

1	To activate any type of window, click a blank area on the window.
2	To choose a single tab in the Multiple Tab window, click the desired tab, located at the bottom of the screen.
3	The text on the tab at the bottom of the window identifies the window's state: • If the window is active and the current focus, the tab text becomes bold • If the window is inactive or not the focus, the tab text is normal



1	To activate any type of window, click a blank area on the window.
2	To choose a single tab in the Multiple Tab window, click the desired tab, located at the bottom of the screen.
3	The text on the tab at the bottom of the window identifies the window's state: • If the window is active and the current focus, the tab text becomes bold • If the window is inactive or not the focus, the tab text is normal



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CHAPTER 2

USING THE CONSOLE

The Motorola MIP 5000 VoIP Radio Console lets you perform specific tasks. The tasks include:

NOTE

This document assumes that you already know Microsoft Windows. This document does not repeat the general operation of the Windows user interface that is described in your Windows documentation.

NOTE

Features and functions of the Motorola MIP 5000 VoIP Radio Console system can be enabled or disabled depending on the specific needs of your system, as determined by the supervisor and the console system database manager. Check with the supervisor to see what is available on your system.

NOTE

Labels for Radio Channel controls and other screen features are configurable and might not appear exactly as illustrated in this section.

GETTING STARTED

This section describes what you need to know to start and end a session with the MIP 5000 VoIP Radio Console. Included are:

STARTING THE PROGRAM

Normally, the MIP 5000 VoIP Radio Console program is up and running with the login screen waiting for you to log in. If this is not the case, start the MIP 5000 VoIP Radio Console program from Windows as described below.

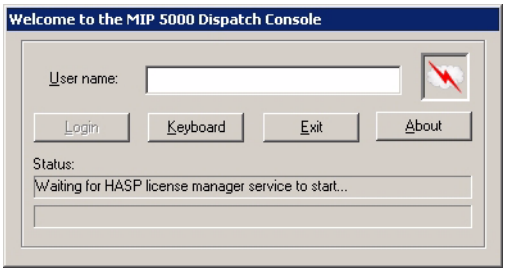
PROCEDURE 2-1 HOW TO START THE CONSOLE PROGRAM

1 Click the Windows **Start** button and select **Programs > Motorola > MIP 5000 > Console**.

OR

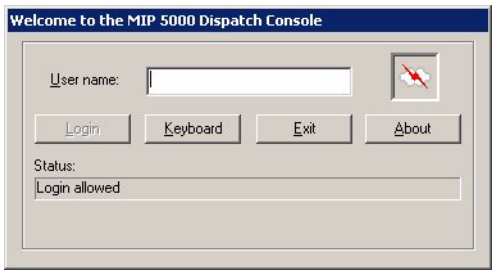
Double-click the **MIP 5000 VoIP Radio Console** shortcut on your desktop.

Result: The **Welcome** dialog box appears. You might need to wait for the HASP license manager service to start before you can log in. If the HASP license manager service does not respond, a message appears. See "MIP 5000 HASP Key" on page 1-14 for more information.



Procedure 2-1 How to Start the Console Program (continued)

2 When the HASP license manager has started, the program prompts you to log in.



3 If you see the following warning message instead of the login dialog box, notify your supervisor that the HASP key for this console is missing.

Logging In

Log in to the MIP 5000 VoIP Radio Console as described below.

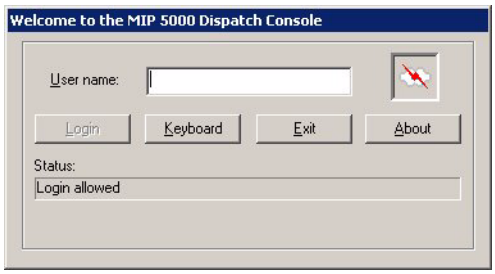
Procedure 2-2 How to Log In

1 If your system does not include a keyboard, click the **Keyboard** button.

Result: A software version of the keyboard appears. You can use either the standard computer keyboard or the software version to type your user name. On the software keyboard, point and click a key to type the corresponding character.

PROCEDURE 2-2 HOW TO LOG IN (CONTINUED)

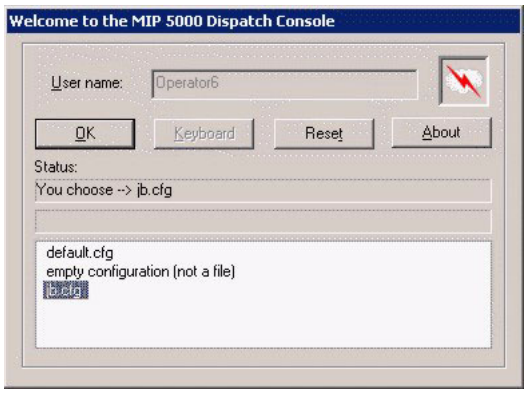
2 In the **User name** text box, type your user name (up to 12 alphanumeric characters).



If an error occurs during your log in, a second Status area (error status) appears below the **Status** area, to inform you of the error.

NOTE

You can log in with a new user name (type user name and click **Login**). The login dialog box displays a **Reset** button and a list of configuration files. You choose a configuration file that will automatically load whenever you log in with that user name.



3 Click the **Login** button.

OR

Press the **Enter** key on your keyboard.

Result: The MIP 5000 VoIP Radio Console program begins.

NOTE

The first time that you log in, a dialog box appears from which you choose the configuration file that you want to load.

NOTE

The last configuration file open and saved with the same user name is the configuration file that loads on subsequent logins.

Loading a New Configuration

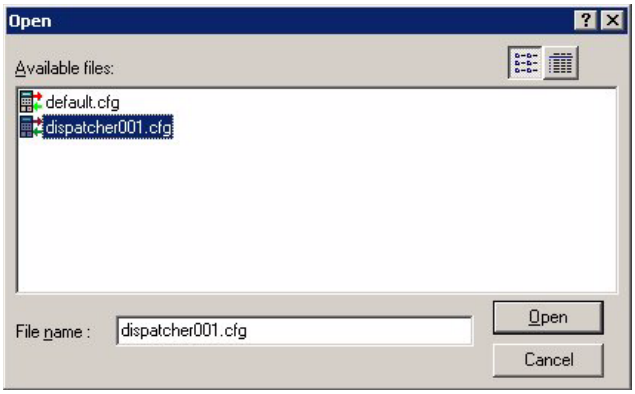
Once you are logged in (with either the default or a previously loaded configuration), you can change to another saved configuration at any time. The supervisor might have created a number of customized configuration files for you to chose from.

Different configuration files might, for example, make different sets of channels available at the console. Consult your supervisor for information on the configurations available and the circumstances under which they are to be used.

Procedure 2-3 How to Load a New Configuration

1 Choose **Load Configuration** from the **Console** menu.

Result: The **Open** dialog box appears.



NOTE

Files are stored in a pre-determined location (no browsing).

2 Choose the desired configuration from the **Available Files** list.

3 To load the chosen configuration, either double-click your choice or click **Open**.

Result: You return to your main screen and the chosen configuration loads.

This can take a few moments depending on the complexity of the configuration.

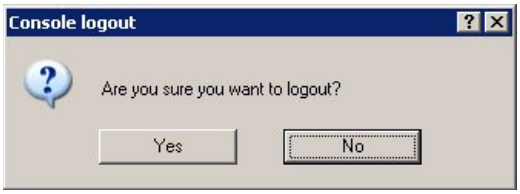
LOGGING OUT

You can log out of the MIP 5000 VoIP Radio Console program, which is different from quitting the program. Logging out closes the current session but does not stop the program from running. To exit the program, see "Exiting the Program" on page 2-8.

PROCEDURE 2-4 HOW TO LOG OUT

1 Choose **Logout** from the **Console** menu.

Result: The **Console logout** dialog box appears asking if you are sure that you want to log out.



OR, if you made changes to your program settings, go to step 3.

2 Click **Yes** to log out.

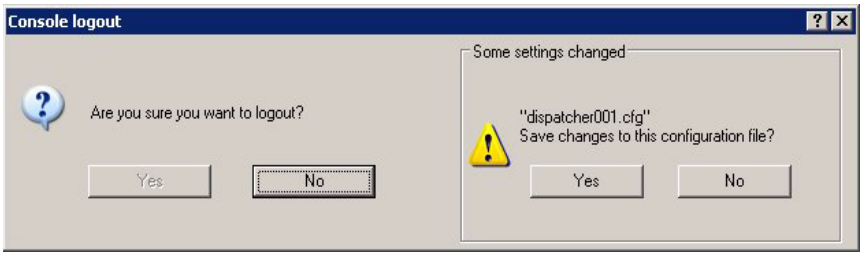
Result: The **Login** dialog box appears.

OR

Click **No** to remain in your current session.

Result: The **Console logout** dialog box closes.

3 If you made changes to your program settings (for example speaker volume) a **Some settings changed** area appears asking if you want to save the console configuration file.



Procedure 2-4 How to Log Out (continued)

4 Under **Some settings changed**:

Click **Yes** to save your changes.

OR

Click **No** to continue with your log out process without saving your changes, then skip to step 6

NOTE

You must make a choice or you cannot continue with the log out process.

Result: If you click **Yes**, the **Save As** dialog box appears.

5 Keep the same file name or type a new file name and click **Save** to save the configuration file.

Result: If you kept the same file name, you must click **Yes** to confirm replacement of the existing file. The **Yes** button on the **Console logout** dialog box becomes active.

6 Click **Yes** to log out.

Result: The **Login** dialog box appears.

OR

Click **No** to remain in your current session.

Result: The **Console logout** dialog box closes.

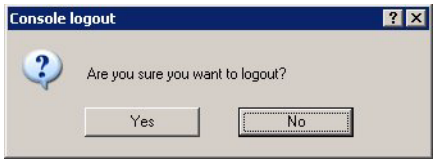
EXITING THE PROGRAM

Usually, you do not exit the MIP 5000 VoIP Radio Console program, but you log out, leaving the log in dialog box displayed. (See “Logging In” on page 2-3).

PROCEDURE 2-5 HOW TO LOG OUT AND EXIT THE MIP 5000 VOIP RADIO CONSOLE PROGRAM

1 Choose **Logout** from the **Console** menu.

Result: A dialog box appears asking if you are sure that you want to log out.

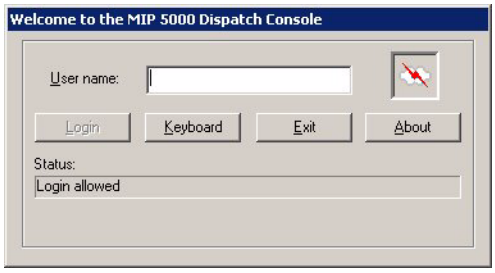


NOTE

You cannot use the **Close** button (the box with an X at the upper right of the MIP 5000 VoIP Radio Console window) or ALT+F4 to exit from the program, as it is disabled.

2 Click **Yes** to log out.

Result: The log in dialog box appears.



3 Choose the **Exit** button to completely close the MIP 5000 VoIP Radio Console program.

Basic Radio Operations

Basic radio operations include:

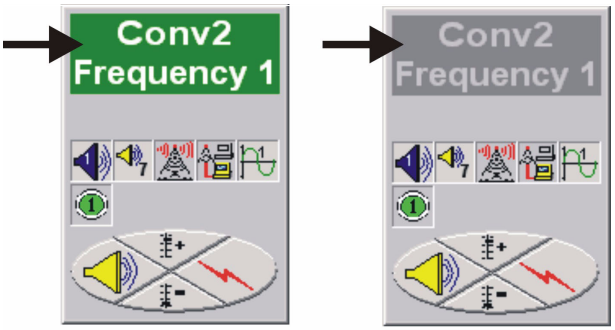
SELECTING A RADIO CHANNEL

When you choose a radio via a Radio Channel control, you receive its audio on the select speaker or the operator headset(s). Each Radio Channel control represents one gateway connected to one radio channel. In the normal mode of operation (that is, when no patch or multiple selection is active), there is always one radio channel selected.

PROCEDURE 2-6 HOW TO SELECT A RADIO CHANNEL

1 Click the label area of the desired Radio Channel control.

Result: The Radio Channel control label changes color to indicate that the radio is selected. The control border is highlighted when the radio is first selected to indicate that the radio is in focus. The radio remains selected even when it is no longer in focus, that is, the Radio Channel control is still selected when you are on another tab in the Multiple Tab window.



Selected Radio Channel Control

Unselected Radio Channel Control

NOTE

Colors are configurable.

PROCEDURE 2-7 HOW TO "UNSELECT" A SELECTED RADIO CHANNEL

1 Click the radio channel label area on a Radio Channel control other than the currently selected one.

Result: The previously selected Radio Channel control label changes its color to indicate that the radio is unselected.The currently selected Radio Channel control label changes its color to indicate that the radio is selected.

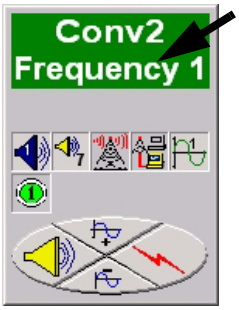
Selecting a Radio Channel Frequency

For channels configured with multiple frequencies, you must choose one of the radio frequencies to use for communication. The current or selected frequency appears on the Radio Channel control. The MIP 5000 VoIP Radio Console supports up to 16 frequencies per multi-frequency radio channel.

There are two ways to choose the radio channel frequency:

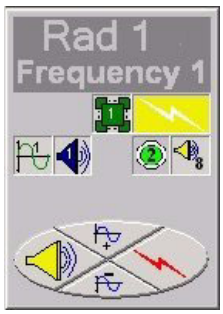
- Using the Radio Channel shortcut menu
- Using the **Up/Down** frequency buttons in the button area of the Radio Channel control (if configured)

Figure 2-1 Example of the Radio Channel Frequency



Note

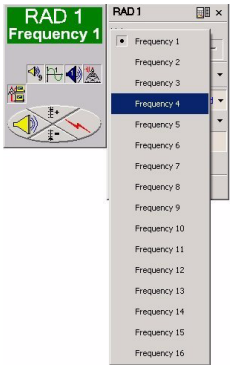
You cannot change any radio channel (frequency) while any console is transmitting on the channel. A yellow transmit indicator, as shown below, is visible when another console is transmitting on the channel. You must retry after the transmission is completed.



PROCEDURE 2-8 HOW TO SELECT RADIO CHANNEL FREQUENCY (SHORTCUT METHOD)

1 Access the Radio Channel control shortcut menu. (Choose the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.)

Result: The Radio Channel control shortcut menu appears.The shortcut list contains the available frequencies, including the frequency aliases, if configured.



2 From the Radio Channel control shortcut menu, choose the **Frequency** drop-down menu.

3 From the **Frequency** drop-down menu, choose from the available multi-frequency channels. (If configured on your system, one to 16 multi-frequencies are available.)

Result: The Radio Channel control shortcut menu remains open until you choose the **Close** (X) button (top right of shortcut menu) or until you click on another area of the main screen. The **Frequency** indicator on the radio channel indicator area changes to reflect the new radio channel (frequency). In addition, on revisiting the **Frequency** drop-down menu, a dot appears beside the chosen frequency.

Procedure 2-9 How to Select Radio Channel Frequency (Button Method)

1 If configured, use the **Up/Down** buttons in the button area of the Radio Channel control to adjust the radio channel (frequency). Use the **Up (+)** frequency button to move the radio channel (frequency) up in the list or use the **Down (-)** frequency button to move the radio channel (frequency) down in the list of available frequencies.

Result: If the **Frequency** indicator is present in the indicator area of the Radio Channel control, it reflects the change in radio channel (frequency), along with the frequency name/alias on the Radio Channel control. In addition, on viewing the **Frequency** drop-down menu, a dot appears beside the chosen frequency.

SELECTING TRANSMISSION TARGETS ON MOTOTRBO CHANNELS

A MOTOTRBO channel offers different ways of selecting the target of a transmission before you transmit audio or a Quick Text message.

- One Touch Call— Directly initiates a predefined Private Call, Group Call, a Call Alert, or a Quick Text message. See "How to Transmit Audio Using a One Touch Dial" on page 2-14 and "How to Transmit Quick Text—One Touch Dial" on page 2-15.
- Contacts List — Directly initiates a Private Call, Group Call, or All Call from the Contacts List. See "How to Transmit Audio Using the Contacts List" on page 2-17.
- Manual Dial — Directly initiates a Private Call, Radio Check, Remote Monitor, Call Alert, or Radio Enable or Disable from the Keypad. See "How to Transmit Using Manual Dial" on page 2-18.

The One Touch Call button is a programmable button on the MIP 5000 VoIP Radio Console. Contact your supervisor about its availability.

NOTE

For information about transmitting on a channel, see "Transmitting on a Radio Channel" on page 2-19.

USING THE ONE TOUCH CALL

The One Touch Call button is a pre-programmed shortcut command mapped to one pre-defined subscriber alias or subscriber ID and call type, such as a Private Call, Group Call, or Call Alert. Clicking a shortcut command (Mic No-Dot, Mic 1-Dot, 2-Dot, P1-P4) the call associated with the One Touch Call button. Contact your supervisor about whether a shortcut command button is mapped directly to a pre-defined contact.

You can also send a Quick Text message using a One Touch Dial command. The text is pre-programmed in the command but can be edited before transmission. See "How to Transmit Quick Text—One Touch Dial" on page 2-15.

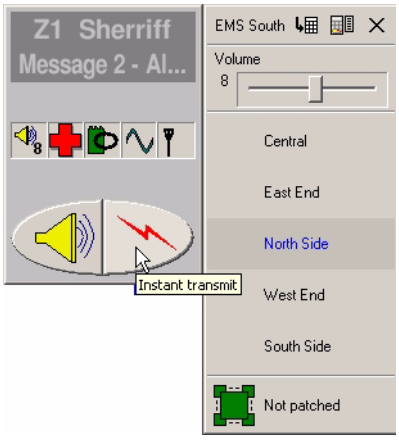
PROCEDURE 2-10 HOW TO TRANSMIT AUDIO USING A ONE TOUCH DIAL

1	Access the MOTOTRBO Radio Channel control shortcut menu. (Choose the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.)

Procedure 2-10 How to Transmit Audio Using a One Touch Dial

2 From the Radio Channel control shortcut menu, choose a pre-programmed command mapped to an alias or ID.

3 Transmit using one of the transmission controls described in "Transmitting on a Radio Channel" on page 2-19.

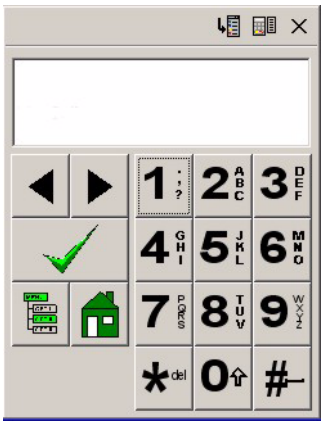


Procedure 2-11 How to Transmit Quick Text—One Touch Dial

1 Access the MOTOTRBO Radio Channel control shortcut menu. (Choose the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.)

2 From the Radio Channel control shortcut menu, click the **Keypad View** button.

Result: The MOTOTRBO Keypad opens.



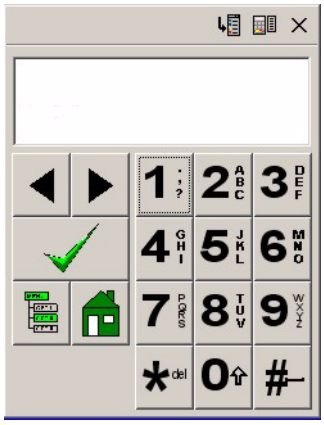
PROCEDURE 2-11 HOW TO TRANSMIT QUICK TEXT—ONE TOUCH DIAL (CONTINUED)

3	Click the **Menu** key.
4	Click the **Left Arrow** key or the **Right Arrow** key until the **Messages** item appears in the **Text Display** and select the item by clicking the **OK** key.
5	Click the **Left Arrow** key or the **Right Arrow** key until **Quick Text** appears and click the **OK** key.
6	Click the **Left Arrow** key or the **Right Arrow** key until the desired message appears and click the **OK** key.
7	Edit the message directly in the **Text Display**. When you are finished, click the **OK** key.
8	Click the **Left Arrow** key or **Right Arrow** key until **Send** appears and click the **OK** key. **Result:** The **Contacts** list appears in the **Text Display**.
9	Click the **Left Arrow** key or **Right Arrow** key until you see the desired contact Alias or ID, and click the **OK** key to send the message.

USING THE CONTACTS LIST

You choose a pre-defined subscriber alias or ID from a list of contacts that appear in the MOTOTRBO display and transmit to the target using any of the transmission methods described in “Transmitting on a Radio Channel” on page 2-19.

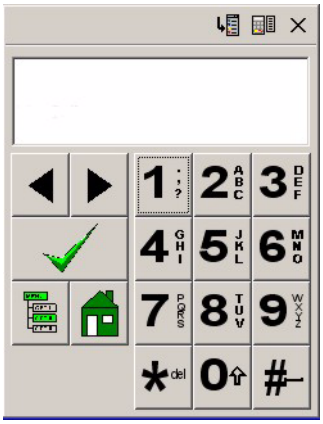
Procedure 2-12 How to Transmit Audio Using the Contacts List

1	Access the MOTOTRBO Radio Channel control shortcut menu. (Choose the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.) **Result:** The shortcut menu opens.
2	From the Radio Channel control shortcut menu, click the **Keypad View** button.  **Result:** The MOTOTRBO Keypad opens. 
3	Click the **Menu** key.
4	Click the **Left Arrow** key or **Right Arrow** key until the **Contacts** item appears in the **Text Display** and select the item by clicking the **OK** key.
5	Click the **Left Arrow** key or **Right Arrow** key until the desired contact appears and click the **OK** key.
6	Transmit using one of the transmission controls described in "Transmitting on a Radio Channel" on page 2-19.

Using Manual Dial

You can edit or type the subscriber ID directly in the MOTOTRBO Keypad before transmitting the audio message.

PROCEDURE 2-13 HOW TO TRANSMIT USING MANUAL DIAL

1	Access the MOTOTRBO Radio Channel control shortcut menu. (Choose the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.) **Result:** The shortcut menu opens.
2	From the Radio Channel control shortcut menu, click the **Keypad View** button.  **Result:** The MOTOTRBO Keypad opens. 
3	Click the **Menu** key.
4	Click the **Left Arrow** key or the **Right Arrow** key until the **Manual Dial** item appears in the **Text Display** and select the item by clicking the **OK** key. **Result:** The **Text Display** shows the subscriber ID of the last call dialed.
5	Using the keypad, either edit the ID or type another ID. You can erase the current ID by using the **Right Arrow** key.
6	Transmit using one of the transmission controls described in "Transmitting on a Radio Channel" on page 2-19.

Transmitting on a Radio Channel

There are several ways to transmit on a radio channel. You can transmit by pressing one of the following PTT buttons:

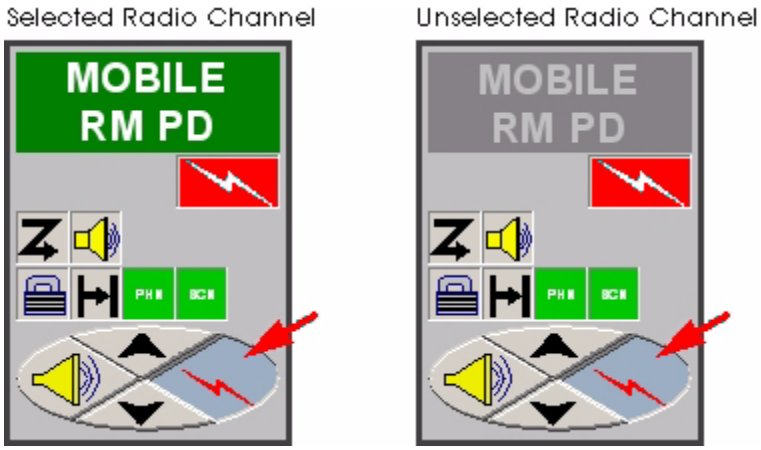
- **Instant Transmit** button
- **Common Tx** button
- Microphone or headset PTT button (if available)
- Footswitch PTT pedal (if available)

The **Instant Transmit** button can be used to transmit on any channel, whether it is selected or not. The other methods only transmit on the currently selected channel.

For a multi-frequency Radio Channel Control, the transmission occurs on the currently selected frequency regardless of the method used.

Procedure 2-14 How to Transmit on Any Radio Channel (Instant Transmit)

1 To transmit on a radio channel whether it is *selected or not*, click and hold the **Instant Transmit** button on the desired radio channel.



Result: The **Transmit** indicator appears, to show that you are transmitting on this radio channel.

2 Talk into your microphone or headset while holding the **Instant Transmit** button.

3 To stop transmitting, release the button.

The transmit queue can affect your radio transmission. For additional information, see "Additional Communications Features" on page 2-67.

A transmit timeout for console transmissions can be set in the CSDM for any radio channel. When a transmit timeout is configured, you can transmit for a certain length of time and then you are timed out by the system. If a timeout is configured, a transmit error indicator appears on the Radio Channel control and a soft beep is sounded. A five-second timeout warning appears in the Status bar of the main window five seconds before the end of the timeout period.

FIGURE 2-2 RADIO CHANNEL CONTROL SHOWING TRANSMIT ERROR INDICATOR

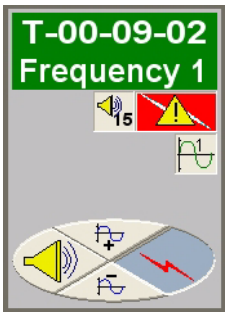


FIGURE 2-3 STATUS BAR SHOWING 5-SECOND TIMEOUT WARNING

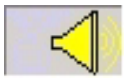
Receiving on a Radio Channel

Each Radio Channel Control includes a **Call** indicator, which shows any call activity on that radio channel. This indicator is in the upper left-hand corner of the Radio Channel control.

- If the call comes in on a radio channel that is *selected* at your console:
  - A green **Call** indicator appears

  - If applicable, the Unit ID or alias of the radio from which the transmission originated appears on the Radio Channel control in the label area (depending on your configuration, the Unit ID appears at the beginning or at the end of a transmission)
  - You hear the audio on your *select* speaker or headset
  - You transmit with any PTT button (**Instant Transmit**, **Common Transmit**)
- If the call is on a radio channel that is *not selected* at *your console* but is *selected* at *another Dispatcher's console*:
  - A yellow **Call** indicator appears

  - If applicable, the Unit ID or alias of the radio from which the transmission originated appears on the Radio Channel control in the label area (depending on your configuration, the Unit ID appears at the beginning or at the end of a transmission)
  - You hear the audio on your *unselect* speaker
  - You can transmit with the **Instant Transmit** button
- If the call is on a radio channel that is *not selected at any console*:
  - A green **Call** indicator appears

  - If applicable, the Unit ID or alias of the radio from which the transmission originated appears on the Radio Channel control in the label area (depending on your configuration, the Unit ID appears at the beginning or at the end of a transmission)
  - You hear the audio on an *unselect* speaker
  - You can transmit with the **Instant Transmit** button

NOTE

In addition to the call indicators listed above, an incoming call might also cause a yellow **Transmit Busy** indicator to appear. This occurs for some types of radio (such as the Consolette) that include a “PTT BSY” signal in their transmissions.

PROCEDURE 2-15 HOW TO RESPOND TO A CALL INDICATOR

1	Click the Radio Channel control. (This selects the Radio Channel control.) **Result:** The **Call** indicator remains green on your console but changes to yellow on other consoles. Listen to the audio on your select speaker or headset.
2	Use any PTT button (**Instant Transmit**, **Common Transmit**) to transmit on that radio channel.
3	When the call is complete. The **Call** indicator disappears.

NOTE

If configured, the **Call** indicator takes a few seconds to disappear after the transmission is terminated. The supervisor can set a time delay for the **Call** indicator using the **User Preferences** command.

Responding to an Emergency Alarm

A unique emergency code identifies an incoming emergency alarm on a Radio Channel Control. When this option is enabled (at the CSDM) and the system receives an emergency radio alarm:

- An audible alarm sounds at the console(s) where the radio channel is mapped
- The radio identification appears in red on the Radio Channel control
- Red outlines the Radio Channel control (color is configurable)

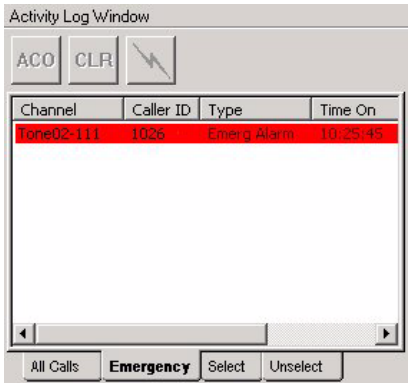
If an emergency alarm comes in on a Radio Channel control that is not visible on your currently displayed Multiple Tab window, the page tab, where the emergency Radio Channel control resides, changes to red and an aid symbol appears. Choose this tab to gain access to the Radio Channel control that is declaring an emergency. If the emergency alarm comes in on a Radio Channel control in the Miscellaneous window, red outlines the channel with the emergency (color is configurable).

Clearing an emergency alarm on a MOTOTRBO Radio Channel control requires attention to whether the alarm is in background or foreground. Putting an alarm into the background means that you can perform another task on the MOTOTRBO Radio Channel control without clearing the alarm. You can clear an emergency alarm on a MOTOTRBO Radio Channel control only when the alarm is in the foreground. To switch an emergency alarm between background and foreground, short-press the **Back/Home** button followed by a short-press on the programmed emergency button (P1-P4, Mic No-Dot, Mic 1-Dot, or Mic 2-Dot).

Procedure 2-16 How to Acknowledge an Emergency Alarm

1 Go to the Activity Log window and choose the red emergency alarm from the list. (The emergency alarm appears in the **All Calls** and the **Emergency** tabs. If the channel is selected, the alarm also appears in the **Select** and **Unselect** tabs.)

If configured, the Activity Log window shows the time, radio channel and caller identification of the emergency alarm.



PROCEDURE 2-16 HOW TO ACKNOWLEDGE AN EMERGENCY ALARM (CONTINUED)

2 To stop the audible alarm, click the **ACO** button (alarm cut off).

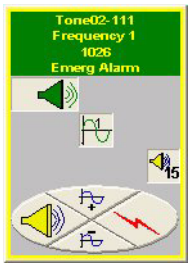
Result: The alarm sound is silenced. The radio channel outline changes from red to yellow (these colors are configurable) and the red highlighted text in the Activity Log window, **Type** column changes from Emerg Alarm to Acked Emerg (acknowledged emergency).

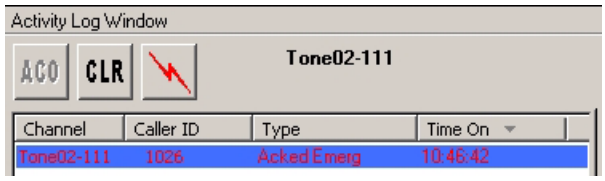
NOTE

When you click the **ACO** button to deactivate an alarm, the audible alarm turns off at all consoles. You must acknowledge the alarm (with the **ACO** button) before you can clear the alarm (with the **CLR** (Clear) button).

NOTE

If a new emergency alarm occurs, the red radio identification for the new emergency alarm appears on the Radio Channel control. The audible alarm starts or restarts where the Radio Channel control is active and the new emergency is added to the Activity Log window.





3 Proceed with your emergency alarm procedures.

NOTE

You can transmit from the Activity Log window by selecting the emergency alarm from the Activity Log window list and using the **Transmit** button at the top of the window to communicate with the caller reporting the emergency.

4 When the emergency alarm ends, click the **CLR** (Clear) button in the Activity Log window.

Result: The emergency alarm is removed from the **Emergency** tab and the text changes to say Clear Emerg under the **Type** column. The Radio Channel control changes back to its original color.

5 Repeat as necessary to clear all of the alarms.

NOTE

If the attempt to clear the alarm from a MOTOTRBO radio is unsuccessful, you can manually clear the alarm with the following actions:

- Short press the **Back/Home** control (See “Back/Home Control” on page 3-6.) then
- Long press the programmed emergency button (e.g., P1-P4, Mic No-Dot, Mic 1-Dot, or Mic 2-Dot) when the emergency alarm is in the foreground.

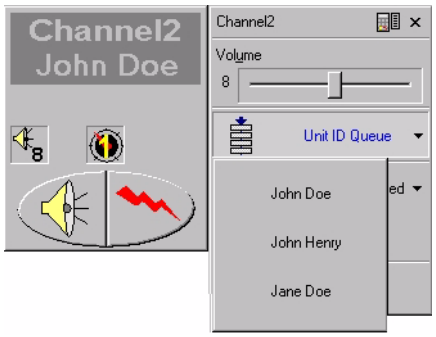
IDENTIFYING PREVIOUS CALLERS USING THE UNIT ID QUEUE

The Unit ID is the identification or alias for the recent radio activity on the radio channel. The Radio Channel Control shortcut menu identifies the unit identifications (caller ID) for the previous calls under the **Unit ID Queue** drop-down menu.

For an incoming radio call; the program's caller ID feature identifies the calling party. When a mobile or MOTOTRBO radio user presses the PTT (on a mobile radio with a unit ID) that ID is sent on the radio channel along with their voice transmission. The console receives that mobile's ID and extracts the associated alias (name) from the **Caller ID** database (see "Caller ID Command" on page 4-20). The console then displays the alias on the Radio Channel control (in the label area) and you know who is making the call. If no alias is defined, the console displays the ID.

The supervisor activates the **Unit ID Queue** option and sets the number of unit identifications displayed on the Radio Channel control.

FIGURE 2-4 UNIT ID QUEUE DROP DOWN MENU



PROCEDURE 2-17 HOW TO IDENTIFY PREVIOUS CALLERS USING THE UNIT ID QUEUE

1	Access the Radio Channel control shortcut menu. (Click the indicator area on the Radio Channel control, or press SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.) **Result:** The Radio Channel control shortcut menu appears.
2	Choose the **Unit ID Queue** drop down menu. **Result:** The previous callers on this radio channel appear in the list.

Using the Base Intercom

The **Base Icom** button lets you transmit to a base station without having to key that station. For instance, you can talk to maintenance or other personnel located at the base station. The currently selected radio channel makes the intercom call to the base station only; it is not transmitted out from the base station.

Figure 2-5 Base Icom Button

Base Icom – Inactive

Base Icom – Active

If a parallel unit (that is, a remote deskset) is associated with the single base station radio channel, you can communicate with the parallel unit dispatcher.

Procedure 2-18 How to Use the Base Intercom

1	Click and hold the **Base Icom** button. **Result:** The **Transmit** indicator appears on the selected Radio Channel control.
2	While still holding the **Base Icom** button, speak into your microphone. **Result:** The audio transmits to the currently selected base station, and the **Transmit** indicator remains on the selected Radio Channel control.
3	Release the **Base Icom** button to end the call.

Increasing and Decreasing the Radio Channel Control Volume

The Radio Channel Control shortcut menu contains the volume controls for that Radio Channel control.

You can adjust the volume of the Radio Channel control with the **Volume Slide** control or if configured, with the **Up/Down** volume buttons in the button area of the Radio Channel control.

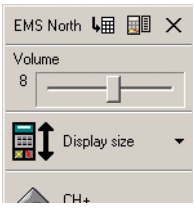
NOTE

In an emergency situation, the radio channel volume increases to a value set by the supervisor (maximum 15). The volume returns to the pre-emergency setting after you clear the emergency. A supervisor can also specify a change in volume level for the radio channel when it is selected.

PROCEDURE 2-19 HOW TO INCREASE AND DECREASE THE VOLUME

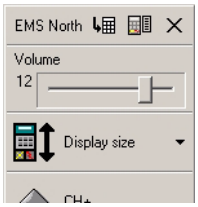
1 Access the Radio Channel control shortcut menu. (Click the indicator area on the Radio Channel control, or press SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.)

Result: The Radio Channel control shortcut menu appears.

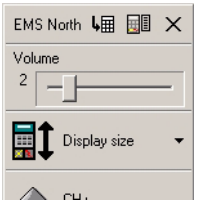


2 To adjust the volume for this radio channel, use the **Volume Slide** control located at the top of the Radio Channel control shortcut menu.

- Increase the volume by moving the slider to the right. The volume number increases, as does the volume. If the volume indicator is present in the indicator area of the Radio Channel control, it also reflects the increase in volume level.



- Reduce the volume by moving the slider to the left. The volume number decreases, as does the volume. If the volume indicator is present in the indicator area of the Radio Channel control, it also reflects the decrease in volume level.



Procedure 2-19 How to Increase and Decrease the Volume (continued)

OR,

If configured, use the **Up/Down** volume buttons in the button area of the Radio Channel control to adjust the volume. Use the **Up (+)** button to increase the volume or use the **Down (-)** button to decrease the volume. If the volume indicator is present in the indicator area of the Radio Channel control, it also reflects the increase/decrease in volume level.

MUTING THE AUDIO OF A RADIO CHANNEL

The **Mute** button lets you temporarily mute the audio for any individual radio channel. The volume level of the muted audio is set at the CSDM for each console user.

FIGURE 2-6 MUTE BUTTONS

Inactive Active

PROCEDURE 2-20 HOW TO MUTE A SPECIFIC RADIO CHANNEL'S AUDIO

1 Click the **Mute** button on a selected or unselected Radio Channel control.

Result: The audio immediately mutes, and a red prohibitory sign appears on the **Mute** button.

NOTE

If a red prohibitory sign with no sound waves appears on the radio channel **Mute** button, this indicates that the **All Mute** button is muting the radio channel(s).

2 To return the audio to its original volume, click the **Mute** button again.

Result: The radio channel returns to the pre-muted volume and the red prohibitory sign disappears from the **Mute** button.

NOTE

You can still select and transmit on a radio channel that is muted or all muted (all unselected channels) without taking the mute off. This selected radio channel then operates at the pre-muted volume.

Muting the Audio of All Unselected Channels

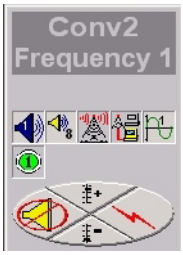
The **All Mute** button temporarily mutes all audio at the unselect speakers so you can concentrate on the audio at the select speaker. The **All Mute** button includes an automatic timer that cancels the all mute status if you forget to do so. The automatic timer and the mute audio level are set at the CSDM (the default is 30 seconds).

Figure 2-7 All Mute Button

Procedure 2-21 How to Mute the Audio of All Unselected Channels

1 Click the **All Mute** button.

Result: The sound waves disappear on the **All Mute** button and all unselected audio is immediately muted. A red prohibitory sign (plus a speaker with no sound waves) appears on the radio channel **Mute** button indicating that the **All Mute** button is muting the radio channel(s). Any individual radio channels that were previously muted, change to red prohibitory signs (with sound waves).



2 To return the unselected audio to its original volume, either click the **All Mute** button again or wait for the default mute interval to expire.

Result: The radio channel unmutes, the red prohibitory sign disappears from the **Mute** button, and the radio channel operates at the default volume. (Previously muted radio channels (individually) stay muted.)

SENDING AN ALERT TONE OVER THE SELECTED RADIO CHANNELS

The **Alert #** button lets you transmit an alert tone to the selected radio channels; you might use this feature, for example, to let listeners know that you are about to make an urgent announcement. There are three different alert tones available on the MIP 5000 VoIP Radio Console system.

- Tone 1: continuous 1004 Hz tone
- Tone 2: alternating 800 and 1500 Hz tones
- Tone 3: a pulsing 1004 Hz tone

PROCEDURE 2-22 HOW TO SEND AN ALERT TONE OVER SELECTED RADIO CHANNELS

1 Choose the radio channel(s) (the alert tone can be sent on multi-selected channels and over a patch).

2 Click and hold the desired **Alert #** button.

Result: A **Transmit** indicator appears beside the Alert symbol. All selected radio channels show a **Transmit** indicator and receive the alert tones. You hear the alert tones in your headset or over the select speaker. The alert tones are sent for the time that you hold the **Alert #** button.

3 When the tone signal ends, a green **Transmit** (talkdown) indicator still remains. This indicator demonstrates that your PTT is keyed for a specific time (set in the CSDM) and you can send your voice message for the duration that the **Transmit** (talkdown) indicator is present. If you require more time for your message, use the **Common Transmit** button and speak into your headset. To talk on one specific radio channel, use the **Instant Transmit** button.

Multiple Selection of Radio Channels

The **MSel** button lets you choose more than one radio channel at the same time and store these selected channels in memory. There are up to eleven buttons per console, ten with memory and one without memory. You can include up to 16 Radio Channel controls in an **MSel #** button (with memory). The number of Radio Channel controls an **MSel w/o M** button (without memory) can hold is equal to the number of radio channels licensed at this console. You hear the incoming audio from each of those radio channels on the select speaker, and you can transmit to all of those radio channels at the same time. Multiple selection is local to your console; the multi-selected channels cannot hear each other.

Depending on your systems configuration, the MIP 5000 VoIP Radio Console can save Multiple Selections either with memory or without:

- With memory — saves up to 16 channels for future reference (10 **MSel #** buttons (with memory) are available)
- Without memory — provides a temporary way to choose more than one radio channel at a time, for instance, to perform an all points broadcast (one **MSel w/o M** button (without memory) is available)

Multiple selection operations include:

- "Creating or Adding to a Multiple Selection" on page 2-34
- "Activating and Deactivating a Multiple Selection" on page 2-35
- "Transmitting on a Multiple Selection" on page 2-35
- "Deleting a Multiple Selection" on page 2-36
- "Transmitting an APB" on page 2-36

NOTE

Each **Instant Transmit** button transmits on a single radio channel, regardless of whether the multiple selection is active or not. This functionality is in contrast to that of a patch, where the **Instant Transmit** button transmits to all radio channels included in the patch.

NOTE

Multiple selection is local to your console; the effects will not be noticed at any other consoles or on the radio channels. In contrast, patching has global effects; that is, what you do with the patch at your console is reflected at other consoles with indicators.

CREATING OR ADDING TO A MULTIPLE SELECTION

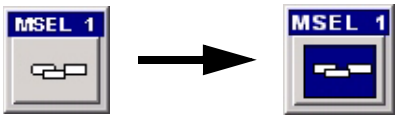
Creating a new multiple selection and adding channels to an existing one involves the selection of more than one channel. For information about selecting channels, see "Selecting a Radio Channel" on page 2-10.

If you add a channel that is already a member of a patch, the system attempts to add all patch members to the multiple selection. When the number of multiple selection members is greater than 16, the remainder are still selected but a warning message is displayed on the status bar indicating that not all selected channels are members of the multiple selection.

PROCEDURE 2-23 HOW TO CREATE OR ADD TO A MULTIPLE SELECTION

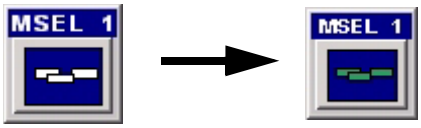
1 Click the desired **MSel #** button.

Result: The button background changes from gray to blue indicating that it is active.



2 Choose all of the desired radio channels that you want for this multiple selection.

Result: The blocks in the button change from white to light green indicating that this **MSel #** button now contains the channels that you chose. The system automatically saves the contents.



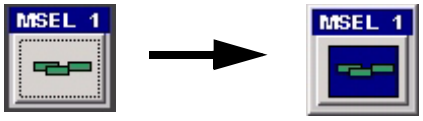
3 Continue with your normal call procedures.

Activating and Deactivating a Multiple Selection

Procedure 2-24 How to Activate a Multiple Selection

1 Click the desired **MSel #** button.

Result: The background of the activated **MSel #** button changes from gray to blue (with light green blocks)



Procedure 2-25 How to Deactivate a Multiple Selection

1 Click the desired active **MSel #** button.

Result: The button background changes from blue to gray indicating that it is now inactive.

Transmitting on a Multiple Selection

To transmit on an active **MSel #** button (For multi-frequency Radio Channel controls, you must also choose the frequency [radio channel] on which you want to communicate.), follow this procedure:

Procedure 2-26 How to Transmit on an Active MSel # Button

1 Ensure the desired **MSel #** button is active (background is blue instead of gray).

2 Use the **Common Transmit** or the associated **APB #** button to transmit on the active **MSel #**.

3 Speak into your headset.

PROCEDURE 2-27 HOW TO TRANSMIT ON AN NON-ACTIVE MSEL # BUTTON

1	Choose the corresponding **APB #** button for the desired **MSel #** button, where the # is the same for both buttons.
2	Speak into your headset.

DELETING A MULTIPLE SELECTION

To remove one or more radio channels from a multiple selection is the same procedure as completely deleting a saved multiple selection, therefore, you can edit a multiple selection with a similar method.

PROCEDURE 2-28 HOW TO DELETE OR REMOVE CHANNELS FROM A MULTIPLE SELECTION

1	Activate the desired **MSel #** or **MSel w/o M** button.
2	Unselect all of the radio channels that you want to remove from this multiple selection by clicking the radio channel label area or click the **Clear** button in the status bar to remove all the radio channels. **Result:** If you remove all of the radio channels, the blocks in the button change from light green to white, indicating that this **MSel #** or **MSel w/o M** button is now empty. **NOTE** This operation never results in no radio channel being selected. At least one radio channel is always selected.

TRANSMITTING AN APB

The **APB #** button transmits over the radio channels stored in an associated multiple selection with memory, whether it is active or not. There are ten available **APB #** buttons (one for each **MSel #** with memory button).

FIGURE 2-8 APB (ALL POINTS BULLETIN) # BUTTON

Inactive State

Active State

Procedure 2-29 How to Transmit an APB

1. Choose and hold the desired **APB #** button that is associated with the **MSel #** button (with memory) to which you want to transmit.

   NOTE

   You do not need to activate the **MSel #** button to use the APB feature.

   Result: The **APB #** button changes to the active state (white **Transmit** indicator with a red background on the button).

2. Send your message and release the **APB #** button when your message is complete.

   Result: The **APB #** button returns to the inactive state (red **Transmit** indicator with a gray background).

PATCHING

A patch is a set of up to 16 channels grouped together in a way that permits you to control them as if they were a single channel. A patch is global to all consoles; that is, a patch is available to each console with access to at least one of the radio channels in the patch. A patch can be thought of as a kind of conference call.

Patching topics include:

Items to remember when dealing with patches:

- An active patch is reflected at every console that is mapped to at least one radio channel in the patch. Any console involved in this patch can receive and transmit audio only on the patched radio channels that are available at that console
- One console initiates a patch, which can be used globally at other consoles, but the controlling/editing features are limited to the console where the patch was created

- Each consoles has 10 independent patches with memory and one patch without memory, therefore more than one console can have the same **Patch #** active. The only restriction is that you cannot use the same active channel in multiple active patches. See "Patch # Button" on page 3-39 and "Patch w/o M Button" on page 3-42 for more information.
- Patching has global effects; patches affect other consoles and the radio channels. In comparison, multiple selection is local to your console; the effects are not noticed at any other consoles or on the radio channels.
- If you mute a Radio Channel control involved in an active patch, then all Radio Channel controls included in that patch are muted.
- When a patch entity (such as a channel or Call Director) receives an incoming call, it generates an automatic PTT (or VoxPTT) on the other channels in the patch. The **Timeout** feature does not apply to a VoxPTT.
- For information about Call Director calls and patches, see "Adding Call Director Calls to a Patch" on page 2-42 and "Call Director" on page 2-45.

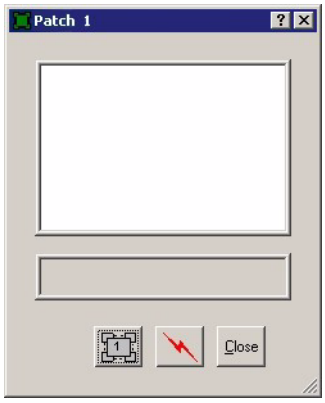
CREATING AND SAVING A PATCH

Creating and saving a patch (keeping it in memory) is a drag-and-drop procedure.

PROCEDURE 2-30 HOW TO CREATE AND SAVE A PATCH

1 Open one of the available Patch windows, either by clicking a **Patch #** button on the main window or by selecting a **Patch Window #** from the **View** menu.

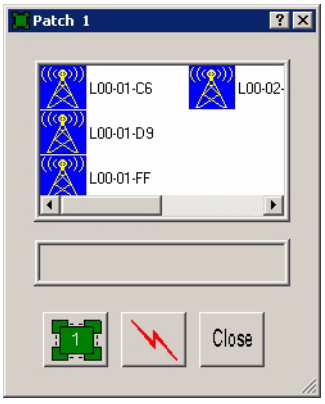
Result: The Patch window appears.



Procedure 2-30 How to Create and Save a Patch (continued)

2 Click and drag the desired Radio Channel controls into the Patch window.

Result: The radio channel name appears in the Patch list and the patch automatically becomes active.



NOTE

To add a Call Director call to the patch, see "Adding Call Director Calls to a Patch" on page 2-42.

3 Use the **Close** button to close the Patch window.

Result: The patch is automatically saved.

NOTE

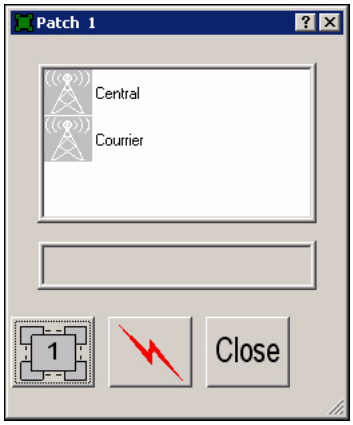
A closed patch remains active unless you deactivate it, see "Activating and Deactivating a Patch" on page 2-40.

ACTIVATING AND DEACTIVATING A PATCH

PROCEDURE 2-31 HOW TO ACTIVATE AND DEACTIVATE A PATCH

1 Open the desired Patch window, either by clicking the **Patch #** button on the main window or by selecting the **Patch Window #** from the **View** menu.

Result: The Patch window appears with the saved radio channels.



NOTE

A patch automatically activates when you add the first radio channel.

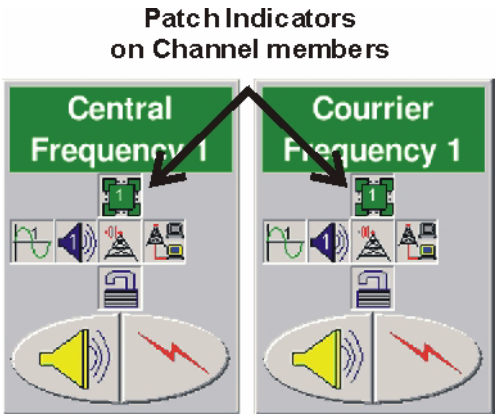
Procedure 2-31 How to Activate and Deactivate a Patch (continued)

2 Click the **Patch Activate** button at the bottom left-hand corner of the Patch window or drag a new or current Radio Channel control into the Patch window.

Result: The patch shows that it is active when:

- The **Patch Activate** button changes from gray to green

- The radio channel indicators in the Patch window change color
- On your console, a green **Patch** indicator appears on the radio channels included in the patch.



- On other consoles, a yellow **Patch** indicator appears on the Radio Channel controls included in the patch

3 To deactivate the patch, select the **Patch Activate** button again.

ADDING CALL DIRECTOR CALLS TO A PATCH

Patches can contain active Call Director calls. To include a Call Director call in a patch, you must first place the call. Call Director calls must be active (off hook) when you add them to a patch.

After a patch is deactivated, the Call Director is removed from the patch. Only the patched channels remain.

See "Call Director" on page 2-45 for more information about handling Call Director calls.

PROCEDURE 2-32 ADDING CALL DIRECTOR CALLS TO A PATCH

1 The patch automatically activates when you add the first element, but ensure that the desired Patch window is open. (The patch must be activated to accept Call Director calls.)

2 Click and drag the desired *active* **Call Dir** control into the Patch window.

Result: The **Call Dir** name appear in the Patch list.

NOTE

Call Director calls must be active (not on hold) when you add them to the patch.

TRANSMITTING ON A PATCH

For multi-frequency Radio Channel controls, you must also choose the frequency (radio channel) on which you want to communicate. You can change the frequency of a Radio Channel control already included in a patch, but the radio channels remains on that frequency even after it has been removed from the patch.

PROCEDURE 2-33 HOW TO TRANSMIT ON A PATCH

1 Click the desired **Patch #** button.

2 If the patch is not active/selected, activate the patch by clicking on the **Patch Activate** button located at the bottom left-hand corner of the Patch window.

Procedure 2-33 How To Transmit on a Patch (continued)

3 Click and hold the **Transmit** button located to the right of the **Patch Activate** button.

OR

Use any PTT button (**Instant Transmit**, **Common Transmit**) on one of the channels included in the patch.

4 Speak into your microphone or headset.

5 To stop transmitting, release the PTT button.

Modifying a Patch

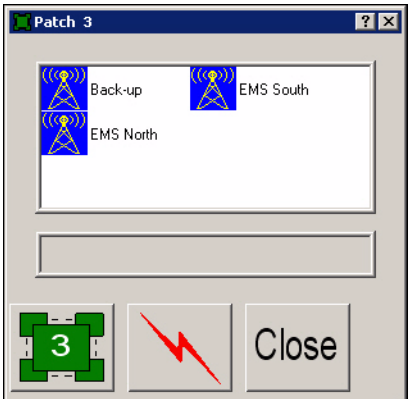
Modifying a patch includes removing or adding a radio channel or Call Director call.

To add a Call Director call, see "Adding Call Director Calls to a Patch" on page 2-42.

Procedure 2-34 How to Add a Radio Channel to an Existing Patch

1 Click the desired **Patch #** button and activate, if necessary.

Result: The Patch window appears.



2 Click and drag the desired Radio Channel controls into the Patch window.

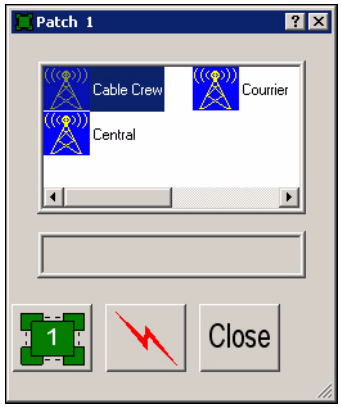
Result: The radio channel name appears in the Patch list.

To remove elements from an existing patch, follow this procedure:

PROCEDURE 2-35 HOW TO REMOVE ELEMENTS FROM AN EXISTING PATCH

1 Click the desired **Patch #** or **Patch w/o M** button

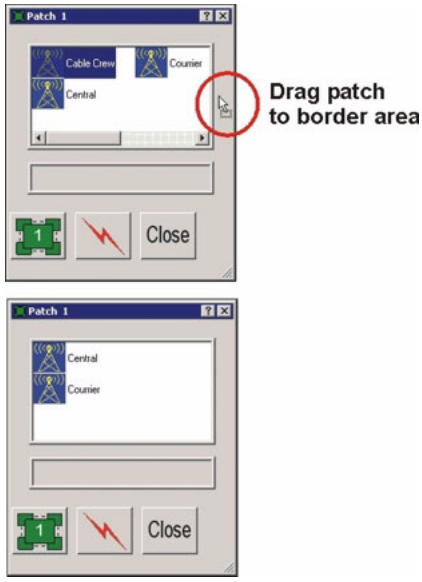
2 Choose the desired radio channel or Call Director name from the Patch list contained in the Patch window.



3 Press the **Delete** key on your keyboard.

OR

Drag the chosen name(s) from the Patch list to the border area of the Patch window.



Result: The radio channel and/or Call Director name(s) disappear from the Patch list.

Clearing a Patch

To clear a patch completely (to free it up for a new patch) remove all the radio channels and Call Director from a patch until nothing remains in the patch. Follow the procedures contained in “Modifying a Patch” on page 2-43 (removing channels and Call Director calls).

Call Director

When the Call Director feature is enabled, your console is connected to a Call Director interface that receives telephone calls from a separate telephone system.

The Call Director allows you to use the MIP 5000 VoIP Radio Console headset or the console speaker and microphone to communicate with calls from the Call Director interface. It also allows you to create a patch that includes the Call Director interface as well as radio channels.

Note

The specific operating instructions for the Call Director vary, depending on the type of interface in use. For instructions on using the Call Director, consult the original documentation provided by the manufacturer of the interface (such as telephone set or 9-1-1 system).

Call Director topics include:

Call Director Operation

Call Director operations fall into two categories:

- Category 1: The operator headset is in use
- Category 2: The operator headset is not in use

Note

For full-duplex operation, use the operator headset for Call Director communications rather than the supervisor headset.

FIGURE 2-9 CALL DIR CONTROL

NOTE

In both categories, activating any radio PTT routes operator audio to the radio channel, and mutes audio to the Call Director interface.

CATEGORY 1: HEADSET IN USE

To use the Call Director, you choose a line on the Call Director interface:

- You are in full duplex communication with the line
- The system routes the Call Director audio to the headset
- The system directs your voice from the headset microphone to the Call Director interface
- The use of the **Call Dir** control is not required
- The system routes the select audio back to the Select speaker, if configured

CATEGORY 2: HEADSET NOT IN USE

To use the Call Director, you choose a line on the Call Director interface:

- The Call Director communication is half duplex
- The system routes the Call Director audio to the Select speaker

To speak to the receiving end, you use the **Call Dir** control:

- The system routes the operator audio to the Call Director interface
- The system mutes the Call Director audio to prevent feedback

EXITING A CALL DIRECTOR CALL

This procedure is site-specific.

The **Call Dir** control is a way to connect to, and talk with, a caller on a completely separate telephone system. Therefore, to exit the call, you must disconnect the call from the originating telephone system.

Procedure 2-36 Exiting a Call Director Call

1	Release the call (line) directly through the originating telephone equipment.
2	Verify that this ends the Call Director communication. (**Call Dir** control returns to inactive state with no indicators, dial tone, etc.).

Using Call Director to Create a Patch

If the Call Director feature is enabled on your console, you can create a patch that includes a Call Director interface call, as well as, calls on radio channels.

Creating a Patch with Call Director

You can create a patch with the Call Director interface.

Procedure 2-37 Creating a Patch with Call Director

1	Open the Patch window by clicking the **Patch #** button.
2	Click and drag the *active* **Call Dir** control into the Patch window. **Result:** The **patch** indicator appears on the **Call Dir** control. The **Call Dir** control name appears in the Patch list. The system routes the Call Director audio to the Unselect speaker or the Select speaker, depending on the patch select state. If no headset is connected, your microphone is not live with the Call Director and full duplex communication is not possible. If a headset is connected, you are in full duplex communication with the Call Director, but need to use a transmit button (footswitch, **Instant Tx, Common Tx**, external PTT, etc.) rather than just speaking into the microphone to transmit on the radio channel(s).

Communicating with a Patched Call Director Call

Communicating with a patched Call Director call is the same as transmitting on a normal patch. See “Transmitting on a Patch” on page 2-42.

REMOVING A CALL DIRECTOR CALL FROM A PATCH

To remove a Call Director call from a patch:

PROCEDURE 2-38 REMOVING A CALL DIRECTOR CALL FROM A PATCH

1	Open the Patch window by clicking the **Patch #** button.
2	Choose the **Call Dir** control name in the Patch list. To remove the Call Director, either drag it to the border of the window or choose **Delete** on your keyboard. **Result:** The **Call Dir** indicator disappears from the list. If the headset is connected, you regain full duplex communications with the Call Director.

PAGING

The MIP 5000 VoIP Radio Console provides integrated paging features. Paging types include generic (using any tone sequence), customized or pre-programmed; including STAT-ALERT signaling, if configured. The MIP 5000 VoIP Radio Console sends the page signal over all selected radio channels, with the exception of the first Note below. You can define the specific radio channel and frequency through which a page is transmitted. While a page is transmitting, the console cannot perform any other transmissions.

NOTE

Mobile radio channels do not support MIP 5000 VoIP Radio Console paging. To page on a mobile radio channel, an external pager must be used. The external pager must first be configured at the CSDM for any radio channel it must support.

NOTE

If a radio channel is selected as a result of being in an open multiple selection or an active patch, you cannot page on this channel when **Steering — Channel** is set to **Selected**. To send a page on such a channel, you must steer it to this channel by choosing this channel from the **Steering — Channel** list.

NOTE

The supervisor or system administrator designates the customized paging formats at the CSDM.

NOTE

On MOTOTRBO Radio Channel controls, paging is only available when selected in an analog mode, not a MOTOTRBO mode.

MIP 5000 VoIP Radio Console provides three different paging mediums:

- **Manual Page**: gives you complete flexibility in choosing the paging and signaling tones and the dialing code; plus access to STAT-ALERT messaging (call and voice)
- **Paging List**: gives you access to pre-programmed lists that lets you send pages and signaling tones to multiple receivers
- **Single Page**: gives you quick, one button access to single or group pages

Paging topics include:

- "Manual Page" on page 2-50
- "STAT-ALERT Signaling" on page 2-54
- "Paging with a Programmed List" on page 2-58
- "Paging with a Single Page Button" on page 2-65
- "Viewing Page History Information" on page 2-67

NOTE

When using programmed pages, which specify that the page transmits on the "selected channel", ensure that you have a channel selected that is not involved in a multiple selection or an active patch. The pages in a list are sent whether a channel is selected or not. Therefore, a page failure results for *each* page sent in the programmed pages list, if a channel is *not* selected.

NOTE

A page is not placed in the transmit queue behind another page. If you have two separate pages to send, you must wait for the first one to complete before initiating the second one.

If you send a page using an external pager, check the indicators on the external pager to see if the page has completed before issuing another page of any kind.

MANUAL PAGE

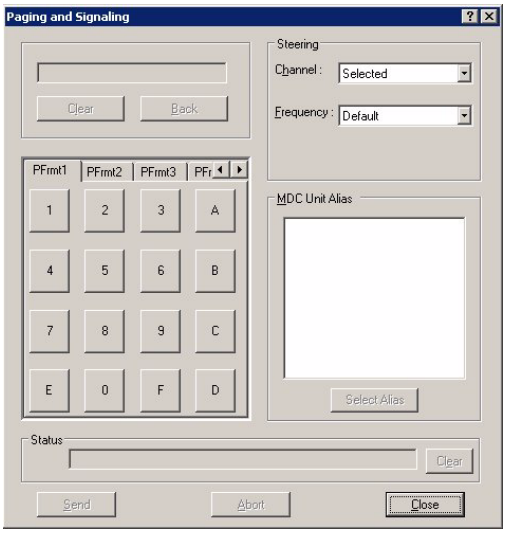
To page with the **Man Page** button, follow this procedure:

PROCEDURE 2-39 HOW TO PAGE WITH THE MAN (MANUAL) PAGE BUTTON

1 Choose the radio channel for paging.

2 Click the **Man Page** button or choose **Manual Page** from the **Tools** menu.

Result: The **Paging and Signaling** dialog box appears.



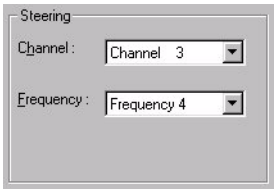
3 From the available tabs, choose the kind of paging tone: Custom, Moto 1+1, Moto 2+2, GE X, GE Y, GE Z100, GE Z400, MOTO 5, KNOX, DTMF, etc. Plus, a variety of customized formats are set at the CSDM.

NOTE

The tab contents/keypad changes to reflect the codes for each kind of paging tone.

Procedure 2-39 How to Page with the Man (Manual) Page Button (continued)

4 To define one specific radio channel and frequency for the page, go to the **Steering** area. Highlight the desired radio channel and frequency using the drop-down menus.



- **Channel** — displays the available radio channels on the console. One of the choices in the list is **Selected**. Choosing this option steers the page to all the radio channels that are selected at the console. In this case, the frequency scroll lists are forced to **Default** and *cannot* be changed as long as **Channel** is set to **Selected**
- **Frequency** — presents the following choices: **Default**, **Frequency 1** through **Frequency 16**. The available options depend on the frequencies available on the radio channel that you selected under **Channel** (above)

  Choosing **Default** steers the page to the frequency that is currently used by the system for the radio channel. Choosing **Frequency 1** through **Frequency 16** steers the page to that particular frequency of the radio channel.

NOTE

The MIP 5000 VoIP Radio Console uses the default value if you do not choose an entry.

If a radio channel is selected as a result of being in an open multiple selection or an active patch, you cannot page on this channel when **Steering — Channel** is set to **Selected**. To send a page on such a channel, you must steer it to this channel by choosing this channel from the **Steering — Channel** list.

PROCEDURE 2-39 HOW TO PAGE WITH THE MAN (MANUAL) PAGE BUTTON (CONTINUED)

5 Use the keypad to dial the paging code or tone sequence.

If required, use the **Clear** and **Back** buttons to remove any mistyped characters.

NOTE

After you have typed the maximum number of digits for the code or sequence, the program does not accept any more digits.

OR

Choose an alias in the **MDC Unit Alias** area and click the **Select Alias** button. Alternatively, you can double click in the list to choose the alias (This list is maintained in the Caller ID database).

NOTE

MDC unit aliases are only available for selection if the **Steering** area identifies a channel configured for STAT-ALERT signaling. They are never available when the **Selected** channel is specified.

Result: The code appears in the **Code** field.

6 The **Status** area shows the status of the page. Click the **Clear** button to clear the **Status** area.

7 To transmit the paging/signaling sequence, click the **Send** button.

Result: The dialog box remains open and the **Transmit** indicator appears on the selected Radio Channel control(s) and on the **Man Page** button.

Click the **Abort** button to cancel this page but stay in the dialog box.

OR

Click **Close** to return to your main window.

Procedure 2-39 How to Page with the Man (Manual) Page Button (continued)

8 The **Transmit** indicator on the Radio Channel control disappears, if there is no talkdown (this is also known as voice annotation delay and it is set in the CSDM) associated with this page.
The **Transmit** indicator on the Radio Channel control remains, if a talkdown time is associated with this page.

Result: If configured, a green **Talkdown** indicator appears in the **Status** area of the **Paging and Signaling** dialog box. For the duration that this indicator appears you can transmit without pressing the **Common Transmit** button or the **Instant Transmit** button.

- If you need to transmit, on the selected Radio Channel control, for longer then the duration of the **Talkdown** indicator, click the **Common Transmit** button or the **Instant Transmit** button and speak into your headset. If your page is steered to an unselected Radio Channel control, you must choose the Radio Channel control before continuing with your message
- To end the voice message, release the **Common Transmit** button or the **Instant Transmit** button
- If you talk longer than allowed (that is, when the transmit timeout occurs [set in the CSDM]), a **Paging Aborted** message appears in the Status area of the **Paging and Signaling** dialog box (or for as long as the PTT is held). A **Transmit (error)** indicator also appears on the Radio Channel control involved in the page when there is a transmit timeout

STAT-ALERT SIGNALING

To send STAT-ALERT signals, the Radio Channel Control must be configured, at the CSDM, for STAT-ALERT (MDC 1200) signaling.

INCOMING SIGNALING

Whenever STAT-ALERT signaling is received on a frequency, that signaling is interpreted and appears on the Radio Channel control. The console provides for five types of incoming signaling:

- PTT ID — Mobile radios or consoles send a PTT ID whenever voice transmission begins or ends. The system matches an incoming mobile radio PTT ID to an alias in the Caller ID Alias database. If the system finds a match, the Alias appears in the label area of the Radio Channel control
- Status/Message — The system receives a status or message when a radio user activates a preset code, or when you manually request the mobile radio's status. The system handles status/messages like PTT ID messages: the status/message appears on the Radio Channel control label area right below the PTT ID (if present)
- Call Alert — The system receives a Call Alert when a radio user calls a specific console. At that console, a tone sounds momentarily, and the label area of the Radio Channel control shows Call Alert and the originator ID. You clear the call alert condition by pressing the **Clear** button in the Activity Log window
- Emergency — The system receives an Emergency when a radio user activates the Emergency switch on their mobile radio. All consoles that have that Radio Channel control hear a tone, the radio identification appears in red and the Radio Channel control is outlined in red (Radio Channel control color is configurable). See "Responding to an Emergency Alarm" on page 2-23 for more information about handling an emergency call

NOTE

If configured on your console and an emergency call is received on a Radio Channel control that is not visible on your currently displayed Multiple Tab window, the page tab, where the emergency Radio Channel control resides, changes to red, and an alarm symbol appears. Choose this tab to gain access to the Radio Channel control that is declaring an emergency.

- Voice Alert — constitutes a Voice Selective Call, Individual Call and Unit to Unit Call (synonymous). This function sends a Voice Alert to a unit, causing it to unmute its speakers

Outgoing Signaling

Included in the Manual Paging types are STAT-ALERT functions: call alert, radio check, remote monitor, status request, manual RAC, radio enable/disable and repeater enable/disable. When a console initiates a STAT-ALERT (MDC) manual page to a specific mobile radio, the console expects an acknowledgement (ACK) from the mobile. Only a Voice Alert MDC page and a Call Alert to a Group do not expect an ACK.

The label area of the Radio Channel control shows different messages under the following circumstances for "STAT-ALERT" manual paging:

- When the console receives an ACK, the Status area states **ACK Received**
- If an ACK is not received within a pseudo-random wait time, the console re-transmits the MDC page and the Status area states **RETRY #** <where # is the actual number of the times the page has been attempted (fixed at up to four attempts)>
- If an ACK has not been received after the fourth retry, the Status area states **No ACK**

NOTE

It is also possible to configure the **Page List** with various STAT-ALERT sequences.

SENDING STAT-ALERT SIGNALS

To send a STAT-ALERT, you must choose the STAT-ALERT type and the mobile ID to whom you want to send the STAT-ALERT MDC page.

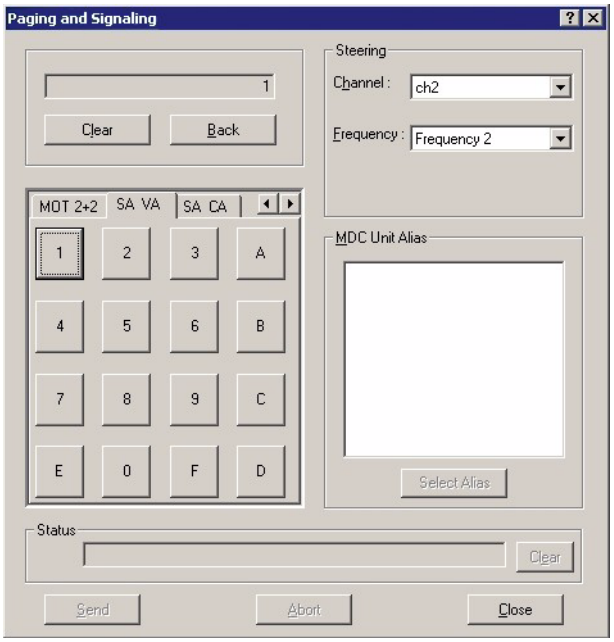
For more information about STAT-ALERT, see “STAT-ALERT Signaling” on page 2-54.

PROCEDURE 2-40 HOW TO SEND STAT-ALERT MESSAGES

1 Choose the radio channel that you want to use for paging.

2 Click the **Man Page** button or choose **Manual Page** from the **Tools** menu.

Result: The **Paging and Signaling** dialog box appears.



3 From the available tabs, choose the STAT-ALERT signaling type (for example, Call Alert or Voice Alert, etc.).

NOTE

The keypad changes to reflect the codes for each kind of paging or signaling type.

Procedure 2-40 How to Send STAT-ALERT Messages (continued)

4 Choose an alias in the **MDC Unit Alias** list (list automatically appears) and click the **Select Alias** button. (This list is maintained in the Caller ID database).

OR

Manually, type a code via the keypad area.

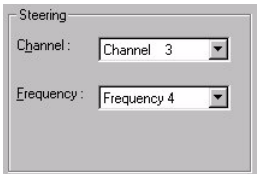
Result: The code appears in the **Code** area.

If required, use the **Clear** and **Back** buttons to remove any mis-typed characters.

NOTE

After you have typed the maximum number of digits for the code or sequence, the program does not allow you to add any more digits.

5 To define a specific Radio Channel control and frequency for the page, go to the **Steering** area. Highlight the desired Radio Channel control and frequency using the drop-down menus.



- **Channel** — displays the available Radio Channel controls on the console. One of the choices in the list is **Selected**. Choosing this option steers the page to all the radio channels that are selected at the console. In this case, the frequency scroll lists are forced to **Default** and *cannot* be changed as long as **Channel** is set to **Selected**
- **Frequency** — presents the following choices: **Default**, **Frequency 1** through **Frequency 16**. The available options depend on the frequencies available on the radio channel that you selected under **Channel** (above)

  Choosing **Default** steers the page to the frequency that is currently used by the system for the radio channel. Choosing **Frequency 1** through **Frequency 16** steers the page to that particular frequency of the radio channel

NOTE

The MIP 5000 VoIP Radio Console uses the default value, if you do not choose an entry.

NOTE

If a radio channel is selected as a result of being in an open multiple selection or an active patch, you cannot page on this channel when **Steering — Channel** is set to **Selected**. To send a page on such a channel, you must steer it to this channel by choosing this channel from the **Steering — Channel** list.

PROCEDURE 2-40 HOW TO SEND STAT-ALERT MESSAGES (CONTINUED)

6	The **Status** area shows the status of the page. Click the **Clear** button to clear the **Status** area.
7	To transmit the paging/signaling sequence, click the **Send** button. **Result:** The **Transmit** indicator appears on the selected Radio Channel control and in the **Status** area of the **Paging and Signaling** dialog box. Click the **Abort** button to cancel this page but stay in the dialog box. OR Click **Close** to return to your main window.
8	The **Transmit** indicator on the Radio Channel control disappears, if there is no talkdown (this is also known as voice annotation delay and it is set in the CSDM) associated with this page. The **Transmit** indicator on the Radio Channel control remains, if a talkdown time is associated with this page. **Result:** If configured, a green **Talkdown** indicator appears in the **Status** area of the **Paging and Signaling** dialog box. For the duration that this indicator appears you can transmit without pressing the **Common Transmit** button or the **Instant Transmit** button. • If you need to transmit, on the selected Radio Channel control, for longer then the duration of the **Talkdown** indicator, click the **Common Transmit** button or the **Instant Transmit** button and speak into your headset. If your page is steered to an unselected Radio Channel control, you must choose the Radio Channel control before continuing with your message • To end the voice message, release the **Common Transmit** button or the **Instant Transmit** button • If you talk longer than allowed (that is, when the transmit timeout occurs [set in the CSDM]), a **Paging Aborted** message appears in the Status area of the **Paging and Signaling** dialog box (or for as long as the PTT is held). A **transmit (error)** indicator also appears on the Radio Channel control involved in the page when there is a transmit timeout

PAGING WITH A PROGRAMMED LIST

The system administrator, or an individual with the proper access level, prepares the pre-programmed lists. The MIP 5000 VoIP Radio Console provides access to these pre-programmed lists. These tabs contain a unique list of participants (individuals or agencies). From the chosen tab, you choose the participants, which are then stacked in a paging queue.

For information about radio channel behavior when paging, see “Multiple Pages Radio Channel Behavior” on page 2-63.

NOTE

The time it takes to transmit a page depends on the number of participants in the page.

NOTE

To update any of the page lists, see the system administrator or the supervisor.

NOTE

If a Radio Channel control is already active in an open multiple selection or active patch, typically, you cannot use this Radio Channel control for a page. You can use one specific radio channel involved in a multiple selection or an active patch, if you steer the page directly to that one specific Radio Channel control.

NOTE

When using programmed pages, which specify that the page transmits on the “selected channel”, ensure that you have a channel selected that is not involved in a multiple selection or an active patch see Note above. The pages in a list are sent whether a channel is selected or not. Therefore, a page failure results for each page sent in the programmed pages list, if a channel is not selected.

PROCEDURE 2-41 How to Send a Page with the Programmed List

1 Choose the radio channel that you want to use for paging.

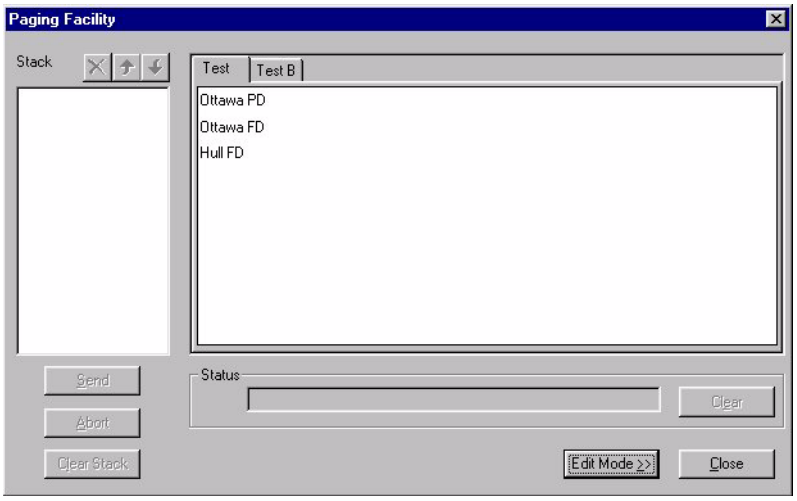
NOTE

You might not need this step, as some pages specify the radio channel and frequency required for transmitting the paging tones.

PROCEDURE 2-41 HOW TO SEND A PAGE WITH THE PROGRAMMED LIST (CONTINUED)

2 Click the **Page List** button or choose **Page List** from the **Tools** menu.

Result: The **Paging Facility** dialog box appears.



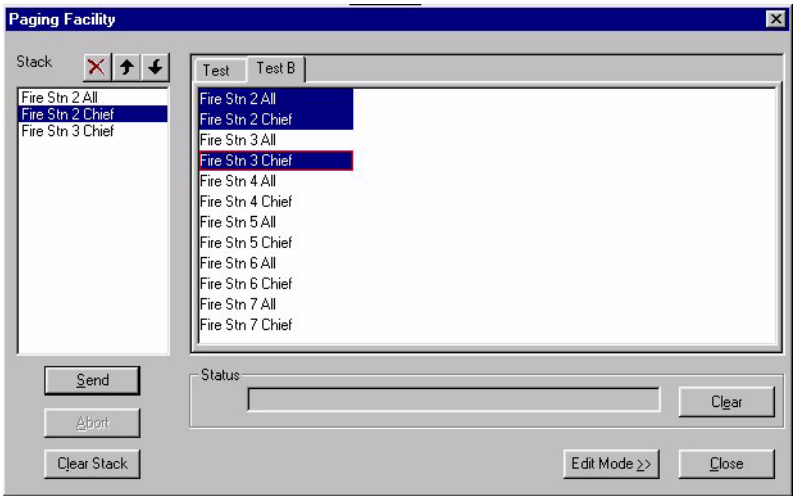
3 Click the tab for the page list containing the desired participants.

Result: The chosen page list appears.

Procedure 2-41 How to Send a Page with the Programmed List (continued)

4 Choose the desired participants for the page.

Result: The chosen participants appear in the **Stack** area in the chosen order.



NOTE

When an asterisk appears beside a page in the **Stack** area, this indicates that this page is assigned to a **Single Page** button. See "Paging with a Single Page Button" on page 2-65 for more information.

NOTE

A Group page that appears dimmed in the **Page Facility** list indicates a failure. For example, if a channel of a single page within a group stops working, then the group is unavailable in the MIP 5000 VoIP Radio Console program. Consult with your system administrator to troubleshoot the problem.

NOTE

If the Group page sequence fails or is aborted, the Group label remains in the Stack list. Use the Page History window to see which pages were successfully transmitted. See "Information Window" on page 1-11 for more information.

PROCEDURE 2-41 HOW TO SEND A PAGE WITH THE PROGRAMMED LIST (CONTINUED)

To remove a chosen participant:

- Under the tab list, click the highlighted participant a second time

Result: The highlighting disappears from that participant and the participant's name is removed from the **Stack** area.

OR

- Under the **Stack** area, click on the participant you want to remove and then choose the **X** (Delete) button from the top of the list

Result: The participant's name disappears from the **Stack** area.

To remove all chosen participants, click the **Clear Stack** button.

Result: All highlights disappear from the chosen participants and all participants' names are removed from the **Stack** area.

To rearrange the order of the participants in the paging stack list, click on the participant you want to move and then choose the **Move Up Arrow** and/or **Move Down Arrow** buttons from the top of the list.

Result: The participant's name moves accordingly in the **Stack** list.

5 Click the **Send** button.

Result: The **Transmit** indicator appears on the Radio Channel control of the selected radio channel and in the **Status** area of the **Paging Facility** dialog box. As the console sends each individual participant's page, they are individually removed from the paging stack.

OR

Click the **Abort** button, at anytime, to cancel the progress of the page stack.

NOTE

If a Radio Channel control is already active in an open multiple selection or active patch, you cannot use this Radio Channel control for a page, unless you steer the page directly to a specific Radio Channel control.

NOTE

Any unsuccessful page participants remain in the stack after all of the pages are sent.

Procedure 2-41 How to Send a Page with the Programmed List (continued)

6 You can send a voice message, after the **Transmit** indicator disappears from the **Status** area of the **Paging Facility** dialog box. The **Transmit** indicator remains on the selected Radio Channel control, if a talkdown time (this is also known as voice annotation delay and it is set in the CSDM) is associated with this page.

Result: If configured, a green **Talkdown** indicator appears in the **Status** area of the **Paging Facility** dialog box. For the duration that this indicator appears you can transmit without pressing the **Common Transmit** button or the **Instant Transmit** button.

- If you need to transmit, on the selected Radio Channel control, for longer then the duration of the **Talkdown** indicator, click the **Common Transmit** button or the **Instant Transmit** button and speak into your headset. If your page is steered to an unselected Radio Channel control, you must choose the channel before continuing with your message.
- To end the voice message, release the **Common Transmit** button or the **Instant Transmit** button
- If you talk longer than allowed (that is, when the transmit timeout occurs), a **Paging Aborted** message appears in the **Status** area of the **Paging Facility** dialog box (or for as long as the PTT is held). A **Transmit (error)** indicator also appears on the Radio Channel control involved in the page when there is a transmit timeout.

Multiple Pages Radio Channel Behavior

When using the **Page List** or the group associated **Single Page** button and you send multiple pages that share a radio channel (and frequency), the radio channel stays keyed until the last page in the list or group is transmitted. You determine the order of the pages by either the page selection process or by using the **Move Up Arrow** and/or **Move Down Arrow** buttons that change the sequence of the pages.

The radio channel keys when it is needed to send the page in the paging sequence. The channel remains keyed until the last page in the sequence, using that channel (and frequency), goes out. If voice annotation (talkdown) is enable, the channel remains keyed until the voice annotation is finished. If the steering properties of a channel changes (that is, the frequency) in the paging sequence, plus there is voice annotation on one of the keyed channels, the paging sequence is delayed to allow for the voice annotation. After the voice annotation is completed, the keyed channels are de-keyed. The paging sequence then continues by keying the required channels to complete all of the remaining pages in the sequence.

Here is an example to help explain a multiple page sequence, you choose single pages in the following order:

TABLE 2-1 MULTIPLE PAGES RADIO CHANNEL BEHAVIOR

Page Number	Channel	Frequency	Voice Annotation (VA)
Page 1	Ch1	F1	
Page 2	Ch3	F1	VA enabled
Page 3	Ch2	F1	
Page 4	Ch1	F1	
Page 5	Ch3	F1	VA enabled
Page 6	Ch2	F1	VA enabled
Page 7	Ch1	F1	
Page 8	Ch3	F1	
Page 9	Ch1	F2	VA enabled

Then, based on the page sequence in Table 2-1, “Multiple Pages Radio Channel Behavior,”, the pages go out as:

- Sends Page 1 (Ch1 keyed using F1)
- Sends Page 2 (Ch3 keyed using F1)
- Sends Page 3 (Ch2 keyed using F1)
- Sends Page 4 (Ch1 stilled keyed from Page 1)
- Sends Page 5 (Ch3 stilled keyed from Page 2)
- Sends Page 6 (Ch2 stilled keyed from Page 3)
- Sends Page 7 (Ch1 stilled keyed from Page 1)
- Sends Page 8 (Ch3 stilled keyed from Page 2); now, since there is a change in frequency for Page 9, and some of the pages previously sent have voice annotation (talkdown) enabled, so a talkdown (voice annotation) period occurs and then, Ch1, Ch2 and Ch3 are de-keyed
- Sends Page 9 (Ch1 keyed using F2); since voice annotation (talkdown) is enabled, a talkdown period occurs and then Ch1 is de-keyed

Paging with a Single Page Button

The supervisor, or an individual with the proper access level, prepares the **Single Page** button. These buttons can be an individual page or set up as a group page under one button that is available on the console desktop. The MIP 5000 VoIP Radio Console provides access to up to 512 of these buttons. To avoid accident activation, some **Single Page** buttons require the **Safety** button. For those buttons, without safety enable, the page can not be sent.

When you send a page with a **Single Page** button, you can see the status of the page, if you have the **Paging Facility** (**Page List** button) dialog box open or through the Page History window.

In the **Paging Facility** dialog box, a larger text size that is bold with an asterisk indicates a group page under a **Single Page** button. Page names that are a normal text size, not bold and have an asterisk are **Single Page** buttons assigned to one, individual page. The names of the buttons on the desktop do not show a difference between a group or an individual page.

For information about radio channel behavior when paging, see "Multiple Pages Radio Channel Behavior" on page 2-63.

NOTE

For more information and to see all of the **Single Page** button states, see "Single Page Button" on page 3-53.

NOTE

When using programmed pages, which specify that the page transmits on the "selected channel", ensure that you have a channel selected that is not involved in a multiple selection or an active patch. The pages in a list are sent whether a channel is selected or not. Therefore, a page failure results for each page sent in the programmed pages list, if a channel is not selected.

PROCEDURE 2-42 How to Page with a Single Page Button

1 Choose the radio channel that you want to use for paging.

NOTE

You might not need this step, as some pages specify the radio channel required for transmitting the paging tones.

NOTE

A mobile radio can only be paged using the currently selected channel.

PROCEDURE 2-42 HOW TO PAGE WITH A SINGLE PAGE BUTTON (CONTINUED)

2 Click the **Single Page** button.

Result: The **Transmit** indicator appears on the Radio Channel control affected by this page and on the **Single Page** button.

(If the **Paging Facility** dialog box is open, a **Transmit** indicator appears in the **Status** area.)

If this is a tone page (not MDC signaling), you also hear the paging feedback tone in the select speaker or headset (if the paging tone feedback volume is set to soft or loud.

3 You can send a voice message, after the **Transmit** indicator on the button disappears (and if applicable, in the **Status** area of the **Paging Facility** dialog box). The **Transmit** indicator remains on the selected Radio Channel control, if a talkdown time (this is also known as voice annotation delay and it is set in the CSDM) is associated with this page.

Result: If configured, a green **Talkdown** indicator appears on the button (and if applicable, in the **Status** area of the **Paging Facility** dialog box). For the duration that this indicator appears you can transmit without pressing the **Common Transmit** button or the **Instant Transmit** button.

- If you need to transmit, on the selected Radio Channel control, for longer then the duration of the **Talkdown** indicator, click the **Common Transmit** button or the **Instant Transmit** button and speak into your headset. If your page is steered to an unselected Radio Channel control, you must choose the Radio Channel control before continuing with your message.
- To end the voice message, release the **Common Transmit** button or the **Instant Transmit** button.
- If you talk longer than allowed a **Transmit (error)** indicator appears on the Radio Channel control involved in the page when there is a transmit timeout (also if applicable, a **Paging Aborted** message appears in the **Status** area of the **Paging Facility** dialog box (or for as long as the PTT is held)).

4 To abort the page, click the **Single Page** button once again.

OR

If the **Paging Facility** dialog box is open, click the **Abort** button to cancel this page.

To page with a **Single Page** button with safety, see “Unlocking A Feature with the Safety Button” on page 2-81.

Viewing Page History Information

The Page History window lists all of the pages sent from this console.

To view this history, get the supervisor (if you don't have reconfiguration privileges) to choose **View>Information Window**. The Page History window appears.

When you send a successful page, the page appears in the Page History window as black text with **Pass** under the **Status** column; pages that are not successfully transmitted appear in the Page History window in red text with **Fail** under the **Status** column.

Additional Communications Features

This section describes various communications features; for example, the transmit priority, transmit queue and other radio communications features. The following communications features are described:

UNDERSTANDING TRANSMIT PRIORITY

To solve potential conflicts when system users attempt to transmit on the same Radio Channel control at the same time, a transmit priority scheme is built into the system. The table below shows the priority of the various transmissions with respect to the activity of the **Supervisory** button (activated [on] or not [off]). The **Supervisory** button increases the priority level when activated, see "Using the Supervisory Button" on page 2-76 for more information.

TABLE 2-2 TRANSMIT PRIORITY

PTT Source	Status of Supervisory Button	Relative Priority
Base Icom button	OFF	0 (lowest)
Base Icom button	ON	1
Common Tx button, footswitch or microphone PTT, Alert Tones	OFF	2
Instant Tx button, **Patch**, **APB #** button, **Page**	OFF	3
Common Tx button, Alert Tones	ON	4
Instant Tx button, **Patch**, **APB #** button, **Page**	ON	5 (highest)

NOTE

When two transmission requests have equal priority, then the first request received takes precedence. A page in progress cannot be interrupted by another transmission, even one of higher priority.

A parallel unit, if enabled, cannot interrupt another transmission. A parallel unit can only be interrupted using the Takeover feature, if enabled.

UNDERSTANDING THE TRANSMIT QUEUE

The transmit queue ensures that all communications on one radio channel can be eventually transmitted. The transmit queue is based on transmit priority (see "Understanding Transmit Priority" on page 2-68) but if two transmissions have the same priority then they are treated on a first come, first transmit basis.

You achieve your position in the line by holding down your PTT button (**Instant Transmit**, **Common Transmit**) until your position in the queue is met.

Reserving a Radio Channel for Priority Transmissions

The **Mrk Tone** button refers to radio channel marker tone, which marks a radio channel as reserved for priority transmissions by transmitting periodic tones.

When this feature is on, tones are sent on all selected radio channels every 10 seconds. The tones mark the radio channels as priority, and warn non-critical or unauthorized radio users not to transmit on these channels.

The tones are not sent while the radio system is receiving or transmitting on those radio channels. The tones cause the **Transmit** indicator for the marked channels to appear.

NOTE

The tones are sent on all selected radio channels, including patches and multiple selections.

This feature toggles between sending periodic tones and not sending them.

PROCEDURE 2-43 How to Send Marker Tones

1. At your console, choose the Radio Channel control that you want to mark as priority. If you want to choose multiple Radio Channel controls, use the multiple selection or patching feature.

2. Choose the **Mrk Tone** button.

Result: On your console, the button changes to its active state (two red musical notes) and a tone signal begins transmitting to maintain the radio channel(s) as priority.

All other consoles, and your own, reflect this priority radio channel change. You see the **Transmit** indicator on the Radio Channel control(s) and you hear the marker tone.

PROCEDURE 2-44 HOW TO STOP THE MARKER TONES

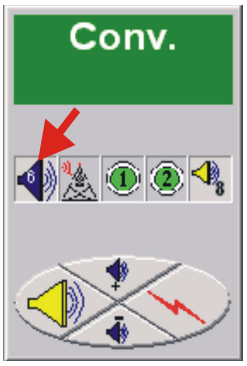
1	At your console, if you want certain Radio Channel controls to remain marked, choose *only* the Radio Channel controls that you no longer want to be marked as priority. **Result:** The unselected radio channels stop transmitting marker tones. The selected radio channels continue to transmit marker tones.
2	To remove the marker tone from all channels, choose the **Mrk Tone** button. **Result:** The button returns to its inactive state and the marker tone stops transmitting on the selected radio channel(s).

Private Line/Tone-Coded Squelch Control

The **Private Line** feature uses the selected tone in the list for tone-coded squelch control on a radio channel. This feature appears in the Radio Channel Control and is available only if your system includes a multiple tone-coded Continuous Tone Coded Squelch System (CTCSS) and supports a maximum of six private lines per tone-control radio channel.

There are two ways to adjust the private line feature to use a different tone:

- Using the Radio Channel shortcut menu
- Using the **Up/Down** private line buttons in the button area of the Radio Channel control (if configured).

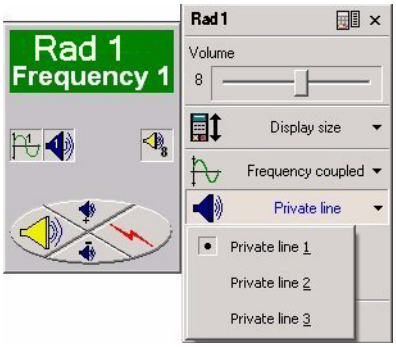


To change the code squelch of a radio channel using the shortcut menu, follow this procedure:

Procedure 2-45 How to Change Coded Squelch (Shortcut Method)

1 Access the Radio Channel control shortcut menu. (Click the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.)

Result: The Radio Channel control shortcut menu appears.



PROCEDURE 2-45 HOW TO CHANGE CODED SQUELCH (SHORTCUT METHOD) (CONTINUED)

2 From the Radio Channel control shortcut menu, choose the **Private Line** drop-down menu.

From the drop-down menu, choose the desired coded squelch. (If configured on your system using the CSDM, one to six coded squelch choices are available.)

Result: A tone signal is sent to keep the base station synchronized with the change.

The Radio Channel control shortcut menu remains open until you choose the **Close** (X) button (top right of shortcut menu) or until you click on another area of the main screen. The corresponding **Private Line** indicator appears on the Radio Channel control. On revisiting the **Private Line** drop-down menu, a dot appears beside the chosen coded squelch.

All other consoles, as well as your own, reflect this change.

To change the code squelch of a radio channel using the private line buttons, follow this procedure:

PROCEDURE 2-46 HOW TO CHANGE CODED SQUELCH (BUTTON METHOD)

1 If configured, use the **Up/Down** private line buttons in the button area of the Radio Channel control to adjust the coded squelch. Use the private line **Up** (**+**) button to move the coded squelch up in the list or use the private line **Down** (**-**) button to move the coded squelch down in the list. If the **Private Line** indicator is present in the indicator area of the Radio Channel control, it also reflects the change in coded squelch.

All other consoles, and your own, reflect this change.

NOTE

You cannot change the selected PL tone while any console is transmitting on the channel. Retry after the transmission is completed.

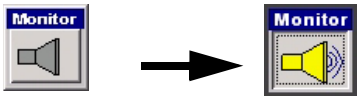
Disabling the Coded Squelch/Private Line

The **Monitor** button disables the coded squelch in a base station receiver, thereby allowing you to monitor the selected radio channel(s) before transmitting. Depending on how the Monitoring feature is configured in the CSDM, the coded squelch remains disabled until the next PTT on that channel or until the **Monitor** button is pressed again at any console. Check with the supervisor to see how the Monitoring feature is configured.

NOTE

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

PROCEDURE 2-47 How to Disable and Enable the Coded Squelch

1	Click the **Monitor** button. **Result:** It toggles between squelch enabled and disabled, if configured at the CSDM. The **Monitor** button (a gray speaker) *briefly* changes to reflect that the squelch is disabled (a yellow speaker with sound waves). 
2	Listen on the Radio Channel control for radio activity.
3	When the Radio Channel control is clear of radio activity, use one of the PTT buttons to transmit. **Result:** The squelch is automatically enabled when you transmit. OR To enable the squelch without transmitting, click the **Monitor** button. **Result:** The squelch for this Radio Channel control is enabled.

Taking over Communication on a Radio

The **Takeover** feature takes over communication on a radio (using the **Takeover** feature on the Radio Channel shortcut menu) thus physically disconnecting all non-MIP 5000 consoles (connected in parallel to the MIP 5000 console initiating takeover) from the radio transmitter (all transmit frequencies). Only the console initiating the **Takeover** can transmit.

When the enabled **Takeover** indicator appears on all taken over Radio Channel controls, only the operator who initiated the takeover can transmit. If you select this feature while a parallel unit radio transmission is in progress, that transmission is immediately stopped.

Takeover – Enabled

Takeover – Disabled

Depending on your configuration, when the **Takeover** indicator is present:

- 4-wire — all parallel units continue to monitor the radio traffic on the receive frequency
- 2-wire — all parallel units are unable to transmit or receive

This feature is toggled between enable and disable. In the disable state, radio communication proceeds as normal and the disabled **Takeover** indicator is present.

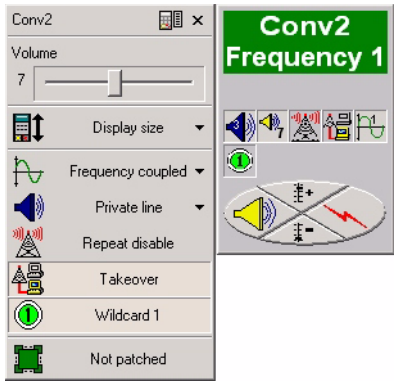
NOTE

The indicator reflects the state of the communication on this radio channel, not the state of the parallel unit.

PROCEDURE 2-48 HOW TO ENABLE THE RADIO CHANNEL CONTROL TAKEOVER

1 Access the Radio Channel control shortcut menu. (Click the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.)

Result: The Radio Channel control shortcut menu appears.



Procedure 2-48 How to Enable the Radio Channel Control Takeover

2 From the Radio Channel control shortcut menu, choose **Takeover**.

Result: The **Takeover** indicator changes to the enabled state on the Radio Channel control.

3 The Radio Channel control shortcut menu remains open until you choose the **Close** (X) button (top right of shortcut menu) or until you click on another area of the main screen.

Result: A depressed button appears around **Takeover**.

Procedure 2-49 How to Disable the Radio Channel Control Takeover

1 Access the Radio Channel control shortcut menu. The Radio Channel control shortcut menu appears.

2 From the Radio Channel control shortcut menu, choose **Takeover**.

Result: The **Takeover** indicator changes to the disabled state on the Radio Channel control.

On the shortcut menu, **Takeover** appears normal (no depressed button).

Using Encryption Mode

The **Encryption Mode** feature enables or disable the transmission security feature on an radio channel control. The **Coded** command encodes the transmission so that the information in the transmission is secure (encrypted). The **Clear** command sends the transmission with no encryption.

NOTE

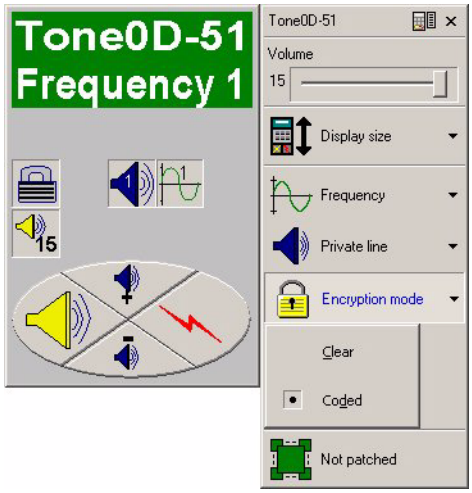
You cannot perform this task when a transmission is in progress. Retry after the transmission is completed.

PROCEDURE 2-50 ENABLING OR DISABLING ENCRYPTION MODE

1 Access the radio channel control shortcut menu. (Click the indicator area on the radio channel control, or use SHIFT+F10 on your keyboard when the focus is on this radio channel control.)

Result: The radio channel control shortcut menu appears.

2 From the radio channel control shortcut menu, choose the **Encryption Mode** drop-down menu. From the drop-down menu, choose the **Clear** or **Coded** (encrypted) command.



Result: The indicator appears on the radio channel control (open lock – **Clear**; closed lock – **Coded**).

3 The radio channel control shortcut menu remains open until you choose the **Close** (X) button (top right of shortcut menu) or until you click on another area of the main screen.

Result: On the **Encryption Mode** drop-down menu, a dot appears beside the chosen security command.

4 Revisit the **Encryption Mode** command to change the security level (**Coded** back to **Clear** and vice-versa).

USING THE SUPERVISORY BUTTON

The **Supervisory** button allows you to prioritize a PTT relative to the PTT of other MIP 5000 consoles. Keying a busy radio channel with a PTT of higher priority than the current PTT results in an override condition. For more information, see "Understanding Transmit Priority" on page 2-68.

Procedure 2-51 How to Activate the Supervisory Button

1. Choose the busy Radio Channel control(s) on which you want to invoke the Supervisor Transmit Priority feature.

2. Choose the **Supervisory** button.

   Result: The **Supervisory** button changes color to signify it is active. The busy Radio Channel control transmission becomes available to the Supervisor.

3. To deactivate the Supervisor Transmit Priority feature, choose the **Supervisory** button again.

   Result: The **Supervisory** button changes back to its inactive state (dimmed appearance).

Establishing Communications Through a RAC-enabled Repeater

You can enter a repeater access code (RAC) on a per Radio Channel control basis to establish communication through a RAC-enabled repeater, either manually or via pre-programmed codes (MDC Unit Alias). The specific RAC chooses which repeater is accessed. The program stores the RAC in memory and uses it each time you transmit, so that each transmission accesses the same repeater.

Procedure 2-52 How to Assign a RAC to a Channel

1. Choose **Enter RAC** from the **Tools** menu.

   Result: The **Enter RAC** dialog box appears.

2. Choose a Radio Channel control from the **Channel:** drop-down menu. (Only Radio Channel control(s) configured for STAT-ALERT signaling (through the CSDM) appear in this list.)

   Result: The MDC Unit Alias list displays all the MDC Unit aliases maintained in the Caller ID database.

PROCEDURE 2-52 HOW TO ASSIGN A RAC TO A CHANNEL (CONTINUED)

3	Use the **MDC Unit Alias** area to enter a new RAC by choosing an alias from the list (choose the alias from the list then click the **Select Alias** button) or manually type a code via the **Keypad** area on the **Enter RAC** dialog box. **Result:** The MDC Unit Alias or manually entered code appears in the **Code** area.
4	Use the **Back** and **Clear** buttons in the **Code** area to adjust the code if necessary.
5	Repeat step 2 through step 4, if required.
6	When you are done, click **OK** to save the newly entered RAC and close the **Enter RAC** dialog box. OR Click **Cancel** to close the **Enter RAC** dialog box without changing the RAC. **Result:** You return to the main window.

ENABLING OR DISABLING REPEATER FUNCTION

The **Repeat Disable** feature on the Radio Channel shortcut menu enables and disables repeat function of the station. The **Repeat Disable** indicator is present on the Radio Channel Control: enable and disable (inactive/normal state). A repeater uses semi- or full-duplex radio channels. When the repeat feature is enabled, your radio channel retransmits (repeats) incoming (received) radio traffic, effectively extending the coverage area for all users on the radio channel. When the repeat feature is disabled, all units can still communicate back and forth with you but cannot hear any other unit (except you) on the radio channel.

The indicator is present when this Radio Channel control has access to the **Repeat Disable** feature. The indicator, typically, shows the indicator as repeater access inactive and then it changes to a new indicator when it is active.

Repeat Disable – Active, repeat feature disabled

Repeat Disable – Inactive (normal state)

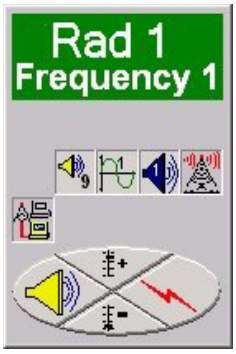
NOTE

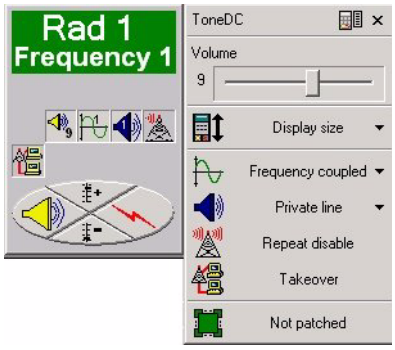
You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

PROCEDURE 2-53 HOW TO ACTIVATE THE REPEAT DISABLE FUNCTION

1 Access the Radio Channel control shortcut menu. (Click the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.)

Result: The Radio Channel control shortcut menu appears.





2 From the Radio Channel control shortcut menu, choose **Repeat Disable**.

Result: The **Repeat Disable** indicator changes on the Radio Channel control to the activated (active) indicator.

PROCEDURE 2-53 HOW TO ACTIVATE THE REPEAT DISABLE FUNCTION (CONTINUED)

3	The Radio Channel control shortcut menu remains open until you choose the **Close** (X) button (top right of shortcut menu) or until you click on another area of the main screen. **Result:** On the shortcut menu, a depressed button appears around **Repeat Disable**.

PROCEDURE 2-54 HOW TO DEACTIVATE THE REPEAT DISABLE FUNCTION

1	Access the Radio Channel control shortcut menu. (Click the indicator area on the Radio Channel control, or use SHIFT+F10 on your keyboard when the focus is on this Radio Channel control.) **Result:** The Radio Channel control shortcut menu appears.
2	From the Radio Channel control shortcut menu, choose **Repeat Disable**. **Result:** The **Repeat Disable** indicator changes on the Radio Channel control to the deactivated (normal, inactive state) indicator.  On the shortcut menu, a depressed button no longer appears around **Repeat Disable** (it appears normal).

Unlocking a Feature with the Safety Button

The **Safety** button prevents the operation of a specifically configured **Single Page** button on the console unless you activate the **Safety** button first.

In some systems, you must use the **Safety** button before using **Single Page** button (to ensure that you are not accidentally activating a page). In the page situation, the **Single Page** button with the safety feature enabled appears with an orange lock in the bottom right-hand corner.

To use the safety button:

Safety button

Single Page button with safety feature

Procedure 2-55 How to Use the Safety Button

1 Choose the **Safety** button.

NOTE

The **Safety** button times out if you do not choose a **Single Page** button.

Result: The **Safety** button changes to the closed lock (available) state.

2 Choose the specifically **Single Page** button that you want to activate.

Result: The **Single Page** button activates and the **Safety** button returns to the open lock (unavailable) state.

3 If required, repeat for the specifically configured **Single Page** button(s) that you want to activate.

VIEWING RADIO TEXT

The Radio Text window displays text from the control head of the MOTOTRBO radio and the name of the Radio Channel control on which it is displayed. The window automatically updates with new text as it arrives on the Radio Channel control.

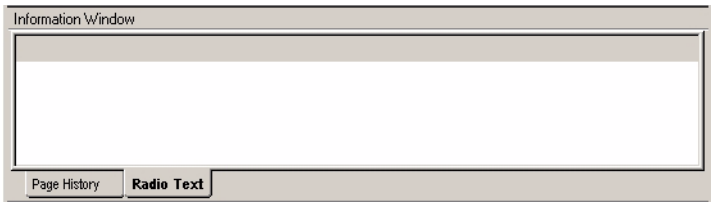
NOTE

You can view radio text from the selected MOTOTRBO radio control head in the associated keypad (see "MOTOTRBO Keypad" on page 1-24) and the label area of the associated Radio Channel control (see "MOTOTRBO Radio Channels" on page 1-21).

PROCEDURE 2-56 HOW TO VIEW RADIO TEXT IN THE INFORMATION WINDOW

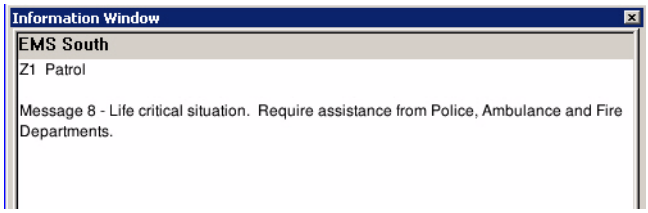
1 Open the Radio Text window, by clicking a **Radio Text** tab on the Information Window.

Result: The Radio Text window opens.



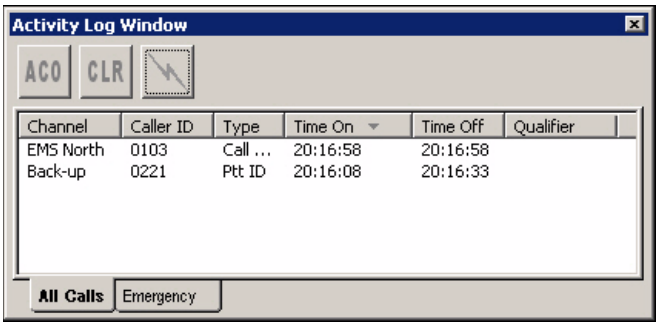
2 Click and drag the desired MOTOTRBO Radio Channel control into the Radio Text window.

Result: The name of the Radio Channel control and radio text appear in the window.



Accessing Callers Through the Activity Log Window

The Activity Log window provides you with a view and access to a list of all radio channel activities at the console. For easier access, if configured, four tabs separate the window into **All Calls**, **Emergency**, **Select** and **Unselect** lists. Through this log, you reconnect with previous radio callers, acknowledge alarms and clear alarms, plus view information about the various calls.

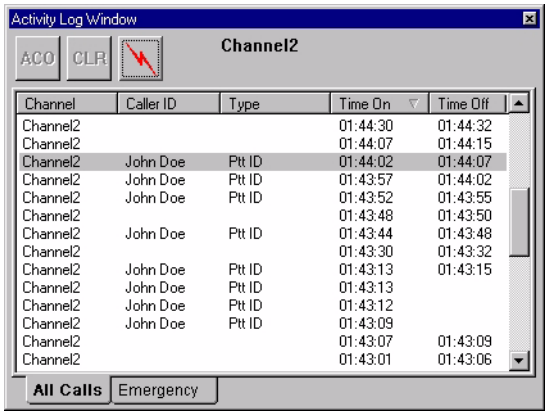


NOTE

For more detailed information about handling emergency calls, see "Responding to an Emergency Alarm" on page 2-23.

PROCEDURE 2-57 How to Retransmit to Callers via Activity Log Window

1	Choose the desired tab in the Activity Log window. (If this window is not available on your main window, see the supervisor to add this window).
2	Scroll through the list, if required, to access the desired caller.
3	Click on the row of the caller with whom you want to connect. **Result:** The row becomes highlighted and the radio channel name appears at the top of the window, plus the **Transmit** button on the Activity Log window becomes active.



PROCEDURE 2-57 HOW TO RETRANSMIT TO CALLERS VIA ACTIVITY LOG WINDOW

4	Transmit to the selected channel via the Activity Log window **Transmit** button. **Result:** The **Transmit** indicator appears on the Radio Channel control associated with this channel and a **Transmit** indicator appears in the Activity Log window beside the **Transmit** button.
5	If an emergency occurs, the system puts the call under the **Emergency** tab and on the **All Calls** tab. To acknowledge the emergency, choose the red emergency call from the list and choose the **ACO** (Alarm Cut Off) button. **NOTE** If the Emergency arrives on a selected Radio Channel control, the call will also appear under the **Select** or **Unselected** tab. **Result:** The alarm sound stops.
6	When the emergency is over, use the **CLR** (Clear) button to clear the alarm from its emergency status.

ADJUSTING HEADSET AND SPEAKER VOLUMES

You can adjust the select and unselect speaker volumes and the operator and supervisor headset (if present) ear piece volumes using the Volume window. If it is not already displayed on your screen, ask a supervisor to use the **Volume Window** command on the **View** menu to make it available.

NOTE

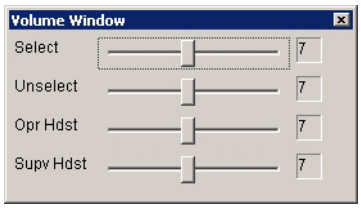
MIP 5000 VoIP Radio Consoles can be operated with either standard 4- or 6-wire headsets, each of which requires a USB jackbox, or with Windows-compatible USB headsets.

Jackboxes or headsets are to be labeled **Operator** or **Supervisor**, according the assignment made during installation. To set the headset volume of an unlabeled jackbox or headset, you might need to try one slider, then the other.

Procedure 2-58 How to Adjust Headset and Speaker Volume

1 Choose **Volume Window** from the **Tools** menu.

Result: The Volume window appears.



2 Choose the slide control for the speaker you want to adjust (**Select**, **Unselect**, **Opr Hdst** ear piece, or **Supv Hdst** ear piece) and drag the slider to control the volume of the speaker.

Result: The associated speaker volume is adjusted according to the new setting.

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CHAPTER 3

BUTTONS, CONTROLS AND INDICATORS

This section describes each button, control, and indicator that can appear on your Motorola MIP 5000 VoIP Radio Console. Keep in mind that your console displays only those configured by the supervisor.

With the information presented in this section, you should be able to design your own procedures for tasks specific to your job.

For easy reference, the buttons, controls and indicators are in alphabetical order, by their default names.

NOTE

Supervisors can rename the function buttons on the console, therefore the button names that you see here might not be what you see on the console.

The function buttons listed in the table below can be renamed using the CSDM. Consult the *Motorola MIP 5000 Installation and Configuration Manual* (6881013Y35) for information on renaming buttons.

TABLE 3-1 RENAMEABLE FUNCTION BUTTONS/CONTROLS

Alert # Button (3 total)	All Mute Button	APB # Button (10 total)
Base Icom	Call Dir Control	Common Tx
Manual Page	Monitor Button	Mrk Tone Button
MSel # Button (10 total)	MSel w/o M Button	Page List Button
Patch # Button (10 total)	Patch w/o M Button	Supervisory Button

Table 3-2 “Button/Control/Indicator/Symbol Quick Reference Table” on page 3-66 is a quick reference table in alphabetical order based on the default names for the buttons, controls and indicators.

Most of the buttons, controls and indicators described in this section are available to all dispatchers. Some of the buttons, controls and indicators are available only to the supervisors. Any restrictions are included in the description of the button, control or indicator.

ALERT # BUTTON

The **Alert #** button transmits a special signal over the selected radio channels, including channels that are already keyed. The alert function allows you to inform the receiving end of an urgent radio transmission. Three tone frequencies are available:

- Alert 1: continuous 1000 Hz tone
- Alert 2: alternating 800 and 1500 Hz tones
- Alert 3: a pulsing 1000 Hz tone

During the alert tones, the **Alert #** button shows a red **Transmit** indicator on the button area. When the alert tone finishes, the indicator changes to a green **Transmit** (talkdown) indicator over the original indicator. This indicator demonstrates that your microphone is keyed for a specific time (set system-wide in the CSDM) and you can send your voice message for the duration that the **Transmit** (talkdown) indicator is present. You transmit your urgent message when the indicator is present. If you require more time for your message, use the **Common Transmit** button or Instant **Transmit** button and speak into your headset.

Red transmit

Green transmit (talkdown)

NOTE

The **Alert #** button sounds an error if no radio channel is selected.

An alert tone can be sent on channels in a multiple selection and over a patch.

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

ALL MUTE BUTTON

The **All Mute** button mutes all unselect radio channel audio at this console temporarily. The audio from the unselect speaker is reduced by 24 dB or entirely muted for 0 to 120 seconds (set in the CSDM). A red prohibitory sign appears on the unselect Radio Channel control(s) to show that the **All Mute** button is muting these channels.

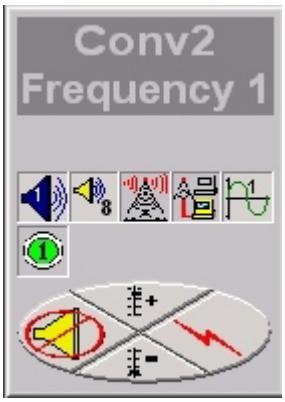
All Mute – Inactive

All Mute – Active

By muting all unselect audio, you can concentrate on the audio at your select speaker or headset. When you want to hear the unselect audio again, you can either click the **All Mute** button again or wait for the automatic timer to turn it back on.

The **All Mute** button includes an automatic timer, so you can never forget to cancel it. After a few seconds, all unselect audio returns to its original volume. The duration of this automatic timer is set at the CSDM, and is the same for all consoles.

Channel that is muted with the **Mute** button (sound wave still present)



Channel that is muted with the **All Mute** button (no sound waves present)

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

RELATED FEATURES:

- "Mute Button" on page 3-33

APB # Button

The **APB #** (All Points Bulletin) button transmits over the channels stored in an associated multiple selection with memory whether it is selected or not. There are ten available **APB #** buttons (one for each **MSel #** with memory button).

APB – Inactive

APB – Active

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

Related Features:

- "MSel # Button" on page 3-31

BACK/HOME CONTROL

The **Back/Home** control returns you to the top of the menu in the MOTOTRBO keypad. The buttons operates with the following short press/long press functionality:

- Short press — Returns to the previous **Menu** level.
- Long press — Exits the **Menu**.

NOTE

You can invoke the **Back/Home** command function by using the - (minus) key, the Home key, and the Backspace key on the numeric keypad of the workstation keyboard.

RELATED FEATURES:

- "Menu/Home Indicator" on page 3-25

Base Icom Button

The **Base Icom** (Intercom) button permits you to send audio to a base station without keying it.

Base Icom – Inactive

Base Icom – Active

An intercom call is made on the currently selected radio channel(s). If a parallel unit is associated with the single base station channel, you can communicate with the parallel unit dispatcher.

To place an intercom call to the selected base station, click and hold the **Base Icom** button, and talk into your headset. The **Base Icom Transmit** indicator (two red transmit icons in the middle of button) appears while this button is held. To end the call, release the **Base Icom** button, the **Base Icom Transmit** indicator disappears when it is released.

The **Base Icom** button cannot be included in a patch or a multiple selection.

This button does not include an interface for incoming calls from the base station; incoming calls are seen as radio calls.

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

CALL DIR CONTROL

The **Call Dir** (Call Director) control enables you to use the MIP 5000 VoIP Radio Console to communicate with telephone calls from a separate telephone system. When you enable this feature, your console connects to a Call Director interface that receives the separate system's calls. The **Call Dir** control permits you to patch a call through the Call Director interface.

Call Dir Inactive

Call Dir Off Hook

Call Dir Transmit

Call Dir Error

When the **Call Dir** control is inactive, the button shows a blue background. When a call is active and there is activity on the call, through the **Call Dir** control, the background changes to red and the transmit symbol appears over the telephone symbol (transmit state). When there is an error with a transmission, the yellow triangle with exclamation appears on the blue background button (error state).

NOTE

The specific operating instructions for the Call Director interface vary, depending on the type of interface in use. For instructions on using the Call Director interface, consult the original documentation provided by the manufacturer.

NOTE

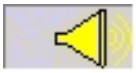
Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

Call Indicator

The **Call** indicator alerts you of an incoming call on the Radio Channel control where the **Call** indicator appears.

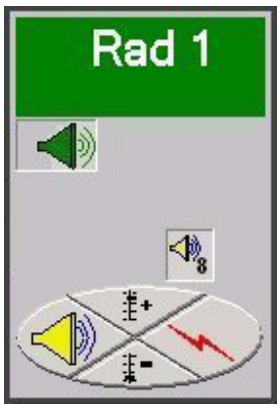
There are a few versions of the **Call** indicator, which help to distinguish the type of radio call, but they are all indicators of an incoming call:

Call Indicator



Call Busy Indicator

These indicators appear whenever an incoming call is detected. An indicator appears below the label area in a Radio Channel control and to the left-hand side.



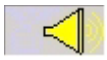
If the call is on a radio channel that is *selected* at your console:

- One of the green **Call** indicators appears

- The unit or alias ID (if applicable) of the radio from which the transmission originated appears on the Radio Channel control below the channel label
- You hear the audio on your select speaker or headset
- You can transmit with any push-to-talk (PTT) button (**Instant Transmit**, **Common Transmit** button

If the call is on a radio channel that is *not selected at your console* but is s*elected at another console*:

- One of the yellow **Call** indicators appears



- The unit ID or alias ID (if applicable) of the radio from which the transmission originated appears on the channel control below the channel label
- You hear the audio on your unselect speaker
- You can transmit with the **Instant Transmit** button

  OR

  You can choose that radio channel and transmit with the common PTT buttons

If the call is on a channel that is *not selected at any console*:

- A green **Call** indicator appears showing that no-one has the Radio Channel control selected
- The unit ID or alias ID (if applicable) of the radio from which the transmission originated appears on the channel control below the channel label
- If another console responds to this call by choosing the radio channel, your **Call** indicator turns yellow
- If you respond to this call by choosing that Radio Channel control:
  - One of the green **Call** indicators appears at your console and a yellow **Call** indicator appears at all of the other consoles
  - You hear the audio on your select speaker or headset
  - You can use any PTT button (**Instant Transmit**, **Common Transmit**) to transmit on that channel

When the call is complete, the **Call** indicator disappears.

RELATED FEATURES:

- “Instant Transmit Button” on page 3-20
- “Common Tx Button” on page 3-12

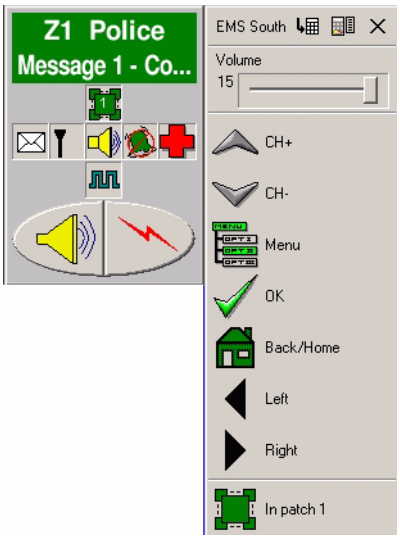
CHANNEL SCROLL CONTROL

The Channel Scroll control can be configured on the shortcut menu of a MOTOTRBO Radio Channel control to move up and down through radio frequencies.

CH+ Control

CH- Control

FIGURE 3-1 EXAMPLE OF A CHANNEL SCROLL CONTROL



COMMON TX BUTTON

The **Common Tx** (Transmit) button transmits audio to all selected channels when you click and hold this button, and talk into your microphone or headset.

This button is always available, even if the console is showing on-line help.

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

RELATED FEATURES:

- "Instant Transmit Button" on page 3-20
- Push-to-talk (PTT) pedal on a footswitch
- Push-to-talk (PTT) button on a desktop microphone

Companding Indicator

The **Companding** indicator shows that transmissions on a channel are using companding to reduce noise. This indicator appears on the Radio Channel control.

CROSS MODE INDICATOR

This indicator tells you when the communicating radio channel control is in a different encryption mode than the received signal. This means one is encrypted (coded) while the other is not (clear). For example, you are transmitting in coded (encrypted) mode while the subscriber radio is transmitting without encryption (clear) or vice versa.

This indicator appears in the indicator area of the radio channel control, and you can change the encryption of the radio channel control with the **Mode** option on the radio channel control shortcut menu.

Cross Mode Clear/Coded Indicator

RELATED FEATURES:

- "Emergency Indicator" on page 3-16

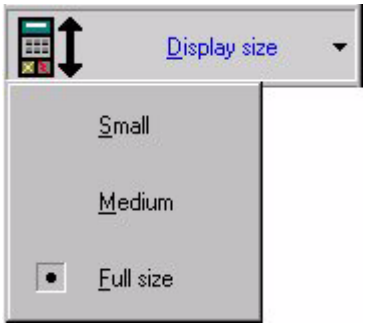
Display Size Indicator

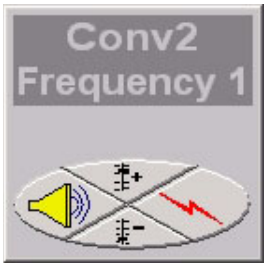
The **Display Size** indicator is on the Radio Channel control shortcut menu. Through the **Display Size** drop down menu, you can change the size of the Radio Channel control display.

The available options are small, medium and full size.

- **Small** is one row of indicators (the **Call** and **Transmit** indicators, plus one variable position)
- **Medium** is two rows of indicators (the **Call** and **Transmit** indicators, plus one variable position, and one row of five variable indicator positions)
- **Full** size is three rows of indicators (the **Call** and **Transmit** indicators, plus one variable position, and then two rows of five variable indicator positions on each row (totaling eleven variable positions))

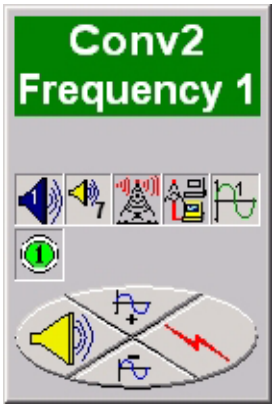
The **Instant Transmit** and **Mute** button are always present. The display size does not affect this area.





Small

Medium



Full size

EMERGENCY INDICATOR

The **Emergency** indicator shows that the MOTOTRBO Radio Channel is in Emergency mode.

RELATED FEATURES:

- "Responding to an Emergency Alarm" on page 2-23

Encryption Mode Indicators

The **Encryption Mode** feature lets you set the encryption mode of the transmit audio to **Coded** (encrypted) or to **Clear** (no encryption). This feature is available via the radio channel control shortcut menu.

Clear Indicator (analog/mobile)

Coded Indicator (analog/mobile)

NOTE

You cannot enable or disable Encryption Mode when a transmission is in progress. Retry after the transmission is completed.

Related Features:

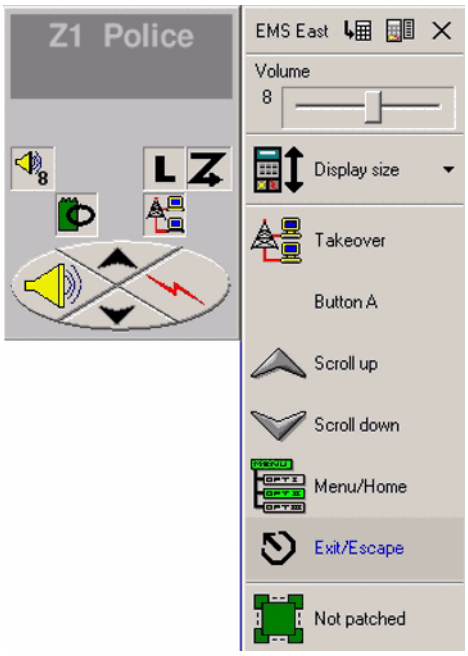
- "Cross Mode Indicator" on page 3-14

EXIT/ESCAPE BUTTON INDICATOR

The **Exit/Escape** indicator corresponds to the Exit or Escape button on the mobile radio faceplate. This indicator appears on the radio channel control shortcut menu, next to the **Exit/Escape** command.

Exit/Escape Indicator

FIGURE 3-2 EXAMPLE OF EXIT/ESCAPE INDICATOR



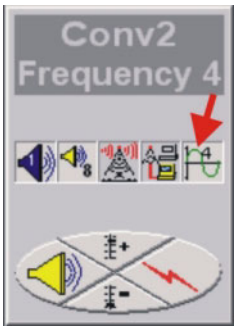
Frequency Indicator

The **Frequency** indicator displays the number associated to the frequency couple actually used for a radio channel. The multi-frequency option is available only if your system has multi-frequency transmitters. This feature controls the frequency used for multi-frequency transmission.

The current frequency appears in the Radio Channel control, and if programmed with the **Aliases**, under the channel label. The number of the frequency appears near to the center of the indicator.

The MIP 5000 VoIP Radio Console supports up to 16 frequencies per multi-frequency channel (each frequency can have its own alias). Each Radio Channel control is associated with one console audio channel to control one radio channel at a time (and it's associated frequencies).

Figure 3-3 Frequency Indicator on Radio Channel Shortcut Menu

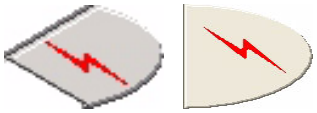


Note

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

INSTANT TRANSMIT BUTTON

There is an **Instant Transmit** button on the Radio Channel control for each radio channel; when you choose and hold this button and talk into your microphone or headset, the audio is sent to this channel whether it is selected or not.



The **Transmit** indicator appears when you click this button, to indicate that a transmission is in progress.

NOTE

If this channel is included in an active patch, the audio is sent to all channels included in the patch.

NOTE

If this channel is included in a multiple selection, the audio is sent to only this particular radio channel.

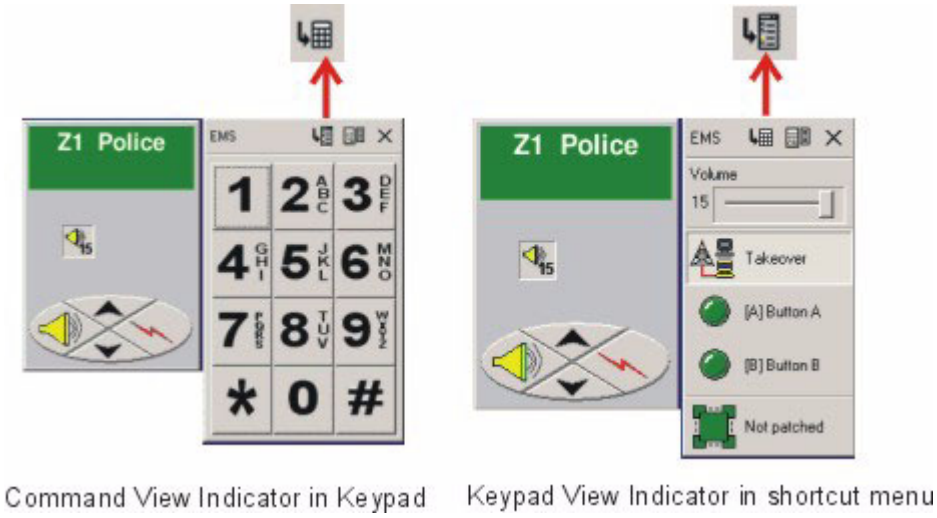
RELATED FEATURES:

- "Common Tx Button" on page 3-12
- Push-to-talk (PTT) pedal on a footswitch
- Push-to-talk (PTT) button on a microphone

KEYPAD/COMMAND VIEW INDICATOR

The **Keypad/Command View** indicator on the Radio Channel control shortcut menu enables you switch between the Command View to the Keypad View. The Command View indicator appears in the Keypad. The Keypad View Indicator appears in the shortcut list.

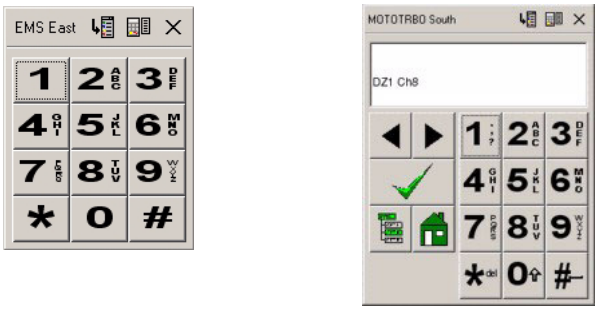
FIGURE 3-4 KEYPAD/COMMAND VIEW INDICATOR



Command View Indicator in Keypad Keypad View Indicator in shortcut menu

Depending on the Radio Channel control type, one of two Keypads can appear for mobile and MOTOTRBO radios. The Generic Keypad displays for mobile radios. The MOTOTRBO Radio Channel control has its own type.

FIGURE 3-5 GENERIC KEYPAD AND MOTOTRBO KEYPAD VIEWS



RELATED FEATURES:

- "Radio Channel Shortcut Menu" on page 1-22
- "Keypad" on page 1-23

LEFT ARROW CONTROL

The **Left Arrow** control enables you to scroll backward among multiple text messages that display on the MOTOTRBO Radio Channel control label and text display of the keypad. This arrow key also enables you to scroll through menu options.

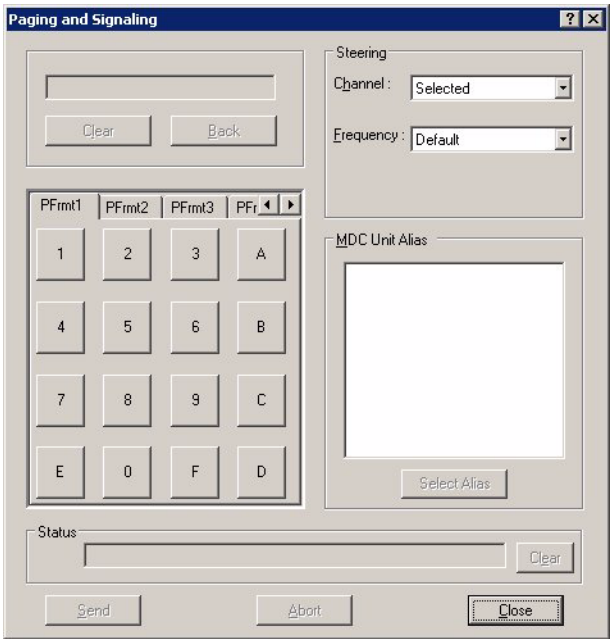
RELATED FEATURES:

- "Right Arrow Control" on page 3-47

MAN PAGE BUTTON

The **Man** (Manual) **Page** button brings up the **Paging and Signaling** dialog box. You can use it to send paging and signaling tones on the selected or specified (via steering) radio channel.

When you click this button, the **Paging and Signaling** dialog box appears:



The **Transmit** indicator reflects the status on all consoles that include the radio channel(s) that are included in the page.

A **Transmit** indicator appears in the **Status** area of the **Paging and Signaling** dialog box, when a paging/signaling sequence is sent, that is, when you click the **Send** button on the **Paging and Signaling** dialog box of the **Man Page** button, plus a **Transmit** indicator appears on the **Man Page** button:

Man Page with **Transmit** indicator on button

If configured, the **Talkdown** indicator (on the **Paging and Signaling** dialog box, **Status** area) appears when the **Transmit** indicator disappears, and shows that the talk down period has begun; you can choose **Common Transmit** to extend the transmission and talk on this channel.

Man Page with **Talkdown** indicator on button

NOTE

If configured, the paging tones sent on a specific channel are heard at the transmitting console in the headset or on the select speaker; other consoles monitoring this channel hear the paging tones on their unselect speakers.

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

NOTE

If a radio channel is selected as a result of being in an open multiple selection or an active patch, you cannot page on this channel when **Steering — Channel** is set to **Selected**. To send a page on such a channel, you must steer it to this channel by choosing this channel from the **Steering — Channel** list.

RELATED FEATURES:

- “Page List Button” on page 3-37
- “Single Page Button” on page 3-53
- “Talkdown Indicator” on page 3-58

MENU/HOME INDICATOR

The **Menu/Home** indicator corresponds to the Menu button on mobile radio faceplates. It appears on the Radio Channel control shortcut menu next to the **Menu** command.

On the MOTOTRBO Radio Channel control, the icon represents the **Menu** control, which opens a list of high-level menu items that can be navigated using arrow keys on the keyboard. You can invoke the **Menu** function by using the **+** (plus) key or Insert key on the numeric keypad of the workstation keyboard. The command can also be invoked by the Menu Context key (third key to the right of the Spacebar).

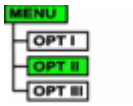
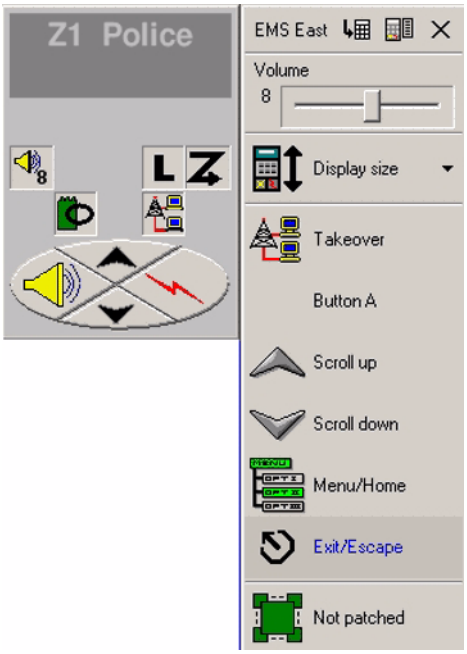


FIGURE 3-6 EXAMPLE OF MENU/HOME INDICATOR



RELATED FEATURES:

- "Back/Home Control" on page 3-6

MESSAGE INDICATOR

The **Unread Message** indicator shows that there is at least one unread text message in the Inbox of the associated MOTOTRBO Radio Channel control.

After the Inbox has reached its capacity, the **Inbox Full** indicator appears.

Mobile Command Indicators

Many of the buttons on the faceplates of mobile radios have LED indicators to show the status of the command initiated by the button. On the MIP 5000 VoIP Radio Console, the indicator LEDs are emulated by the **Mobile Command LED** indicators. These indicators appear on the Radio Channel control shortcut menu next to the command to which they correspond.

Command indicators can appear on the radio channel. If the command has not been assigned an alias, the indicator appears as a green square with a white letter corresponding with the letter assigned to the mobile radio faceplate button.

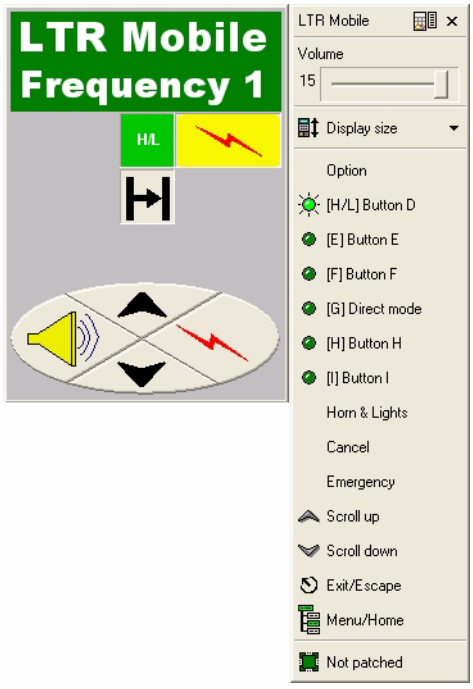
LED Off (dark green)

LED On (pale green)

LED Blinking (yellow)

Aliased **Command** Indicator

Figure 3-7 Example of Mobile Button/Command Indicators



MONITOR BUTTON

The **Monitor** button disables the coded squelch in a base station receiver, thereby allowing you to monitor all activity on the selected channel(s) before transmitting. Depending on how the Monitoring feature is configured in the CSDM, the coded squelch remains disabled until the next PTT on that channel or until the **Monitor** button is pressed again at any console. Check with the supervisor to see how the Monitoring feature is configured.

Monitor Button – Squelch enabled

When squelch is disabled, the indicator on the button briefly changes to a yellow speaker with sound waves instead of a gray speaker with no sound waves.

Monitor Button – Squelch disabled

This coded squelch feature toggles between disabling and enabling the coded squelch, but the squelch is automatically enabled whenever a push-to-talk (PTT) is performed on a channel.

NOTE

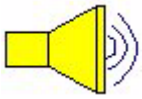
Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

NOTE

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

Monitor Indicator

The **Monitor** indicator on a MOTOTRBO Radio Channel control turns monitoring on and off. For other Radio Channel control types, the Monitor button is used.



When the monitoring feature is turned off, the following indicator appears.

Related Features:

- "Monitor Button" on page 3-28

MRK TONE BUTTON

The **Mrk** (Marker) **Tone** button marks selected channel(s) for priority transmissions. A channel marker tone marks a channel as reserved for priority transmissions by sending periodic tones on the selected radio channel(s). A **Transmit** indicator appears on the selected radio channels when the tones are transmitting.

Marker Tone – Inactive

Marker Tone – Active

When this feature is active, tones are sent on all selected radio channels. The tones mark the radio channels as priority, and warn non-critical or unauthorized radio users not to transmit on these channels. The tone is 700 Hz for 0.5 seconds, every 10 seconds.

The tones are not sent while the radio system is transmitting on those channels.

NOTE

The tones are sent on all selected channels, including patches and multiple selections.

This feature toggles between sending, or not sending, periodic tones.

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

NOTE

Any transmission from a MOTOTRBO Radio Channel control returns you to the **Home** menu item at the end of a call—not to the menu item that was selected at the start of the transmission (exception: **Contacts** menu). This is also the case with the transmission of marker tones.

It is recommended that you ensure the **Marker Tone** button is set to Inactive on the MOTOTRBO Radio Channel control for *all* consoles before you navigate the radio menu system. Otherwise, you will be returned to the **Home** menu item whenever the channel sends a marker tone.

MSel # Button

The **MSel (**Multiple Selection) **#** button lets you choose more than one radio channel at the same time for transmission and reception.

The **MSel #** button has two versions:

- **MSel w/o M** (without memory) button is for single-use multi-selections, for example, channels that only need to be grouped once. The MSel group is deleted as soon as the **MSel w/o M** button is pressed again. There is one button of this type

- **MSel #** (with memory) is used for multi-selections that are re-used. There are ten buttons of this type available (maximum 16 radio channels)

If the multi-selection is active, you hear the incoming audio for all of the multi-selected channels on the select speaker or headset. To transmit to all of the channels at the same time, use the **Common Transmit** button. If the multi-selection is *not* active, you can use the associated **APB #** button to transmit on all of the channels that are saved in the associated **MSel #** button.

Only one multi-selection at a time can be active at a console. If one multi-selection is active, and you choose another one, the first multi-selection is automatically deactivated.

Whenever possible, use a multiple selection instead of a patch. Multi-selection uses fewer system resources and less memory than patching. Multi-selection is local to your console, so the effects are not noticed at any other consoles or on the radio channels. In comparison, patching has global effects, which affect other consoles and the radio channels.

Inactive with no resources in memory (gray background white boxes)

Inactive with resources in memory (gray background green boxes)

Active with no resources in memory (dark blue background white boxes)

Active with resources in memory (dark blue background green boxes)

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

RELATED FEATURES:

- "APB # Button" on page 3-5

MSEL W/O M BUTTON

The **MSel w/o M** button is the multiple selection without memory button. For more information see "MSel # Button" on page 3-31.

NOTE

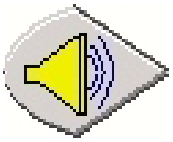
Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

RELATED FEATURES:

- "MSel # Button" on page 3-31

Mute Button

The **Mute** button mutes the incoming audio for this radio channel at this console. The outgoing audio is not muted. The **Mute** button is on the Radio Channel control.



Mute – Inactive

Mute – Active

NOTE

The receive audio is muted at this console only. If you want, you can still transmit on a muted Radio Channel control.

This button toggles between muting the audio (active) and returning the audio to its normal level (inactive). To change the mute status, click this button.

If you mute a channel involved in an active patch, then all channels included in that patch are muted.

If you mute a channel involved in an active multiple selection, the muting affects only that one channel.

The volume of the mute level is set in the CSDM for all consoles. The audio can be either turned down or turned off.

NOTE

If the speaker does *not* have sound waves with the prohibitory sign on the **Mute** button, this indicates that the **All Mute** button muted this (these) Radio Channel control(s).

Related Features:

- "All Mute Button" on page 3-4 (mutes all unselect audio for this console)

MUTE R2 INDICATOR

The **Mute R2** feature lets you mute a second receiver using tone remote control. The second receiver option monitors the frequency of the radio.

You mute the second receiver on the Radio Channel control shortcut menu by clicking the **Mute R2** feature. This feature lets you toggle the **Mute R2** feature on and off.

When any console mutes the second receiver of any Radio Channel control, then the **Mute R2** indicator appears at all other consoles that have that Radio Channel control.

NOTE

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

OK Control

The **OK** control confirms the intended action and enables selection of a sub-menu item. The control is available on MOTOTRBO Radio Channel controls and mobile Radio Channel controls connected to a CDM 1550 LS+, a two-way radio model.

NOTE

You can invoke the **OK** control function by using the **Enter** key on the numeric keypad of the workstation keyboard.

OPTION INDICATOR

The **Option** indicator indicates the presence of optional equipment installed in the mobile radio or MOTOTRBO radio. The indicator appears on the Radio Channel control.

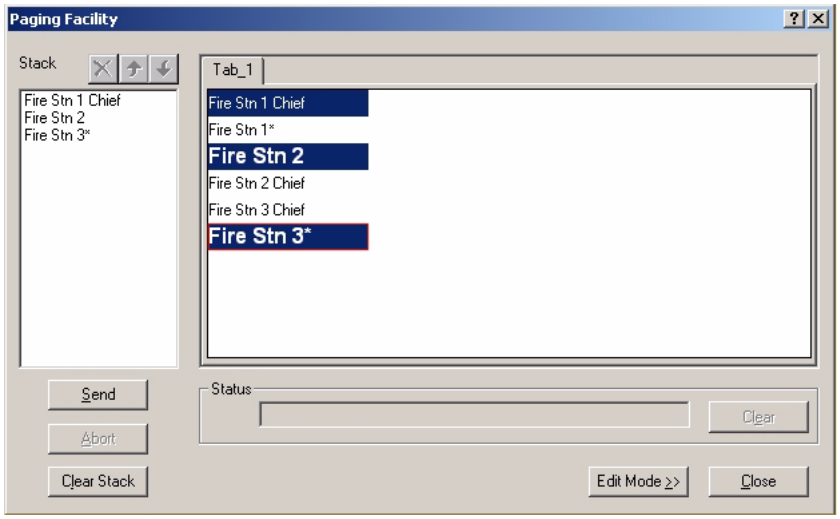
On MOTOTRBO Radio Channel controls, the following Optional indicator shows optional equipment has been disabled.

Page List Button

The **Page List** button sends pre-programmed paging, signaling tones, and group pages over the selected or specified (via steering) Radio Channel control.

The **Page List** button brings up pre-programmed lists in the **Paging Facility** dialog box. You choose the single or group party or parties to be paged from these tabbed lists.

When group pages are created, they are listed in the **Paging Facility** dialog box in bold and at a larger text size, a group (or single) page assigned to a **Single Page** button is shown with an asterisk (demonstrates the **Single Page** button assignment).



When you press the **Send** button in the **Paging Facility** dialog box, a **Transmit** indicator appears on the **Page List** button during the paging tones. Then a **Talkdown** indicator appears on the button for the duration that a **Talkdown** indicator appears in the **Status** area of the **Paging Facility** dialog box.

Page List button talkdown indicator

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

NOTE

When using programmed pages, which specify that the page transmits on the "selected channel", ensure that you have a channel selected that is not involved in a multiple selection or an active patch. The pages in a list are sent whether a channel is selected or not. Therefore, a page failure results for *each* page sent in the programmed pages list, if a channel is *not* selected.

You cannot change the selected channel while paging is in progress, except by pressing an **MSEL** or **Patch** button. If you attempt to initiate a multiple selection or a patch while pages are being sent from the programmed pages list, the channels included in the multiple selection or patch become selected immediately, although the pages continue to be sent on the previously selected channel. When the select channel is changed in this way, inbound audio on channels in the multiple selection or patch can be heard on the select speaker, along with paging tone feedback until paging completes.

If you want to send more pages from the programmed page list, you must first select a single channel again. (You might need to deactivate a multiple selection in order to do that.)

NOTE

If a radio channel is selected as a result of being in an open multiple selection or an active patch, you cannot page on this channel when **Steering — Channel** is set to **Selected**. To send a page on such a channel, you must steer it to this channel by choosing this channel from the **Steering — Channel** list.

RELATED FEATURES:

- "Man Page Button" on page 3-23
- "Talkdown Indicator" on page 3-58
- "Single Page Button" on page 3-53

PATCH # BUTTON

The **Patch #** button activates the corresponding patch. There are two types of patches:

- **Patch #** buttons are patches saved in memory. These are for multi-use patches. Ten patches with memory are available

Patch – Inactive

Patch – Active

- **Patch w/o M** (patch without memory) button is a temporary patch. This patch is for a single use patch. One patch without memory is available

Patch Without Memory – Inactive

Patch Without Memory – Active

Before activating the patch, you must have existing elements in the patch with memory. To activate the patch, click the **Patch #** button.

If the patch has been activated but not selected, you hear the audio from all radio channels and consoles that are included in the patch on your unselect speaker.

If the patch has been activated and selected (for example, by choosing one of the radio channels included in that patch), you hear the audio for this patch on your select speaker or headset.

The **Patch** indicator on a Radio Channel control shows that the patch with that number is in use.

NOTE

An error message appears in the status bar when you are trying to activate a patch that cannot be activated.A radio channel cannot be included in more than one active patch. If one patch is already active that includes one or more of the radio channels in another patch, then you can activate the second patch but the radio channels already active in the first patch will not be included in the second patch. The second patch holds these active radio channels in memory for future use.

NOTE

You can have more than one active patch at your console. You can have as many active patches as there are **Patch #** buttons on your console, provided there are no conflicts between patches (see previous Note).

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

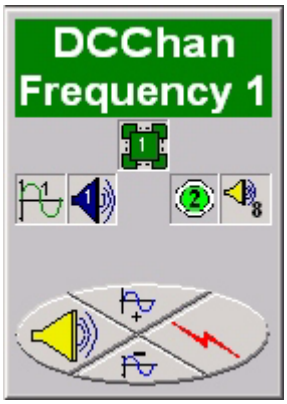
RELATED FEATURES:

- "Patch Indicators" on page 3-41

Patch Indicators

The **Patch** indicator on a Radio Channel control shows that this radio channel is included in a patch.

Whenever this indicator appears, this radio channel is included in a patch. A patch is created with the **Patch #** button. The patch indicator corresponds to the active **Patch #** button; for example, if the **Patch 1** indicator is present in the Radio Channel control, this indicates that **Patch 1** is active. The corresponding number appears in the middle of the patch symbol.



A radio channel can be included in more than one patch, but only one of those patches can be active at a time.

The yellow **Patch Busy** indicator appears on all channels that are involved in a patch that is active on another console. This indicator lets you immediately see at a glance that a channel is included in an active patch at another console.

Related Features:

- "Patch # Button" on page 3-39

PATCH W/O M BUTTON

The **Patch w/o M** button is the patch without memory button. For more information, see "Patch # Button" on page 3-39.

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

RELATED FEATURES:

- "Patch # Button" on page 3-39

Power Level Indicators

The **High Power** and **Low Power** indicators show the transmit level for mobile and MOTOTRBO radios equipped to communicate this information. These indicators appear on the Radio Channel control.

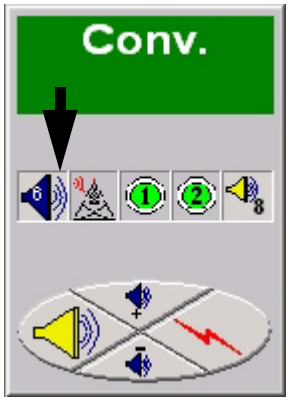
High Power

Low Power

PRIVATE LINE INDICATOR

The **Private Line** indicator displays the number of the tone-coded squelch assigned to the base station, radio channel and frequency being used for transmission. The **private line** feature assigns the selected sub-audible tone in the list for multiple tone-coded squelch control, and sends a tone to the base station to keep the base station synchronized with your system.

This indicator is available only if the multiple private line feature is present on the Radio Channel control. Apply this feature through the Radio Channel control (shortcut submenu) or with the **Up/Down** Private Line buttons at the bottom of the Radio Channel control.



This Private Line function applies individually to each radio channel that is included in a patch or in a multiple selection.

Private Line Indicator on the shortcut menu:

NOTE

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

Repeat Disable Indicator

The **Repeat Disable** indicator on a Radio Channel control indicates that repeat feature of this repeater is enabled or disabled. A repeater uses semi or full duplex radio channels. When the repeat feature is enabled, via the shortcut menu, your base station retransmits (repeats) incoming (received) radio traffic, effectively extending the coverage area for all users on the radio channel. When the repeat feature is disabled, all units can still communicate back and forth with you but cannot hear any other unit (except you) on the radio channel.

Repeat Disable – Active, repeat feature disabled

Repeat Disable – Inactive (Normal state)

The **Repeat Disable** functionality (type of signalling required) is programmed through the CSDM.

This feature applies individually to each radio channel that is a member of a patch or a multiple selection.

NOTE

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

RF MODE INDICATORS

The **RF Mode** indicator on a MOTOTRBO Radio Channel control shows the channel is either in **Analog** or **Digital** mode. The MOTOTRBO gateway controls both analog and digital channels, which puts the Radio Channel control in one of the two modes.

RF Mode— Analog

RF Mode— Digital

NOTE

The MOTOTRBO gateway cannot determine the RF mode during scan mode, therefore note the following behaviors:

- The RF Mode indicator on the MOTOTRBO Radio Channel control does not appear during scan mode.
- Paging continues to operate.
- The MOTOTRBO gateway will not send MDC PTT IDs when the MOTOTRBO channel is configured for STAT-ALERT at the CSDM.

Right Arrow Control

The **Right Arrow** control enables you to scroll forward among multiple text messages that display on the MOTOTRBO Radio Channel control label and **Text Display** of the keypad. This arrow key also enables you to scroll through menu options.

Related Topics:

- "Left Arrow Control" on page 3-22

RSSI INDICATOR

The **RSSI** indicator represents the signal strength of the MOTOTRBO radio. The number of bars shown on the indicator is proportional to the strength of the signal, where four bars represents the strongest. The indicator is displayed only when the Radio Channel is receiving.

Safety Button

The **Safety** button prevents the operation of specifically configured **Single Page** buttons on the console, unless the **Safety** button is activated first.

Safety – Available

Safety – Unavailable

In some systems, you must use the **Safety** button before using a **Single Page** button (for example, to ensure that you are not accidentally activating a page). In the page situation, the **Single Page** button with the safety feature enabled appears with an orange lock in the bottom corner.

Single Page button with safety feature

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

PROCEDURE 3-1 How to Use the Safety Button

1 Choose the **Safety** button.

NOTE

The **Safety** button times out if you do not choose a **Single Page** button.

Result: The **Safety** button changes to the open lock (available) state.

2 Choose the specifically configured **Single Page** button that you want to activate.

Result: The **Single Page** button activates and the **Safety** button returns to the closed lock (unavailable) state.

3 Repeat if required for the specifically configured **Single Page** button(s) that you want to activate.

SCAN CONTROL INDICATORS

The **Scan Control** feature lets you scan through the available frequencies for the associated mobile or MOTOTRBO Radio Channel control. The feature is available through the shortcut menu and, in MOTOTRBO channels, through keypad menu navigation.

The indicator shows the state of this feature in the indicator area of the Radio Channel control. Different priority scans are supported: normal, Priority 1 and Priority 2.

You enable the feature by choosing **Scan Control** from the shortcut menu. You disable the feature by returning to the shortcut menu and choosing the option again.

Scan Indicator

Priority 1 Scan Indicator

Priority 2 Scan Indicator

NOTE

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

NOTE

The MOTOTRBO gateway cannot determine the RF mode during scan mode, therefore note the following behaviors:

- The RF Mode indicator on the MOTOTRBO Radio Channel control does not appear during scan mode.
- Paging continues to operate.
- The MOTOTRBO gateway will not send MDC PTT IDs when the MOTOTRBO channel is configured for STAT-ALERT at the CSDM.

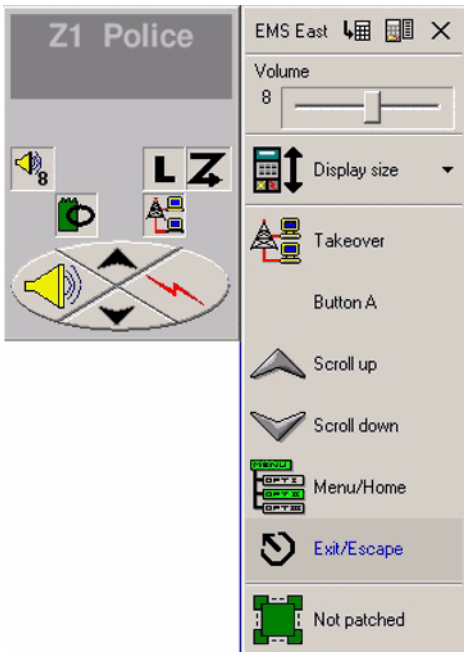
SCROLL INDICATORS

The **Scroll Up** and **Scroll Down** indicators correspond to the scroll buttons on the mobile radio faceplate. They appear on the Radio Channel Control shortcut menu, next to the **Scroll Up** and **Scroll Down** commands.

Scroll Up Indicator

Scroll Down Indicator

FIGURE 3-8 EXAMPLE OF SCROLL INDICATOR



SECURE INDICATORS

Encrypted radio communication prevents unintended listeners from overhearing voice traffic on MCS 2000 III mobile radios and MOTOTRBO radios in digital RF mode. The **Secure** indicator shows whether the radio is transmitting in a **Coded** mode (secure) or a **Clear** mode (unsecure).

MOTOTRBO radios must have the privacy feature enabled on the digital channel to transmit a privacy-enabled (secure) transmission. The privacy feature is configured using the MOTOTRBO Customer Programming Software (CPS) and can be toggled on and off using a programmable button or from the radio Utilities menu, if configured.

Clear Indicator

Coded Indicator

Single Page Button

The **Single Page** button lets you send a single or group page from an assigned button. The single or group page name is the name of the button.

Up to 512 buttons are available for a single or a group page assignment. To avoid accident activation, some **Single Page** buttons require the **Safety** button. For those buttons, without safety enable, the page can not be sent. If there is an error while using the **Single Page** button with **Safety**, an error message appears in the Status Bar at the bottom of the program window ("The Safety button was not pressed. Please retry.").

Single Page – Available

Single Page – Unavailable

Single Page – with Safety Available

Single Page – with Safety Unavailable

Single Page – Error

The **Man Page** and **Single Page** buttons are similar in appearance. One distinction is that the configurable label default background is purple on the **Single Page** button, while it is blue on the **Man Page** button.

The **Man Page** and **Single Page** buttons share the same **Talkdown** and **Transmit** indicators. The **Single Page Error** indicator briefly (2 seconds) appears when you press a page button while another page is in process.

NOTE

When using programmed pages, which specify that the page transmits on the "selected channel", ensure that you have a channel selected that is not involved in a multiple selection or an active patch. The pages in a list are sent whether a channel is selected or not. Therefore, a page failure results for each page sent in the programmed pages list, if a channel is not selected.

NOTE

If a radio channel is selected as a result of being in an open multiple selection or an active patch, you cannot page on this channel when **Steering — Channel** is set to **Selected**. To send a page on such a channel, you must steer it to this channel by choosing this channel from the **Steering — Channel** list.

RELATED FEATURES:

- "Man Page Button" on page 3-23
- "Talkdown Indicator" on page 3-58
- "Safety Button" on page 3-49

Supervisory Button

The **Supervisory** button allows you to prioritize a PTT relative to the PTT of other consoles.

To activate the **Supervisory** feature, choose a Radio Channel control, then press the **Supervisory** button. To deactivate this feature and allow the other consoles to communicate with the selected radio channel, press the **Supervisory** button again.

Supervisory – Active (color)

Supervisory – Inactive (dimmed appearance)

Supervisory – Disabled (red prohibitory symbol)

NOTE

Supervisors can rename this function button on the console, therefore the button name that you see here might not be what you see on your console.

TAKEOVER INDICATOR

The **Takeover** indicator on a Radio Channel control indicates that a MIP 5000 console has taken control of communication over that radio channel from any non-MIP 5000 console. You enable the **Takeover** feature on the shortcut menu to physically disconnect all non-MIP 5000 consoles (connected in parallel to the MIP 5000 system) from the radio transmitter (all transmit frequencies).

When the **Takeover** indicator is present, only the console that enabled the takeover can transmit. If you chooses this feature while a parallel unit (for example, a remote desk set) radio transmission is in progress, that transmission is immediately stopped.

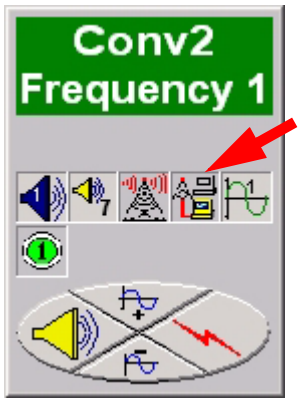
Takeover – Enabled

Takeover – Disabled

Depending on configuration, when the **Takeover** indicator is present:

- 4-wire — all parallel units continue to monitor the radio traffic on the receive frequency
- 2-wire — all parallel units are unable to transmit or receive

This feature toggles between disabling and enabling communication with the parallel unit (for example, a remote desk set).



NOTE

The indicator reflects the state of the communication on this radio channel, not the state of the parallel unit (for example, a remote desk set).

Talkaround Indicator

For a radio normally communicating to the rest of the system via a repeater, the **Talkaround** indicator shows that a radio channel is being used to communicate directly to other radios on the system (usually using the same transmit and receive frequency) thus, talk around the repeater. This indicator appears on the Radio Channel control.

TALKDOWN INDICATOR

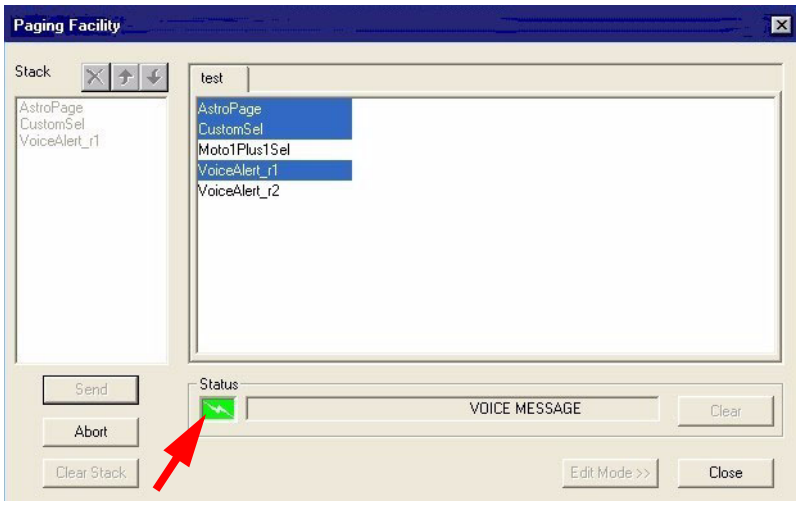
There are two types of paging **Talkdown** indicators:

- A green **Talkdown** indicator that appears in the Status area of the **Paging and Signaling** (**Man Page** or **Single Page** button) and/or **Paging Facility** (**Page List** button) dialog boxes
- Plus a similar **Talkdown** indicator that appears on the paging buttons (**Man Page**, **Page List** or **Single Page** button)

These indicators demonstrate that your microphone is keyed for a specific time (set in the CSDM) and you can send your voice message for the duration that the **Talkdown** indicator is present. If you require more time for your message, use the **Common Transmit** button or **Instant Transmit** button and speak into your headset.

Talkdown – in dialog boxes

Talkdown – on buttons



RELATED FEATURES:

- "Man Page Button" on page 3-23
- "Page List Button" on page 3-37
- "Single Page Button" on page 3-53
- "Alert # Button" on page 3-3 (related function but different indicator)

Tones Disable Indicator

The **Tones Disable** indicator shows that all tones have been turned off from the MOTOTRBO radio.

TRANSMIT INDICATORS

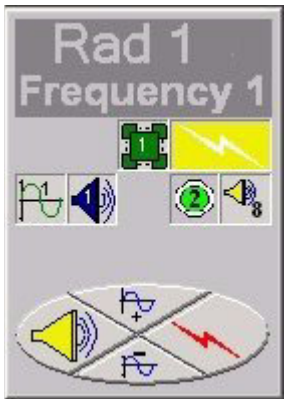
The **Transmit** indicator shows that a radio channel is active and involved in a transmission. On a channel configured for Talk Permit, the talk permit tone sequence must be received at the console (from the radio) before the **Transmit** indicator appears.

Transmit Active (red)

Transmit Busy (yellow)

Transmit Error (yellow triangle with exclamation)

The **Transmit Busy** indicator normally indicates that a radio channel is already being used at another console. It might also appear when calls from certain types of mobile radio (such as Consolette) are received because they include a "PTT BSY" signal in their transmissions. The **Transmit Busy** indicator is the same as the Transmit indicator except the background is yellow.



The **Transmit Error** indicator demonstrates that there is a problem with the transmission on this channel or that a transmit timeout has occured for this channel. It is a red indicator with a yellow triangle with exclamation icon.

RELATED FEATURES:

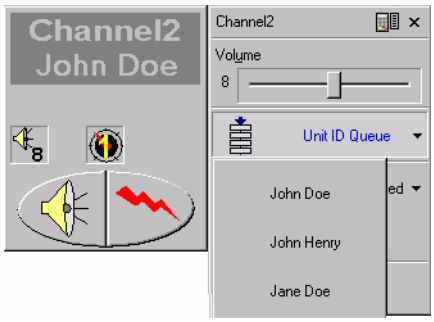
- Transmit indicator on "Man Page Button" on page 3-23

Unit ID Queue Indicator

The **Unit ID** (identification) **Queue** indicator appears on the Radio Channel control shortcut menu. This feature lets you view the most recent radio callers to that radio channel.

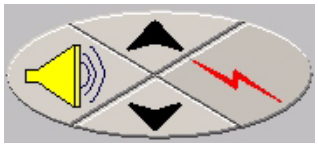
For an incoming radio call; the program's Caller ID feature identifies the calling party. When a mobile user presses the PTT (on a mobile radio with a unit ID) that ID is sent on the radio channel along with their voice transmission. The console receives that mobile's ID and extracts the associated alias (name) from the **Caller ID** database (see "Caller ID Command" on page 4-20). The console then displays the alias on the Radio Channel control (in the label area) and you know who is making the call. If no alias is defined, the console displays the ID. The last received ID's display on the **Unit ID Queue** list of the shortcut menu.

The number of caller identifications that you see on the **Unit ID Queue** submenu is set by the supervisor.



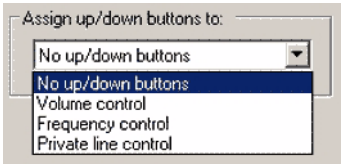
UP/DOWN BUTTONS

The **Up/Down** buttons on the Radio Channel control have various optional purposes.



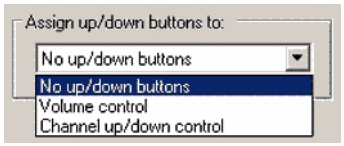
The available options are:

- No up/down buttons
- Volume control—adjusts the select speaker volume)
- Frequency control—scrolls through the available frequencies)
- Private line control—scrolls through the available private lines)
- Scroll up/down control (mobile channels)—scrolls through mobile radio channels)
- Channel up/down control (MOTOTRBO channels)—scrolls through mobile radio channels



Analog Radio Channel Control

Mobile Radio Channel Control



MOTOTRBO Radio Channel Control

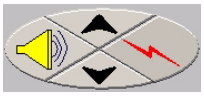
A supervisor assigns the **Up/Down** button function, by going to **Edit > Channels Configuration > Controls** tab **> Assign up/down buttons to:** area.

The **Up/Down** buttons change to reflect what is assigned to the button:


Volume


Frequency


Private Line


Scroll up/down
Channel up/down

Each of these options has corresponding indicators on the Radio Channel control.

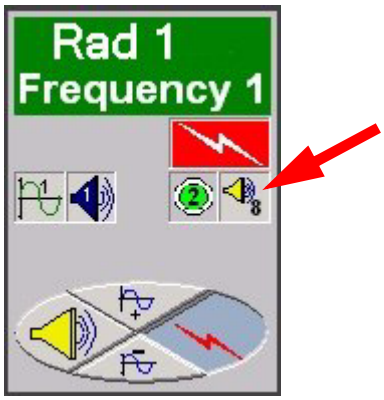
Related Features:

- "Volume Level Indicator" on page 3-64
- "Frequency Indicator" on page 3-19
- "Private Line Indicator" on page 3-44
- "Scroll Indicators" on page 3-51

VOLUME LEVEL INDICATOR

The **Volume Level** indicator displays the volume level of the unselect speaker or select speaker.

To change the speaker volume, access the Radio Channel control shortcut menu. Use the **Volume Slide** control to choose the desired volume level. Or, if configured, use the **Up**/**Down** volume buttons on the Radio Channel control. When chosen, the volume level appears on an indicator on the Radio Channel control. The higher the number, the higher the volume.



Wildcard # Indicator

The **Wildcard #** function lets you send a tone (set in the CSDM) to the base station for controlling special functions.

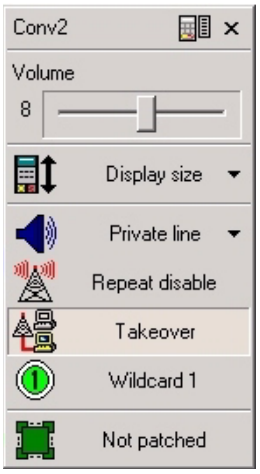
NOTE

You cannot perform this task while any console is transmitting on the channel. Retry after the transmission is completed.

Procedure 3-2 How to Use the Wildcard Feature

1. Access the Radio Channel control shortcut menu.

   Result: The **Wildcard #** feature appears on the shortcut menu.



2. Choose the **Wildcard #** item to initiate the special function.

   Result: A **Wildcard #** indicator appears on the Radio Channel control.

3. To turn this special feature off, access the Radio Channel control shortcut menu again. Choose the **Wildcard #** item.

   Result: The **Wildcard #** indicator disappears from the Radio Channel control.

You cannot use this feature when a radio channel is busy.

This feature applies individually to each radio channel that is included in a patch or in a multiple selection.

QUICK REFERENCE TABLE

TABLE 3-2 BUTTON/CONTROL/INDICATOR/SYMBOL QUICK REFERENCE TABLE

Indicator/Symbol	Feature/Function
	**Alert #** button — see "Alert # Button" on page 3-3
	**Alert #** button; error — see "Alert # Button" on page 3-3
	**Alert #** button; transmit — see "Alert # Button" on page 3-3
	**Alert #** button; transmit (talkdown) — see "Alert # Button" on page 3-3
	**All Mute** button; disabled (not mute) — see "All Mute Button" on page 3-4
	**All Mute** button; enabled — see "All Mute Button" on page 3-4
	**APB #** button — see "APB # Button" on page 3-5
	**APB #** button; active — see "APB # Button" on page 3-5
	**Back/Home** indicator — see "Back/Home Control" on page 3-6
	**Base Icom** button — see "Back/Home Control" on page 3-6
	**Base Icom** button; Transmit indicator — see "Back/Home Control" on page 3-6
	**Call Dir** control — see "Call Dir Control" on page 3-8
	**Call Dir** control; Error indicator — see "Call Dir Control" on page 3-8

Table 3-2 Button/Control/Indicator/Symbol Quick Reference Table (continued)

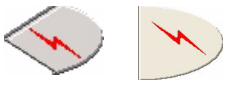
Indicator/Symbol	Feature/Function
	**Call Dir** control; Off Hook indicator — see "Call Dir Control" on page 3-8
	**Call Dir** control; Patched indicator — see "Call Dir Control" on page 3-8
	**Call Dir** control; Transmit indicator — see "Call Dir Control" on page 3-8
	**Common Transmit** button — see "Common Tx Button" on page 3-12
	**Companding** indicator — see "Companding Indicator" on page 3-13
	**Display Size** indicator — see "Display Size Indicator" on page 3-15
	**Emergency** indicator — see "Emergency Indicator" on page 3-16
	**Encryption Mode** indicator; **Clear** — see "Encryption Mode Indicators" on page 3-17
	**Encryption Mode** indicator; **Coded** — see "Encryption Mode Indicators" on page 3-17
	**Exit/Escape** indicator — see "Exit/Escape Button Indicator" on page 3-18
	**Frequency** indicator (plain indicator; no number) — see "Frequency Indicator" on page 3-19
	**Frequency** indicator; Frequency 1 to 16 — see "Frequency Indicator" on page 3-19
	**High Power** indicator — see "Power Level Indicators" on page 3-43
	**Inbox Full** indicator — see"Message Indicator" on page 3-26
	**Instant Transmit** button — see "Instant Transmit Button" on page 3-20

TABLE 3-2 BUTTON/CONTROL/INDICATOR/SYMBOL QUICK REFERENCE TABLE (CONTINUED)

Indicator/Symbol	Feature/Function
	**Low Power** indicator — see "Power Level Indicators" on page 3-43
	**Man Page** button — see "Man Page Button" on page 3-23
	**Man Page** button; **Talkdown** — see "Man Page Button" on page 3-23
	**Man Page** button; **Transmit** — see "Man Page Button" on page 3-23
	**Menu/Home Button** indicator — see "Menu/Home Indicator" on page 3-25
	**Mobile Command LED Blinking** indicator — see "Mobile Command Indicators" on page 3-27
	**Mobile Command LED Off** indicator — see "Mobile Command Indicators" on page 3-27
	**Mobile Command LED On** indicator — see "Mobile Command Indicators" on page 3-27
	**Mobile Command** indicator — see "Mobile Command Indicators" on page 3-27
	**Monitor** button; squelch enabled — see "Monitor Button" on page 3-28
	**Monitor** button; squelch defeated — see "Monitor Button" on page 3-28
	**Monitor** indicator; monitoring active — see "Monitor Indicator" on page 3-29
	**Monitor** indicator; monitoring inactive — see "Monitor Indicator" on page 3-29
	**Mrk Tone** button — see "Mrk Tone Button" on page 3-30
	**Mrk Tone** button; active — see "Mrk Tone Button" on page 3-30

TABLE 3-2 BUTTON/CONTROL/INDICATOR/SYMBOL QUICK REFERENCE TABLE (CONTINUED)

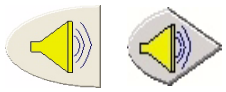
Indicator/Symbol	Feature/Function
	**MSel #** button; active with memory — see “MSel # Button” on page 3-31
	**MSel #** button; active with no memory — see “MSel w/o M Button” on page 3-32
	**MSel #** button; inactive with memory — see “MSel # Button” on page 3-31
	**MSel w/o M** (without memory) button — see “MSel w/o M Button” on page 3-32
	**Mute** button; disabled — see “Mute Button” on page 3-33
	**Mute** button; enabled — see “Mute Button” on page 3-33
	**Mute R2** indicator — see “Mute R2 Indicator” on page 3-34
	**Option** indicator — see “Option Indicator” on page 3-36
	**Page List** button — see “Patch # Button” on page 3-39
	**Page List** button; transmit — see “Patch # Button” on page 3-39
	**Patch #** button and indicator; Patch 1 to 10 — see “Patch # Button” on page 3-39 and “Patch Indicators” on page 3-41
	**Patch #** button and indicator; without Memory — see “Patch w/o M Button” on page 3-42 and “Patch Indicators” on page 3-41
	**Patch Busy** indicator; Patch busy — see “Patch Indicators” on page 3-41
	**Priority 1 Scan** indicator — see “Scan Control Indicators” on page 3-50
	**Priority 2 Scan** indicator — see “Scan Control Indicators” on page 3-50

TABLE 3-2 BUTTON/CONTROL/INDICATOR/SYMBOL QUICK REFERENCE TABLE (CONTINUED)

Indicator/Symbol	Feature/Function
	**Private Line** indicator; tone 1 to 8 — see "Private Line Indicator" on page 3-44
	**Repeat Disable** indicator; enabled — see "Repeat Disable Indicator" on page 3-45
	**Repeat Disable** indicator; inactive (normal) — see "Repeat Disable Indicator" on page 3-45
	**RF Mode**; Analog — see "RF Mode Indicators" on page 3-46
	**RF Mode**; Digital — see "RF Mode Indicators" on page 3-46
	**RSSI** indicator — see "RSSI Indicator" on page 3-48
	**Safety** button; unavailable — see "Safety Button" on page 3-49
	**Safety** button; available — see "Safety Button" on page 3-49
	**Scan** indicator — see "Scan Control Indicators" on page 3-50
	**Scroll Down** indicator — see "Scroll Indicators" on page 3-51 **Channel Scroll Down (CH-)** control (MOTOTRBO) — see "Channel Scroll Control" on page 3-11
	**Scroll Up** indicator — see "Scroll Indicators" on page 3-51 **Channel Scroll Up (CH+)** control (MOTOTRBO)— see "Channel Scroll Control" on page 3-11
	**Secure** indicator; clear — see "Secure Indicators" on page 3-52
	**Secure** indicator; coded — see "Secure Indicators" on page 3-52
	**Single Page** Button; available — see "Single Page Button" on page 3-53

Table 3-2 Button/Control/Indicator/Symbol Quick Reference Table (continued)

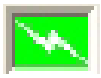
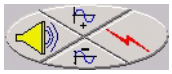
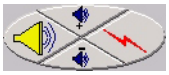
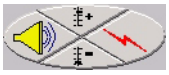
Indicator/Symbol	Feature/Function
	**Single Page** Button; Error — see "Single Page Button" on page 3-53
	**Single Page** Button; unavailable — see "Single Page Button" on page 3-53
	**Single Page** Button; with Safety available — see "Single Page Button" on page 3-53
	**Single Page** Button; with Safety unavailable — see "Single Page Button" on page 3-53
	**Supervisory** button; active — see "Supervisory Button" on page 3-55
	**Supervisory** button; disabled — see "Supervisory Button" on page 3-55
	**Supervisory** button; inactive — see "Supervisory Button" on page 3-55
	**Takeover** indicator; disabled — see "Takeover Indicator" on page 3-56
	**Takeover** indicator; enabled — see "Takeover Indicator" on page 3-56
	**Talkaround** indicator — see "Talkaround Indicator" on page 3-57
	**Talkdown** indicator in dialog box — see "Talkdown Indicator" on page 3-58
	**Talkdown** indicator on buttons — see "Talkdown Indicator" on page 3-58
	**Tones Disable** indicator — see "Tones Disable Indicator" on page 3-59
	Transmit Busy indicator — see "Transmit Indicators" on page 3-60
	**Transmit Error** indicator — see "Transmit Indicators" on page 3-60

TABLE 3-2 BUTTON/CONTROL/INDICATOR/SYMBOL QUICK REFERENCE TABLE (CONTINUED)

Indicator/Symbol	Feature/Function
	**Transmit** indicator — see "Transmit Indicators" on page 3-60
	**Unit ID Queue** indicator — see "Unit ID Queue Indicator" on page 3-61
	**Unread Message** indicator — see "Message Indicator" on page 3-26
	**Up/Down Frequency** button(s) (with **Mute** and **Instant Transmit** buttons) — see "Up/Down Buttons" on page 3-62
	**Up/Down Private Line** button(s) (with **Mute** and **Instant Transmit** buttons) — see "Up/Down Buttons" on page 3-62
	**Up/Down Scroll** button(s) (with **Mute** and **Instant Transmit** buttons) — see "Up/Down Buttons" on page 3-62
	**Up/Down Volume** button(s) (with **Mute** and **Instant Transmit** buttons) — see "Up/Down Buttons" on page 3-62
	**Volume Level** indicator (0 to 15) — see "Volume Level Indicator" on page 3-64
	**Wildcard #** feature — see "Wildcard # Indicator" on page 3-65

CHAPTER 4

MENU COMMANDS

This section describes the operator commands on the MIP 5000 VoIP Radio Console menus and the dialog boxes associated with those commands.

NOTE

Some of these commands on the menu bar are only available to supervisors (password protected). After logging in, a supervisor can use the **Allow Layout Reconfiguration** command on the **Edit** menu to allow access to commands that permit reconfiguration of the MIP 5000 VoIP Radio Console workspace and assignment of resources.

As in most programs the menu bar is located at the top of the screen. Use the menu bar to:

- Log out of the system
- Save your customized screen configuration
- Access resources to customize your layout
- View the "About MIP 5000 VoIP Radio Console" information dialog box

The menu bar includes:

FIGURE 4-1 MENU BAR

CONSOLE MENU

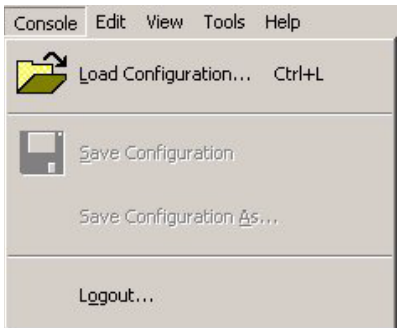
The **Console** menu lets you:

- Load a configuration relevant to your work area and/or a user profile other than the default
- Save any changes to your configuration
- Save any changes to your configuration under another name
- Log out

The **Console** menu contains the following commands:

- "Load Configuration Command" on page 4-2
- "Save Configuration Command" for supervisors only
- "Save Configuration As Command" for supervisors only
- "Logout Command" on page 4-4

FIGURE 4-2 CONSOLE MENU



LOAD CONFIGURATION COMMAND

This command on the **Console** menu opens the **Open** dialog box where you can choose a specified, previously arranged configuration and /or user profile to load.

The supervisor can customize configurations into geographical areas, for example North or South of the city, or in any manner relevant to your geographical area. Or a configuration can be the layout of your channels and main window.

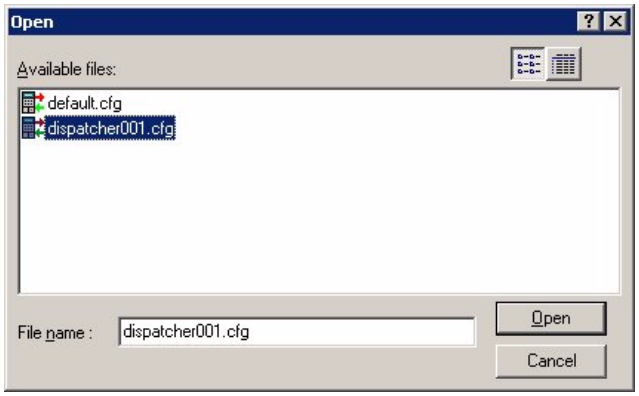
See "Loading a New Configuration" on page 2-5 for more information.

Open Dialog Box

Console > Load Configuration

You use this dialog box to select and open a specified, previously arranged console configuration and/or user profile file. The system administrator sets up a default location for these files in the Control Panel.

Figure 4-3 Open Dialog Box



Available Files List

Displays all files with a file extension of "cfg". Highlight the desired configuration in the list before clicking the **Open** button. When you highlight the desired configuration, the file name appears in the **File Name** text box.

File Name

Displays the file name of the highlighted file in the **Available Files** List.

Buttons

Open

Click the button to load the configuration file and close the dialog box.

Cancel

Click the button to close the dialog box without loading a configuration.

Save Configuration Command

The **Save Configuration** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

SAVE CONFIGURATION AS COMMAND

The **Save Configuration As** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

LOGOUT COMMAND

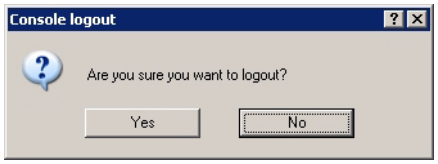
This command on the **Console** menu opens the **Logout** dialog box where you log out of the current program session (without closing the program). See "Logging Out" on page 2-6 for more information.

LOGOUT DIALOG BOX

`Console > Logout`

You use this dialog box to log out of the current program session (without closing the program).

FIGURE 4-4 LOGOUT DIALOG BOX



BUTTONS

SOME SETTINGS CHANGED — YES

Click the button to save the modified settings in the current configuration file.

SOME SETTINGS CHANGED — NO

Click the button to continue the logout process without saving your changes.

YES

Click the button to log out.

NO

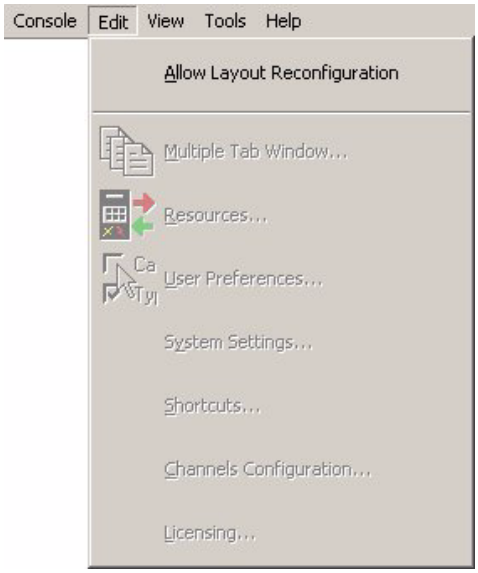
Click the button to remain in this session of the program.

Edit Menu

The **Edit** menu contains the following commands:

- "Allow Layout Reconfiguration Command" on page 4-5
- "Multiple Tab Window Command" for supervisors only
- "Resources Command" for supervisors only
- "User Preferences Command" for supervisors only
- "System Settings Command" for supervisors only
- "Shortcuts Command" for supervisors only
- "Channels Configuration Command" for supervisors only
- "Licensing Command" for supervisors only

Figure 4-5 Edit Menu



Allow Layout Reconfiguration Command

The MIP 5000 VoIP Radio Console program starts with this feature disabled.

A supervisor can use this command to temporarily allow changes to the settings for a logged in operator. When selected, a dialog box appears asking for a supervisor password.

After a supervisor has entered the password, supervisor commands are available and a check mark appears on the **Edit** menu beside the **Allow Layout Reconfiguration** command.

MULTIPLE TAB WINDOW COMMAND

The **Multiple Tab Window** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

RESOURCES COMMAND

The **Resources** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

USER PREFERENCES COMMAND

The **User Preferences** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

SYSTEM SETTINGS COMMAND

The **System Settings** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

SHORTCUTS COMMAND

The **Shortcuts** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

CHANNELS CONFIGURATION COMMAND

The **Channels Configuration** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

LICENSING COMMAND

The **Licensing** command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

View Menu

The **View** menu provides you with a list of the available windows you can activate, offers a means of rearranging resources that cannot be seen on any window and lets you focus the system on specific windows.

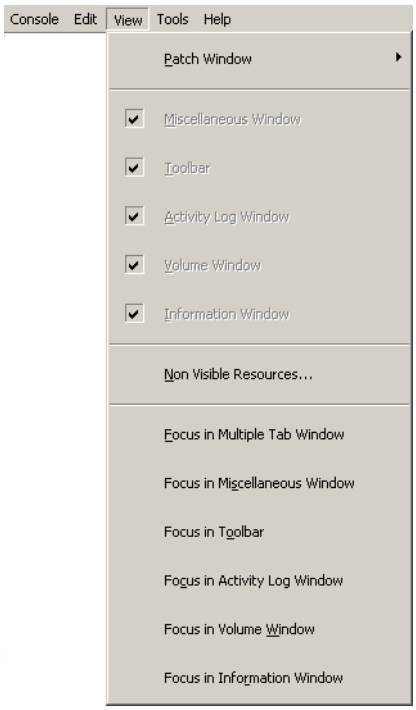
The viewable windows are Patch Window, Miscellaneous Window, Toolbar, Volume Window, Activity Log Window and Information Window.

The focusable windows are Multiple Tab Window, Miscellaneous Window, Toolbar, Activity Log Window and Information Window.

The **Non-Visible Resources** command lets you view the resources that might not be visible on a certain window or tab. A supervisor can cause these non-visible resources to rearrange themselves, so that they become visible on the console.

The **View** menu contains the following commands:

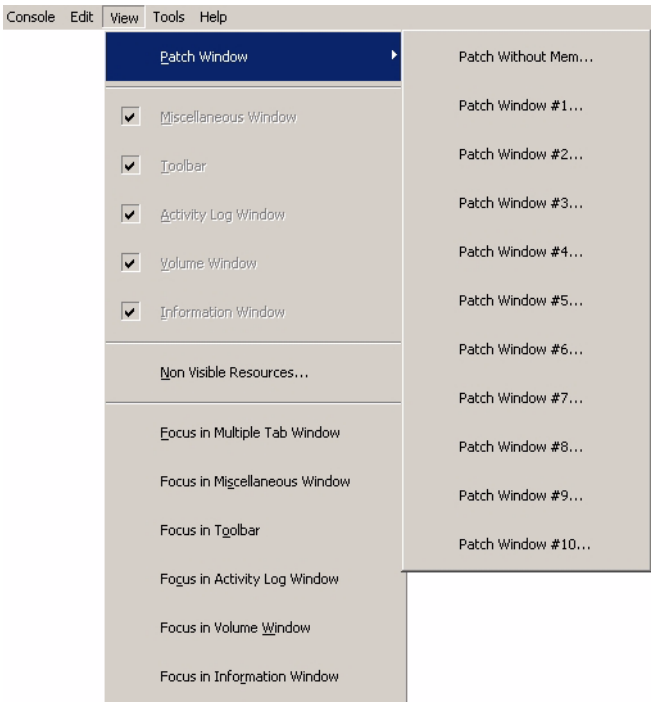
FIGURE 4-6 VIEW MENU



Patch Window Command

This command on the **View** menu lets you access a submenu where you can choose one of 10+1 specific patches. The Patch window you choose opens and becomes available for changes or activation.

Figure 4-7 Patch Submenu



Miscellaneous Window Command

This command is only available to supervisors.

A check box beside this command on the **View** menu indicates that the Miscellaneous window is currently open within the main window.

This window allows Radio Channel controls and/or function buttons to be viewed at all times.

Toolbar Command

This command is only available to supervisors.

A check box beside this command on the **View** menu indicates that the toolbar is currently open within the main window.

The toolbar contains buttons that perform specific functions for the MIP 5000 VoIP Radio Console program, such as muting all channels.

ACTIVITY LOG WINDOW COMMAND

This command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

A check box beside this command on the **View** menu indicates that the Activity Log window is currently open within the main window.

The Activity Log window lists all of the radio activity on the console. It also lets you quickly re-establish communications with previous callers by selecting the entry and pressing the **Instant Transmit** button. This is the window where you respond to emergency radio calls (silence the alarm, acknowledge the call and clear the emergency.

Multiple tabs within the Activity Log window allow calls to be filtered by channel selection and emergency.

VOLUME WINDOW COMMAND

This command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

A check box beside this command on the **View** menu indicates that the Volume window is currently open within the main window.

The Volume window lets you adjust the volume of the select, unselect and headset earpiece speakers.

INFORMATION WINDOW COMMAND

This command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

A check box beside this command on the **View** menu indicates that the Information Window is currently open within the main window.

The default Page History window shows all of the pages that were sent from this console.

If it is enabled, the Radio Text window displays the text from the MOTOTRBO radio control head of a channel that is clicked and dragged into the window.

Non-Visible Resources Command

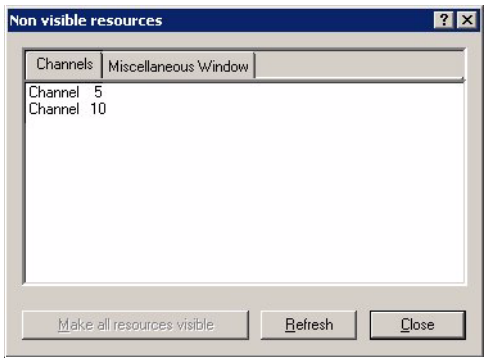
It is possible, by rearranging the resources on the screen (including buttons in the toolbar) or by using the **Zoom** feature, to end up with resource objects that are not visible and, therefore, cannot be accessed. This command on the **View** menu opens the **Non-Visible Resources** dialog box where you can see which resources are not visible. A supervisor can move the non-visible resources back into viewable range. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

Non-Visible Resources Dialog Box

`View > Non-Visible Resources`

Use this dialog box to view a list of resources that are currently in a part of the Multiple Tab window or Miscellaneous window but are outside the boundaries of the main window. A supervisor's assistance is required to bring the non-visible resources back into viewable range.

Figure 4-8 Non-visible Resources Dialog Box



[Name] Tab (s)

Displays the currently non visible buttons or controls for a tab in the Multiple Tab window. This column is repeated for each tab in the Multiple Tab window that has non-visible resources.

Miscellaneous Window Tab

Displays the currently non-visible buttons or controls in the Miscellaneous window.

Buttons

Make all resources visible

This button is only available to supervisors.

REFRESH

Click the button to refresh the list of non visible resources after making another intervention (such as adding or removing resources or changing the zoom level).

CLOSE

Click the button to close the dialog box and return to the main window.

FOCUS IN MULTIPLE TAB WINDOW COMMAND

This command on the **View** menu focuses the program on the Multiple Tab window. The last-chosen button or control on a Multiple Tab window receives the focus and becomes highlighted.

The Multiple Tab window, typically, contains the majority of the resources (for example, Radio Channel controls) that allow you to control all communications. It is the default window when the MIP 5000 VoIP Radio Console program first starts. This window is always present on the main window and cannot be removed.

A supervisor assigns resources to this window.

FOCUS IN MISCELLANEOUS WINDOW COMMAND

This command on the **View** menu focuses the program on the Miscellaneous window. The last-selected button or control in the Miscellaneous window receives the focus and becomes highlighted.

FOCUS IN TOOLBAR COMMAND

This command on the **View** menu focuses the program on the toolbar. The button with the focus the last time you were in the toolbar becomes the focus and is highlighted.

FOCUS IN ACTIVITY LOG WINDOW COMMAND

This command on the **View** menu focuses the program on the Activity Log window. The last-chosen call receives the focus and becomes highlighted.

Focus in Volume Window Command

This command on the **View** menu, focuses the program on the Volume window, which you can use to adjust the volume levels of the select, unselect, and headset earpiece speakers.

Focus in Information Window Command

This command on the **View** menu, focuses the program on the Information Window, which consists of the default Page History window and the optional Radio Text window for MOTOTRBO radio head text display. The page with the focus the last time you were in the Information Window becomes the focus and is highlighted.

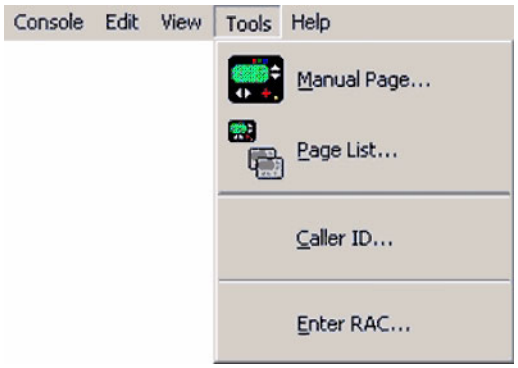
Tools Menu

The **Tools** menu accesses the tools that help you on your console, such as, immediate access to the **Manual Page, Page List, Caller ID,** plus **Enable/Disable** features and **Enter RAC**. Some of these features are accessible only by a supervisor.

The **Tools** menu contains the following commands:

- “Manual Page Command” on page 4-14
- “Page List Command” on page 4-17
- “Caller ID Command” for supervisors only
- “Enter RAC Command” on page 4-20

Figure 4-9 Tools Menu



MANUAL PAGE COMMAND

This command on the **Tools** menu opens the **Paging and Signaling** dialog box where you can send a manual page on a radio channel. You can also use the **Man Page** button to open the **Paging and Signaling** dialog box.

FIGURE 4-10 MANUAL PAGE BUTTON

For more information about Manual Paging, see “Manual Page” on page 2-50 and “Left Arrow Control” on page 3-22.

PAGING AND SIGNALING DIALOG BOX

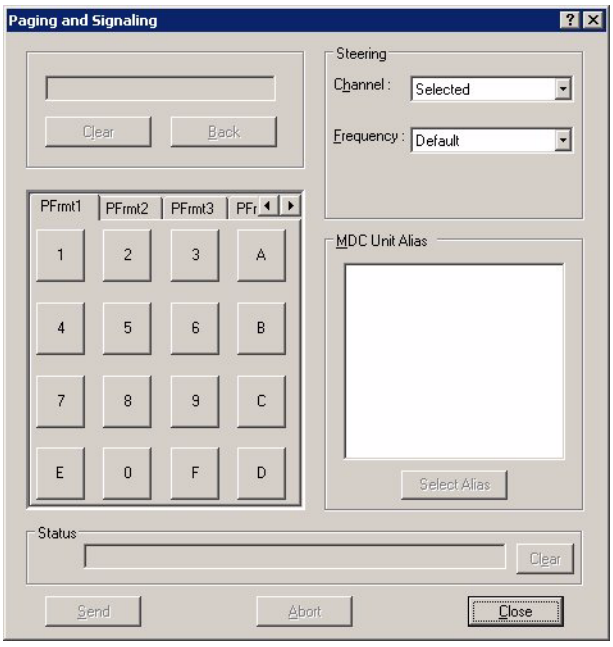
`Tools > Manual Page`

You use this dialog box to send manual pages. The program provides integrated paging features. Paging types include generic (using any tone sequence), customized or STAT-ALERT signaling. The program sends the page signal over selected radio channels. You can define the specific frequency and transmitter that a page or signaling sequence is transmitted through.

The MDC Unit Alias is a list of pre-programmed alias' (names) associated with mobile radio IDs configured for STAT-ALERT signaling (MDC 1200). Each MDC Unit Alias is programmed (in the Caller ID Alias database) to communicate through a particular Radio Channel control. Selecting an Alias will send the associated MDC Unit ID with the transmission so only that mobile radio will receive the STAT-ALERT signal. This list is not associated with pagers.

You designate the customized 1+1 and 2+2 formats or STAT-ALERT (MDC 1200) formats at the CSDM.

FIGURE 4-11 PAGING AND SIGNALING DIALOG BOX



PAGE CODE AREA (UPPER LEFT, NO LABEL)

PAGE CODE

Displays the pager-specific paging code or MDC Unit (mobile radio) ID you enter with the **Tabbed Keypad**.

PAGE CODE AREA BUTTONS

CLEAR

Click the button to clear the entire **Page Code** text box.

BACK

Click the button to clear the last entered character in the **Page Code** text box.

TABBED KEYPAD

Click the appropriate tab for the paging or STAT-ALERT signal (MDC 1200) type you wish to send. For a page type, enter the paging code for the specific pager you want to reach. Or for a STAT-ALERT type, enter the mobile radio (MDC Unit) ID. The characters you enter appear in the **Page Code** text box. The keypad changes to reflect the code for each kind of paging or signaling type.

STEERING AREA

CHANNEL

Displays the available Radio Channel control labels. Click the down arrow and select the Radio Channel control containing the radio channel you wish to page on from the drop-down list.

Only Radio Channel controls, configured (in the CSDM) for STAT-ALERT Signaling, appear in the list. The first choice in the list is Selected. Choosing this option steers the page to all the Radio Channel controls that are selected at the console. In this case, the Frequency scroll list is forced to Default and cannot be changed as long as the **Channe**l is set to Selected.

FREQUENCY

Displays the frequency label. Click the down arrow and select the frequency (radio channel) you wish to page on from the drop-down list. The number of frequencies available depends on the configuration of the radio connected to the console's audio channel (Radio Channel control) you select in the **Channels** list).

You have the following possible choices: Default, Frequencies 1 through 16. Choosing Default steers the page to the frequency that is currently used by the system for the Radio Channel control. Choosing one of Frequencies 1 through 16 steers the page to that particular frequency.

If you choose an invalid entry the program uses the default value.

MDC UNIT ALIAS AREA

MDC UNIT LIST

Displays a list of pre-programmed MDC Unit Alias' specific to the selected Radio Channel control, and in some cases the signaling type (tab) selected in the **Tabbed Keypad**. Highlight your choice before clicking the **Select Alias** button. The MDC Unit list is maintained in the Caller ID Alias database.

MDC UNIT ALIAS AREA BUTTONS

SELECT ALIAS

Click the button to select the MDC Unit Alias for the page. The MDC Unit (mobile radio) ID displays in the **Page Code** text box.

STATUS AREA

STATUS

Displays a text message about the status of the page.

Status Area Buttons

Clear

Click the button to clear the **Status** text box.

Buttons

Send

Click the button to send the page and remain in the **Paging and Signaling** dialog box. The **Transmit** indicator appears on the selected Radio Channel control and in the status area of the **Paging and Signaling** dialog box.

When the **Transmit** indicator on the Radio Channel control disappears or, if configured, a green **Talkdown** indicator appears in the status area of the **Paging and Signaling** dialog box, you can send a voice message:

Click the **Common Transmit** button or the press the **Instant Transmit** button or footswitch and speak into your headset or microphone.

To end the voice message, release the **Common Transmit** button or the **Instant Transmit** button or footswitch.

Abort

Click the button to cancel this page and remain in the **Paging and Signaling** dialog box.

Close

Click the button to close the dialog box.

Page List Command

This command on the **Tools** menu opens the **Paging Facility** dialog box that lets you send pre-programmed paging and signaling tones over all selected radio channels to programmed paging groups. You can also use the **Page List** function button to open the **Paging Facility** dialog box.

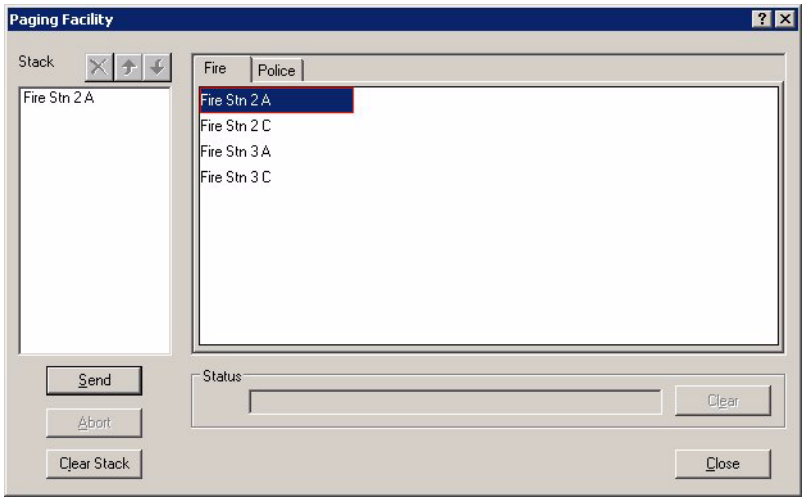
Figure 4-12 Page List Button

PAGING FACILITY DIALOG BOX

Tools > Page List

A dispatcher uses this dialog box to page a predetermined list (stack) of pagers. Paging types include generic (using any tone sequence), customized or pre-programmed, as well as group pages. The page list is maintained by the supervisor. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

FIGURE 4-13 PAGING FACILITY DIALOG BOX



STACK AREA

STACK LIST

Displays the participants/groups who are paged when you click the **Send** button. You customize this list by choosing the participants/groups from the **Page List** tabs.

STACK AREA BUTTONS

STACK DELETE 

Click the button to delete the highlighted participant/group in the Stack list.

STACK DOWN 

Click the button to move the highlighted participant/group down one position in the Stack list.

STACK UP 

Click the button to move the highlighted participant/group up one position in the Stack list.

Send

Click the button to send the page. The **Transmit** indicator appears on the selected Radio Channel control(s) and a text message appears in the **Status** area.

When the **Transmit** indicator on the Radio Channel control disappears or, if configured, a green **Talkdown** indicator appears on the **Man Page** button, you can send a voice message:

Click the **Common Transmit** button or press the PTT button or footswitch and speak into your headset or microphone. To end the voice message, release the **Common Transmit** button or the PTT button or the footswitch.

Abort

Click the button to cancel this page and remain in the **Paging Facility** dialog box.

Clear Stack

Click the button to remove all participants in the **Stack** list.

Page List Area (Right of Stack Area, No Label)

Page List tabs

Displays all available participants/groups in the tabbed group. The participants/groups are customizable when in Edit Mode. Highlight participants/groups you wish to put in the **Stack** list. The highlighted participants/groups automatically appear in the **Stack** list.

Status Area

Status

Displays a text message about the status of the page.

Status Area Buttons

Clear

Click the button to clear the **Status** text box.

Buttons

Close

Click the button to close the **Paging Facility** dialog box.

CALLER ID COMMAND

This command is only available to supervisors. For more information, see the *MIP 5000 VoIP Radio Console Supervisor Manual* (6881013Y33).

ENTER RAC COMMAND

If configured at the CSDM (Auto RAC), choosing the **Enter RAC** (repeater access code) command from the **Tools** menu opens the **Enter RAC** dialog box where you can establish communication through a repeater.

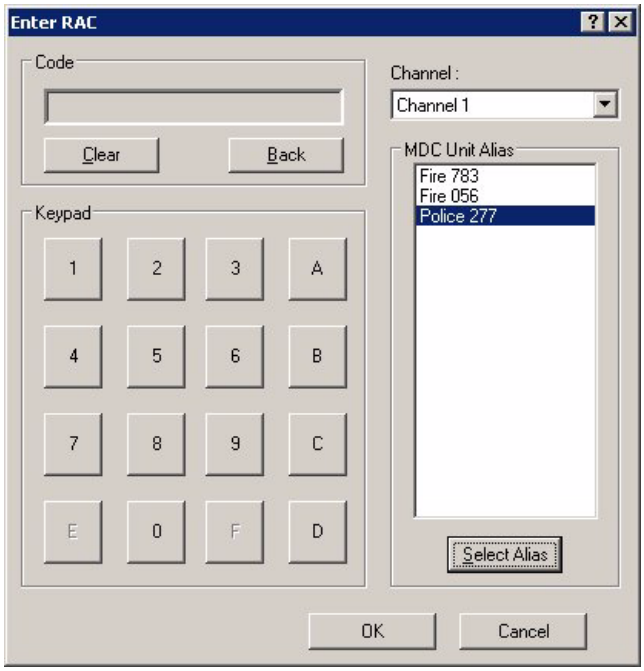
The specific RAC chooses which repeater is accessed. The program stores the RAC in memory and uses it each time you transmit, so that each transmission accesses the same repeater. See "Establishing Communications Through a RAC-enabled Repeater" on page 2-77 for more information.

ENTER RAC DIALOG BOX

`Tools > Enter RAC`

You use this dialog box to enter a repeater access code (RAC) on a per Radio Channel control basis to establish communication through a repeater, either manually or via pre-programmed codes (MDC Unit Alias).

FIGURE 4-14 ENTER RAC DIALOG BOX



Code Area

Code

Displays the current repeater access code, the MDC Unit (repeater) RAC or the code you enter with the **Keypad**.

Code Area Buttons

Clear

Click the button to clear the entire **Code** text box.

Back

Click the button to clear the last entered character in the **Code** text box.

Keypad Area

Keypad

Enter the repeater access code for the repeater you wish to access. The characters you enter appear in the Code text box.

Channel Area

Channel

Displays the available Radio Channel control labels. Click the down arrow and from the drop-down list select the Radio Channel control you wish to access a repeater with.

Only Radio Channel controls configured for STAT-ALERT signaling (in the CSDM) appear in this list.

The **MDC Unit Alias** list displays all the MDC Unit aliases associated with this Radio Channel control.

MDC Unit Alias Area

MDC Unit list

Displays a list of MDC Unit aliases available for this Radio Channel control. Highlight your choice before clicking the **Select Alias** button. The MDC Unit list is maintained in the Caller ID database.

MDC Unit Alias Area Buttons

Select Alias

Click the button to select the MDC Unit Alias for the repeater. The RAC associated with this alias displays in the **Code** text box.

BUTTONS

OK

Click the button to save the newly entered RAC and close the **Enter RAC** dialog box.

CANCEL

Click the button to close the dialog box without changing the RAC.

Help Menu

The **Help** menu provides access to the online help, search capabilities and information about the program.

The **Help** menu contains the following commands:

- "What's This Command" on page 4-23
- "Help Topics Command" on page 4-23
- "About Command" on page 4-23

Figure 4-15 Help Menu

What's This Command

Selecting the **What's This?** command places a question mark next to your cursor. Select a section of an open dialog box or window that you need help with and the relevant help topic is opened in the **Help Topics** dialog box.

Help Topics Command

The **Help Topics** command opens the Help Topics window, which offers the **Contents**, **Index**, **Search**, and **Favorites** tabs to help you find the information you need.

About Command

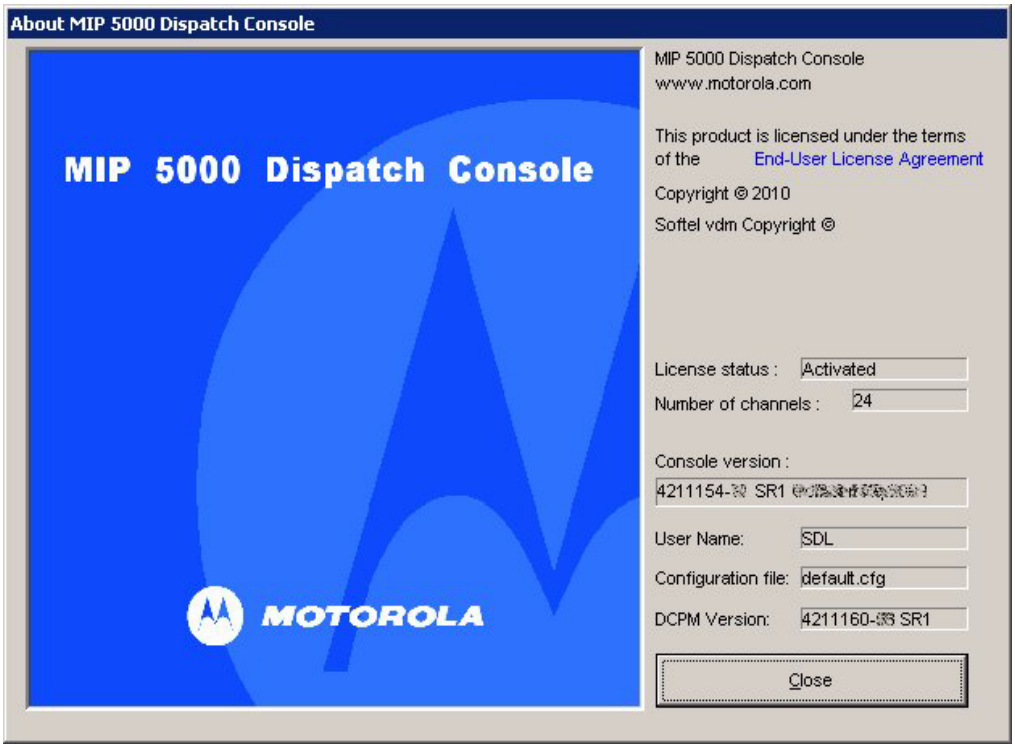
This command on the **Help** menu opens the **About** dialog box where the program information, version number, and copyright information regarding the MIP 5000 VoIP Radio Console program is displayed.

ABOUT DIALOG BOX

Help > About

You use this dialog box to display program information, license information, version number and copyright information regarding the MIP 5000 VoIP Radio Console program.

FIGURE 4-16 ABOUT DIALOG BOX



This dialog box also gives you information about:

- **License status** — indicates a license status of: **Trial Period**, **Trial Period Expired**, or **Activated**.
- **Number of channels** — identifies number of channels this console is licensed for
- **Console version** — identifies the software version number and date
- **User Name** — identifies the user currently logged in at this console
- **Configuration file** — identifies the name of the current configuration file
- **DCPM version** — identifies this console's identification number

BUTTONS

CLOSE

Click this button to close the **About** dialog box.

GLOSSARY

ABS — Acrylonitrile-Butadiene-Styrene, a durable, fire-resistant plastic.

AC — See *Alternating current*.

ACO — Alarm cut off.

AGC — Automatic gain control.

APB — All points bulletin.

Alternating current — Electrical current that flows in alternately in one direction then the other, such as supplied by most electrical power grids for public consumption.

Channel — The radio's channel communication is one of the following:

- transmit frequency only-for one-way communication
- receive frequency only-for one-way communication
- simplex frequency-using one frequency for two-way communication, one-way at a time
- half-duplex or two frequency simplex-using a separate transmit and receive frequency for two-way communication, one-way at a time
- full-duplex frequencies-using a separate transmit and receive frequency for two-way simultaneous communication

COM, Com — Usually “communications” as in the COM port on a PC, a serial communications port; also “common ground” as in the Com port on an I/O module.

Console System Database Manager (CSDM) — A configuration and maintenance tool for the MIP 5000 system. The CSDM is used to configure MIP 5000 VoIP Radio Consoles and MIP 5000 Gateways.

CPU — Central processing unit

CSDM — See *Console System Database Manager (CSDM)*.

CTCSS — Continuous tone carrier squelch system.

Data root path — The route to the top-level folder of a folder structure for storing data files. The top-level folder is intended to hold subfolders, not data files. When first created, it is empty. For example, the following is a MIP 5000 data root path:

- C:\Documents and Settings\All Users\Application Data

Following are examples of two separate data branches from this data root path:

- C:\Documents and Settings\All Users\Application Data\Motorola\MIP 5000\OIM
- C:\Documents and Settings\All Users\Application Data\Motorola\MIP 5000\DCPM

dB — Decibel; a unit used to express relative difference in power, usually between acoustic or electric signals, equal to ten times the common logarithm of the ratio of the two levels.

dBm — Decibel relative to 1 milliwatt.

DC — See *Direct current*.

Deskmic — Desktop microphone

Direct current — Electrical current that flows in one direction only, such as supplied by a battery

DTMF — Dual tone multiple frequency.

Emerg — Emergency.

EMI — Electromagnetic interference.

ESD — Electrostatic discharge.

Feedback — The return of some of the output of a system to the input of the same system. In the case of audio systems, feedback can cause speakers to emit a high-pitched squeal or an echo that severely impairs sound quality from the speakers.

Frequency Coupled — The radio channel has a fixed transmit and receive frequency pair for simplex or duplex operation. For more information, see *Radio channel*.

Graphical User Interface (GUI) — An icon-based user interface.

GUI — See *Graphical User Interface (GUI)*.

Hangover delay — The hangover delay is a period of time after incoming audio has stopped that the system will consider that the channel is still in use.

HASP key — A proprietary, hardware-based, cross-platform software copy protection and licensing system that plugs into a USB port. (HASP stands for Hardware Against Software Piracy.)

Hz — A measure of frequency equal to the number of cycles per second.

Internet Protocol (IP) — A protocol used for carrying packets of data primarily in Ethernet based systems.

IP, Ip — See *Internet Protocol (IP)*.

IP Multicast — A protocol for efficiently sending to multiple receivers at the same time on a TCP/IP network, by use of a multicast address. It is a feature used especially in RTP. Multicasting permits a message that is transmitted once to be received at many network nodes.

Jitter — The unwanted, abrupt variation of one or more signal characteristics, such as frequency or phase of successive cycles.

k — Kilo (1,000)

kHz — Kilohertz; that is, one thousand Hertz (1,000 cycles per second)

LAN — See *Local area network (LAN)*.

LED — Light emitting diode

Local area network (LAN) — A network that connects computers together within an office complex

mA — Milli-Amperes.

MAC Address — A Media access control (MAC) address is a network address that uniquely identifies each node of a network. The MAC addresses used by the MIP 5000 system are based on the Ethernet MAC-48 specification. Each MAC address uses 48 bits, which provides a range of 281,474,976,710,656 possible addresses.

Mbps — Megabits (millions of bits) per second.

MDC — Mobile data communications.

MIC — Microphone.

ms — Millisecond (1/1000 of a second).

Multicast address — An identifier for a group of hosts that have joined a multicast group.

Multi-Sel — Multiple selection.

PC — See *Personal computer (PC)*.

Personal computer (PC) — An IBM-compatible single-user computer.

Prog — Program.

PTT — See *Push-to-talk (PTT)*.

Push-to-talk (PTT) — The way a subscriber initiates a call. When the PTT switch on a radio is pressed (also known as keying up), this indicates that a call is being initiated by a user. Also known as press-to-talk.

Radio frequency (RF) — General term for the range of frequencies at which used in radio communication systems.

RAC — Repeater access code.

Radio channel — In radio technology, the radio's channel communication is one of the following:

- transmit frequency only—for one-way communication
- receive frequency only—for one-way communication
- simplex frequency—using one frequency for two-way communication, one-way at a time
- half-duplex or two frequency simplex—using a separate transmit and receive frequency for two-way communication, one-way at a time
- full-duplex frequencies—using a separate transmit and receive frequency for two-way simultaneous communication

RCU — Remote control unit

Real-time transport control protocol (RTCP) — An Internet protocol for providing out-of-band control information about RTP flows, such as quality of service feedback.

Real-time transport protocol (RTP) — An Internet protocol for transmitting real-time data, such as audio or video.

Resources — A general term for network infrastructure and radio channels. Also buttons that executes features related to network infrastructure and radio channels.

RF — See *Radio frequency (RF)*.

RFI — Radio frequency interference.

RTCP — See *Real-time transport control protocol (RTCP)*.

RTP — See *Real-time transport protocol (RTP)*.

RX, Rx — Receive/received/receiving.

SVGA — Super video graphics array.

Talkaround — Use of radio channel by a mobile radio to communicate directly to other mobile radios on the system by bypassing (or talking around) the repeater.

Talkdown — A period of time following a page when the microphone of the console issuing the page is keyed. During this time period, a dispatcher can add a voice annotation to the page by speaking into the microphone. In the MIP 5000 VoIP Radio Console, the talkdown (or voice annotation) period is set in the CSDM.

TCP/IP — Transmission Control Protocol/Internet Protocol.

TX, Tx — Transmit/transmitted/transmitting.

Universal serial bus (USB) — An external data bus supporting high-speed data transfer rates. A USB port on a computer can be used to connect a large and varied range of peripheral equipment.

UPS — Uninterruptable power supply.

USB — See *Universal serial bus (USB)*.

VDC — DC volts.

Voice annotation delay — The time that the radio channel is held open (keyed) for the dispatcher to send a voice message.

Voice over Internet Protocol (VoIP) — A method of transmitting audio signals, including the human voice on IP networks.

VOL — Volume.

VOX — voice operated switch.

VU — Volume Unit; a volume meter that visually indicates the volume over time, usually by means of green, red, and amber rectangles that form a bar graph.

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