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H. CREWS

CENTRACOM Gold Series™ Classic CRT™ User's Guide

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CENTRACOM
GOLD SERIES

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User's Guide
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CENTRACOM Gold Series Classic CRT USER'S GUIDE

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- C) Improper disassembly, testing, operation, maintenance, installation, modification, adjustment, alteration, or repair.

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CENTRACOM Gold Series ***Classic CRT*** **USER'S GUIDE**

1. DESCRIPTION

1.1 GENERAL

The *CENTRACOM Gold Series* CRT console consists of a computer, a color CRT monitor, and a mouse. You can control and operate a console communication system which previously was configured with panels of buttons and LEDs. You do not need to manually start up or load disk information into the computer prior to operation from a cold start.

1.2 CEB (CENTRAL ELECTRONICS BANK) INTERFACE

The CRT console interfaces with 68020 microprocessor-based console systems. Existing CEB and operator interface module hardware and firmware require only minor modification to support basic CRT operation. CRT operator positions can be intermixed with other trunked buttons and LEDs operator positions on the same CEB system.

1.3 AMBASSADOR ELECTRONICS BANK (AEB)

The AEB is a large capacity TDM audio processing switch which connects to CEBs and SmartZone™ System Channel Banks. The AEB is the audio switch used in SmartZone systems to route the repeater and dispatch audio throughout the system. SmartZone audio routing is controlled by the Zone Controller. Multiple SmartZone systems can be connected to form a SmartZone OmniLink™ system.

Some features in a console will only function within the zone in which the dispatch console is located. These features include Call Status, Set Clock, Console Disable, Intercom and All Call.

1.4 CRT COLOR MONITOR

The CRT console uses a 14-inch, high-resolution color monitor. The CRT console can be operated with a 2-button mechanical mouse, a 3-button mechanical mouse, a trackball, or a keyboard. A keyboard is normally used as a back-up means of operation and to enter text information.

1.5 AUDIO

Audio from the "selected" channel is routed to the select audio speaker. Combined audio from all "unselected" channels is routed to the unselect audio speaker. Select and unselect speakers are standard and more speakers are available. Dual headset interfaces are optional.

You can receive audio at all times after initial set-up. Even while using a set-up or auxiliary control screen, you can hear select and unselect audio and use the foot switch to talk on the select channel.

1.6 PARALLEL STATUS FEATURE

Any action resulting in a change of status of any indicator automatically is displayed at all similar positions. This feature minimizes errors and achieves more efficient console operation.

1.7 MOUNTING CONFIGURATIONS

1.7.1 Console Furniture

The CRT monitor rack mounts in two EIA 10.5 x 19 inch panel openings in a free-standing console bay.

Select and unselect speakers are standard and provision is made for additional panel mounted speakers. A VU meter is standard. The keyboard and/or mouse are connected at the front panel and can be easily removed or replaced. Any other support electronics are rack mountable behind the speakers or in the base of the furniture bay.

1.7.2 Desktop CRT Console

A desktop version of the CRT console is available for applications without console furniture. The monitor sits on top of the console electronics enclosure. The computer can be stacked on the console electronics enclosure.

The console electronics enclosure contains two speakers, a VU meter, power supply, CEB interface board, and any other operator board (for example, remote operator's board). You can attach additional speakers to the electronics enclosure.

The enclosure supports all *CENTRACOM Series II* microphones and hardware.

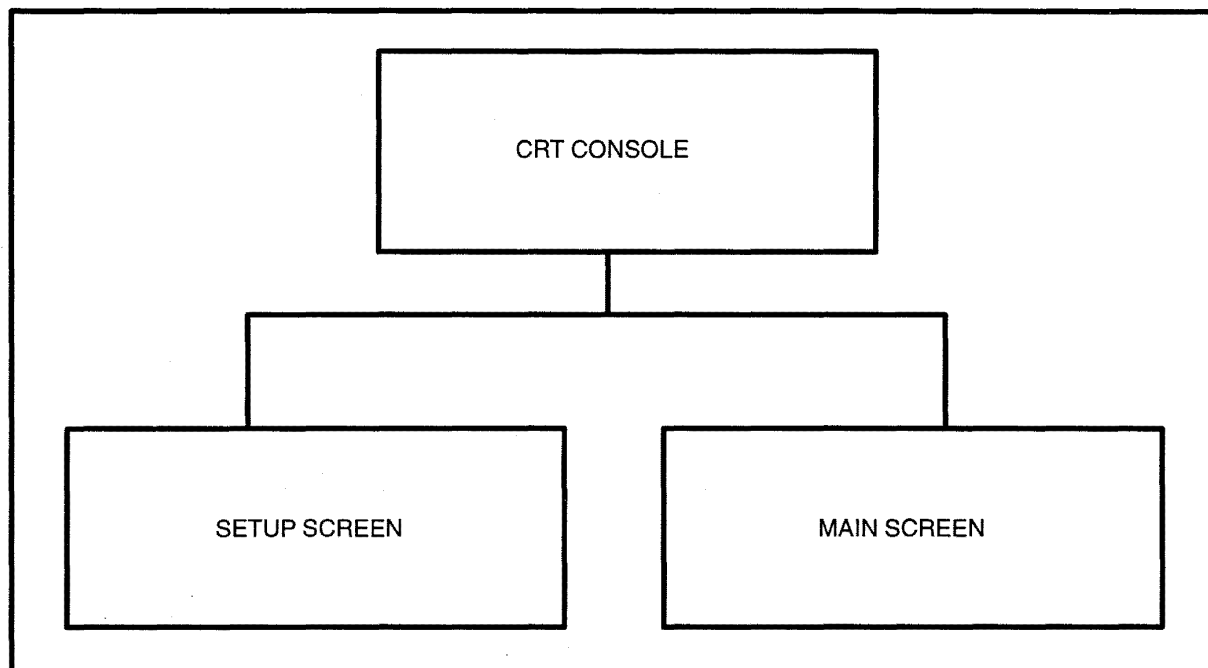


Figure 1. CRT Console Screen Structure

1.8 OPERATOR POSITION CAPABILITY

A standard CRT operator position has the capability of controlling the following:

- A total of 60 conventional channels, trunked talk groups, Simplex Phone Patches, and Direct Phone Interconnects.
- 150 channel options and auxiliary controls (each). (Comparator Display counts as 16 auxiliary controls).
- 149 pre-programmed pages (upgradable to 250).

If an entire system fits within these parameters, all operator positions can have the capability of controlling all of these functions.

2. OPERATING CONTROLS AND DESCRIPTIONS

2.1 SCREEN STRUCTURE

The CRT console uses two primary screens: the Main Screen and the Setup Screen (see Figure 1). The Main Screen contains a Radio Control Screen used for radio dispatch functions. Use the Setup Screen to arrange the appearance of channels and auxiliary controls in the Radio Control and Auxiliary Control Screens.

2.2 MOUSE OR TRACKBALL OPERATION

When using a mouse or trackball to operate the CRT console, initiate actions by positioning the cursor on the screen and pressing one of the three mouse buttons: Choose, Instant Transmit, or General Transmit (see Figure 2). Pressing the Choose button (or Choosing) is similar to a button press on a buttons and LEDs console; i.e., the Choose button selects channels and activates functions. The General Transmit mouse button operates similarly to the conventional Transmit bar, transmitting over the selected channel(s) when pressed. A footswitch can also be used. The General Transmit mouse button does not function when the CRT is running under Windows, and it is not available if a 2-button mouse is used. The CRT running under Windows requires a footswitch, keyboard, or the General Transmit Window to perform a General Transmit. The Instant Transmit button allows the dispatcher to transmit over the channel on which the mouse cursor is located.

2.3 TOUCH TRANSMIT OPERATION

With Touch Transmit features added to your setup, it is possible to perform general transmit and instant transmit operations without a mouse, a trackball or a footswitch.

This can be done by using on-screen General Transmit Window and Instant Transmit options to perform general transmit and instant transmit operations.

2.4 SELECT AND UNSELECT AUDIO SPEAKERS

Audio from the "selected" channel routes to the SELECT audio speaker. Combined audio from all "unselected" channels routes to the UNSELECT audio speaker. In consoles with many radio channels, additional UNSELECT speakers can handle smaller groups of unselected audio channels. Additional speakers can also be dedicated to individual channels. Selecting a channel with a dedicated speaker does not transfer the audio to the SELECT speaker. Speakers come with a volume control.

2.5 MICROPHONES

A console can have one of several types of microphones: swivel mount (not available on Compact), gooseneck mount, boom mount, free standing desk type, or a condenser microphone. In addition, capability for headset operation or handset operation is available. Plug the headset into the headset jack to activate the headset. Activate the handset by removing the handset from its mounting (taking the handset off hook). When either the headset or the handset is active, the console automatically disables the microphone and the select speaker and transfers these functions to the headset or handset.

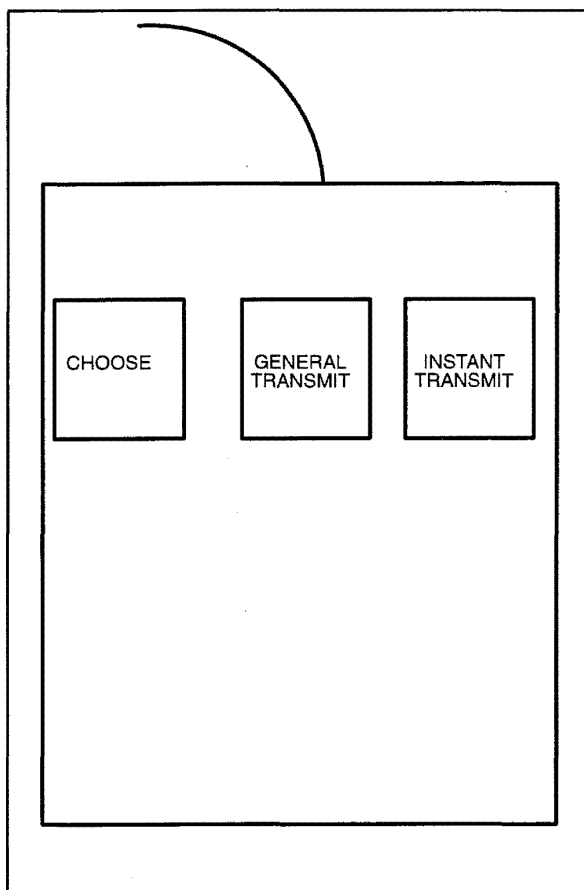


Figure 2. Mouse Key Definition

2.5.1 Transmit

Press and hold the General Transmit mouse button or use the General Transmit Window to transmit on all selected channels. The right treadle on the optional footswitch also provides the "Push-To-Talk" operation.

NOTE

For more information on Transmit see Section 3.3.

2.6 VU METER

The VU meter is a bar graph which responds to the dispatcher's voice during transmit and intercom operation. At other times, the meter responds to the audio on the selected channel. See Section 5.3 for instructions on using the VU meter.

2.7 SUPERVISORY PRIORITY

One operator position has supervisory priority. The supervisor gains immediate access to any channel by using the instant Transmit switch, regardless of any other console activity on that channel. The supervisor's audio is heard through the SELECT or UNSELECT speaker at the interrupted operator's console. In installations where the consoles are close together, the supervisor's audio can be muted to prevent feedback. A second supervisor can have control of the channels on one console. The second level supervisor is subject to the control of the primary supervisor (see Table 1).

2.8 TRANSMIT QUEUE WAITING FEATURE

The transmit queue feature allows two operators to "stand in line" to use a busy channel by holding down the transmit button or footswitch. When the channel is free, the first dispatcher in the queue has access to the channel.

Table 1. Function Priority Levels

Transmit Priority Level	First Supervisor	Second Supervisor	Non-Supervisor
1	instant transmit APB	--	--
2	--	instant transmit APB	--
3	--	--	instant transmit APB
4	alert	alert	alert
5	transmit bar	transmit bar	transmit bar
6	talk-thru	talk-thru	talk-thru
7	patch	patch	patch
8	paging	paging	paging

NOTE

You cannot override alert or paging functions while the alert or paging tones are active.

2.9 VOTING COMPARATOR DISPLAY AND CONTROLS

The voting comparator display provides indicators to designate which receiver sites are receiving a message and which receiver is voted. In certain situations, such as receiver site failure or excessive noise on the channel, it is desirable to override the automatic voting feature. Press the Disable switch to disable a receiver site. The remaining receivers are voted normally. Press the Vote switch to force-vote a receiver site. In force-voted operation, the Vote indicator remains lit even when a signal is received.

2.10 INSTANT RECALL RECORDER

The *Call Check* control module provides the controls necessary to operate an instant recall recorder such as a Dictaphone™ *Call-Check* machine. Recall audio is heard through the UNSELECT audio speaker or a dedicated recorder speaker. There are two modes of operation: Normal and Heavy Traffic. During periods of normal communications activity, the recorder automatically updates to the beginning of the last message received. To hear the entire message, briefly press the Next button after the Recording LED goes out. Press the Pause button to pause playback. To continue playback, press the Pause button. To scan forward, press the Fast Forward button. To rewind, press the Prev/Rwd button. During periods of increased communications activity, place the recorder in the Hvy Traffic mode. The recorder automatically updates to within approximately 12 seconds from the end of the last message so that the most recent part of the message can be heard. This update occurs every one or two minutes so that the end of the last message is always near. During playback, the UNSELECT audio is muted if a dedicated speaker is not employed.

2.11 MONITOR SPEAKERS

In some consoles, you can use additional monitor speakers to provide audio from selected stations or to reduce the number of channels heard through a single UNSELECT speaker. In certain consoles, each channel can have its own speaker. In that case, selecting a channel does not route the audio from that channel to the SELECT speaker.

3. MAIN SCREEN

Use the Main Screen to communicate with radio channels and to access auxiliary controls (see Figure 3).

The Main Screen is divided into four major areas:

- The Radio Work Area (RWA)
- The Channel Summary List (CSL)
- The Menu and Menu Function Keys Area
- The Status Area.

These areas and their functions, are explained below.

3.1 RADIO WORK AREA

The Radio Work Area (RWA) is the area of the Main Screen which is displayed individual Control Windows in an accessible form.

3.1.1 Control Windows

Use the Channel Control Windows (CCWs) to communicate with groups of radios. Access Auxiliary Controls such as sounding alarms or opening and closing doors using Auxiliary Control Windows (ACWs). Use the Set-Up Screen to configure these Control Windows and to place them in the desired location of the Main Screen. (See Section 4.5).

You can display control Windows in one of three ways:

- A small window display.
- A medium window display.
- A large window display.

3.1.1.1 CHANNEL CONTROL WINDOWS (CCW)

The 4 and 5 line CCW is displayed are illustrated in Figure 4. The 4 line, small window display shows all the basic channel information that is present in every CCW.

Channel Name and Select Line

This is the top line of the CCW. It identifies the channel and its select status.

Select a channel by positioning the cursor over any of the top three lines of the CCW and pressing the Choose mouse button while in the Single Select mode. The background of the top line then turns green. When the channel is deselected, the background of the top line returns to its normal color.

Selecting a CCW means that only the audio from that channel can be heard through the Select Speaker of the operator console. In addition, you can transmit to the selected channel using the General Transmit button, the Transmit Footswitch or by using the General Transmit Window.

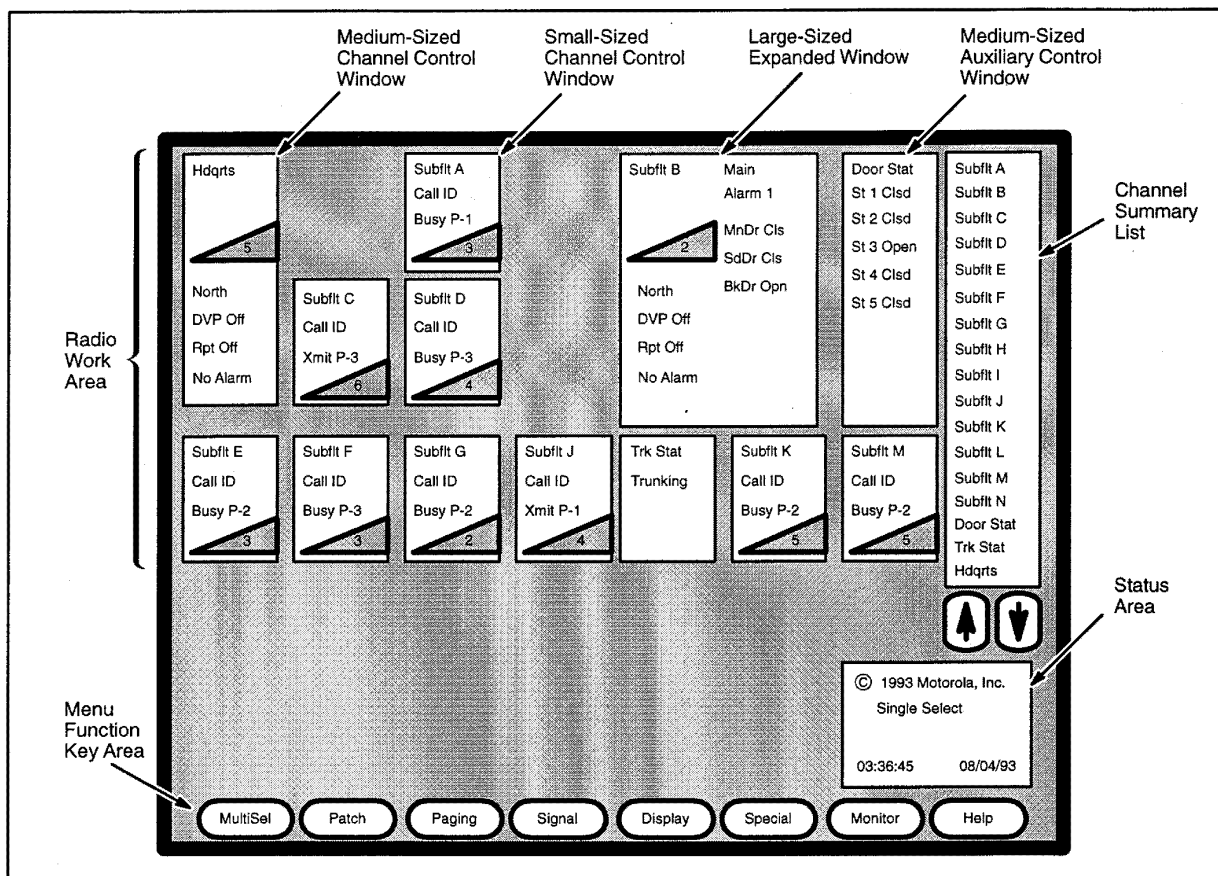


Figure 3. Main Screen

Call Status/ID Line

This is the second line of the CCW. It lets you know when there is an inbound call.

The message "Call" or a unit ID is displayed on the line when there is an inbound call on the channel.

- If the channel is selected (highlighted) at this operator position when an inbound call is received, the message flashes red at this operator position.
- If no operator position within a zone has the channel selected when an inbound call is received, the message flashes red at all operator positions.
- If the channel is unselected at this operator position, but selected at a different operator position within the same zone, the message is displayed solid red at this operator position.

Transmit/Patch Status Line

This line is divided into two halves. The left half of the line is displayed the transmit status of the channel. The right half of the line is displayed the patch status of the channel.

One of seven messages can appear on the transmit status (left) side of the line.

- The message "Xmit" is displayed in a red background when you transmit on this channel.
- The message "Busy" is displayed in yellow letters when the channel is busy.
- If a call is received from a Private Call channel or from a conventional Signaling channel, the message "Rcvd" is displayed on the line in flashing light magenta letters.
- If the channel is in the monitor mode, the message "Mon" is displayed in light magenta letters.
- If the channel is an enhanced telephone channel that is off hook, the message "Hook" is displayed in light green letters.

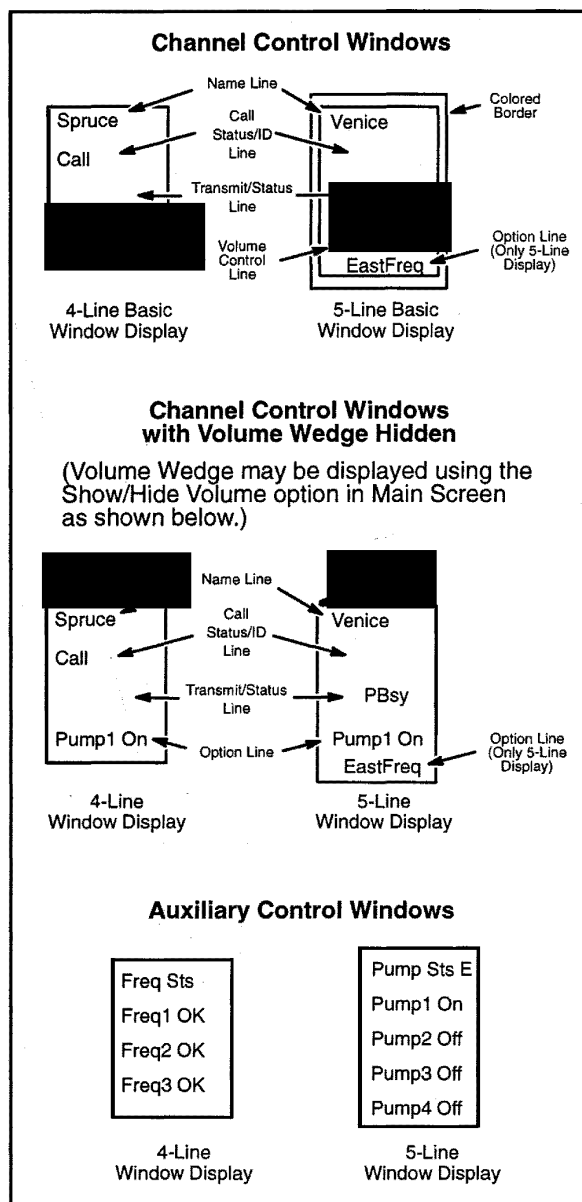


Figure 4. Channel Control/Auxiliary Control Windows

The message **"Hook"** flashes if this operator position has the channel off hook and the message is solid if another operator position has the channel off hook.

- If the channel is an enhanced telephone channel which is currently ringing, the message **"Ring"** is displayed in flashing light magenta letters.
- If the channel is an enhanced telephone channel which is currently on hold, the message **"Hold"** is displayed in flashing light magenta letters on a cyan background.

When the channel is in a patch at this console a message is displayed on the patch status (right) side of the line.

- When the channel is in a patch, the message **"P-x"** (where x = 1, 2, or 3) is displayed in dark blue or cyan letters.
- If the patch group's channel is idle, the letters are cyan.
- If the patch group's channel is active, the letters are dark blue and the background of the line is cyan.
- When the channel is in a patch at another console, the message **"PBsy"** is displayed in yellow letters.

See Section 3.8.2 for more information about patch groups.

Volume Control Line

The volume level of the channel is displayed on the fourth line of the CCW. The volume is represented graphically with a wedge shaped indicator. The volume is also represented numerically.

Control the channel volume by Choosing on either side of the volume wedge. Choosing on the left side of the wedge lowers the volume and Choosing on the right side of the wedge raises the volume. The shaded region of the volume wedge shrinks or grows to graphically represent the volume level.

NOTE

The volume wedge can be hidden. This is done in the Set-Up Screen. A hidden volume wedge provides the user with an extra line for placing an option. The volume wedge can be displayed later along the top border of the CCW using the Show/Hide Volume key from the Display menu of the Main Screen (See Figure 4 and Section 3.8.5.3).

Auxiliary Control/Channel Option Line

Use any remaining lines in the CCW to display more option lines. A medium or large CCW can also be used to display many more option lines. Use the Set-Up Screen (see Section 4.5.1) to configure the CCW.

If an Auxiliary Control is placed in a CCW, an outside operation such as sounding alarms, or opening/monitoring doors can be controlled. Auxiliary Controls can be Input or Output.

The state of the operation is only displayed in an Input Auxiliary Control. You cannot make changes.

The state of the operation is displayed in an Output Auxiliary Control and you can also control the operation.

When the condition of an Auxiliary Control operation changes, so does the text that is displayed on the line. The text is determined in the Set-Up Screen (see Section 4.5.3.3.1).

A CCW can also hold a Channel Option. A Channel Option is very similar to an Auxiliary Control. The only differences are:

- The controlled or monitored operation is related to the channel or subfleet. These operations can include frequency selection, repeater control, or coded/clear transmission.
 - For example, a CCW can have a frequency selection option. Select the frequency of the base station on that channel by Choosing the **Freq x** (where x = 1, 2, 3, ...) option from the CCW. A menu is displayed at the bottom of the RWA with the channel name and a list of frequency menu keys. Choose the desired frequency and then Choose the **Save** menu key. The new frequency is displayed on the Channel Option line of the CCW. Frequency selection can be set-up to toggle to the desired frequency within the CCW.
 - Another example is the *Private Line* (PL) option. This Channel Option permits private communication with the channel using the same frequency. Choose the **PL x** (where x = A, B, C, ...) option from the CCW. A menu is displayed at the bottom of the RWA with the channel name and a list of Private Line menu keys. Choose the desired Private Line and then Choose the **Save** menu key. The new Private Line is displayed on the Channel Option line of the CCW.
- A Channel Option must be placed in the CCW with which it is associated. A Channel Option cannot be placed in a different CCW. A Channel Option can also be placed in an ACW. An Auxiliary Control can be located in any CCW or ACW.

Instant Transmit (INST XMT) Options

INST XMT options can be placed on any CCW during setup. They are displayed the way channel auxios/options are.

You can depress/release any INST XMT option to perform an instant transmit operation on a channel that the INST XMT option is associated with.

INST XMT options are disabled in the "Move Window" mode and the "Expand Window" mode.

If there is more than one INST XMT option associated with a given channel depressing/releasing any of them will give the same response.

3.1.1.2 AUXILIARY CONTROL WINDOWS (ACW)

Auxiliary Control Windows (ACWs) are windows devoted solely to displaying Auxiliary Controls and/or Channel Options. The ACWs on the RWA contain those Auxiliary Controls whose status must be changed or accessed frequently.

The first line of an ACW contains the ACW name. All the other lines display Auxiliary Controls. The name and Auxiliary Controls are entered in the Set-Up Screen.

ACWs are always fully displayed. The ACW size cannot be reduced by using the **Show/Hide Options** key in the **Display**

function of Main Screen. See Section 4.5.1 for more information on Control Window display.

Choose the Auxiliary Control/Channel Option Line to perform the associated operation. The status and text of the Auxiliary Control/Channel Option is changed accordingly.

Auxiliary Control/Channel Options can be Latching or Momentary. Choosing a Latching Auxiliary Control/Channel Option causes the status and text of the Auxiliary Control/Channel Option to change and remain that way until Chosen again.

Choosing a Momentary Auxiliary Control/Channel Option causes the status and text of the Auxiliary Control/Channel Option to change and immediately return to its original state when the Choose button is released.

The Latching or Momentary condition depends on the type of Auxiliary Control/Channel Option being used.

3.1.1.3 GENERAL TRANSMIT WINDOW (GTW)

The action of pressing/releasing the GTW is equivalent to pressing/releasing the general transmit mouse button.

NOTE

For more information on Transmit see Section 3.3.

In all RWA modes but the "Move Window" mode and "Expand Window" mode you can choose and hold any GTW line to general transmit.

To perform the general transmit operation in the "Move Window" mode or in the "Expand Window" mode, depress any line but the top line of the GTW.

Depressing GTW's top line in the "Move Window" mode will result in selecting the GTW for moving. The GTW can be moved only within the RWA area.

GTW can't be resized. Depressing GTW's top line in the "Expand Window" mode will result in message "Can't resize GTW" being displayed.

3.1.1.4 CONTROL WINDOW BORDERS

A red border is displayed around the Channel Control Window when you set up a channel for an emergency or for receiving an emergency.

A yellow border is displayed around the expanded Control Window when a Control Window expands to cover another Control Window in the RWA.

You can display colored borders around specific windows to help identify associated Control Windows. Assign colored borders window by window through the Set-Up Screen (see Section 4.5.3.1).

If a Control Window has a user-defined border, the border displays red when the channel is involved in an emergency and yellow if it covers another Channel Control Window in the RWA.

3.2 CHANNEL SUMMARY LIST (CSL)

The Channel Summary List (CSL) contains the names of all the Control Windows that you can access in the Radio Work Area (see Figure 3).

The Main Screen has 8 columns and 3 rows available for displaying Control Windows and Channel Summary List(s). You can designate 0 to 7 columns as a CSL. The rightmost CSL column scrolls and displays 15 or 17 Control Window names at a time, but it can contain all of the Control Windows in the system. You can scroll through the entire list by Choosing the up or down scroll arrows.

All other CSL columns can contain a maximum of 19 Control Window names. You can not scroll these lists. Normally, you would only set up more than one CSL if you need to view more than 15 or 17 name lines at a time. For more information on the Summary List, see Appendix A.

You can place a Control Window in the RWA during Set-Up or use the **Move Window** command in the **Main Screen Display** menu (see Section 3.8.5.1). Use the same command to close a Control Window from the RWA and place it in the CSL.

3.2.1 Channel Summary List Radio Operations

When there are no CSL mode keys, or the CSL is in select mode, you can perform the following radio operations on a channel displayed in the Channel Summary List:

- Add to a Multi-Select.
- Add to a Patch.
- Select as a Paging channel.
- Transmit over as a Paging channel.
- Instant Transmit.
- All Mute.

CSL channels also display certain radio operation indications. These indications are similar to those described for a CCW located in the RWA and are fully explained in the individual operation sections of this manual.

To minimize potential distractions, console operators often mute CSL channels. Therefore, the channels do not indicate inbound call or parallel busy activity. However, you can confi-

gure specific channels so that their audio is heard through the unselect speaker and so that inbound call and parallel busy indications are given. Assign this CSL audio capability through the Set-Up Screen (see Section 4.5.3.1).

3.2.2 CSL Mode Keys

CSL Mode keys are optional. If there are no CSL mode buttons, the rightmost CSL displays 17 Control Window names at a time. During setup, CSL Mode keys can be added to the CSL to allow the user to select or instant transmit in CSL by choosing (touching) a CSL channel entry. Adding CSL Mode keys will change the size of the right most CSL from 17 to 15 visible Control Window names at a time.

When CSL mode keys are present, there are two CSL modes:

- **Select Mode:** In this mode the "SEL MODE" key is green. You can perform the same operations as when there are no CSL mode keys. These operations have already been listed in section 3.2.1.
- **Instant Transmit Mode:** In this mode the "ITX MODE" key is green. You can perform instant transmit operation on a channel that is active in the CSL by choosing its CSL entry.

NOTE

When you are in Instant Transmit CSL Mode and you choose a CSL channel you will be performing instant transmit on that channel regardless of the RWA mode you are in.

Depressing either of the CSL mode keys will change the CSL mode. Toggling the CSL mode keys will not change the state of any entry in the CSL (e.g., if the channel has been selected it will remain selected).

3.3 GENERAL AND INSTANT TRANSMIT

3.3.1 General Transmit Depress

The General Transmit depress is used to transmit voice over a channel in many situations. You can perform a General Transmit depress in the following ways:

- Press the General Transmit mouse button. This only functions on a 3-button mouse when the CRT is running under DOS.
- Press the right treadle on the footswitch.
- Choose and hold the General Transmit Window.

3.3.2 General and Instant Transmit Operation

You can transmit voice messages over a channel in a variety of ways, depending on the console mode.

- General Transmit in Single Select mode:
 - Choose one of the top three lines of a CCW to select (highlighted in green) the window.
- Perform the General Transmit depress. (See section 3.3.1).
 - The message “**Xmit**” is displayed in red background on the Transmit Status Line of a CCW located in the RWA. A CCW located in the CSL is displayed in a red background.
 - Speak into the microphone.
- Instant Transmit in any mode:
 - Choose anywhere over a CCW in the RWA or directly over a channel name in the CSL using the Instant Transmit mouse button while the Main Screen is in any mode. This transmits over the selected channel.
 - The message “**Xmit**” is displayed in red background on the Transmit Status Line of a CCW located in the RWA. A CCW located in the CSL is displayed in a red background
 - Speak into the microphone.
- Instant Transmit using CCW INST XMT options:
 - Choose an INST XMT option located in the CCW that you want to use for instant transmit.
 - The red “**Xmit**” message is displayed on the CCW’s Transmit Status Line.
 - Speak into the microphone.

NOTE

INST XMT options are disabled in the “Move Window” mode and the “Expand Window” mode.

- Instant Transmit in Instant Transmit CSL mode:
 - Make sure you are in Instant Transmit mode (ITX MODE key is green). If CSL is not in Instant Transmit mode (ITX MODE key is white) then press one of the CSL mode keys on top of CSL to change the CSL mode to Instant Transmit mode.
 - Select a channel in the CSL.
 - The channel name turns red.
 - Speak into the microphone.
- Use the General Transmit mouse button or Footswitch to transmit over the selected channels in the Multi-Select or Patch mode (see Sections 3.8.1 and 3.8.2). An APB function is also available with these functions.

- Use the the General Transmit button or Footswitch to transmit using the Talk Extend operation of several functions like **Paging** and **Alert**.

3.4 RECOGNIZING AN EMERGENCY

Emergency Recognition allows a console operator to keep track of which Emergency Alarms and Emergency Calls have been handled, reducing operator error in Emergency situations.

When an Emergency Alarm or Emergency Call is received on a channel, it is initially in an unrecognized state. When a channel has an unrecognized Emergency, the following indications occur.

- When the corresponding CCW is located in the RWA, a red border flashes around it.
- When appearing on the Call Status/ID Line of the CCW, the ID or alias of the Emergency initiator is displayed with a light gray background.

To recognize an Emergency ID on a channel, the operator needs to select the CCW when the ID is displayed on the Call Status/ID Line. When an Emergency ID has been recognized, the following indications occur.

- If all Emergencies occurring on the CCW have been recognized, the red border stops flashing, but remains red. Otherwise the border will continue to flash red.
- When appearing on the Call Status/ID Line of the CCW, the ID or alias of the recognized Emergency is displayed with a dark blue background.

3.5 RECEIVING AN EMERGENCY ALARM

If an operator position receives an Emergency Alarm, the following indications occur.

- The Emergency Alarm tone sounds through the console select speaker.
- If the Emergency Alarm occurs on a channel in the RWA, a red border flashes around the CCW and the ID or alias is displayed on the Call Status/ID Line with a light gray background.

If the channel is located in the CSL, the channel name is displayed in flashing letters on a red background.

- A flashing message is displayed in the General Status Line of the Main Screen Status Area identifying which channel the Emergency Alarm occurred on and whether it is in the RWA, the CSL, or off the screen. This helps you find the channel quickly, even if the CCW is covered by another CCW or if its CSL name line is scrolled off the screen. The ID or alias also is displayed on the Error Line of the Main Screen Status Area.
- The Emergency Window is displayed with a choice of three command keys: **Tone Off**, **Knockdown**, and **Close**. This window also is displayed when you Choose the **Em-**

erg Reset menu key from the Special menu (see Section 3.9.6.3).

- Choose the **Tone Off** command key to turn off the Emergency Alarm tone and flashing ID at that operator position. An emergency state is still indicated at the console by the red channel border when the CCW is in the RWA, or by highlighting the channel name in red with flashing text when the CCW is in the CSL.
- Choose the **Knockdown** command key to end the Emergency on the selected channel at all operator positions. The channel must first have all its Emergency ID's recognized (see Section 3.4) for the Knockdown operation to be performed.

After you Choose the **Knockdown** command key, select a channel within seven seconds or the Knockdown operation ends.

- Choose the **Close** command key to close the Emergency Window without affecting the status of the Emergency Alarm.

3.6 RECEIVING AN EMERGENCY CALL

If an operator position receives an Emergency Call, the following indications occur.

- If the Emergency Call occurs on a channel which is located in the RWA, a red border flashes around the CCW and the ID is displayed on the Call Status/ID Line with a light gray background. The ID flashes red when audio is present.

If the channel is located in the CSL, the channel name is displayed in flashing letters on a red background.

- A flashing message is displayed in the General Status Line of the Main Screen Status Area identifying which channel the Emergency Call occurred on and whether it is in the RWA, the CSL, or off the screen. This helps you to find the channel quickly, even if the CCW is covered by another CCW or if its CSL name line is scrolled off the screen. The ID or alias also is displayed on the Error Line of the Main Screen Status Area.
- Select the CCW with the Emergency Call to hear its audio through the select speaker and to transmit to it.

The Radio ID in the CCW flashes in red letters when it is keyed by the radio user.

- To end the Emergency Call, Choose the **Emerg Reset** menu key from the Special menu (see Section 3.9.6.3). The Emergency Window is displayed with a choice of three command keys: **Tone Off**, **Knockdown**, and **Close**.
 - Choose the **Tone Off** command key to turn off the Emergency Alarm tone and flashing ID at that operator position. An emergency state is still indicated at the console by the red channel border when the CCW is in the RWA, or by highlighting the channel name in red with flashing text when the CCW is in the CSL

However, an Emergency Call may not have an alarm associated with it.

- Choose the **Knockdown** command key to end the Emergency on the selected channel at all operator positions. The channel must first have all its Emergency ID's recognized (see Section 3.4) for the Knockdown operation to be performed.

After you choose the **Knockdown** command key, select a channel within seven seconds or the Knockdown operation ends.

- Choose the **Close** command key to close the Emergency Window without affecting the status of the Emergency Alarm.

3.7 PRIVATE CALL II

A Private Call II is a one to one conversation between two individual units (radio and/or console) in a trunking system. To place a Private Call II, one radio enters the Private Call mode and then enters the ID of the target radio. Private Calls can be made between two radios or between a radio and a console.

Complete the following steps to send a Private Call II to an individual radio.

Step 1. Select a Private Call II CCW to transmit over. The Name Line is highlighted in green. A Private Call Window is displayed with a keypad and ID display area.

Step 2. Enter the radio ID on the available keypad or on the external keyboard. The ID is displayed on the Call Line of the CCW.

Step 3. Perform the General Transmit depress. (See Section 3.3.1).

The Private Call Window is closed.

The radio receives a Private Call indication tone (3 beeps).

Step 4. You can send a voice message as long as the General Transmit depress is being performed.

NOTE

When a Private Call II CCW is selected and there is an ID displayed, the only radio that can call in is the radio with the current ID displayed in the CCW.

Complete the following steps to receive a Private Call II from an individual radio.

Step 1. When you receive a Private Call II from an individual radio, a Private Call indication tone sounds (3 beeps).

The radio ID is displayed on the Call Line of the CCW and the message "**Rcvd**" is displayed on the Transmit Line of the CCW. If the CCW is in the CSL, the channel name flashes in light magenta. Select the CCW. It is highlighted in green.

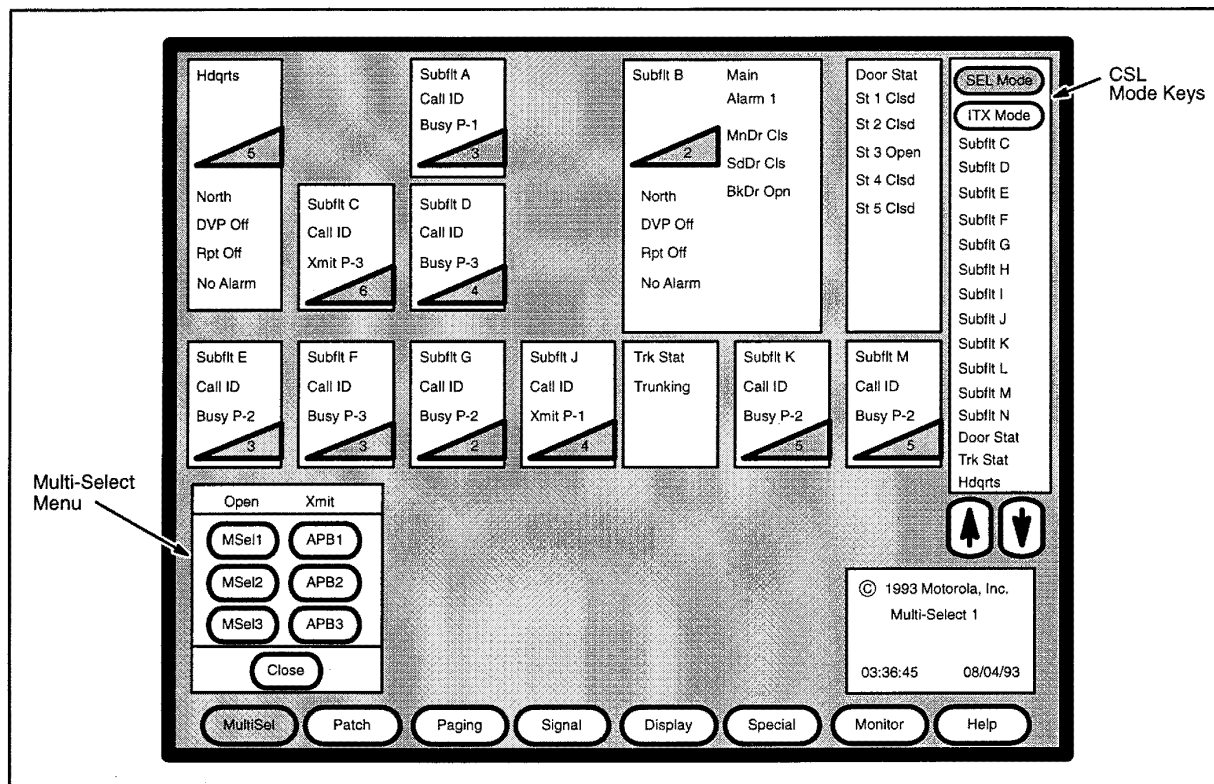


Figure 5. Multi-Select Menu

Step 2. Perform the General Transmit depress to transmit to the individual radio if the channel is selected.

Press the Instant Transmit mouse button to transmit to the individual radio if the channel is not selected.

NOTE

When a Private Call II CCW is selected and there is an ID displayed, the only radio that can call in is the radio with the current ID displayed in the CCW.

3.8 TALKGROUPS

3.8.1 Conventional Talkgroups

This feature allow users of a channel to be segmented into talkgroups. A maximum of 16 talkgroups are allowed on each channel. Dispatch operators use channel options to control the transmissions to talkgroups and can only transmit to one talkgroup at a time, per channel.

3.8.2 Channel-Wide Call

One talkgroup per channel may be configured with channel-wide call feature. A channel-wide call is heard by all users on a channel. Dispatchers operate channel-wide

talkgroups, using channel options, the same as other talkgroups. Channels configured for channel-wide call have a maximum of fifteen normal talkgroups.

3.8.3 Channel Options for Talkgroup Control

Channel options for talkgroup control can be added to the associated CCW in the setup screen. Each option has "On" and "Off" conditions which are distinguishable by their On and Off Tex. The default On Text and Off Text are "TG ## *" and "TG ##," respectively. The text can be changed in the setup screen.

An instant transmit or general transmit performed on a channel with conventional talkgroups addresses a call to the selected outbound talkgroup, identified by its On Text. To change the selected outbound talkgroup, click the desired option. The option will display the On Test to indicate a successful change.

3.8.4 Receive Talkgroup Indication

Calls received from users in the selected outbound talkgroup are indicted by a "Busy" message, and the selected channel option maintains non flashing text. Calls received from users in a group other than the selected outbound talkgroup will be distinguishable by flashing the On Text of that talkgroup for the duration of the call, indicating the

source of the call to the operator. The channel option for the selected outbound talkgroup will continue to display its On Text, and will not change as the result of an inbound call.

3.8.5 Assignable Channels

Channels with conventional talkgroups can be assigned to assignable CCWs. Clicking a channel option for talkgroup control which corresponds to a talkgroup available on the channel, will select the talkgroup for transmission. Receive indications will operate in the same manner as a fixed channel.

The flexibility of assignable CCWs can result in a mismatch between the talkgroup identity of the options located on the CCW and the channel assigned. When an option on the CCW does not match a talkgroup on the assigned channel, the Off Text is displayed and the option is not operable. When a talkgroup on the assigned channel does not match any of the options on the CCW, it cannot be selected and receive indications will not occur.

If an assignable CCW with no channel options for talkgroup control is assigned to a channel with conventional talkgroups, one of the talkgroups will be persecuted (as determined by system programming). All instant transmissions and general transmissions are addressed to this talkgroup, since the CCW has no options for talkgroups, receive indications will not occur.

3.9 MENU FUNCTION KEY LINE

The Menu Function Key Line located at the bottom of the Main Screen contains the function keys used to access the operation menus (see Figure 3).

To open a menu, Choose the Menu Function Key. The menu opens along the bottom of the screen. Choose the desired menu command.

Some menus close automatically after you execute a function or when you open another function menu. Other function menus close when you Choose the **Close** command key located at the bottom of the menu.

The following sections explain the Menu Function Keys and their operations.

3.9.1 Multi-Select

The Multi-Select menu allows you to select more than one channel simultaneously. Audio comes through the Select speaker.

When channels with conventional talkgroups are included in multi-select groups, the outbound talkgroup selection is considered part of the multi-select group. When the multi-select group is closed, the channel will revert back

to the talkgroup that was selected before the multi-select group was opened. The selected outbound talkgroup will be stored along with the channel in the multi-select group. When the multi-select group is re-opened, the saved talkgroup will be re-selected for that channel.

When you Choose the Multi-Select function key, the function key is grayed and the Multi-Select menu is displayed along the bottom of the Main Screen (see Figure 5). The Multi-Select menu contains from one to three Multi-Select menu lines and a **Close** command key.

Complete the following steps to set-up a Multi-Select group.

Step 1. Choose a Multi-Select key (**MSel 1**, **MSel 2**, or **MSel 3**) from the menu to open that Multi-Select group. The group is highlighted in green.

Step 2. Choose one of the top three lines of a Channel Control Window (CCW) or the CCW name from the Channel Summary List (CSL). Do this for all the desired channels in the group. The CCWs are highlighted in green. These channels remain in the Multi-Select group until subtracted from the group.

Subtract a channel from the group by Choosing the CCW again. The channel is no longer highlighted.

NOTE

When you use CSL with mode keys, make sure the CSL is in SEL MODE (SEL MODE key is green) before you choose a CSL channel for adding/subtracting from an MSel group.

Complete the following steps to transmit to a Multi-Select group.

Step 1. Perform the General Transmit depress to transmit to the selected channels (see Section 3.3.1). The message "Xmit" is displayed in a red background on the third line of the Chosen CCWs. When a Multi-Select channel is in the CSL, the channel name is highlighted in red when the General Transmit depress is performed.

You can also transmit over the channels by Choosing the associated **APB** key in the Multi-Select menu. You do not need not Choose the associated Multi-Select menu key to open the group first. The APB function has a higher priority.

To close the Multi-Select group, do one of the following:

- Open another Multi-Select group.
- Choose the menu key for that Multi-Select group again.
- Choose the **Close** key of the Multi-Select menu.

NOTE

You must close the Multi-Select group in order to select and transmit to a single CCW.

3.9.2 Patch

The Patch function lets you "Patch" two independent channels together to allow full communication between them. This

function also allows you to transmit to the Patch channels simultaneously. A channel can be in only one Patch group at a time.

Choosing the **Patch** function key displays the Patch Menu at the bottom of the Main Screen. The function key is grayed. The Patch Menu contains from 1 to 16 menu lines and three columns (see Figure 6).

The first column (far left) of the menu lists the available Patch groups. The second column (middle) displays the Patch state: empty, active, or idle. The third column (far right) is the Patch transmit column.

Complete the following steps to add CCWs to a Patch group.

Step 1. Choose a Patch key from the Open menu column. The key is highlighted in green.

Step 2. Choose one of the top three lines of a Channel Control Window (CCW) or the CCW name from the Channel Summary List (CSL). Do this for all the desired channels in the group. These channels remain in the Patch group until subtracted from the group.

Subtract a channel from the group by Choosing the CCW again.

NOTE

When you use CSL with mode keys, make sure the CSL is in SEL MODE (SEL MODE key is green) before you choose a CSL channel for adding/subtracting from a Patch group.

One of the following three messages is displayed in the second column of the Patch menu indicating the current status (State) of each Patch group:

- The message "**Idle**" is displayed in the State column of the Patch menu when the Patch group is idle (no activity on the Patch channels).
- The message "**Actv**" is displayed in the State column of the Patch menu when the Patch group is active (active communication between Patch channels).

NOTE

A Patch group becomes active whenever an inbound call is received on any Patch group channel.

- The message "**Empty**" is displayed in the State column of the Patch menu when there are no channels assigned to that Patch group.

Complete the following steps to transmit to CCWs within a Patch group.

Step 1. Choose the appropriate Patch menu key from the Open column of the menu.

Step 2. Choose the associated **P-x** key (where x = 1, 2, 3, ...) from the **Xmit** column of the Patch menu. The **P-x** key is highlighted in red.

When transmitting, the Patch Status areas of the CCWs are highlighted in cyan and the Transmit Status areas of the CCWs are highlighted in red. If a Patch group channel is in the CSL, the CCW name is highlighted in red.

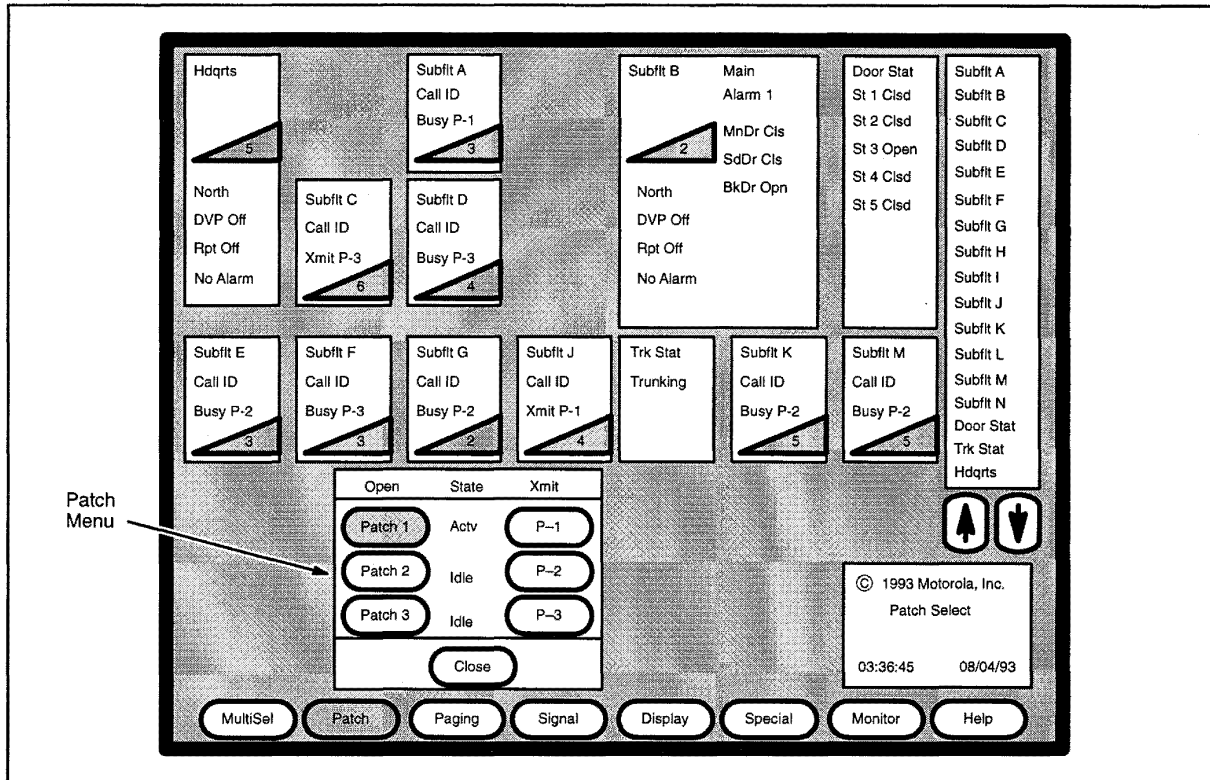


Figure 6. Patch Menu

NOTE

Patch transmissions on channels with conventional talkgroups are made as a channel-wide call. This will not change the selected outbound talkgroup and no indication will be made to the channel-wide talkgroup option. Instant transmissions or general transmissions performed on a channel with conventional talkgroups, which are part of a patch group, will result in the call being sent to the selected outbound talkgroup for the chosen channel.

To close the Patch group, do one of the following:

- Open another Patch group.
- Choose the menu key for that Patch group again.
- Choose the **Close** key of the Patch menu.

NOTE

When a Patch group is closed, the channels remain Patched together.

To close the Patch menu from the Main Screen, Choose the **Close** command key.

3.9.2.1 PATCH INDICATIONS

Indications in the CCW.

- The message “P-x” (where x = 1, 2, 3, ...) is displayed in cyan text in the Patch Status area when the group is idle (no activity on the Patch channels).
- The message “P-x” (where x = 1, 2, 3, ...) is displayed in dark blue text against a cyan background in the Patch Status area when the group is active (active communication between Patch channels).

NOTE

After 30 seconds of inactivity, the Patch group is considered idle and the background of the Patch Status area of the CCW turns dark blue while the text turns cyan.

- The message “Pbsy” is displayed in yellow letters in the Patch Status area when the channel is in a Patch at another console. This message is an indication that the channel cannot be in a Patch group at this operator position.

Indications in the CSL.

- When an open Patch channel is in the CSL, the CCW name is highlighted in cyan.
- When a Patch channel is in the CSL and is in use, the CCW name is highlighted in red.

- When a Patched channel is in the CSL, and another Patch group is opened at this operator position, the CSL channel

name is displayed in cyan letters. This is an indication that the CSL channel cannot be in the open Patch group.

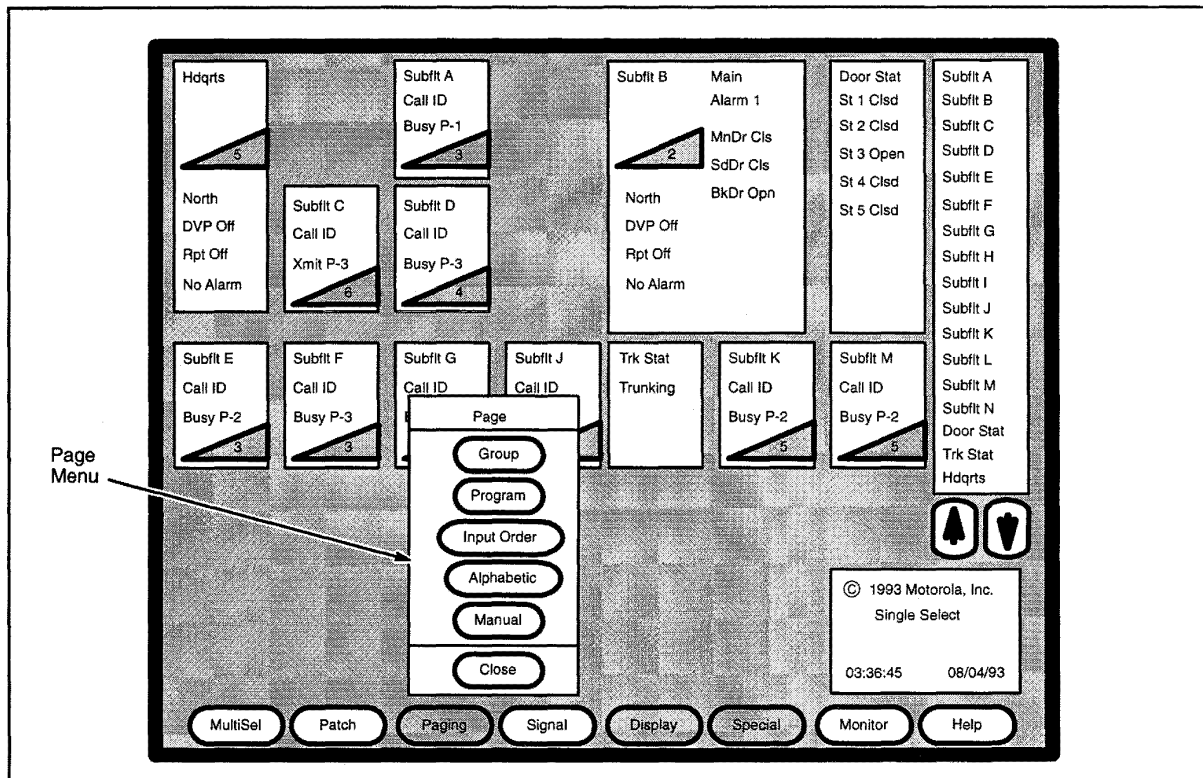


Figure 7. Page Menu

3.9.3 Paging

The Paging function allows transmission to a pager or other individual radio receiver.

Choosing the Page menu function key displays the menu shown in Figure 7. The function key is grayed. The Page Menu offers five choices of Page operations: **Manual, Program, Alphabetic, Input Order, and Group**.

3.9.3.1 MANUAL PAGE

The Manual Page function allows you to communicate with an individual radio by entering all the page information manually.

Choosing the **Manual** menu key displays the Manual Page Window (see Figure 8). When this window is open, it displays the information that was entered the last time a Manual Page was sent. Choose the **Send Page** command key if you want to send the same Manual Page.

The following information must be entered before a Manual Page can be sent (if the information already exists in the Manual Page Window, it does not need to be re-entered):

NOTE

Choose the **Close** command key to end the operation before the page is sent and return to the Main Screen.

Paging Format

Step 1. Choose the **Format** command key from the Manual Page menu to enter the paging format information. A window is displayed which lists the paging formats that are available.

Step 2. Choose a format. The selected format is highlighted in green.

Step 3. Choose the **Close** command key to close the window and save the information. The Format Window and the selected format are displayed next to the **Format** key in the Manual Page Window. Choose the **Cancel** command key to cancel the procedure.

Paging Channel

Step 1. Choose the **Channel** command key to enter the paging channel information. A Window is displayed which prompts for a channel selection.

Step 2. Select a channel to transmit over by Choosing on one of the top three lines of a CCW. Choose the channel name if the channel is in the CSL.

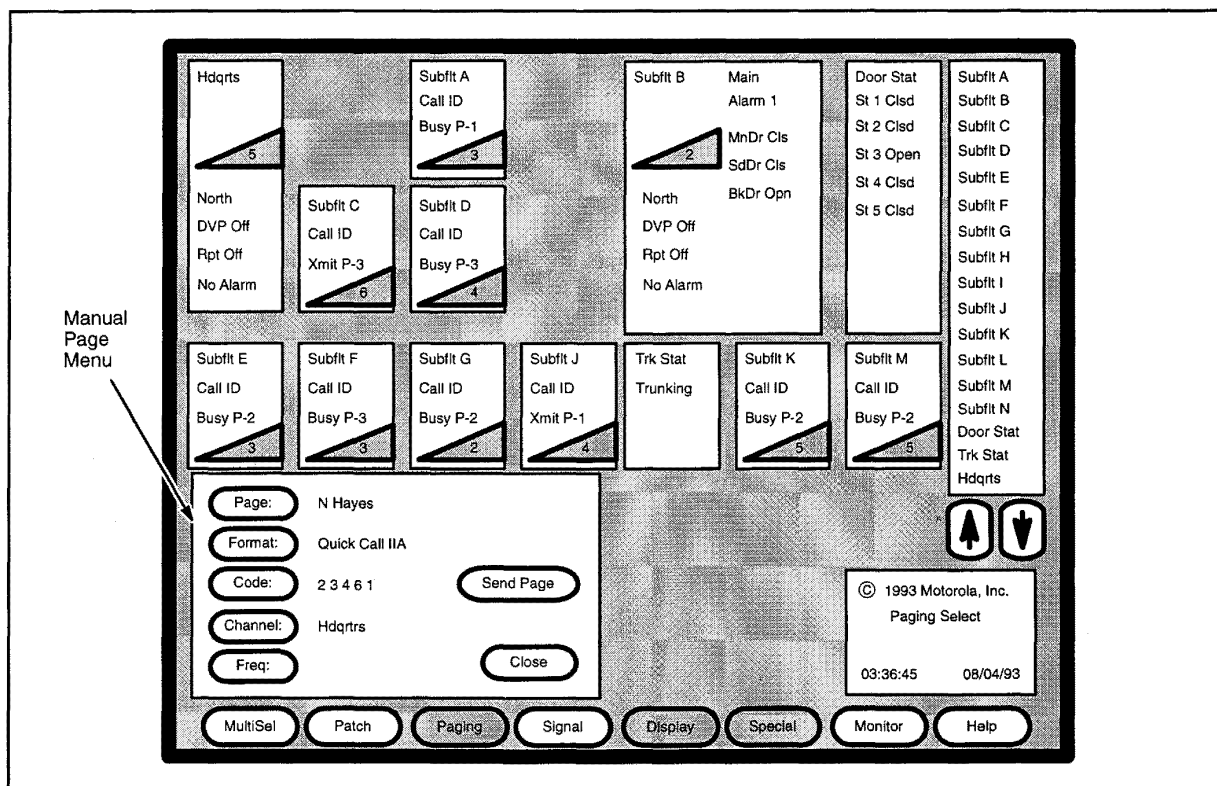


Figure 8. Manual Page Window

NOTE

When you use CSL with mode keys, make sure the CSL is in SEL MODE (SEL MODE key is green) before you choose a CSL channel.

Step 3. Choose the **Save** command key from the Paging Channel Window. The Paging Channel Window and the channel name display next to the **Channel** key in the Manual Page Window.

Paging Code

Step 1. Choose the **Code** command key to enter the paging code information. A window displaying a numeric keypad is displayed.

Step 2. Enter the ID code by Choosing the digits on the numeric keypad or by typing in the code using the keyboard. The digits are displayed at the top of the numeric keypad.

Step 3. Choose the **Save** command key. The Paging Code Window and the numeric code are displayed next to the **Code** key in the Manual Page Window.

Channel Frequency

If the paging channel is a multi-frequency channel, a **Freq** command key is also displayed in the Manual Page Window.

Step 1. Choose the **Freq** command key. A window is displayed listing the available frequencies on that channel.

Step 2. Choose a frequency. The selected frequency is highlighted in green.

Step 3. Choose the **Save** command key. The Paging Frequency Window and the frequency are displayed next to the **Freq** command key in the Manual Page Window.

Send Page

Step 1. Choose the **Send Page** command key after entering the correct page information. The associated paging channel is activated and the paging data is transmitted over the channel to the individual radio.

Step 2. The Manual Page Window prompts you to perform the General Transmit depress to transmit a voice message. (See Section 3.3.1). If the General Transmit depress is not performed, a voice message is not sent.

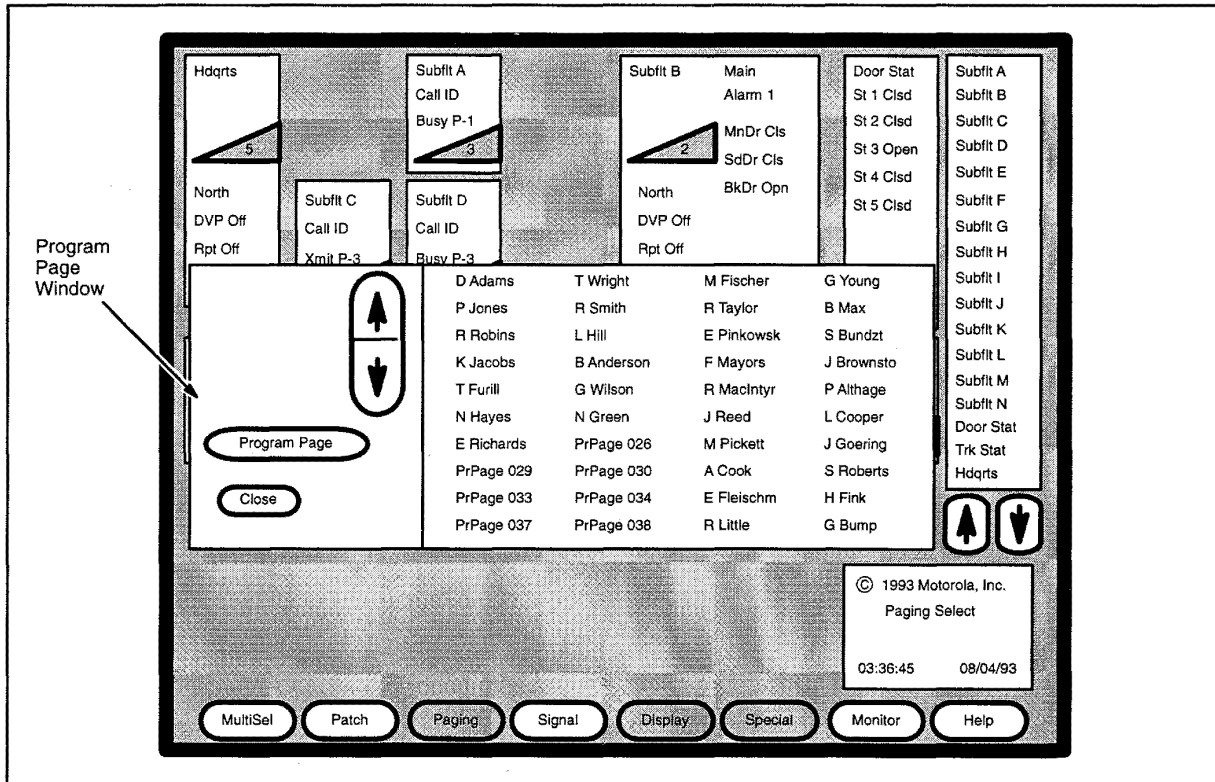


Figure 9. Program Page Window

If Sequential Paging is active, the Talk Extend function is not available.

Step 3. When the General Transmit depress is concluded, the Manual Page Window closes, and the **Send Page** operation is complete.

Step 4. If the target radio receiver is not active or the BIM is down, the Page function fails. In this case, the message "**Page Fail**" is displayed in the window with a **Resend** command key.

Choose the **Resend** command key to resend the page.

3.9.3.2 PROGRAM PAGES

Use the Program Pages function to enter the paging information for the pre-programmed pages.

Complete the following steps to program a page ID.

Step 1. Choose the **Program** menu key from the Page menu. The Program Page Window is displayed containing a list of pre-programmed page ID's, scroll keys, a **Program Page** command key, and a **Close** command key (see Figure 9).

Step 2. Choose a page ID from the list. The selected page ID is highlighted in green.

Step 3. Choose the **Program Page** command key from the Program Page Window. The Program Page Window closes and the Programming Window is displayed.

NOTE

Choose the Close command key to close the Programming Window and return to the Program Page Window.

Step 4. Enter the following information to program a page.

- **Page Name:**

- By default, each page name is labeled PrPage xxx (where xxx is a number from 001 to the number of pre-programmed pages ordered).
- Choose the **Page** command key to enter the page name information. The Page Alias Window is displayed prompting you to enter a new name through the external keyboard. Use the **Backspace** key to erase characters.
- Choose the **Save** key from the Page Alias Window. This window closes. The new page name is displayed next to the **Page** command key in the Program Page Window.

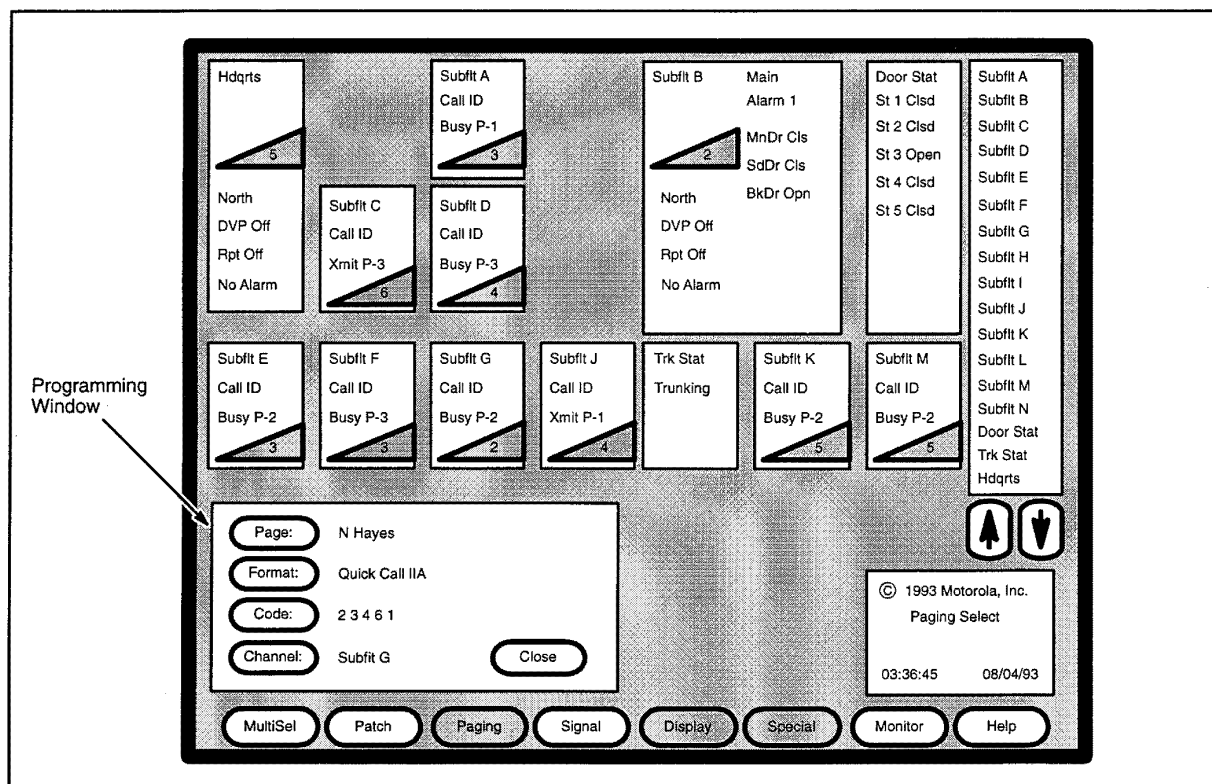


Figure 10. Programming Window

- **Paging Format:**

- Choose the **Format** command key to enter the paging format information. A window is displayed listing the available paging format.
- Choose a format. The Chosen format is highlighted in green.
- Choose the **Close** command key to save the format and close the window.
- Choose the **Cancel** command key to cancel the procedure. The Format Window closes and the selected format is displayed next to the Format key in the Program Page Window.

- **Paging Channel:**

- Choose the **Channel** command key to enter the paging channel information. A Window is displayed prompting you to select a channel.

NOTE

An assignable channel cannot be programmed.

- Choose one of the top three lines of a CCW to select a transmission channel.
- Choose the channel name if the channel is in the CSL.

NOTE

When you use CSL with mode keys, make sure the CSL is in SEL MODE (SEL MODE key is green) before you choose a CSL channel.

NOTE

Only one channel can be associated with a paging ID.

- Choose the **Save** command key from the Paging Channel Window. The Paging Channel Window closes and the channel name is displayed next to the **Channel** key in the Program Page Window.

- **Paging Code:**

- Choose the **Code** command key to enter the paging code information. A window showing a numeric keypad is displayed.
- Enter the ID code by Choosing the digits on the numeric keypad or by typing in the code using an external keyboard. The digits are displayed at the top of the numeric keypad.
- Choose the **Save** command key. The Paging Code Window closes and the numeric code is displayed next to the **Code** key in the Program Page Window.

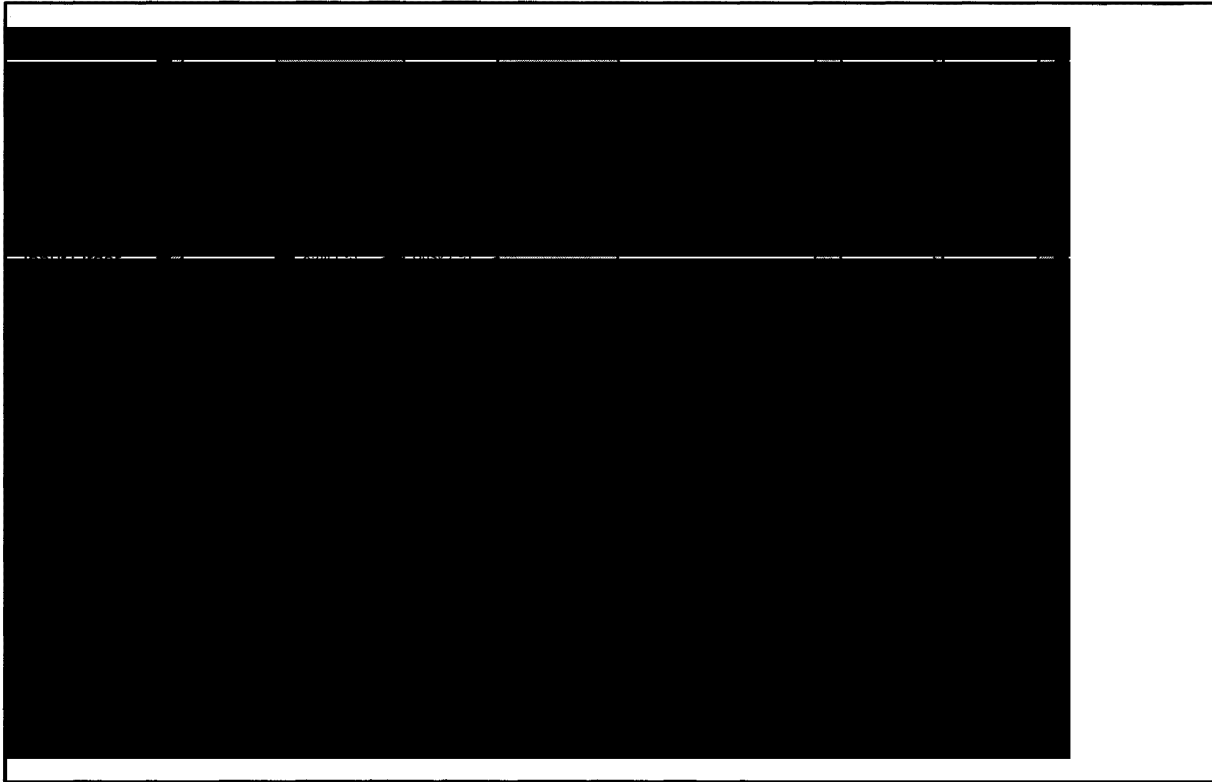


Figure 11. Input Order Page Window

- **Channel Frequency:**

- If the paging channel is a multi-frequency channel, a **Freq** command key is also displayed in the Program Page Window.
- Choose the **Freq** command key. A window is displayed listing the available frequencies on that channel.
- Choose a frequency. The Chosen frequency is highlighted in green.
- Choose the **Save** command key. The Paging Frequency Window closes and the frequency is displayed next to the **Freq** command key in the Program Page Window.

Step 5. Repeat these steps to program each new page ID.

3.9.3.3 ALPHABETIC AND INPUT ORDER PAGE

These two paging functions allow you to send messages to an individual radio or to several radios by selecting units from a pre-programmed list of page ID's.

These two page functions differ only in the organization of the page ID's. The Alphabetic Page function lists the page ID's al-

phabetically by the names entered in the Program Page operation (see Section 3.9.3.2). You can scroll through the alphabetical list and locate a page ID.

The Input Order Page function lists the page ID's in the order you set them up in the Program Page operation (see Section 3.9.3.2). Generally, the 40 most frequently used pages are at the top of the list. Use this list to quickly access these page ID's.

Complete the following steps to send a page message to one or more radio units using either the Alphabetic or Input Order Page function.

Step 1. Choose the **Alphabetic** or **Input Order** menu key from the Page menu. A window similar to Figure 11 is displayed on the screen. The window contains a list of pre-programmed page ID's, scrolling keys, a **Send Page** command key, a **View Page** command key, and a **Close** command key.

The pre-programmed list normally displays the page ID's in four columns with ten rows in each column. If you have fewer than 31 page ID's, the number of columns is reduced. If you have more than 40 page ID's, use the scroll keys to view the entire list.

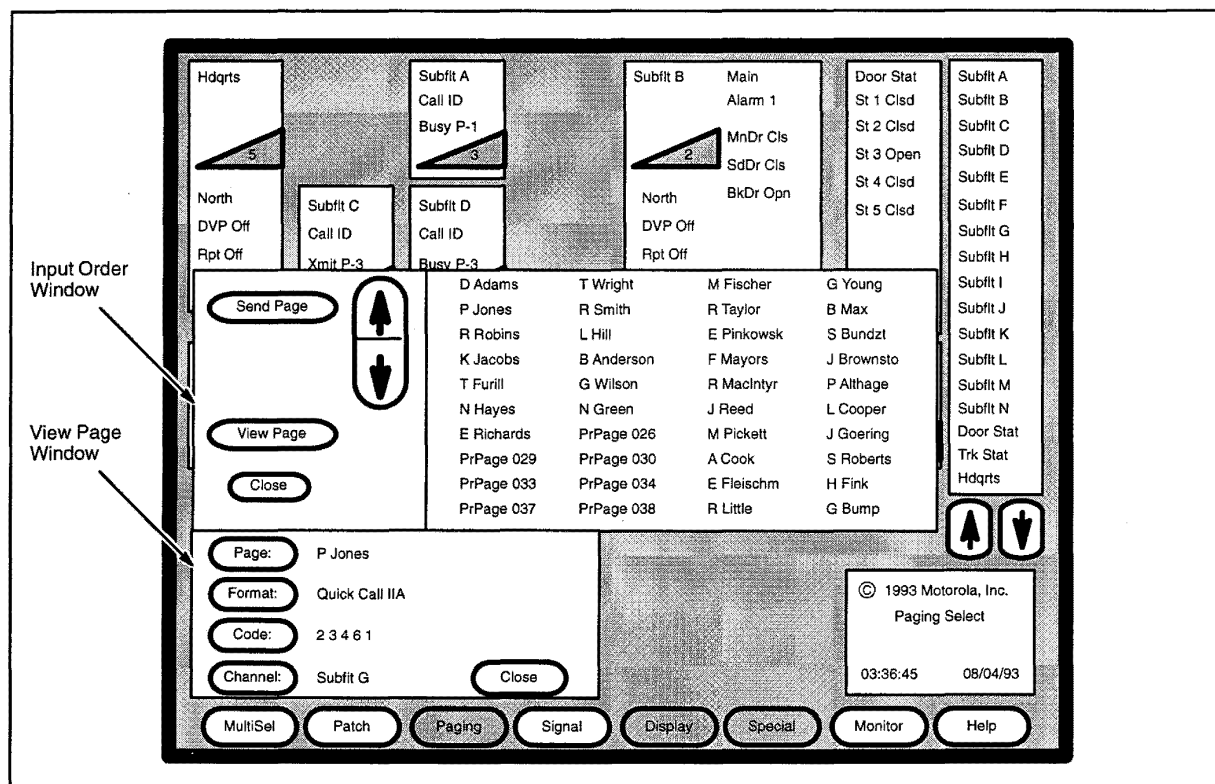


Figure 12. Input Order and View Page Window

Step 2. Choose one or more page ID's. The selected ID's are highlighted in green.

You can't select page ID's which are RF cross-bused channels or channels on two different frequencies of a multi-frequency Base Station.

Step 3. Choose the **Send Page** command key. This activates selected paging channels and transmits the data. After the data transmits, the ID's are no longer highlighted.

The window prompts you to perform the General Transmit depress to transmit a voice message. (See Section 3.3.1). If you don't perform the General Transmit depress, a voice message does not transmit.

An **Abort Page** command key also is displayed in the window. Choose this key to cancel any pages which are not in process.

Step 4. Choose the **Close** command key in the Alphabetic or Input Order window to close the window and return to the Main Screen.

If the target radio receiver is not active or the BIM is down, then the Page function fails. In this case, the message "**Page Fail**" is displayed in the window with a **Resend** command

key. The page ID's that failed flash in the page ID list. Choose the **Resend** command key to resend the page.

You can also use the **View Page** command key to examine page ID information from either the Alphabetic or Input Order Page functions. The page ID information is displayed in the View Page Window. You can't change page ID information in the View Page Window. To change this information, use the Program Page function (see Section 3.9.3.2).

Complete the following steps to access the View Page Window and examine page ID information from the Alphabetic or Input Order Page function.

Step 1. Choose a page ID from the pre-programmed list. It is highlighted in green.

Step 2. Choose the **View Page** command key. The View Page Window opens displaying the **Page ID**, paging **Format**, paging **Code**, paging **Channel**, and channel **Frequency**, if needed (see Figure 12).

Step 3. Choose the **Close** command key to close the **View Page** window and return to the Alphabetic or Input Order window. Choose the **Close** command key in the Alphabetic or Input Order window to close the window and return to the Main Screen.

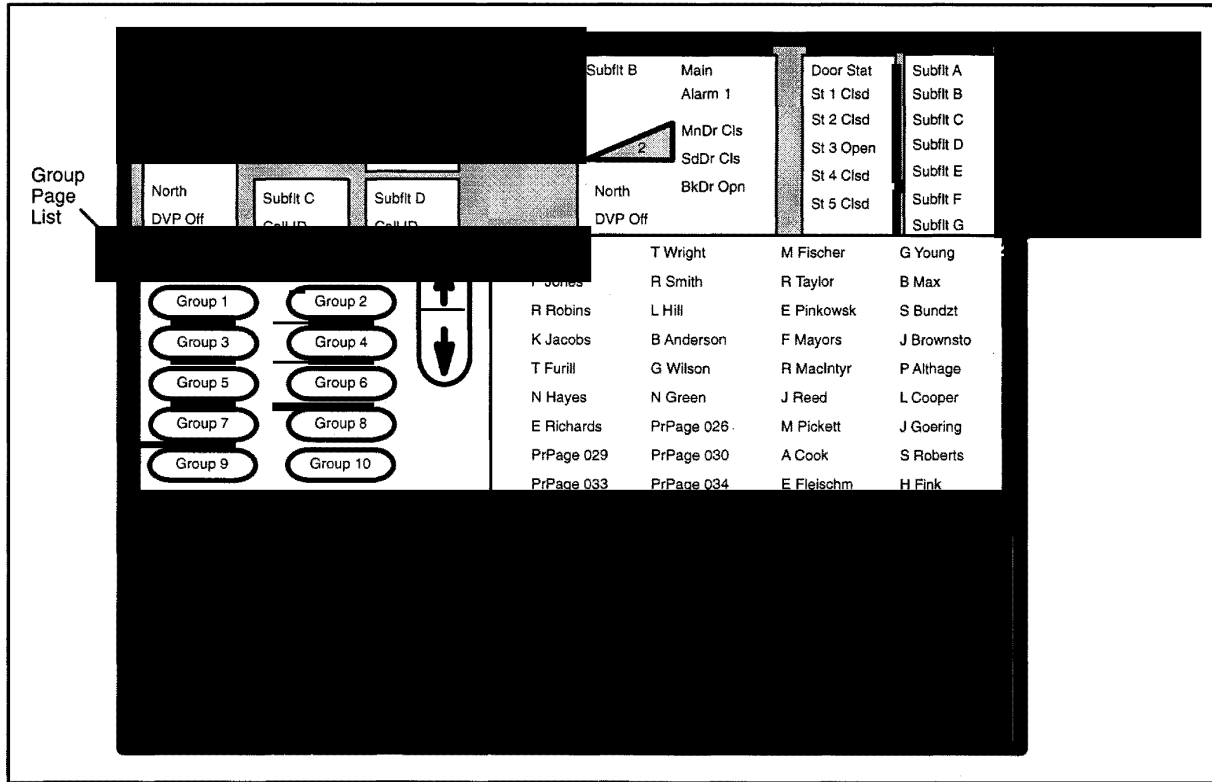


Figure 13. Group Page Window

3.9.3.4 GROUP PAGES

Use the Group Pages function to set up one to ten paging groups. Each group can hold up to 32 pre-programmed page ID's. The page group remains the same until you add or subtract page ID's from the group.

Complete the following steps to set up a paging group. Choose the **Close** command key to close the Group Page Window and return to the Main Screen.

Step 1. Choose the **Group** menu key from the Page menu. The Group Page Window opens displaying a **Send Page** command key, 10 **Group x** command keys (where x = 1 to 10), a **Save** command key, and a **Close** command key (see Figure 13).

Step 2. Choose a **Group x** command key (where x = 1 to 10) from the Group Page Window. A list of the pre-programmed page ID's is displayed next to the Group Page Window.

Step 3. Select a pre-programmed page ID to be in the Page Group. The page ID is highlighted in green. Continue to select up to 16 page ID's for that group.

Subtract a page ID from the group by de-selecting the ID. The page ID is no longer highlighted.

Step 4. Choose the **Save** command key to save the page ID's as members of the Page Group. This also closes the list of pre-programmed page ID's.

You can also Choose the Group Page menu key to save the information.

Complete the following steps to transmit to a paging group. Choose the **Close** command key to close the Group Page Window and return to the Main Screen.

Step 5. To transmit to a Page Group, Choose the appropriate **Group x** command key (where x = 1 to 10). The pre-programmed list of ID's returns. The command key and the associated page ID's are highlighted in green.

NOTE

When a page group is opened, you can add or delete page ID's. If you don't Choose the **Save** command key, the modified group is not saved.

Step 6. Choose the **Send Page** command key. The paging group activates, and the paging data transmits to the individual radios. After the data is sent, the page ID's are no longer highlighted.

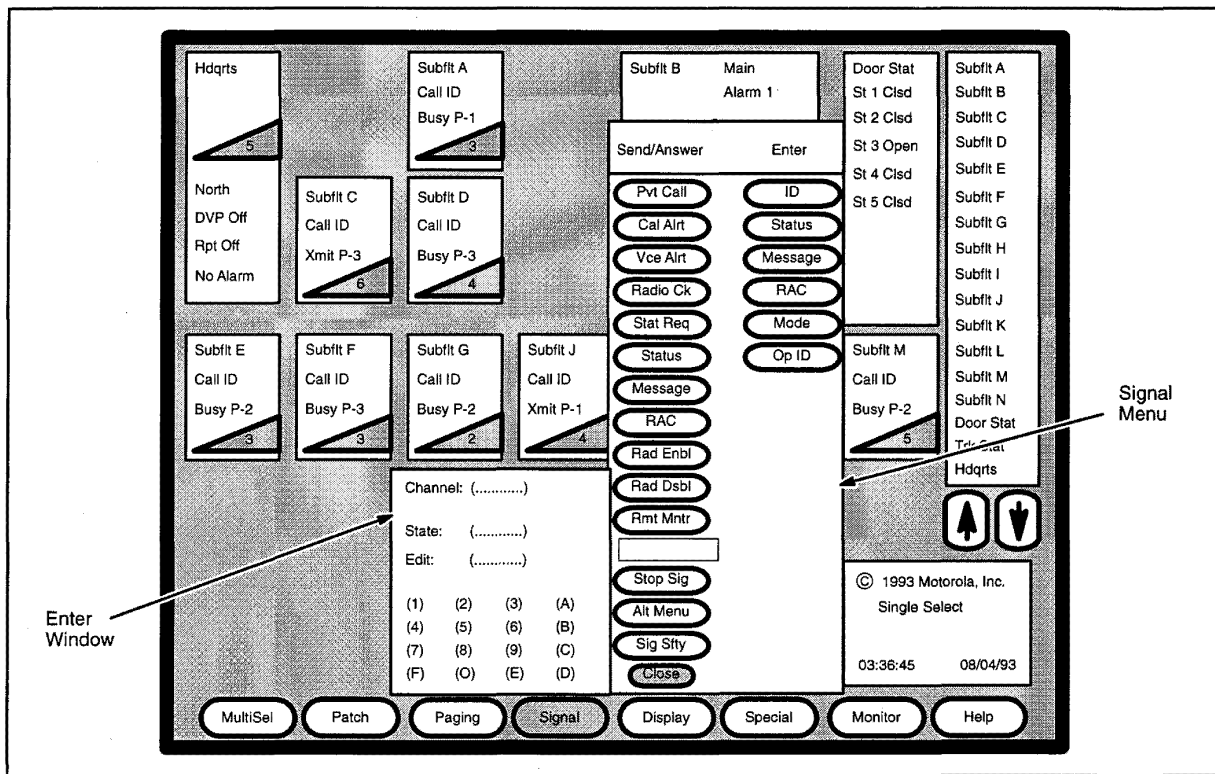


Figure 14. Signal Menu

The window prompts you to perform the General Transmit depress to transmit a voice message. (See Section 3.3.1). If you don't perform the General Transmit depress, a voice message is not sent.

Step 7. An **Abort Page** command key is also displayed in the window. Choose this key to cancel any pages that are not in progress.

If the target radio receiver is not active or the BIM is down, then the Page function fails. In this case, the message "**Page Fail**" is displayed in the window with a **Resend** command key. The page ID's that failed flash in the page ID list. Choose the **Resend** command key to resend the page.

After the data transmits, the pre-programmed list of page ID's closes. The Group Page Window remains on the screen. You can Choose another Page Group.

3.9.4 Signal

The Signal menu provides access to the functions used to Enter or Send data through the radio system. Use these functions for selective signalling in either a Trunking or Motorola Data Communications (MDC) system.

All signalling functions are optional. If the functions are not ordered or if they are disabled during set-up, they are not displayed in the Signal menu.

Choose the **Signal** menu function key to display the Signal menu and the available functions. The menu has a Send/Answer column listing the available functions. A Talk Extend Status area is reserved in the Send/Answer column to display signalling talk extend messages. An Enter column can also display (if ordered) to enter signalling data (i.e., radio ID). Two Special menus can be configured during set-up (see Figure 14).

3.9.4.1 THE ENTER MENU COLUMN

Use the Enter menu keys to enter specific Signalling data in the Enter Window. The data entered through the Enter Window is displayed on the ID Line of the Chosen CCW.

Complete the following steps to enter Signalling data using the Enter Window.

Step 1. Choose an Enter menu key (**ID**, **Status**, **Message**, **RAC**). The menu key is highlighted in green.

The Enter Window is displayed to the left of the Signal menu. The Enter Window contains a hexadecimal keypad, a Channel status field, a State status field, and an Edit status field. In addition, there is a **Scroll Up** command key, a **Scroll Down** command key, a **Close** command key, and a **Save** command key (see Figure 14).

The Channel status field displays the channel chosen for this signalling operation.

Choose the **Close** command key to close the Enter Window and return to the Signal menu.

Step 2. Choose the **Scroll Up/Scroll Down** command keys to view the list of information and aliases. The numeric ID or Signalling code is displayed in the Edit status field. The alias (if programmed) is displayed in the State status field.

You can also enter the data manually using the hexadecimal keypad.

Step 3. Enter data into the Edit status field of the Enter Window. Choose the **Save** command key. The data is displayed on the ID Line of the associated CCW.

You can also save data by Choosing a Signalling menu key from the Send/Answer column. This initiates the Signalling function.

The Enter menu key is no longer highlighted.

Step 4. Choose a Signalling menu key from the Send/Answer column to initiate the Signalling function.

3.9.4.1.1 COMBINING ENTER MENU FUNCTIONS

Some Send/Answer menu functions require that a radio ID be entered on the Call Line of the associated CCW before the function can be performed (i.e., Status, Message, Status Request).

Complete the following steps to enter a radio ID before entering additional Signalling information.

Step 1. Choose the **ID** menu key from the Enter column. The key is highlighted in green.

The Enter Window is displayed.

Step 2. Follow the instructions in Section 3.9.4.1 for entering Signalling data and Choose the **Save** command key.

The **ID** menu key is no longer highlighted.

The Enter Window closes.

Step 3. Choose the next Signalling function from the Enter column.

The Enter Window is displayed.

Step 4. Follow the instructions in Section 3.9.4.1 for entering Signalling data.

Step 5. Choose the Save command key after the data is entered into the Edit status field of the Enter Window. The data is displayed on the ID Line of the associated CCW.

You can also save the data by Choosing a Signalling menu key from the Send/Answer column. This also initiates the Signalling function.

Step 6. Choose a Signalling menu key from the Send/Answer column to initiate the Signalling function.

3.9.4.2 THE SEND/ANSWER MENU COLUMN

To send a signalling function, the unit ID must appear on the ID Line of the CCW. This happens when you receive a call from the unit or you can use one of the Enter functions (see Section 3.9.4.1) to enter a unit ID. Once the unit ID is on the ID Line of the selected channel, Choose a Send/Answer signalling key to transmit.

The Send/Answer menu functions and their operations are described below.

3.9.4.2.1 CLOSE

The **Close** command key closes the Signal menu and returns to the Main Screen.

3.9.4.2.2 ALTERNATE MENU

The **Alt Menu** menu key allows you to toggle back and forth between two Signal menus. If you did not configure a second menu, this menu key does not appear.

3.9.4.2.3 STOP SIGNAL

Use the **Stop Sig** menu key and complete the following steps to abort a signalling call in progress.

Step 1. Choose the **Stop Sig** menu key. It is highlighted in green.

Step 2. Choose a Send/Answer menu key (i.e., **Vce Alrt**). The **Stop Sig** menu key is no longer highlighted.

If you close the Signal menu or toggle to an alternate menu during the abort process, the Stop Signal function is terminated and the **Stop Sig** menu key is no longer highlighted.

3.9.4.2.4 CALL ALERT

Use the **Cal Alrt** menu key to determine if a radio is on and to generate tones at the target radio. You can also leave the sender's ID at the target radio.

Complete the following steps to send a Call Alert signal to an individual radio.

Step 1. Select a Private Call II Enhanced or Aliased Private Call II Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Cal Alrt** menu key. The menu key is highlighted in green.

Step 4. If the signal is received by the radio, the message "**ACK RECVD**" is displayed on the Call Line of the CCW. The menu key is no longer highlighted.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

3.9.4.2.5 VOICE ALERT

Use the **Vce Alrt** menu key to send a signalling tone to an individual radio and to transmit a voice message.

Complete the following steps to send a Voice Alert message.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Vce Alrt** menu key. The menu key is highlighted in green. The message "**Press Xmit**" is displayed in the Talk Extend Status area.

Step 4. Perform the General Transmit depress or the Instant Transmit operation (see Section 3.3). The message "**Wait**" is displayed in the Talk Extend Status area.

Step 5. Seconds later, the message "**Talk**" is displayed in the Talk Extend Status area and the **Vce Alrt** menu key is no longer highlighted.

You can send a voice message as long as you continue the Transmit.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds. At this point, you can't send a voice message.

Step 6. Conclude the Transmit to end the talk extended signal.

3.9.4.2.6 RADIO CHECK

Use the **Radio Ck** menu key to determine if a radio is operational on the channel. The radio operator is unaware of this check.

Complete the following steps to send a Radio Check signal to an individual radio.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Radio Ck** menu key. The menu key is highlighted in green.

Step 4. If the signal is received by the radio, the message "**PASSED**" is displayed on the Call Line of the CCW. The menu key is no longer highlighted.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

3.9.4.2.7 PRIVATE CALL II ENHANCED

Private Call II Enhanced is a conversation between two individual units (radio and/or console) similar to Private Call II. To place a Private Call II Enhanced call, enter the Private Call II Enhanced mode and the ID of the target radio. Private Call II Enhanced calls can be made between two radios, between a radio and a console, or between two consoles.

The Private Call II Enhanced function differs from the Aliased Private Call II function (see Section 3.9.4.2.8) in that the Private Call II Enhanced function sends ringing tones to the target radio. In addition, the Private Call II Enhanced function waits for the target radio to call back before you can transmit while the Aliased Private Call II function allows you to immediately transmit to the target radio when a call is acknowledged by the target radio. Both functions can have a radio alias displayed in the CCW rather than a mobile ID.

Complete the following steps to send a Private Call II Enhanced communication to an individual radio.

Step 1. Select a Private Call II Enhanced CCW. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Pvt Call** menu key. The menu key is highlighted in green.

The message "**Please Wait**" is displayed on the Call Line of the CCW.

If the Private Call II Enhanced signal is received by the radio, the message "**Ringing**" is displayed on the Call Line of the CCW. If the call is not acknowledged by the target radio, the message "**Ringing**" remains in the CCW until the operation times out.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

Step 4. The Private Call II Enhanced call is answered when the radio user keys the radio and voice audio is presented through the Select speaker. The console also beeps three times.

You can send a voice message by performing the General Transmit depress (see Section 3.3.1).

Step 5. To end the Private Call II Enhanced communication, Choose the **Pvt Call** menu key again. The message "**On Hook**" is displayed on the Call Line of the CCW.

If you fail to end the call by Choosing the **Pvt Call** menu key, the console activity timer is displayed the message "**Off Hook**" on the Call Line of the CCW after two minutes and

again after four minutes. The console also beeps. After five minutes, the console ends the call and the message "**On Hook**" displays on the Call Line of the CCW.

NOTE

When a CCW is "Off Hook" (the call is not ended) and an ID is displayed in the CCW, the only radio that can call in is the radio with that ID.

Complete the following steps to receive a Private Call II Enhanced communication from an individual radio.

Step 1. When you receive a Private Call II Enhanced call from an individual radio, a Private Call indication tone sounds. The radio ID is displayed on the Call Line of the CCW.

Step 2. Respond to the call within 30 seconds.

If you do not respond within 30 seconds, the radio ID is deleted from the window.

Step 3. Choose, and continue to press, the **Pvt Call** menu key to answer the Private Call II Enhanced call.

Step 4. You can send a voice message by performing the General Transmit depress.

Step 5. To end the Private Call II Enhanced communication, Choose the **Pvt Call** menu key again. The message "**On Hook**" is displayed on the Call Line of the CCW.

If you fail to end the call by Choosing the **Pvt Call** menu key, the console activity timer is displayed the message "**Off Hook**" on the Call Line of the CCW after two minutes and again after four minutes. The console also beeps. After five minutes, the console ends the call and the message "**On Hook**" displays on the Call Line of the CCW.

NOTE

When a CCW is "Off Hook" (the call is not ended) and an ID is displayed in the CCW, the only radio that can call in is the radio with that ID.

3.9.4.2.8 ALIASED PRIVATE CALL II

Aliased Private Call II is a conversation between two individual units (radio and/or console) similar to Private Call II. It is called an Aliased Private Call II because, unlike Private Call II, a radio alias can be displayed in the CCW rather than the mobile ID.

To place an Aliased Private Call II call, one radio enters the Aliased Private Call II mode and then enters the ID of the target radio. Aliased Private Call II calls can be made between two radios, between a radio and a console, or between two consoles.

The Aliased Private Call II function differs from the Private Call II Enhanced function (see Section 3.9.4.2.7) in that the Aliased Private Call II function does not send ringing tones to the target radio. In addition, the Aliased Private Call II function allows immediate transmission to the target radio when a call is acknowledged by the target radio while the Private Call II Enhanced function waits for the target radio to call back before you can transmit.

Complete the following steps to send an Aliased Private Call II communication to an individual radio.

Step 1. Select an Aliased Private Call II CCW. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Pvt Call** menu key. The menu key is highlighted in green.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

Step 4. You can send a voice message by transmitting on the Private Call channel.

Step 5. To end the Aliased Private Call II communication, Choose the **Pvt Call** menu key again. The message "**On Hook**" is displayed on the Call Line of the CCW.

If you fail to end the call by Choosing the **Pvt Call** menu key, the console activity timer displays the message "**Off Hook**" on the Call Line of the CCW after two minutes and again after four minutes. The console also beeps. After five minutes, the console ends the call and displays the message "**On Hook**" on the Call Line of the CCW.

NOTE

When a CCW is "Off Hook" (the call is not ended) and an ID is displayed in the CCW, the only radio that can call in is the radio with that ID.

Complete the following steps to receive an Aliased Private Call II communication from an individual radio.

Step 1. When an Aliased Private Call II call is received from an individual radio, an Aliased Private Call II indication tone sounds. The radio ID is also displayed on the Call Line of the CCW.

Step 2. Respond to the call within 30 seconds.

If you do not respond within 30 seconds, the radio ID is deleted from the window.

Step 3. Choose the **Pvt Call** menu key to answer the Aliased Private Call II call.

Step 4. You can send a voice message by transmitting on the Private Call channel.

Step 5. To end the Aliased Private Call II communication, Choose the **Pvt Call** menu key again. The message "**On Hook**" is displayed on the Call Line of the CCW.

If you fail to end the call by Choosing the **Pvt Call** menu key, the console activity timer displays the message "**Off Hook**" on the Call Line of the CCW after two minutes and again after four minutes. The console also beeps. After five minutes, the console ends the call and displays the message "**On Hook**" on the Call Line of the CCW.

NOTE

When a CCW is "Off Hook" (the call is not ended) and an ID is displayed in the CCW, the only radio that can call in is the radio with that ID.

3.9.4.2.9 STATUS REQUEST

Use the **Stat Req** menu key to request that an individual radio send its current status to you. The status information consists of predetermined codes entered through a hexadecimal keypad.

Complete the following steps to request that an individual radio send its current status to you.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Stat Req** menu key. The menu key is highlighted in green.

Step 4. If the signal is acknowledged by the radio, the status information is displayed on the Call Line of the CCW. The menu key is no longer highlighted.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

3.9.4.2.10 STATUS

Use the **Status** menu key to send the current status of the operator position to an individual radio. The status information consists of predetermined codes entered through a hexadecimal keypad.

Complete the following steps to send the current status of the operator position to an individual radio.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Status** menu key from the Send/Answer column after you enter the ID and Status data. The data is displayed on the Call Line of the CCW. The Send/Answer menu key is highlighted in green.

Step 4. If the signal is received by the radio, the message **"ACK"** is displayed on the Call Line of the CCW. The Send/Answer menu key is no longer highlighted.

If the signal is not received by the radio, the message **"NO ACK"** is displayed on the Call Line of the CCW and the Send/Answer menu key flashes for 20 seconds.

3.9.4.2.11 MESSAGE

Use the **Message** menu key to send a message to an individual radio. The message information consists of predetermined codes entered through a hexadecimal keypad.

Complete the following steps to send a message to an individual radio.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Message** menu key from the Send/Answer column after you enter the ID and Message data. The data is displayed on the Call ID Line of the CCW. The Send/Answer menu key is highlighted in green.

Step 4. If the signal is received by the radio, the message **"ACK"** is displayed on the Call Line of the CCW. The Send/Answer menu key is no longer highlighted.

If the signal is not received by the radio, the message **"NO ACK"** is displayed on the Call Line of the CCW and the Send/Answer menu key flashes for 20 seconds.

3.9.4.2.12 REPEATER ACCESS CODE

Use the **RAC** menu key to send Repeater Access Code (RAC) information to the repeater. The RAC information consists of predetermined codes entered through a hexadecimal keypad.

Complete the following steps to send RAC information to an individual radio.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **RAC** menu key from the Send/Answer column after you enter the RAC data. The data is displayed on the Call ID Line of the CCW. The Send/Answer menu key is highlighted in green.

Step 4. If the signal is received by the repeater, the message **"RAC RCVD"** is displayed on the Call Line of the CCW. The Send/Answer menu key is no longer highlighted.

If the signal is not received by the repeater, the message **"NO ACK"** is displayed on the Call Line of the CCW and the Send/Answer menu key flashes for 20 seconds.

3.9.4.2.13 REPEATER ACCESS ENABLE

Use the **RAC Enbl** menu key to require sending a repeater access code (RAC) to access a repeater. This makes users currently unable to send RACs unable to use the repeater.

Complete the following steps to require sending a RAC to access a repeater.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **RAC Enbl** menu key from the Send/Answer column after you enter the ID data. The data is displayed on the Call ID Line of the CCW. The Send/Answer menu key is highlighted in green.

Step 4. If the signal is received by the repeater, the message **"RAC Enbl"** is displayed on the Call Line of the CCW. The Send/Answer menu key is no longer highlighted.

If the signal is not received by the repeater, the message **"NO ACK"** is displayed on the Call Line of the CCW and the Send/Answer menu key flashes for 20 seconds.

3.9.4.2.14 REPEATER ACCESS DISABLE

Use the **RAC Dsbl** menu key to disable the requirement of sending a repeater access code (RAC) to access a repeater. This lets users that are currently unable to send RAC's use the repeater once authorization is granted.

Complete the following steps to disable the requirement of sending a RAC to access a repeater.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **RAC Dsbl** menu key from the Send/Answer column after entering the ID data. The data is displayed on the Call ID Line of the CCW. The Send/Answer menu key is highlighted in green.

Step 4. If the signal is received by the repeater, the message "**RAC Dsbl**" is displayed on the Call Line of the CCW. The Send/Answer menu key is no longer highlighted.

If the signal is not received by the repeater, the message "**NO ACK**" is displayed on the Call Line of the CCW and the Send/Answer menu key flashes for 20 seconds.

3.9.4.2.15 RADIO ENABLE

Use the **Rad Enbl** menu key and complete the following steps to enable a radio which is currently disabled.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Rad Enbl** menu key. The menu key is highlighted in green.

Step 4. If the signal is received by the radio, the message "**ENABLED**" is displayed on the Call Line of the CCW. The menu key is no longer highlighted.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

3.9.4.2.16 RADIO DISABLE

Use the **Rad Dsbl** menu key and complete the following steps to disable a radio which is currently enabled.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Rad Dsbl** menu key. The menu key is highlighted in green.

Step 4. If the signal is received by the radio, the message "**DISABLED**" is displayed on the Call Line of the CCW. The menu key is no longer highlighted.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

3.9.4.2.17 REMOTE MONITOR

Use the **Rmt Mntr** menu key to monitor an individual radio for a fixed time period. No transmission of any kind is indicated at the radio position.

Complete the following steps to monitor the transmission of an individual radio.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Enter the ID data (see Section 3.9.4.1) or use the ID currently on the Call Line of the CCW.

Step 3. Choose the **Rmt Mntr** menu key. The menu key is highlighted in green.

Step 4. If the signal is received by the radio, the message "**MONITOR**" is displayed on the Call Line of the CCW and transmission can be heard. The menu key is no longer highlighted.

If the signal is not received by the radio, the message "**NO ACK**" is displayed on the Call Line of the CCW and the menu key flashes for 20 seconds.

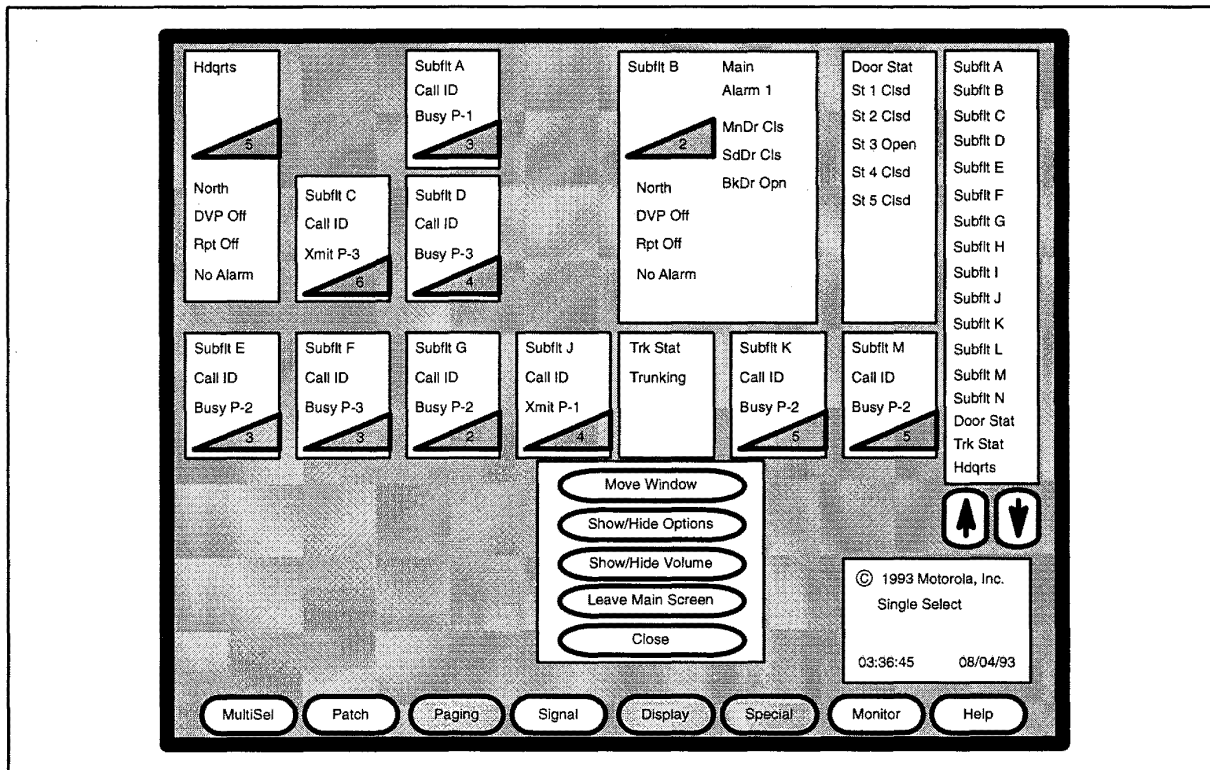


Figure 15. Display Menu

3.9.4.2.18 SIGNALING SAFETY SWITCH

Use the **Sig Sfty** menu key to access protected Send/Answer Signalling functions. If any Send/Answer Signalling menu keys are protected by the Safety Switch, those keys are initially disabled (grayed).

Complete the following steps to access a protected Send/Answer menu key using the Signaling Safety Switch.

Step 1. Select a Channel. The Name Line is highlighted in green.

Step 2. Choose the **Sig Sfty** menu key from the Send/Answer column. The menu key is highlighted in green.

All protected menu keys are enabled (ungrayed) for a period of seven seconds.

Step 3. Choose one of the Send/Answer menu keys within the seven second time period. Because the Signal Safety key only enables one transmission at a time, the other protected menu keys are disabled (grayed) when a Send/Answer menu key is Chosen.

If you do not press a mouse button within seven seconds, the protected menu keys are once again disabled (grayed).

3.9.5 Display

Use the Display function to alter the appearance of the Radio Work Area or to switch to another Main Screen Set-Up.

Choose the **Display** menu function key to display the menu shown in Figure 15. The Display Menu offers four choices of Display operations: **Move Window**, **Show/Hide Options**, **Show/Hide Volume**, and **Leave Main Screen**.

3.9.5.1 MOVE WINDOWS

Use the Move Window function to move Control Windows to a new position in the Radio Work Area (RWA). You can also move Control Windows between the RWA and the CSL.

Complete the following steps to move Control Windows within the RWA.

Step 1. Choose the **Move Window** menu key from the Display menu. The Move Windows Window prompts for a CCW Name and displays a **Quit** command key.

NOTE

Choose the **Quit** command key to stop the Move Window operation.

Step 2. Choose one of the top three lines of the CCW or the Name Line of the ACW to be moved. This action enters the Control Window name into the Move Windows Window.

Selecting a Control Window also highlights in yellow the areas in the RWA where the Control Window can be moved.

Step 3. Move the cursor to one of the highlighted areas and press the Choose button again. The Control Window opens at its previous position and is displayed in the new location.

Complete the following steps to move Control Windows between the RWA and the CSL. This operation is not possible if the Main Screen was configured without a CSL.

Step 1. Choose the **Move Window** menu key from the Display menu. The Move Windows Window prompts for a CCW Name and displays a **Quit** command key.

NOTE

Choose the **Quit** command key to stop the Move Window operation.

Step 2. If the Control Window is in the RWA, Choose one of the top three lines of the CCW or the Name Line of the ACW to be moved.

If the Control Window is currently in the CSL, Choose the Control Window name.

NOTE

When you use CSL with mode keys, make sure the CSL is in SEL MODE (SEL MODE key is green) before you choose a CSL channel.

This enters the Control Window name into the Move Windows Window.

Selecting a Control Window also highlights in yellow the areas in the RWA where the Control Window can be moved.

Step 3. To move a Control Window from the CSL to the RWA, position the cursor over one of the highlighted areas and press the Choose button again. The Control Window is displayed in the RWA and its name is highlighted in gray in the CSL.

To move a Control Window from the RWA to the CSL, position the cursor over the CSL and press the Choose button again. The Control Window closes and its name is ungrayed in the CSL.

3.9.5.2 SHOW/HIDE OPTIONS

Use the **Show/Hide Options** function to expand and reduce the size of a CCW. You can also access an Auxiliary Control or Channel Option from a window displayed in reduced size.

Use medium and large sized Control Windows to display the Auxiliary Controls and Channel Options associated with a CCW. Configure a CCW to show or hide these options in the Set-Up Screen (see Section 4.5.3.1). A CCW is displayed in its default form whenever you first display the Main Screen or when you move the CCW from the CSL to the RWA.

If a CCW is configured to hide the Auxiliary Controls and Channel Options, the window is displayed in its small size in the Main Screen. If a CCW is configured to show the Auxiliary Controls and Channel Options, the window is displayed in its expanded size in the Main Screen. Use the **Show/Hide Options** menu key to toggle between the expanded window form and the small window form of the CCW in the Main Screen.

NOTE

ACWs are always displayed in a manner which makes all options visible. They cannot be resized.

Complete the following steps to resize a CCW in the RWA. If a CCW covers another Control Window while in its expanded size, the expanded window is displayed with a yellow border. Choose the **Quit** command key to close the Show/Hide Options Window and return to the Main Screen.

Step 4. Choose the **Show/Hide Options** menu key from the Display menu. The Show/Hide Options Window displays a Resize Enable/Disable status area, an Option Lines Enable/Disable status area, a **Resize** command key, and a **Quit** command key.

When the Show/Hide Options Window first appears, the Resize function is enabled and the Option Lines are disabled. This means that CCWs can be resized and that the Auxiliary Controls and Channel Options cannot be accessed.

Step 1. Choose one of the top three lines of the CCW to resize the Window. The Resize function is disabled and the Option Lines function is enabled.

If a CCW is reduced to its small size, a small double-headed arrow appears outside the lower right corner of the CCW. This indicates that the CCW can be expanded.

Step 2. Choose the **Resize** command key to enable the Resize function.

3.9.5.3 SHOW/HIDE VOLUME

You can configure the CCWs in the Set-Up Screen to hide the volume wedge. Do this to provide additional space in the CCWs for Control Options.

When you configure CCWs in this manner, you can use the **Show/Hide Volume** menu key to display the volume wedge along the top border of the CCWs.

NOTE

If you configure the CCWs with a permanent volume wedge, the **Show/Hide Volume** menu key is disabled and does not appear in the Display Menu.

Complete the following steps to use the **Show/Hide Volume** function. Choose the **Close** command key to close the Display menu and return to the Main Screen.

Step 1. Choose the **Show/Hide Volume** menu key to display the volume wedge along the top border of the CCWs.

Control the channel volume by Choosing on either side of the volume wedge. Choosing on the left side of the wedge lowers the volume and Choosing on the right side of the wedge raises the volume. The shaded region of the volume wedge shrinks or grows to graphically represent the volume level.

Step 2. Choose the **Show/Hide Volume** menu key a second time to remove the volume wedge from the border of the CCWs.

3.9.5.4 LEAVE MAIN SCREEN

Use the **Leave Main Screen** menu key to leave the Main Screen and enter the Program Manager Screen. The Program Manager Screen allows you to load a different, existing Main Screen.

Complete the following steps to leave the Main Screen and return to the Program Manager.

Step 1. Choose the **Leave Main Screen** menu key from the Display menu.

NOTE

Choose the **Abort** command key to close the Enter Password Window and return to the Main Screen.

If this function is password protected, the Enter Password Window is displayed and prompts for a password. An **Enter** command key and an **Abort** command key are also displayed.

Use the password function to prevent unauthorized personnel from altering Main Screen configurations or from accidentally leaving the Main Screen.

The **Administrator** level password allows access to all Program Menu functions such as the **Set-Up Screen**, **Personality PROM Download**, and **File Maintenance**. The **Dispatcher** level password allows you to re-enter the Main Screen with a different screen configuration, but does not allow access to any of the Program Menu functions.

Step 2. Enter the password through the keyboard and then Choose the **Enter** command key. The Program Menu is displayed and prompts you to type a selection from the Program Menu.

If this function is not password protected, the Program Manager Screen is displayed asking you to type a selection from the Program Menu without entering a password.

3.9.6 Special

The Special menu contains functions which do not appear in the other menu key categories.

Choosing the **Special** menu function key displays the Special menu with a list of functions (see Figure 16).

NOTE

Except for **Diagnostics**, these functions are optional. If the functions were not ordered, they do not appear in the menu.

The functions are described below.

3.9.6.1 DIAGNOSTICS

Use the Diagnostic function to examine information about the system configuration, how the system is working, and to change system parameters that are rarely needed. A complete list of the available Diagnostics and their functions is found in the Trunked Field Maintenance Manual for Series II Consoles. Note that this function is always available at all consoles, regardless of what features were ordered for the console.

Choosing the **Diagnostics** menu key from the Special menu is displayed the Diagnostics Window with a scrollable list of Diagnostic names and codes, a Diagnostic Code status area, and a **Cancel** command key.

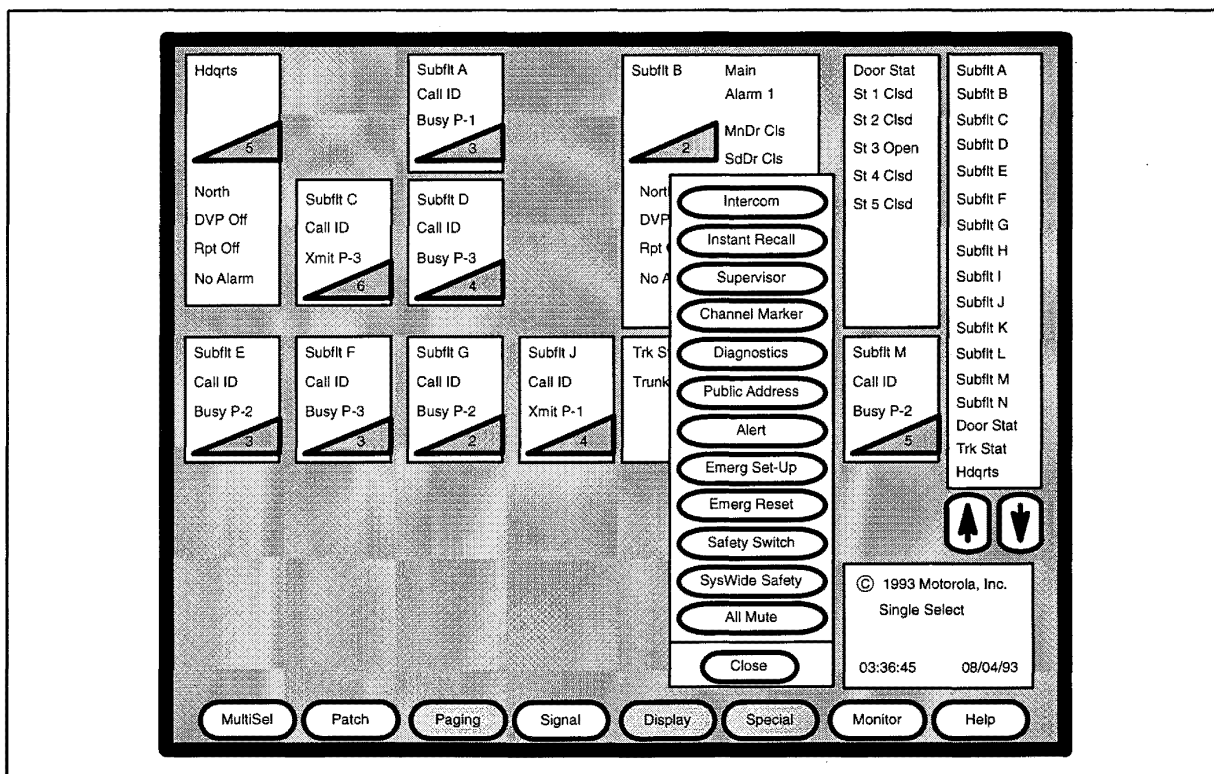


Figure 16. Example of Special Menu

Complete the following steps to perform a Diagnostic operation. Choose the **Cancel** command key to stop the operation and return to the Main Screen.

Step 1. Choose a Diagnostic operation name from the scrollable list. The name is highlighted in green, the code number is displayed in the Diagnostic Code status area, and the **Perform** command key is displayed in the window.

Step 2. Choosing the **Perform** command key closes the Diagnostics Window and displays another window with the name and code of the Chosen Diagnostic operation, a numeric keypad, a keypad display, an **Enter** command key, and a **Close** command key.

Step 3. Enter information by Choosing keys from the numeric keypad or from the external keyboard. See the *CEB Maintenance Manual for Gold Series Consoles* for more information.

3.9.6.2 EMERGENCY SET-UP

Use the Emergency Set-Up function and complete the following steps to set up an emergency call to a trunked talk group.

Step 1. Choosing the **Emerg Set-Up** menu key from the Special menu is displayed the message "**Emergency Set-Up**" on the Mode State Line of the Main Screen Status Area (see Section 3.5).

Step 2. Choose a CCW from the RWA or CSL within seven seconds.

The selected CCW is displayed with a solid red border. If the selected CCW is in the CSL, the CCW name flashes on a solid red background.

Setting up an emergency call on a channel which does not support emergencies causes the console to beep and an error message to display on the Error Line of the Status Area.

Step 3. Perform the General Transmit depress or Instant Transmit operation to transmit to the selected channel (see Section 3.3).

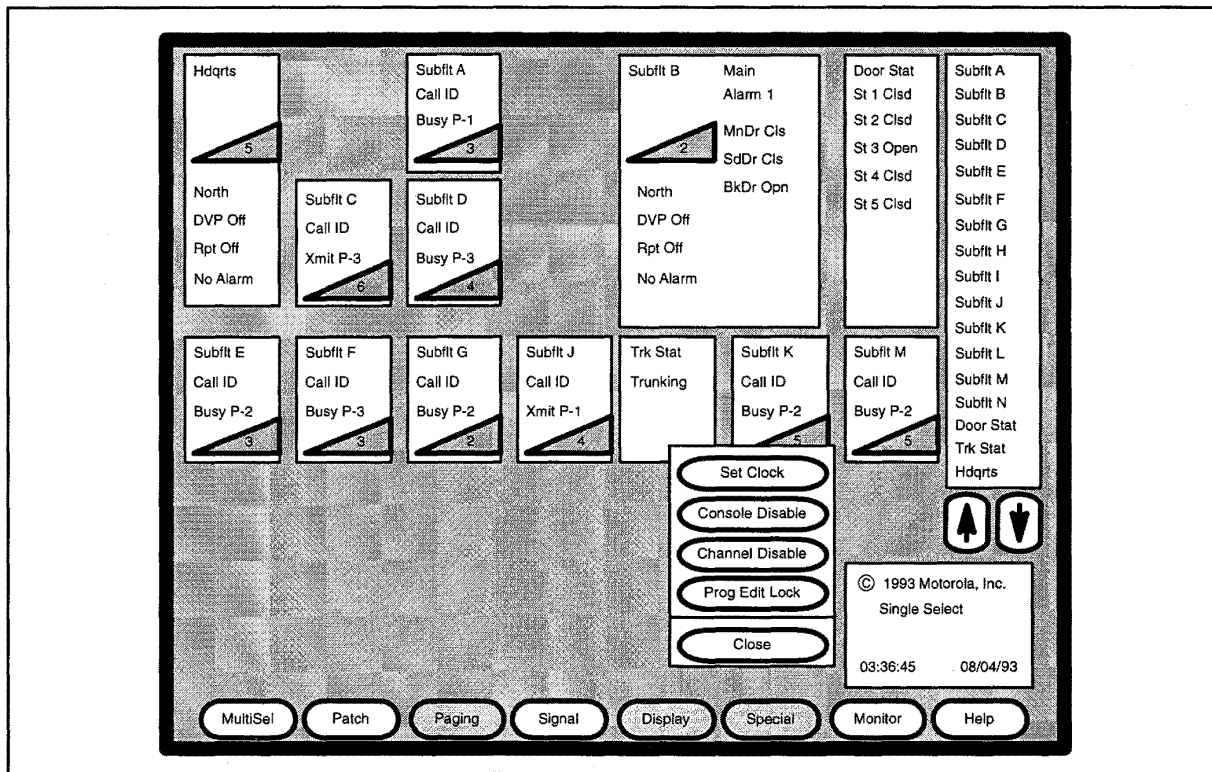


Figure 17. Supervisor Menu

3.9.6.3 EMERGENCY RESET

Use the Emergency Reset function to remove the Emergency Set-Up from one or all operator positions.

Choosing the **Emerg Reset** menu key from the Special menu is displayed the Emergency Window with a choice of three command keys: **Tone Off**, **Knockdown**, and **Close**.

- Choose the **Tone Off** command key to turn off an Emergency Alarm tone and flashing ID at that operator position. An emergency state is still indicated at this console by the red channel border when the CCW is in the RWA, or by highlighting the channel name in red when the CCW is in the CSL.
- Choose the **Knockdown** command key to end the Emergency on the selected channel at all operator positions. The channel must first have all its Emergency ID's recognized (see Section 3.4) for the Knockdown operation to be performed.

After you choose the **Knockdown** command key, select a channel within seven seconds or the Knockdown operation ends.

- Choose the **Close** command key to close the Emergency Window without affecting the status of the Emergency Alarm.

3.9.6.4 SUPERVISOR

The **Supervisor** menu key can appear at any console. Use this function to enable or disable operator positions, and to enable or disable channels at an operator position.

This function also allows the supervisor to set the clock and the date and to prevent the operators from changing the coding of the pre-programmed pages.

Choosing the **Supervisor** menu key displays the Supervisor sub-menu which lists four menu keys: **Set Clock**, **Prog Edit Lock**, **Console Disable**, and **Channel Disable**.

3.9.6.4.1 SET CLOCK

Use this function to set the time and date on the console(s).

Choosing the **Set Clock** sub-menu key displays the Clock Window with a numeric keypad and time display, a **Save** command key, and a **Cancel** command key.

Complete the following steps to enter the time and date on the console. Choose the **Cancel** command key to close the Clock Window and return to the Main Screen.

Each *SmartZone OmniLink* zone has independent supervisor and time/date.

Step 1. Choose the numbers from the keypad corresponding to the hours, minutes, and seconds of the time. For example, enter the time 6:05:25 as 060525.

Step 2. Choose the **Save** command key. The window changes to the Date Window mode.

Step 3. Choose the numbers from the keypad corresponding to the month, day, and year. For example, enter the date June 8, 1993 as 060893.

Step 4. Choose the **Save** command key. All consoles now display the time and date entered. The window closes.

3.9.6.4.2 PROG EDIT LOCK

This function allows the supervisor to enable or disable all operators from changing the coding of their pre-programmed pages.

Choosing this sub-menu key displays the Program Edit Lockout Window with a Program Edit status area, an **Enable** command key, a **Disable** command key, and a **Close** command key.

Complete the following step to change the consoles' page programming capabilities. Choose the **Close** command key to close the Program Edit Lockout Window and return to the Main Screen.

Step 1. Choose the **Enable** or **Disable** command key. The active command key is grayed.

The window's status area indicates whether the page programming capability is "Enabled" or "Disabled" at all operator consoles. "Enable" means that all operators can program pages at the console. "Disable" means that all operators cannot program pages at the console.

3.9.6.4.3 CONSOLE DISABLE

Use this function to enable or disable any of the operator positions in the same *OmniLink* zone or Embassy system.

Choosing the **Console Disable** sub-menu key displays the Console Disable Window with a scrollable list of all the operator positions in the CEB, a window status area, a **Disable** command key, an **Enable** command key, a **Show Status** command key, and a **Close** command key.

The command key functions are described below. Choose the **Close** command key to close the window and return to the Main Screen.

• Disable and Enable

Use the **Disable and Enable** functions to disable or enable an operator position in the CEB.

Complete the following steps to disable or enable an operator position.

Step 1. Choose an operator position from the scrollable list. It is highlighted in green.

Step 2. Choose either the **Disable** or **Enable** command key from the Console Disable Window. The status of the console is displayed in the window status area.

• Show Status

Use the **Show Status** function to examine the enabled/disabled status of an operator position.

Complete the following steps to examine the status of an operator position.

Step 1. Choose an operator position from the scrollable list. It is highlighted in green.

Step 2. Choose the **Show Status** command key from the Console Disable Window. The status of the console is displayed in the window status area.

3.9.6.4.4 CHANNEL DISABLE

Use the Channel Disable function to disable or enable specific channels at any of the operator positions in the same CEB, *OmniLink* zone or Embassy system.

Choosing the **Channel Disable** sub-menu key displays the first Channel Disable Window with a scrollable list of operator positions, an operator position display area, an **Op Position Chosen** command key, and an **Abort** command key.

Complete the following steps to disable or enable a channel at any of the operator positions. Choose the **Abort** command key to close the window and return to the Main Screen.

Step 1. To disable or enable specific channels from one operator position, Choose an operator position from the scrollable list. It is highlighted in green.

Step 2. Choose the **Op Position Chosen** command key.

The second Channel Disable Window is displayed with a list of the channels that can be disabled/enabled, an operator position display area, a status area, a **Disable Channels** command key, an **Enable Channels** command key, a **Show Status** command key, a **Clear Chosen Channels** command key, a **New Operator Position** command key and a **Close** command key.

Step 3. Choose the channel(s) to be disabled/enabled from the scrollable list. The channel(s) is highlighted in green.

Step 4. Choose one of the command keys from the second Channel Disable Window.

The command key functions are described below.

- Choose the **Close** command key to close the window and return to the Main Screen.
- Use the **Disable and Enable** channels functions to disable or enable channels at any of the operator positions. Choose either the **Disable Channels** or **Enable Channels** command key.
- Use the **Show Status** function to examine the enabled/disabled status of an operator position. Choose the **Show Status** command key from the Console Disable Window.

The status area displays one of the following three messages.

- **Op Position Enabled:** This message indicates that all channels are enabled at this position.
- **Op Position Disabled:** This message indicates that the operator position is disabled.
- **Disabled Channels:** This message indicates that some channels are disabled. The disabled channels are highlighted in green in the scrollable list of channels.

- Use the **Clear Chosen** Channels function to deselect all of the highlighted channels in the scrollable list. The channels are now removed from the operation.
- Use the **New Operator Position** function to return to the first Channel Disable Window. You can Choose another operator position and begin again.

3.9.6.5 CHANNEL MARKER

Use the Channel Marker function to send periodic short tone bursts on one or more Selected conventional channels.

Choosing the **Channel Marker** menu key from the Special menu displays the Channel Marker Window with a Channel Marker status area, an **On** command key, an **Off** command key, and a **Close** command key.

Complete the following steps to activate or deactivate the Channel Marker function.

Step 1. Choose the **On** or **Off** command key. The command key which corresponds to the present condition is grayed.

When the **On** command key is Chosen, the status area displays the message “**Active**”, a tone burst occurs every 10 seconds, and the message “**Xmit**” flashes in red on the console in the CCW.

When the **Off** command key is Chosen, the status area displays the message “**Inactive**” and the Channel Marker function is disabled.

Step 2. Choose the **Close** command key to close the Channel Marker Window and return to the Main Screen.

3.9.6.6 PUBLIC ADDRESS

Use the Public Address function to speak over a public address system.

Choosing the **Public Address** menu key from the Special menu displays the Public Address Window with a **Talk** command key and a **Close** command key.

Complete the following steps to speak over a public address system.

Step 1. Press the **Talk** command key to speak over the public address system. The key is highlighted in red.

Step 2. Release the **Talk** key after the message is completed.

Step 3. Choose the **Close** command key to close the window and return to the Main Screen.

3.9.6.7 ALERT

Use the Alert function to send different Alert tones over Selected channels.

Choosing the **Alert** menu key from the Special menu displays the Alert sub-menu with up to three **Alert** command keys. Each key has its own Alert format.

Complete the following steps to send an Alert tone to Selected channels. Choose the **Close** command key to close the Alert sub-menu and return to the Main Screen.

Step 1. Select the channel or Multi-Select channel group to send the Alert tone over. The channel(s) is highlighted in green.

Step 2. Choose, and continue to press, the appropriate **Alert** command key from the sub-menu. This sends the **Alert** tone over the Selected channel(s).

The **Alert** command key is highlighted in red. The transmit indication appears on the selected CCWs.

The window prompts you to perform the General Transmit depress to transmit a voice message (see Section 3.3.1). If you don't perform the General Transmit depress, the voice message is not sent.

3.9.6.8 SAFETY SWITCH

You can order an Output Auxiliary Control as a protected (locked) option. When one of these option lines is locked, it has a gray background in the CCW. Use the Safety Switch function to activate a locked Output Auxiliary Control.

Choosing the **Safety Switch** menu key from the Special menu displays the Safety Switch Window with an Option Line status area, an **Enable** command key, and a **Close** command key.

Complete the following steps to access locked Output Auxiliary Controls. Choose the **Close** command key to close the Safety Switch Window and return to the Main Screen.

Step 1. Choose the **Enable** command key from the Safety Switch Window. The Option Line status area displays the message "**Unlocked.**"

The background of all protected (locked) options changes to a dark blue background.

The Auxiliary Output Control remains "Unlocked" for seven seconds or until any mouse button is pressed.

Step 2. Choose the option line to change the state of the "Unlocked" Output Auxiliary Control. Because the Safety Switch only enables one Auxiliary Control at a time, the other protected Controls are grayed and disabled when an Auxiliary Output Control is Chosen.

If a mouse button is not pressed within seven seconds, the protected Auxiliary Controls are once again grayed and disabled.

Step 3. Repeat the process to access another protected option.

3.9.6.9 SYSTEM-WIDE SAFETY SWITCH

System-wide channels can only make system-wide calls. These are calls made to all radios in a given trunking system. They tie up all the radio traffic in that system.

On the CRT Console, system-wide channels have a **Syswide Safety Switch** located on the CCW for that system-wide channel. Each system-wide call is made from a channel which looks like any other channel on the console. However, system-wide channels cannot be added to patches or multi-selects and they generally do not receive calls or busy signals.

Choosing the **Syswide Safety Switch** menu key from the Special menu displays the System-Wide Transmit Window with a status area, an **Enable** command key, and a **Close** command key.

Complete the following steps to transmit on a system-wide channel. Choose the **Close** command key to close the System-Wide Transmit Window and return to the Main Screen.

Step 1. Choose the **Enable** command key from the System-Wide Transmit Window. The status area displays the message "**Enabled.**"

The system-wide channel remains enabled for seven seconds.

Step 2. Press the Instant Transmit mouse button to transmit over the system-wide channel. The "**Xmit**" message is displayed on the Transmit/Patch Line of the system-wide channel.

After seven seconds or when the Instant Transmit mouse button is released, the System-Wide Transmit function is disabled and the status area returns to the "Disabled" mode.

3.9.6.10 CENTRAL SAFETY SWITCH

Use the Central Safety Switch function to change between the Main and Alternate Trunking Centrals. This Auxiliary Output Control can be located in a CCW or an ACW.

Complete the following steps to change between the Main and Alternate Trunking Centrals.

Step 1. Choose the **Central Sfty Sw** menu key from the Special menu. The message "**Central Switch Enbld**" is displayed on the General Status Line of the Status Area.

Step 2. Choose the associated Auxiliary Output Control within seven seconds.

The Central Safety Switch function is disabled in seven seconds or when the Choose button is pressed.

3.9.6.11 ALL MUTE

Use the All Mute function to mute all unselected channels so that the selected channel(s) can be heard more clearly.

Choosing the **All Mute** menu key from the Special menu displays the All Mute Window with an All Mute status area, a **Mute** command key, a **Clear** command key, and a **Close** command key.

Complete the following steps to mute all unselected channels.

Step 1. Choose the **Mute** command key from the All Mute Window. The message "**Unsel Audio Muted**" is displayed on the General Status Line of the Main Screen Status Area.

The **Mute** command key is disabled (grayed) and the window status area indicates that the All Mute function is "On."

The unselected channels remain muted until the function times out. (The duration of the All Mute function is customer specified.)

Step 2. Choose the **Clear** command key to stop the All Mute function before the function times out.

The **Clear** command key is disabled (grayed) and the window status area indicates that the All Mute function is "Off."

The General Status Line of the Status Area is cleared.

3.9.6.12 ASSIGN CHANNEL

Use the Assign Channel function to assign a new channel to an assignable CCW.

Choosing the **Assign Channel** menu key from the Special menu displays the Assignable Window with a **Current** command key, a **Default** command key, and a **Close** command key.

The **Current** command key allows changes to be made to the currently active channel assignment. The **Default** command key allows changes to be made to the default channel assignment. The default channel assignment is automatically assigned at console power-up/reset. The operation of both the Current and Default assignments is the same.

Complete the following steps to change the channel assignment of an assignable CCW.

Step 1. Choose either the **Current** or **Default** command key. All of the assignable CCW Channel Name Lines are highlighted in cyan while the text of the channel names flash.

A new window is displayed showing the "Assignment" (Current or Default), a "Channel" field, and a **Cancel** command key.

Step 2. Choose an assignable CCW. The assignable CCWs are no longer highlighted while the text of the channel names stop flashing.

The Chosen channel name is displayed in the "Channel" field. A numeric keypad, an "Alias/Channel ID" field, a **Scroll Up** command key, a **Scroll Down** command key, a **Save** command key, and a **Cancel** command key also appear in the window.

Step 3. Choose the **Scroll Up** and **Scroll Down** command keys to see all of the available channel aliases at this console. The available channel aliases are set-up during the initial installation. (See the *CEB Maintenance Manual for Gold Series Consoles* for a description of the channel assignments).

Scroll the new assignment into the "Alias/Channel ID" field or enter the new Channel ID with the numeric keypad.

Step 4. Choose the **Cancel** command key to cancel the assignment or Choose the **Save** command key to save the new assignment. If the **Save** command key is Chosen, one of the following status messages is displayed in the window:

- The message "**Assigned**" is displayed if the new channel assignment was successful.
- The message "**Deassigned**" is displayed if the new channel assignment is cleared (the number 0 is entered through the keyboard).
- The message "**Error**" is displayed if the new channel assignment was not successful due to an error.
- The message "**In Use**" is displayed if the new channel assignment is already displayed at that operator position.

The original Assignable Window is displayed and additional channel assignments can be made.

3.9.6.13 ASSIGN SPEAKER

Use the Assignable Speaker function to assign specific channel audio to each speaker on the console (on a multiple speaker position).

Every channel has two speaker destinations which default to the standard Select and Unselect Speakers. Up to 14 additional Speakers can be ordered per operator position. You can route unselect audio for any number of specified channels to any speaker.

Use the Assignable Speaker function to specify a Speaker ID and to view all the channels which are currently assigned to that ID. You can also add more channels to this Speaker ID.

You cannot delete Speaker Assignments by unselecting channels. A channel must always have a valid Speaker ID for both speaker destinations. Therefore, to delete a channel from one speaker ID, you must assign that channel to another Speaker ID.

Choosing the **Assign Speaker** menu key from the Special menu is displayed the Assign Speaker Window with a list of Speaker ID command keys, and a **Close** command key.

Complete the following steps to view or edit the channels presented to a particular channel.

Step 1. Choose a Speaker ID command key from the list. The Assign Window for that Speaker ID is displayed with a **Save** command key, and a **Cancel** command key.

The channels assigned to the selected Speaker ID are highlighted in green.

Step 2. To add channels to a speaker, Choose the channels from the RWA or CSL. The channels are highlighted in green.

NOTE

When you use CSL with mode keys, make sure the CSL is in SEL MODE (SEL MODE key is green) before you choose a CSL channel.

To delete a channel from a given speaker, add that channel to another speaker.

Step 3. Choose the **Save** command key to save the speaker assignment.

3.9.6.14 INTERCOM

Use the Intercom function to transmit directly to another console. You can transmit to all or selective operator positions within a CEB, *OmniLink* zone or Embassy system.

Choosing the **Intercom** menu key from the Special menu displays the Intercom Window with a window status area, a **Keypad** command key, and a **Close** command key.

3.9.6.14.1 PLACING AN INTERCOM CALL TO ALL OPERATOR POSITIONS

Complete the following steps to transmit to all operator positions. Choose the **Close** command key to close the Intercom Window and return to the Main Screen.

Step 1. Choose, and continue to press, the **All Ops** command key from the Intercom Window. The key is highlighted in red. The operation continues until you release the Choose mouse button.

The message "**All Call**" is displayed in the window status area in operator positions within the same *OmniLink* zone.

Step 2. Talk into the microphone.

Step 3. Release the Choose mouse button.

3.9.6.14.2 RECEIVING AN ALL OPERATOR INTERCOM CALL

When you receive an All Operator Intercom Call, the audio comes through the Unselect Console Speaker and the General Status Line of the Status Area displays the message "**Receiving All Call.**" The receiving consoles cannot answer the call.

The message is removed when the call ends.

3.9.6.14.3 PLACING A SELECTIVE INTERCOM CALL

A selective intercom call is sent to one destination. A list of all possible selective intercom destinations is displayed on the right side of the Intercom Window. The list is scrollable if there are more than 15 items in the list. In this case, Scroll Arrow keys also display in the Intercom Window.

Complete the following steps to send a selective intercom call.

Step 1. Choose an intercom destination from the list. The intercom destination name is highlighted in green. A **Call** command key is displayed in the Intercom Window.

You can also Choose the **Keypad** command key to enter an intercom destination. After you Choose the **Keypad** command key, a numeric keypad is displayed with an Intercom Address field. Use the keypad to enter the intercom destination data or Choose the **List** command key to return to the list of intercom destinations.

Keypad data is entered in the following manner:

Embassy Systems

To call another operator position enter "Caaccnn".

Non-Embassy Systems

To call another operator position enter "Cnn".

Where:

C = Console

aa = Ambassador Electronics Bank (AEB) ID

cc = Central Electronics Bank (CEB) ID

nn = Op number in decimal

A **Call** command key is displayed in the Intercom Window.

Step 2. Choose the **Call** command key. The Intercom Window displays an **End Call** command key and the **Keypad** command key is closed.

The window status area displays the message "**Ringng.**"

If the call is not answered after 30 seconds, the message "**No Call**" is displayed in the window status area and the intercom destination name is no longer highlighted.

In addition, the **End Call** command key is closed and the **Keypad** command key is redisplayed.

If the destination intercom answers the call, a **Talk** command key is displayed in the Intercom Window and the window status area displays the message "**Listening.**"

Step 3. The operator who originated the call controls the direction of the transmission. Choose, and continue to press, the **Talk** command key to talk to the destination intercom. The window status area reads "Talk."

The destination intercom can transmit only when the originating console operator releases the Choose mouse button.

Step 4. Either console can end the call by Choosing the **End Call** command key.

3.9.6.14.4 RECEIVING A SELECTIVE INTERCOM CALL

When the destination console receives an intercom call, the console begins to ring. A window is displayed on the screen displaying an **Answer** command key and an **End Call** command key. The window also identifies the source of the intercom call.

Complete the following steps to receive a selective intercom call.

Step 1. The operator who originated the call controls the direction of the transmission. The destination intercom can transmit only when the originating console operator releases the Choose mouse button.

Choose, and continue to press, the **Answer** command key to transmit to the originating operator position. The message "**Talk**" is displayed in the status area of the window.

The message "**Listening**" is displayed in the window status area when the originating operator transmits.

Step 2. Either console can end the call by Choosing the **End Call** command key.

3.9.7 Base Intercom

Base Intercom is used to communicate from the dispatch console to a selected base station. This feature is typically used during maintenance activities. To perform a Base Intercom call, perform the following steps:

Step 1. Select the channel associated with the base station to be called.

Step 2. Press and hold the Base Intercom switch located on the tool bar button.

Step 3. Speak into the microphone. Audio will be heard at the output of the BIM, but the base station will not key-up and transmit.

Step 4. When finished speaking, release the Base Intercom Switch.

3.9.8 Monitor

If your system uses *Private-Line* coded squelch or carrier squelch, the Monitor function allows you to override the squelch and hear all voice traffic on the channel.

Complete the following steps to monitor a channel.

Step 1. Select a channel to be monitored from the RWA or CSL by Choosing one of the top three lines of the CCW.

Step 2. Choose, and continue to press, the **Monitor** menu function key. The message "**Mon**" is displayed on the Transmit Status Line of the CCW. The selected channel is now being monitored.

NOTE

If a footswitch is provided, the left footswitch acts as a **Monitor** switch.

Step 3. Release the Choose button to stop monitoring the channel. The "**Mon**" message is removed from the Transmit Status Line of the CCW.

3.9.9 Help

The **Help** menu function provides explanations for every Main Screen menu function and for major aspects of the CRT console.

Choosing the **Help** menu function key displays the Help menu with a list of Help Topics and a **Close** command key.

Complete the following steps to use the **Help** function. Choose the **Close** command key to close the Help menu and return to the Main Screen.

Step 1. Choose a Help Topic. A Help Window is displayed describing the function and its operation. A **Return to Menu** command key and an **Exit Help** command key are also displayed.

If there is more than one page of text in the Help Window, scroll arrows display. Choose the scroll arrows to move through the text.

Step 2. Choose the **Return to Menu** command key to return to the Help menu.

Choose the **Exit Help** command key to return to the Main Screen.

3.9.10 Instant Recall Recorder

The Instant Recall Recorder is an optional machine that can be ordered as a supplement to the *CENTRACOM Gold Series* system.

The Call Check module is a group of Auxiliary Controls which are used to play back a recent telephone conversation through the console. Use these Auxiliary Controls to operate an Instant Recall Recorder such as the Dictaphone^T Call-CheckR machine. The recorder "listens" to Select speaker audio.

You can direct the play back audio to either the Unselect console speaker or to a separate dedicated recorder speaker (if one is connected).

Configure an ACW in the Set-Up screen to hold these Auxiliary Controls (see Section 4.5.3.4). Label the Auxiliary Controls in the Set-Up screen (see Section 4.5.3.3).

The Auxiliary Controls used to operate an Instant Recall Recorder are labeled: **Recall/Rewinding**, **Recalling**, **Restore/Restoring**, **Forward/Fwd On**, **Normal/Hvy Trfc**, and **Recording**.

The Auxiliary Controls and their functions are described below.

Recall/Rewinding

The **Recall/Rewinding** control line of the ACW instantly plays back the most recently recorded telephone message.

This is an Output Auxiliary Control. You can change the status of the control. The **Recall** text is the "off" text for the control and the **Rewinding** text is the "on" text for the control.

There are two ways to operate this Auxiliary Control.

- Press and release the Choose mouse key over the **Recall** control line. The text of the control line changes to **Rewinding** while the recorder rewinds. The text of the option line changes back to **Recall** and the recorder plays back the most recent message.
- Press and hold the Choose mouse button over the **Recall** control line of the ACW to rewind to any position on the recorder tape. The text of the control line changes to **Rewinding** while the recorder rewinds.

Release the Choose mouse button. The text of the option line changes back to **Recall** and the recorder plays back the tape.

Recalling

When you play back a recorded message, **Recalling** is displayed on the control line.

This is an Input Auxiliary Control. You cannot change the status of the control. The "Recalling" text is the "on" text for the control. There is no "off" text. The "off" status is displayed when the Instant Recall Recorder is not in the recall mode.

Restore/Restoring

The **Restore/Restoring** control line of the ACW allows you to rewind the tape to the beginning of the most recently recorded message. Normally, you do this after you rewind the tape to listen to a message.

This is an Output Auxiliary Control and you can change the status of the control. The **Restore** text is the "off" text for the control and the **Restoring** text is the "on" text for the control.

To restore the recorder tape to the recall queue point, Choose the **Restore** control line of the ACW. The text of the control line changes to **Restoring** while the tape rewinds.

The text returns to **Restore** when the tape rewinds to the queue point.

Forward/Forward On

Use the **Forward/Fwd On** control line of the ACW to quickly advance through the recorder tape to search for previously recorded messages.

This is an Output Auxiliary Control and you can change the status of the control. The **Forward** text is the "off" text for the control and the **Fwd On** text is the "on" text for the control.

Complete the following steps to advance through the recorder tape.

Step 1. Choose and hold the **Forward** control line. The text changes to **Fwd On**.

Step 2. Release the Choose mouse key. The recorder reverts to the recall (playback) mode and plays through the end of the message. The text changes to **Forward** when the playback is complete.

Normal/Heavy Traffic

Use the Normal Traffic mode when the telephone traffic is light. In this mode, the Instant Recall Recorder places a gap in the recording tape, allowing the machine to quickly identify the beginning of each message. The machine is capable of using the **Recall** and **Restore** functions outlined above.

Use the Heavy Traffic mode when several telephone messages come in and you don't have time to review them. In this mode, the Instant Recall Recorder can't place gaps in the recording tape and the automatic restore function is disabled. The Instant Recall Recorder advances the tape every 60 seconds. This way you stay within 60 seconds of the most recently recorded message.

Using the **Recall** function in the Heavy Traffic mode rewinds the recorder tape to within 12 seconds of the previously recorded message.

This is an Output Auxiliary Control and you can change the status of the control. The **Normal** text is the "off" text for the control and the **Hvy Trfc** text is the "on" text for the control.

Choose the **Normal/Hvy Trfc** control line to toggle between the Normal and Heavy Traffic mode.

Recording

When the Instant Recall Recorder is recording, the "on" text, **Recording**, is displayed on this control line.

This is an Input Auxiliary Control. You can't change the status of the control. The "off" status is displayed when the Instant Recall Recorder is not recording.

3.9.11 Enhanced Telephone Operation

In addition to the control of radio channels, the CRT console provides access to telephone lines. When used with a keypad module for dialing purposes, Enhanced Telephone operation becomes an integrated part of the *CENTRACOM Gold Series* CRT.

Telephone Audio

If a full-duplex (simultaneous, two-way audio) telephone line is Chosen with an active headset, the telephone audio is routed to your headset. This allows you to have hands-free, full-duplex operation. If you are not using a headset or handset, the telephone audio and the selected radio audio appear in their respective select speakers.

When a telephone line is active, that telephone audio is muted at all other operator positions.

Radio And Telephone Audio

At any time, you can simultaneously have one telephone line Chosen and one radio channel Selected (or one Multi-Select group active). The radio channel audio destination depends on whether or not a telephone line is also Chosen.

If a telephone line is not currently Chosen, the incoming radio audio is directed to the headset/handset. Pressing the General Transmit or Instant Transmit mouse button directs outbound audio to the Selected radio channel.

If a telephone line is currently Chosen, the telephone audio is routed to the headset or handset.

Complete the following steps to transmit to a radio channel while a telephone line is Chosen.

Step 1. Select a radio channel. The channel name is highlighted in green. The radio audio is routed to the Select speaker at full volume.

NOTE

When you use CSL with mode keys, make sure the CSL is in SEL MODE (SEL MODE key is green) before you choose a CSL channel.

Step 1. Press General Transmit or Instant Transmit to transmit to a radio channel. The outbound audio is directed to the radio channel. This redirection of the outbound audio allows you to talk to a radio channel while still monitoring the telephone line.

The inbound audio from both the telephone line and radio channel remains unchanged.

If no headset or handset is used, the Selected radio audio is routed to the Select speaker regardless of whether or not a telephone line is Chosen.

Choosing A Telephone Line

Choose a telephone line by placing the cursor in a CCW and pressing the Choose mouse button above the volume wedge. Choosing a telephone line automatically takes the telephone line off hook, routes the telephone audio as described above, and begins hands-free, full-duplex operation if a headset or handset is being used.

A telephone line CCW also displays several Auxiliary Controls (see NO TAG). The names of the states of these Auxiliary Controls can be changed in the Set-Up Screen (see Section 4.5.3.3).

When you Choose a telephone line, the following indications occur within the CCW:

- The Chosen channel name is highlighted in green.
- The message “**Call**” flashes in red on the Call Line of the CCW. The message “**Hook**” flashes in light green on the Transmit Line of the CCW. If the CCW is located in the CSL, the channel name flashes in light green letters.
- The “Off Hook” option line text flashes in a CCW located in the RWA.

Choosing a second telephone line automatically deselects the current telephone line. If the telephone lines are set up as inter-locked telephones, Choosing a second telephone line automatically releases (hangs up) the first telephone line.

If the telephones are not interlocked, the first telephone line is deselected and the audio is directed to the Unselect speaker. To talk to a deselected telephone line, either Choose the telephone line or press the Instant Transmit mouse button while the cursor is in the telephone line CCW.

Placing A Telephone Call

Dial with the keypad module or the PC keyboard.

Complete the following steps to dial a telephone line.

Step 1. Choose a telephone line. The indications described in the previous section occur.

Step 2. You can enter dialing information two different ways: Push the keys **0–9**, **A–D**, **P**, **F**, *****, **#** using the keypad module or the PC keyboard.

If you use the keypad module, the number you dial is displayed in the keypad module display area and in the Main Screen Status Area.

If you use the PC keyboard, the number you dial is displayed in the Main Screen Status Area.

You can dial any number of digits in this manner. The digits are displayed until they take up the entire keypad module display area or Main Screen Status Area display. When the maxi-

mum number of digits is entered in the display, the digits scroll to the left and the newest digits display.

Although the digits are sent out immediately as entered, it is sometimes necessary to add a pause to allow intermediate switching and access to be completed. If the pause is to be captured for redialing purposes, use the **P** key to insert a pause into the redial memory.

As an example, the digit “9” can be required to access an outside line. After a short wait for a dial tone, enter the number. However, if you want to use the Redial function, insert the letter **P** between the digit “9” and the remainder of the telephone number (i.e., 9P5551234). The **P** allows the Redial function to correctly insert the required pause when the number is resent.

Use the **F** key to generate any hook flash function such as transferring a call to another extension.

If telephone aliases were pre-programmed, the **Alias** keypad module key can be used. Use the keypad module scroll keys to access the entire list of telephone aliases.

Step 3. Dialing is complete when the **Enter** key on the keypad module is pressed or when a valid dialing digit is not pressed within seven seconds.

Once dialing is complete, the first 20 digits dialed are stored in the Last Number Redial memory.

The message “**Xmit**” is displayed with a red background on the Transmit Line of the CCW as the dialed number transmits.

The message “**Call**” is removed from the Call Line of the CCW.

Step 4. If the headset/handset is in use, enter a hands-free, full-duplex mode and you can transmit on the telephone line.

Speed Dialing

The keypad module provides up to 10 locally defined speed dialing numbers that can be customized individually at each operator position. The speed dial memory can be used to store telephone numbers, PBX calling functions, or any other item that requires Dual Tone Multi-Frequency (DTMF) digits alone or in combination with a hook flash. You can store up to 20 digits in each speed dial memory. The keypad module keys **0–9** are used to store and recall these memory locations. When activated, the number is recalled and sent to the Chosen resource.

Programming A Two Button Speed Dial Location

Complete the following steps to program a speed dial location. At any time, you can simultaneously press the **Alt** and **Speed** keys to abort the function and retain the old contents of the memory location

Step 1. Press and hold the **ALT** keypad module key.

Step 2. Press the **Speed** keypad module key and the **Alt** key at the same time.

The LED above the **Speed** key begins to flash. This indicates that the system is ready to program a speed dial location.

Step 3. Press a keypad module key from **0–9** to select the specific location to be programmed. If there is currently an entry in the selective memory, it is displayed for confirmation.

Step 4. Enter the number to be dialed via the keypad module. Enter any required hook flashes or pauses.

As you enter the number, any old digits scroll to the left and the new digits display.

Step 5. Press the **Enter** key when the complete number is displayed.

Programming A Single Button Speed Dial Location

The keypad module provides Channel Control Module (CCM) buttons that can be customized to hold speed dial locations. When activated, the number is recalled and sent to the Chosen resource.

Complete the following steps to program a speed dial location. At any time, you can simultaneously press the **Alt** and **Speed** keys to abort the function and retain the old contents of the memory location

Step 1. Press and hold the **ALT** keypad module key.

Step 2. Press the **Speed** keypad module key and the **Alt** key at the same time.

The LED above the **Speed** key begins to flash. This indicates that the system is ready to program a speed dial location.

Step 3. Press a CCM button to select the specific location to be programmed. If there is currently an entry in the selective memory, it is displayed for confirmation.

Step 4. Enter the number to be dialed via the keypad module. Enter any required hook flashes or pauses.

As you enter the number, any old digits scroll to the left and the new digits display.

Step 5. Press the **Enter** key when the complete number is displayed.

Placing A Speed Dial Call

Complete the following steps to send a speed dial number.

Step 1. Choose a telephone line. The above indications occur.

Step 2. Press the **Speed** keypad module key. The LED above the **Speed** key turns on solid, indicating that it is ready to accept a speed dial entry.

Step 3. Press the key: **0–9** to dial the number in that memory location. The number dialed is displayed in the Main Screen Status Area and in the keypad module display area.

If the memory location is empty, an error beep sounds.

The message “**Xmit**” is displayed in a red background on the Transmit Line of the CCW as the dialed number transmits.

The message “**Call**” is removed from the Call Line of the CCW.

Step 4. If the headset/handset is in use, you enter a hands-free, full-duplex mode and you can transmit on the telephone line.

Alias Dialing

If telephone number aliases were pre-programmed, the **Alias** keypad module key can be used to place a telephone call.

There are two ways to enter a telephone number data using the Alias Dialing function: scrolling and manually. Press the **Alt** and **Alias** keypad module keys simultaneously to abort either operation.

Entering a Telephone Number by Scrolling

Complete the following steps to use scrolling to enter telephone number data.

Step 1. Choose a telephone line. The indications described above occur.

Step 2. Press the **Alias** key from the keypad module. The first alias is displayed in the keypad module display area.

Step 3. Press the scroll arrow keypad module keys to scroll through the list of aliases.

Step 4. Press the **Alias** or **Enter** key. The telephone number data is displayed in the keypad module display area, and in the Main Screen Status Area of the CRT.

The telephone number is dialed.

- The message **"Hook"** flashes in light green on the Transmit Line of the CCW. If the CCW is located in the CSL, the channel name flashes in light green letters.
- The "Off Hook" option line text flashes in a CCW located in the RWA.
- The message **"Xmit"** is displayed with a red background on the Transmit Line of the CCW as the dialed number transmits.
- The message **"Call"** is removed from the Call Line of the CCW.

Step 5. If the headset/handset is in use, you enter a hands-free, full-duplex mode and can transmit on the telephone line.

Entering a Telephone Number Manually

Complete the following steps to manually enter telephone number data.

Step 1. Choose a telephone line. The indications described above occur.

Step 2. Press the **Alias** key from the keypad module. The first alias is displayed in the keypad module display area.

Step 3. Enter the telephone number alias using the keypad module keys.

If the alias name is not in the alias database, the message **"NO NUMBER"** is displayed for two seconds and the closest alias name is found and is displayed.

Step 4. Press the **Alias** or **Enter** key. The telephone number data is displayed in the keypad module display area, and in the Main Screen Status Area of the CRT.

The telephone number is dialed.

- The message **"Hook"** flashes in light green on the Transmit Line of the CCW. If the CCW is located in the CSL, the channel name flashes in light green letters.
- The "Off Hook" option line text flashes in a CCW located in the RWA.
- The message **"Xmit"** is displayed with a red background on the Transmit Line of the CCW as the dialed number transmits.
- The message **"Call"** is removed from the Call Line of the CCW.

Step 5. If the headset/handset is in use, you enter a hands-free, full-duplex mode and can transmit on the telephone line.

Last Number Redial

The keypad module also has the capability of redialing the last number dialed regardless of the method originally used to dial the number. The Last Number Redial function redials the last 20 digit number dialed, including any programmed pauses or hook flashes.

Choose the **Redial** keypad module key to redial the last number dialed. The number is displayed in the keypad module display.

Error Messages From Dialing

If you release (hang up) the line or fail to Choose a line, the error beep sounds and the message **"Fail"** is displayed in the Main Screen Status Area and in the keypad module display. This indicates that the dialing was not successful. In this case, the contents of the Last Number Redial function are not modified.

Answering An Incoming Telephone Call

When an incoming telephone call begins, you hear a ringing tone and the message **"Ring"** flashes in light magenta letters on the Transmit Line of the CCW. The "Ringing" option line also flashes in the CCW. If the CCW is located in the CSL, the channel name flashes in light magenta letters.

A telephone line resource can only be accessed by one console at a time. The message **"Hook"** in solid light green letters on the Transmit Line of the CCW indicates any telephone line that is off hook at another console. Any attempt to choose such telephone line is ignored.

There are two ways that you can answer an incoming telephone call:

- Choose the "Ringing" telephone line. The following indications occur within the CCW:
 - The **"Ring"** message is removed from the Transmit Line of the CCW.
 - The Chosen channel name is highlighted in green.
 - The message **"Call"** flashes in red on the Call Line of the CCW.
 - The message **"Hook"** flashes in light green on the Transmit Line of the CCW. If the CCW is located in the CSL, the channel name flashes in light green letters.
 - The "Off Hook" option line text flashes in a CCW located in the RWA.
 - The "No Ring" option line text replaces the flashing "Ringing" text in the CCW.

If the headset/handset is in use, you enter a hands-free, full-duplex mode and the message **"Xmit"** is displayed with a red background on the Transmit Line of the CCW. You can transmit on the telephone line.

- Choose the "On Hook" option line in the CCW. This takes the telephone line off hook, but does not begin hands-free,

full-duplex operation on this channel.

The following indications occur within the CCW:

- The **“Ring”** message is removed from the Transmit Line of the CCW.
- The Chosen channel name is highlighted in green.
- The message **“Call”** flashes in red on the Call Line of the CCW.
- The message **“Hook”** flashes in light green on the Transmit Line of the CCW. If the CCW is located in the CSL, the channel name flashes in light green letters.
- The **“Off Hook”** option line text flashes in a CCW located in the RWA.
- The **“No Ring”** option line text replaces the flashing **“Ringing”** text in the CCW.

To talk on the line, press the Instant Transmit mouse button while the cursor is in the CCW.

The message **“Xmit”** is displayed with a red background on the Transmit Line of the CCW. You can transmit on the telephone line.

Placing A Telephone Line On Hold

There are two ways to place a telephone line on hold:

- Choose a telephone line. The Channel name is highlighted in green.
 - Press the **Hold** keypad module key.
 - The message **“Hold”** flashes in light magenta letters on the Transmit Line of the CCW on a cyan background.
 - The **“Hold”** option line indication flashes in the CCW.
 - The flashing **“Off Hook”** option line text changes to a solid **“On Hook”** text in the CCW.
 - The Chosen channel name is no longer highlighted.
 - The audio from this telephone line is muted.
- Choose the **“Hold”** option line of the CCW. This puts the telephone line on hold whether or not the telephone line is Chosen.
 - The message **“Hold”** flashes in light magenta letters on the Transmit Line of the CCW on a cyan background.
 - The **“Hold”** option line indication flashes in the CCW.
 - The flashing **“Off Hook”** option line text changes to a solid **“On Hook”** text in the CCW.
 - The Chosen channel name is no longer highlighted.
 - The audio from this telephone line is muted.

Removing A Telephone Line From Hold

There are three ways to take a telephone line off hold:

- Choose a telephone line. The Channel name is highlighted in green.
 - The **“Hold”** option line stops flashing.
 - The **“Off Hook”** option line starts flashing.
 - The message **“Call”** flashes in red on the Call Line of the CCW.
 - The message **“Hook”** flashes in light green on the Transmit Line of the CCW.
 - If the headset/handset is in use, you enter a hands-free, full-duplex mode and the message **“Xmit”** is displayed with a red background on the Transmit Line of the CCW. You can transmit on the telephone line.
- Choose the **“On Hook”** option line of the CCW. This takes the telephone line off hook, but does not begin hands-free, full-duplex operation on this channel.
 - The **“Hold”** option line stops flashing.
 - The **“Off Hook”** option line starts flashing.
 - The message **“Call”** flashes in red on the Call Line of the CCW.
 - The message **“Hook”** flashes in light green on the Transmit Line of the CCW.
 - Press the Instant Transmit mouse button while the cursor is in the CCW.
 - The message **“Xmit”** is displayed with a red background on the Transmit Line of the CCW. You can transmit on the telephone line.
- Press the **Hold** keypad module key a second time.
 - The **“Hold”** option line stops flashing.
 - The **“Off Hook”** option line starts flashing.
 - The message **“Call”** flashes in red on the Call Line of the CCW.
 - The message **“Hook”** flashes in light green on the Transmit Line of the CCW.
 - If the headset/handset is in use, you enter a hands-free, full-duplex mode and the message **“Xmit”** is displayed with a red background on the Transmit Line of the CCW. You can transmit on the telephone line.

Releasing A Telephone Line

You can release a telephone line (place it on hook) several different ways:

- Place the handset in the cradle. In dual handset applications, you must place both handset on their cradles.
- Press the **Release** keypad module key.
- Choose the **“Off Hook”** option line.
- Remove both headsets from their jacks. This is a release request for the Chosen telephone line.

The following indications occur within the CCW when you release a telephone line.

- The channel line is no longer highlighted.
- The message **"Hook"** is removed from the Transmit Line of the CCW.
- The "Off Hook" option line text changes to "On Hook."

Patching Telephone Lines

You can set up a patch to radio channels and/or other telephone lines like a conventional patch (see Section 3.9.2). When a telephone line is in a patch group, it is taken out of hands-free, full-duplex operation. You must use the Instant Transmit function or the Patch Transmit function to talk on the line.

Patched telephone lines cannot be released (put on hook) until you remove them from the patch group. If the telephone line is an interlocked telephone line in a patch, Choosing a second telephone line does not release the patched telephone line.

Radio To Telephone And Telephone To Radio Patch

Sometimes you need to manually steer the patch conversation between radio channels and a telephone line. If telephone line audio is very low, the radio can't receive it. If telephone audio is "noisy," the telephone line is always transmitting (Call indication) and cannot receive audio from other patch group members.

Complete the following steps to manually steer low telephone audio to other members of a patch group.

Step 1. Choose and hold the "P-R OFF" option line in the telephone line CCW. This manually sends the telephone audio to the other members of the patch group.

The option line text changes to "Phon-Rad."

Step 2. Release the Choose mouse button when the transmission is over.

The option line text returns to "P-R OFF."

Complete the following steps to manually steer patch group audio to a "noisy" telephone line.

Step 1. Choose and hold the "R-P OFF" option line in the telephone line CCW. This manually sends patch group audio to a "noisy" telephone line.

The **"Call"** message is removed from the Transmit Line of the CCW.

The option line text changes to "Rad-Phon."

Step 2. Release the Choose mouse button when the transmission is over.

The option line text returns to "R-P OFF."

3.10 STATUS AREA

The Status Area is located in the bottom right corner of the Main Screen display (see Figure 3). The Status Area window is always visible and contains five lines of text which display system status messages, error messages, and the clock.

3.10.1 Copyright Line

The Copyright Line is the first line of the Status Area.

3.10.2 Mode State Line

The Mode State Line is the second line in the Status Area window. This line tells you what mode the console is in. For example, the message **"Patch Select"** informs you that selecting a channel from the RWA or CSL places that channel in a patch group.

This line always contains a message. Some examples are:

- **Single Select.**
- **Multi-Select x** (x = 1,2,3).
- **Patch Select.**
- **Emerg Setup.**
- **Moving Window.**
- **Expand Window.**

3.10.3 General Status Line

The General Status Line is the third line in the Status Area window. This line tells you what special operation is in progress at the console. If no special operation is occurring, a message does not display. If more than one special operation is occurring, the message for the most recent operation is displayed.

Some messages are:

- **Unsel Audio Muted.**
- **Receiving All Call.**
- **Ring Tones Disabled.**

3.10.4 Link State And Error Line

The Link State is one of the messages displayed on the fourth line in the Status Area Window. The Link State tells you the status of the link between the CRT console and the Central Electronics Bank (CEB). Proper connections to the CRT console are essential for the operation of the console.

Some of the possible messages and operator actions are:

- **Intfc to CEB Link Down:** Check link between Console Interface Electronics (CIE) and CEB.
- **Intfc not receiving:** Check link between CIE and PC.
- **Intfc to PCB Link Down:** Check link between CIE and PC.

The fourth line in the Status Area window also displays CEB and CRT console Error messages. A CRT console error occurs when you incorrectly perform an operation on the CRT console or when fault maintenance detects an error in the system. A brief description of the message is displayed on the line.

NOTE

Error messages are not removed from the Status area until they are overwritten. Link errors are not resolved until the connection is repaired. Choosing on the error message temporarily removes the message from the Status Area, but it does not repair the problem. A gray background on this line indicates a system error. For more information about operator action for an error of this kind, see Diagnostics 12 in the Console Operators Manual.

The fourth line of the Status Area window also is displayed a unit ID or alias when an inbound emergency call is received.

3.10.5 Clock Line

The fifth line of the Status Area window displays the time and the date. For more information, see Section 3.9.6.4.1.

4. SET-UP SCREEN

Use the Set-Up Screen to configure the Channel Control Windows (CCW) and the Auxiliary Control Windows (ACW) and to design the layout of the Main Screen. The term "Control Window" refers to either a Channel Control Window (CCW) or an Auxiliary Control Window (ACW).

Use CCWs to communicate with groups of radios. ACWs monitor auxiliary controls such as sounding alarms or opening and closing doors.

4.1 AVAILABLE RADIO OPERATIONS

While you work in the Set-Up Screen, you can continue the following radio operations:

- Hear Select and unselect.
- Hear and reset Sonalert.
- Hear and reset Emergency tones.
- Use the foot switch for general transmit.

4.2 MAIN SCREEN SET-UP INFORMATION

The installer or customer's authorized personnel, hereafter referred to as the **administrator**, configures the Main Screen. The administrator can design set-ups for different operator positions, shift changes, or situations. These set-ups are stored at the operator positions and can be loaded for later use, changing the configuration of the console in a matter of seconds.

When creating a set-up, the administrator can either:

- Create a new set-up.
- Modify an existing set-up, saving it under the same name.
- Start with an existing set-up, modify it, and save it under a new name.

These set-ups are saved at the operator position. The set-ups should be backed up onto floppy disks. A set-up can be created at one operator position and transferred to another via floppy disk (see Section 7.5).

NOTE

Except for passwords, none of the set-up information is saved until the installer Chooses the **Save/Exit** menu key from the Main Set-Up Menu and saves the set-up.

4.3 GETTING STARTED

Complete the following steps to access the Main Set-Up menu:

Step 1. Select Enter Set-Up Screen from the Program menu. (The Program Menu provides access to the following program functions: **Enter Main Screen**, **Enter Set-Up Screen**, **Download Personality** and **File Maintenance**.)

Step 2. The screen displays a list of configuration files. Select Initial Configuration File to design a set-up for the first time or select an existing configuration file.

The Configuration Files List displays ten set-up files at one time. If there are more than ten set-ups in the Configuration Files List, select one of the menu keys from the bottom of the screen to examine the additional files.

- Select **n** to display the next page of the list.
- Select **p** to display the previous page of the list.
- Select **r** to return to the last menu.

Step 3. The Main Set-Up menu is displayed on the screen (see Figure 18).

4.4 THE MAIN SET-UP MENU

Access all the major functions of the Set-Up Screen through the Main Set-Up menu. These functions are used to configure the Main Screen layout. The functions are:

- **Configure/Place Control Windows** - Configures Control Windows and the layout of the Main Screen.
- **Enable/Rename Functions** - Enables and disables or renames any of the functions listed in the Main Screen pop-up menus.
- **Edit CEB Board Names** - Renames boards in the Central Electronics Bank (CEB) and adds or deletes boards used for supervisor disable functions.
- **Edit Speaker Names** - Assigns names to speakers at that operator position.
- **Change Password** - Assigns a password to the administrator and/or to the dispatcher at that operator position.
- **Save/Exit** - Saves the set-up and exits the Main Set-Up Menu.

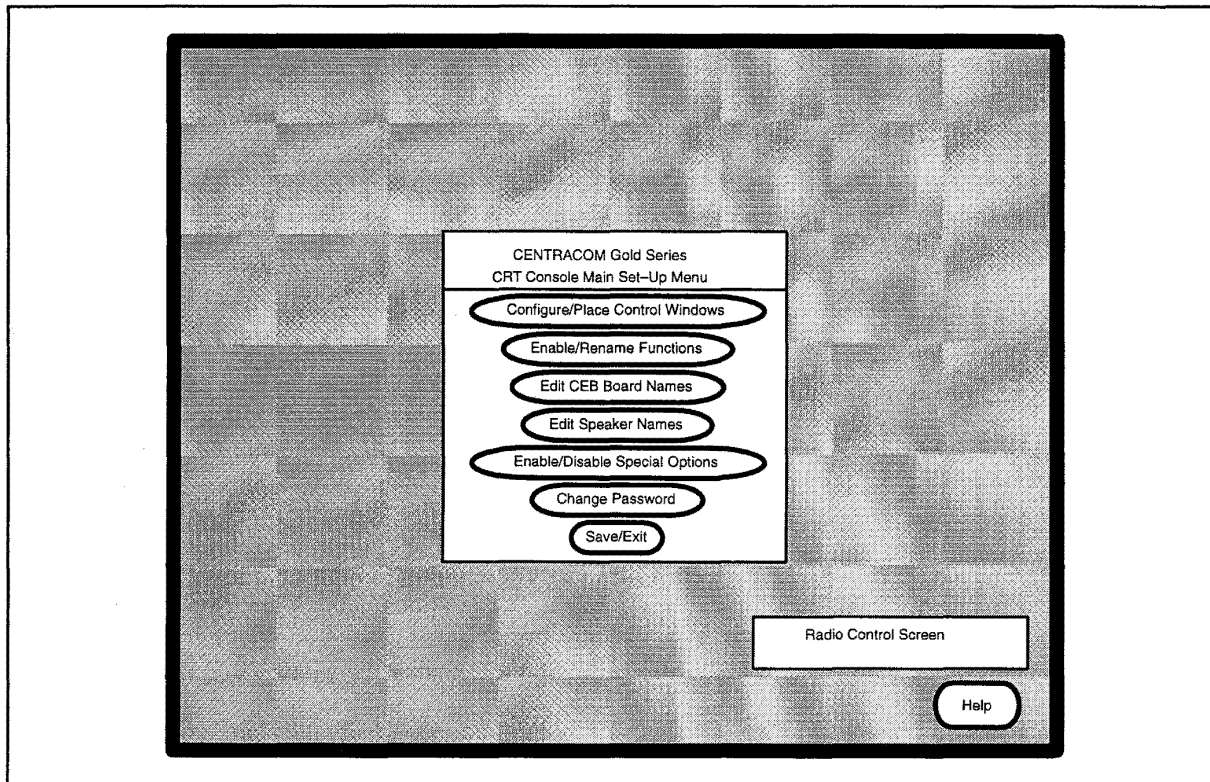


Figure 18. Control Window Display

4.5 CONFIGURE/PLACE CONTROL WINDOWS

The administrator uses this menu selection to configure the Control Windows and to place the Control Windows in the Main Screen.

Place the Control Windows after you configure the Window.

To begin configuring the Control Windows:

Step 1. Choose the **Configure/Place Control Windows** key from the Main Set-Up menu.

Step 2. The Choose Window Display Mode menu is displayed.

4.5.1 Control Window Display

CCWs allow the operator to communicate with a group of radios in the same channel or talk group. ACWs display auxiliary options which can be changed or monitored such as sound-

ing alarms or opening and closing doors. This section allows the administrator to select the way each window is displayed on the Main Screen.

After you make the choices for the window display mode, Choose the **Save** key from the menu. All Control Windows display in the selected format.

Four Or Five Line Display

The number of lines that a Control Window contains affects the amount of information that is displayed in the Control Window.

Use a 4-line display if the operator position requires a large number of Control Windows displayed in Main Screen.

A 5-line display takes up more space in Main Screen than a 4-line display and one less Control Window can be displayed. However, a 5-line display provides an additional line to display an option.

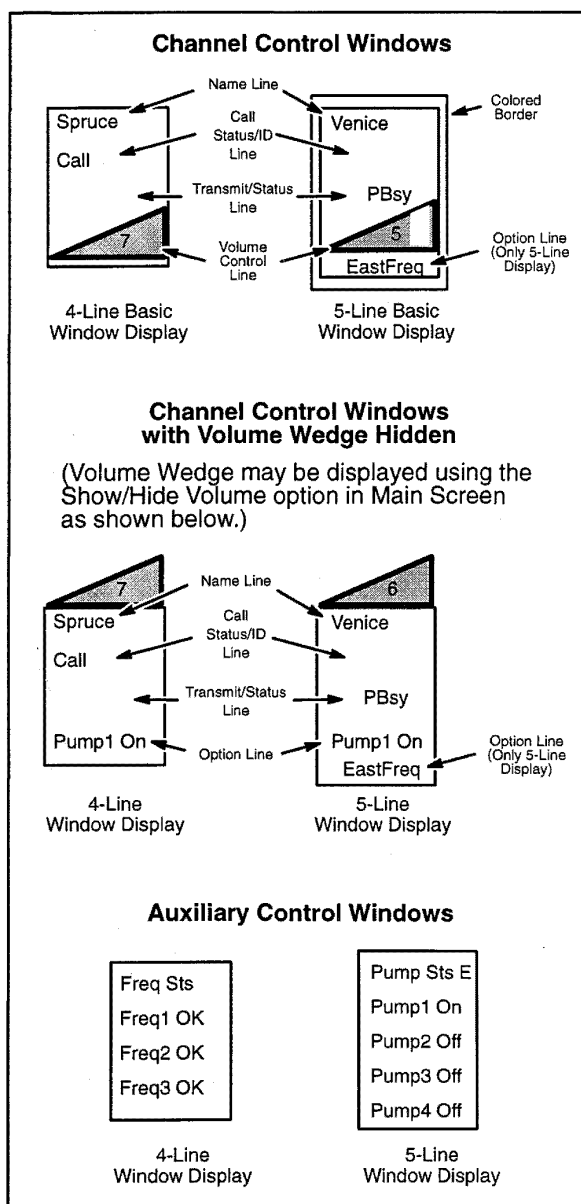


Figure 19. Channel Control/Auxiliary Control Window

Control Windows can be displayed in an expanded form. This display is particularly useful when a large number of options must be placed in a Control Window. However, an expanded Control Window takes up additional space in Main Screen. Expanded CCWs can be reduced to their single size with the **Show/Hide Options** menu key under the Display function in Main Screen. Expanded ACWs cannot be reduced to single size. The default size for all Control Windows is the expanded Quad-size window. See Appendix A for more information on Control Window sizes.

You should consider the number and size of the Control Windows that are needed and the amount of information required in each Control Window before continuing the set-up. The line display chosen affects all Control Windows in the set-up.

See Appendix A for more information on Control Window sizes and the amount of space they take up in Main Screen.

Channel Control Windows

The default line display for all CCWs and ACWs is a 4-line, single display.

A 4-line, single window display of a CCW shows the following on Main Screen:

- Channel Name line.
- Call Status/ID line.
- Transmit/Status line.
- Volume Control line (Optional).

Control Window options (Auxiliary or Control options in a window) cannot display unless the volume wedge is hidden (see Section 4.5.1).

A 5-line, single display provides an additional line in the Control Window to display an option (see Figure 19).

NOTE

If you Choose a 5-line CCW display and later change to a 4-line CCW display, an error message can display on the screen stating that some Control Windows are overlapping in the Radio Work Area (RWA). This message occurs because the option on the fifth line of the CCW now is displayed as an expanded window and it overlaps the window below it in the RWA. You can move the conflicting window to another place in the RWA (see Section 4.5.4.2). You can also hide the option in the conflicting window (see Section 4.5.3.4) to avoid the overlapping.

A similar issue arises when Control Windows are configured in their expanded form. A 5-line expanded Control Window has 12 lines in which to place options. A 4-line expanded Control Window has 10 lines in which to place options. If you attempt to switch from a 5-line to a 4-line expanded Control Window, an error message will display. The additional options must be closed before the 4-line expanded Control Window can display.

See Appendix A for additional information on Control Window sizes and the amount of space they require in Main Screen.

Auxiliary Control Windows

A 4-line, single window display of an ACW shows the ACW name and three auxiliary controls.

A 5-line, single display provides an additional line to display an option.

NOTE

If you Choose a 4-line ACW display and later change to a 5-line display, an error message can occur stating that the ACW is overlapping another window in the RWA. This message occurs because the 5-line window is larger than the 4-line window and it takes up more space on the Main Screen. You can move the conflicting window to another place in the RWA (see Section 4.5.4.2), divide the ACW into smaller windows, or use the 4-line display.

A similar issue arises when Control Windows are configured in their expanded form. A 5-line expanded Control Window has 12 lines in which to place options. A 4-line expanded Control Window has 10 lines in which to place options. If you attempt to switch from a 5-line to a 4-line expanded Control Window, an error message is displayed. The additional options must be closed before the 4-line expanded Control Window can be displayed.

Additional descriptions of 4- and 5-line displays are given in Appendix A.

Choose the window size. The Choice is highlighted in green.

Volume Display

CCW volume is displayed with a volume wedge. Displaying the volume wedge is optional. ACWs cannot have a volume wedge because they are only used to display auxiliary options.

The default volume display option is a permanent volume wedge. If you Choose a permanent volume wedge, it is displayed on the fourth line of all CCWs (see Figure 19).

A hidden volume wedge provides an extra line for placing an option. The volume wedge can be displayed later in the top border of the CCW with the **Show/Hide Volume** key from the Display menu of the Main Screen (see Figure 3).

NOTE

If you Choose the Hidden Volume Wedge display, and later change the set-up to a Permanent Volume Wedge Display, an error message "**VOL CONFLICT CHAN XX**" is displayed in the Status Area. "CHAN XX" is the channel with the conflict. The option(s) must be closed from the volume line before you can select the Permanent Volume Wedge Display.

Choose the preferred volume display. The choice is highlighted in green.

4.5.2 Window Resource List Screen

After you configure the basic display and volume mode, the Window Resource List Screen is displayed. Use this screen to change the configuration of the Channel, ACWs, or GTW.

The Window Resource List Screen has two main areas (see Figure 20). The Window Resource List contains the Control Windows available at this operator position and the configuration for each. You can scroll this list. The Configure Window/Place Window menu highlights the Configure Window mode or the Place Window mode in green.

The administrator uses this screen to configure the Control Windows and to place the Control Windows in the Main Screen. Generally a Control Window is placed after the window is configured.

NOTE

You can use the **Return To Main Set-Up Menu** key at the bottom of the screen to exit the Window Resource List Screen.

4.5.2.1 ADDING AUXILIARY CONTROL WINDOWS

Creating an ACW adds it to the Window Resource List and gives you a new window in which to place auxiliary options.

Complete the following steps to create an ACW.

Step 1. Choose the **Create ACW** menu key from the bottom of the Window Resource List screen. A menu is displayed prompting you to enter an eight character name for the new Window.

Step 2. Enter a name. If you fail to enter a name, a default name (ACW 00, ACW 01, ACW 02, etc.) is assigned.

Step 3. Choose the **Save** key to store the new ACW in the scrollable list. Choose the **Cancel** key to close the menu without creating any changes.

The ACW is now ready to be configured.

NOTE

If you do not give an ACW option and/or do not place the ACW, it is not saved when you exit the Set-Up Screen.

4.5.2.2 DELETING AUXILIARY CONTROL WINDOWS

Complete the following steps to delete an ACW:

Step 1. Choose the **Delete ACW** menu key from the bottom of the Window Resource List screen.

Step 2. Choose the name of the ACW to be deleted from the Window Resource List. The menu displays a prompt with an **OK** or **Cancel** choice.

Step 3. Choose the **OK** key to delete the ACW. The name is removed from the Window Resource List. Choose the **Cancel** key to close the menu without deleting the ACW.

4.5.2.3 ADD GENERAL TRANSMIT WINDOW (GTW)

Creating the General Transmit Window adds it to the Window Resource List. In the Main Screen, choosing/releasing the GTW is equivalent to a middle mouse or footswitch depress/release.

To add the GTW to the Window Resource List:

Step 1. Choose the "Create GTW" key at the bottom of the Window Resource List Screen. The GTW will automatically be added to the Window Resource List and the "Create GTW" key will toggle to "Delete GTW".

NOTE

You may only create one GTW.

4.5.2.4 DELETE GENERAL TRANSMIT WINDOW (GTW)

Complete the following steps to delete the GTW:

Step 1. Choose the "Delete GTW" key at the bottom of the screen. A delete GTW verification window appears and prompts you "Are you sure you wish to delete the GTW". At this time you may choose **Cancel** or **OK**.

Step 2. Choose **OK** to delete the GTW. The name is removed from the Window Resource List. Choose the **Cancel** key to close the menu without deleting the GTW.

4.5.2.5 WINDOW RESOURCE LIST

The **Window Resource List** contains attributes related to all control windows at this operator position (see Figure (20)).

These attributes include:

- Control window name (**Name**).

- Window type (**Type**) - identifies the window as a CCW, ACW or OSC (Off Screen Channel). OSCs are always grayed.
- BID Code (**BID**) - BID code assigned to the CCW is displayed here.
- Multi-station Link (**Link**) - shows which CCWs are linked (TnnRs are linked by default.) This field refers to the BID code(s) to which the Control Window is linked. Control Windows that are linked are always moved as a group. The administrator can link other windows together. If the window is not linked to another window, the word **None** is displayed.

NOTE

CCWs and ACWs can be linked together. The size of the link group must fit into a horizontal space in the RWA (see Section 4.5.4.2).

- Control Window Borders (**Borders**) - allows the administrator to configure specific control windows with colored borders. This aids the rapid identification of associated control windows.
- Channel Summary List Audio (**CSL State**) - shows whether or not the audio from a CCW is audible through the unselect speaker while the CCW is displayed in the Channel Summary List. For ACWs, this shows whether or not active auxios within the ACW cause the name to flash while in the CSL.
- Show Options (**Show Opt**) - indicates whether expandable CCWs are initially displayed in their single-sized or expanded display. This applies when the Main Screen is first displayed or when you move the CCW from the Summary List to the Radio Work Area.
- Fixed Radio Work Area Position (**RWA Only**) - indicates whether or not you can move the specific Control Window from the Radio Work Area to the CSL.

4.5.3 Configuring Control Windows

Use the Configure Window Screen to configure a Control Window. The Configure Window Screen consists of four main areas (see Figure 21):

- **Configure Window Menu:** lets you modify the characteristics of the Control Window.
- **Option Resource List.**
- **Control Window Template:** lets you add and delete options in the Control Windows.
- **Edit Text/Place Option** menu.

When you finish configuring Control Windows, Choose the **Return To Window Resource List** menu key at the bottom of the screen.

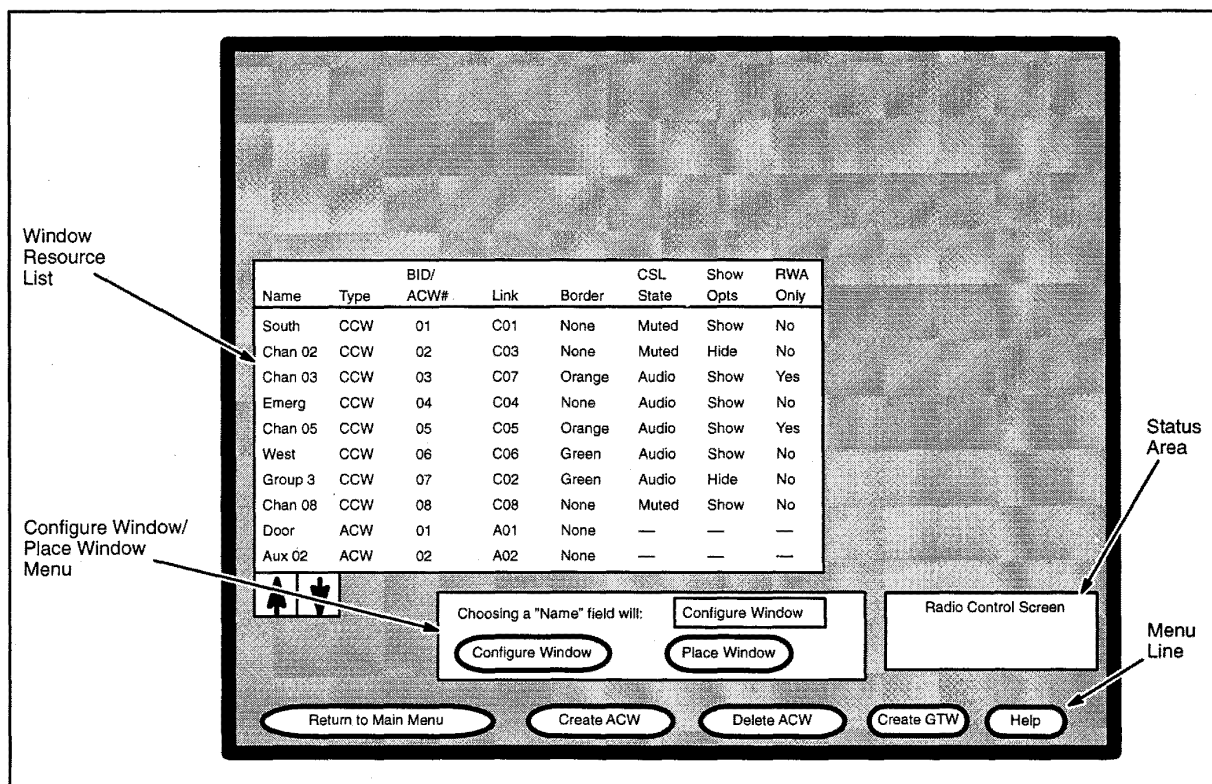


Figure 20. Configure Window Mode: Window Resource List Screen

Complete the following steps to configure a Control Window:

Step 1. Choose the **Configure Window** key from the Configure Window/Place Window menu (see Section 4.5.2).

Step 2. Choose a name from the Window Resource List. You can only Choose names highlighted in dark blue.

Step 3. Configure the Control Window.

NOTE

If you configure a Control Window but do not place it, that window is not saved.

4.5.3.1 THE CONFIGURE WINDOW MENU

Use the Configure Window Menu to modify the characteristics of the Control Window (see Figure 21). Except for the Control Window type (**Type**) and BID code (**BID**), you can modify all Control Window characteristics.

Name

Complete the following steps to change the name of a Control Window:

Step 1. Choose the **Name** menu key from the Configure Window menu. The Edit Control Window Name menu is displayed and prompts for a new name.

Step 2. Enter a new eight character name from the keyboard.

Step 3. Choose the **Save** key from the menu to save the new name. Choose the **Cancel** key to close the Edit Control Window Name menu without changing the name.

Link

Linking windows lets you keep associated windows together. Linked Control Windows always move as a group.

Choose the **Return to Configure Window** key to return to the Configure Window Screen.

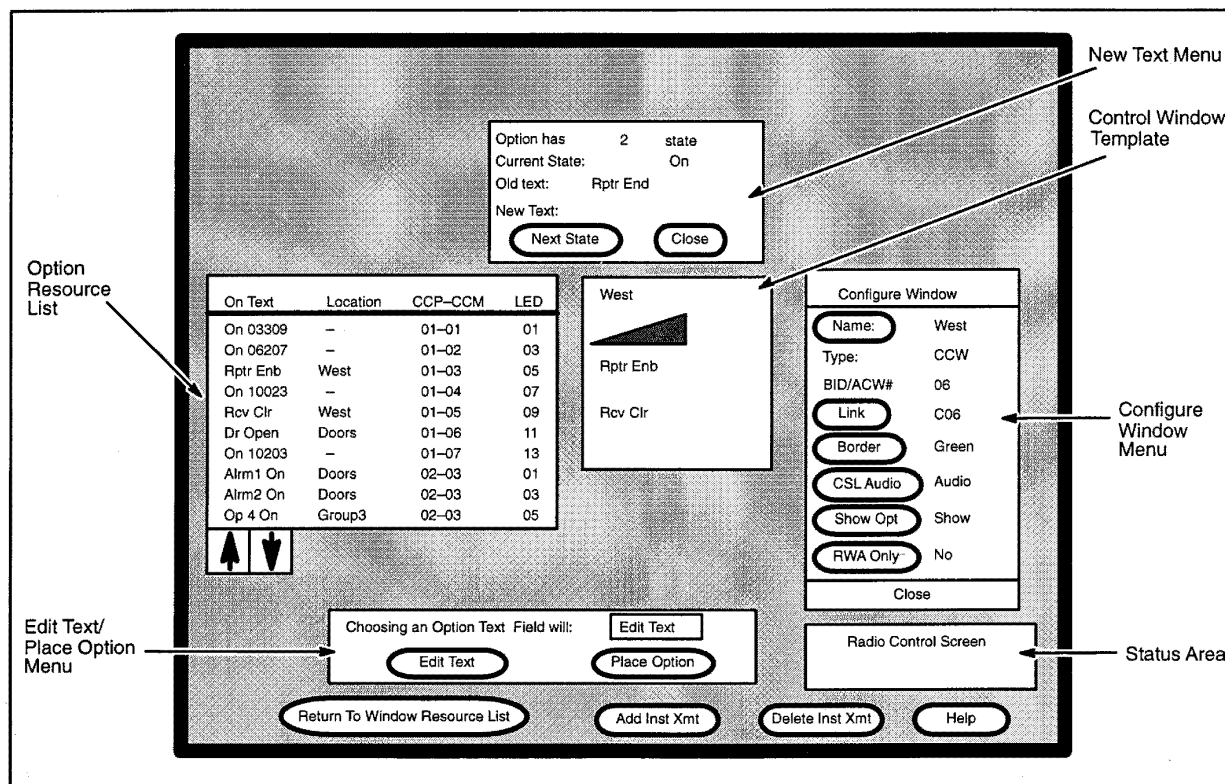


Figure 21. Configure Windows Screen

Complete the following steps to link Control Windows together:

Step 1. Choose the **Link** menu key from the Configure Window menu. The Window Resource List is displayed on the left side of the screen and the Unlink Group/Link Group menu is displayed at the bottom of the screen.

Step 2. Choose the Control Windows you want to link from the Window Resource List. The Control Window names are displayed in the Link Group Window.

Step 3. Choose the **Save Link Group** menu key to save the group. Choose the **Unlink Group** menu key to unlink the entire group. TnnRs are linked by default.

Border

You can configure specific Control Windows with colored borders for rapid identification of associated windows. For example, you can configure all channels in a police district with the same color border.

- To scroll through the list of border colors, Choose and hold the **Border** key until the desired border color is displayed.

CSL Audio/State

Channel Summary List Audio/State shows whether or not the audio from a CCW is audible through the unselect speaker while the CCW is displayed in the Channel Summary List. For ACWs, this shows whether or not active auxios within the ACW cause the ACW name to flash while in the CSL.

CSL Audio

Audio in this field means that audio from this channel is heard from the unselect speaker while the CCW is in the Channel Summary List. In Audio mode, all inbound calls and parallel busy activities are displayed. If this channel is an enhanced telephone channel, you hear ringing tones while the channel is active in the Channel Summary List.

Mute in this field indicates that this channel's audio cannot be heard and non-emergency inbound call or parallel busy activity is not displayed while this CCW is in the Channel Summary List. Muting reduces the amount of audio in the unselect speaker. If this channel is an enhanced telephone channel, you do not hear ringing tones while the channel is unselected in the Channel Summary List. Since Trunked Systemwide channels cannot be muted, the **CSL Audio** key is grayed and non-functional for these CCWs.

- Choose the **CSL Audio** menu key from the Configure Window menu. The menu alternates between **Audio** and **Muted**. Choose the **CSL Audio** menu key to toggle the display.

CSL State

When you configure an ACW, the **CSL Audio** key reads **CSL State**.

When you configure an ACW for **Flash**, any active auxios (other than interlocked auxios) within the ACW causes the ACW name to flash red in the Channel Summary List. This lets you quickly identify the ACW which requires servicing.

If you configure an ACW for **None**, the feature is disabled for that ACW.

- Choose the **CSL State** menu key from the Configure Window menu. The field display alternates between **Flash** and **None**. Choose the **CSL State** menu key to toggle the display.

Show Opt

The Show Options function (**Show Opt**) indicates whether expandable CCWs initially display in their single-sized or expanded display. This applies when Main Screen is first displayed or when you move a CCW from the Summary List to the Radio Work Area.

NOTE

ACWs always display in a manner which makes all options visible. They cannot be re-sized.

Show in this field displays a CCW in the expanded mode in Main Screen. **Hide** in this field displays a CCW in the single size mode in Main Screen. Use the **Hide** choice when a CCW contains infrequently used options that you do not want to show.

Expandable CCWs display in their single-sized mode for **Hide** and their expanded display size for **Show** when the Main Screen is first displayed and when you move the CCW from the Channel Summary List to the Radio Work Area.

If there are no options in the area outside the single window size, the **Show Opt** key is grayed and the CCW is displayed in its single size in Main Screen.

You can show or hide the CCW options with the **Show/Hide Option** key on the Display menu in Main Screen.

See Appendix A for additional information on single and expanded size Control Windows.

- Choose the **Show Opt** menu key from the Configure Window menu. The field display alternates between **Show** and

Hide. Choose the **Show Opt** menu key to toggle the display.

RWA Only

Fixed Radio Work Area Position (**RWA Only**) indicates whether or not you can move a specific Control Window from the Radio Work Area to the CSL.

Yes in this field indicates that you cannot close Control Windows from the Radio Work Area. This also prevents removing any Control Window linked to it. **No** in this field indicates that you can move this Control Window out of the Radio Work Area.

- Choose the **RWA Only** menu key from the Configure Window menu. The field display alternates between **Yes** and **No**. Choose the **RWA Only** menu key to toggle the display.

4.5.3.2 CONFIGURING GTW

Options may not be added to the GTW. For this reason the Option Resource List, and Edit/Place Window do not appear in Configure Window Screen. The "RWA Only" entry in the Configure Window Menu is disabled and set to "Yes" because the GTW may only be placed in the RWA. The "CSL State", "Show Opt", "Stack" and "Link" entries are also disabled and set to default values.

4.5.3.3 OPTION RESOURCE LIST

The Option Resource List displays information on each option (see Figure 21). The menu entries for each option are:

- **On Text** - the text is displayed when that option is in an active state.
- **Location** - displays the name of the CCW or ACW in which that option is placed.
- **CCP-CCM** - shows the panel-module number as defined in the As-built document.
- **LED** - shows the LED number as defined in the As-built document. The LEDs are numbered from 1-16 with 1 corresponding to the top LED on a CCM and 16 corresponding to the bottom LED on a CCM.

4.5.3.3.1 CHANGING TEXT IN THE OPTION RESOURCE LIST

Use this function to enter names that represent the **On** and **Off** states of that option (see Figure 21).

Complete the following steps to change text in the Option Resource List:

Step 1. Choose the **Edit Text** menu key.

Step 2. Choose the **On Text** field, an option from the scrollable Option Resource List or from the Control Window Template.

The **New Text** menu is displayed. This menu shows the number of states available for the Chosen option. This menu also displays the default text for the option.

Typically, an option has an **On** state and an **Off** state and you can enter text for both states. Options such as multi-frequency select can have a larger number of possible states.

Step 3. Enter the new, eight character text with the keyboard. Choose the **Next State** menu key to store the text and to display the next state. Enter an eight character name for this state. Choose the **Save** menu key to store the final text and close the **New Text** menu.

4.5.3.4 PLACING OPTIONS

The options you can place in Control Windows are listed in the Option Resource List. You can create ACWs to store these options, but you can only use options that are placed in Control Windows.

Moving Options Into Control Windows

In order to control or monitor options in Main Screen, you must place them in Control Windows. Complete the following steps to move options into Control Windows:

Step 1. Choose the **Place Option** menu key to enter the Place Option mode.

Step 2. Choose the **On Text** field of an option in the Option Resource List. The option is highlighted in green.

You can only Choose options listed in a dark blue background. A grayed option text indicates that the option cannot be moved out of the Option Resource List because it is a channel option for a different channel or it is currently in another Control Window.

NOTE

Options corresponding to a given channel can only be placed into that channel's CCW, or into an ACW. Options corresponding to a CCW cannot be placed into another CCW, but can be placed into an ACW.

Step 3. Choose a location in the dark blue area of the Control Window Template. The option moves to the Control Window and is unavailable for placement in other Control Windows. The location of the options in the Control Window Template determines the size of the Control Window. (See Appendix A for additional information on window size and option placement.)

NOTE

If a Control Window is configured, but not placed in the RWA or Channel Summary List, it is not saved when you exit the Main Set-Up Screen.

Moving Options To The Option Resource List

Step 1. To move an option back to the Option Resource List, Choose the option in the Control Window Template. The option is highlighted in green.

Step 2. Move the cursor anywhere in the On Text field of the Option Resource List and Choose to complete the action. The option now has a dark blue background.

4.5.3.5 PLACING INSTANT TRANSMIT OPTIONS

Instant Transmit options may be added to any CCW (not ACW or GTW) in the Configure Window screen. These options allow the user to instant transmit on the channel associated with that CCW, equivalent to a right mouse depress in the CCW. You may add as many Instant Transmit options as desired limited to the CCW size.

Complete the following steps to add an INST XMT option to a CCW:

Step 1. Choose the **Add Inst Xmt** key at the bottom of the screen. The **Add Inst Xmt** key becomes highlighted.

Step 2. Choose the line in the CCW where the INST XMT option is to be placed; the INST XMT options will appear in the chosen location and the **Add Inst Xmt** key will not be highlighted.

NOTE

The Option Resource List and Configure Window Window are invalid destinations for INST XMT options. INST XMT options may only be added to the CCW being configured.

Complete the following steps to delete an INST XMT option:

Step 1. Choose the **Delete Inst Xmt** key at the bottom of the screen. The **Delete Inst Xmt** key will be highlighted.

Step 2. Choose the INST XMT key to be deleted from the CCW. The INST XMT option will disappear and the **Delete Inst Xmt** key will not be highlighted.

NOTE

Choosing an option in the Option Resource List or in CCW while the **Delete Inst Xmt** key is highlighted will cause that option to be highlighted and the **Delete Inst Xmt** key to not be highlighted. No options will be deleted in this case.

Complete the following steps to move an INST XMT option:

Step 1. Choose the INST XMT option to be moved.

Step 2. Choose the destination within the CCW.

If the destination is within the Option Resource List or it is another option within the CCW, then the INST XMT will not be highlighted and not moved, and the options chosen as destination will be highlighted.

4.5.4 Designing The Main Screen Physical Layout

Use the **Place Window** mode of the Window Resource List Screen to configure the layout of the Radio Work Area and Channel Summary List(s) in the Main Screen. The Radio Work Area is the place in the Main Screen where the Control Windows are displayed. The Channel Summary List is a list in the Main Screen that holds the names of the Control Windows in the set-up. Since you can change this layout during normal operation, use this mode primarily for the initial or default layout (see Figure 22).

Decide on the number of Channel Summary List columns before you begin to place windows in the Radio Work Area. A Channel Summary List column cannot be added to an RWA column which contains a Control Window.

- Choose the **Place Window** menu key from the Control Window Resource List Screen. The Radio Work Area Template (an abbreviated version of the Main Screen RWA) is displayed above the Window Resource List.

4.5.4.1 THE RADIO WORK AREA AND CHANNEL SUMMARY LISTS

Main Screen has eight columns and three rows available for displaying Control Windows and the Channel Summary List(s). In the Place Window mode, you designate how many columns are assigned to the RWA (to display Control Windows) and how many columns are assigned to the CSL.

You can designate zero to seven columns in a CSL. The rightmost CSL displays 17 Control Window names (15 if CSL Mode keys are present) at a time but can contain all of the Control Windows in the system. The number of Control Windows is displayed above the CSL. Scroll the list to display all Control Windows.

The other CSL columns are displayed to the left of the scrollable column and can contain a maximum of 19 Control Window names. These lists are not scrollable. Generally, you only set up more than one CSL if the dispatcher needs to view more than 17 (or 15) name lines at a time. For more information on the Summary List, see Appendix A.

Defining The Radio Work Area And Channel Summary Lists

The keys that designate the associated column as a CSL or part of the RWA are at the top of the RWA Template (see Figure 22). Complete the following steps to define which columns are part of the RWA and which are part of the CSL:

Step 1. Choose the column key to alternate the column's designation.

Step 1. Choose an RWA column key to change that column to a CSL. All the columns to the right of the chosen column are changed as well. Changing the rightmost column to an RWA column produces a Main Screen display without a CSL.

4.5.4.2 PLACING THE WINDOWS

Place Control Windows into the RWA and CSL so that you can monitor or control them.

Available space in the RWA has a yellow background. If you need additional space in the CSL, Choose the scroll arrows beneath the rightmost CSL to scroll the list.

NOTE

If a Control Window is configured, but not placed in the RWA or Channel Summary List, it is not saved when you exit the Main Set-Up Screen.

NOTE

Linked Control Windows are moved together and placed next to each other horizontally in the RWA Template.

Placing Windows From The Window Resource List

Complete the following steps to place a window from the scrollable Window Resource List in the RWA Template:

Step 1. Choose a Control Window from the Name column of the Window Resource List (see Figure 22). The Control Window is highlighted in green.

Step 2. Move the cursor and Choose a position in the RWA Template or an empty line in the CSL.

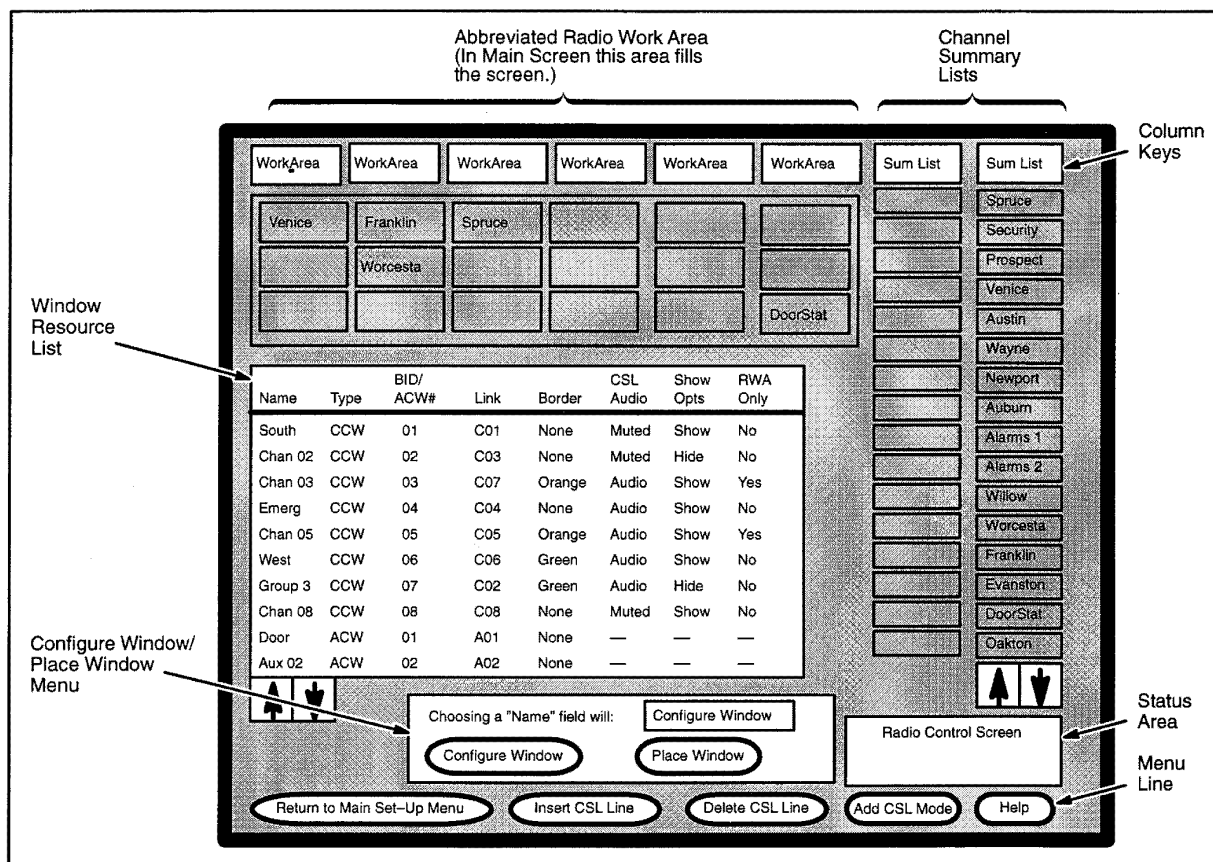


Figure 22. Place Window Mode: Window Resource List Screen

Moving Windows Within The RWA And CSL

Placing a window in the RWA automatically adds that Control Window to the end of the CSL. Complete the following steps to move windows within the RWA and the CSL:

Step 1. Choose a Control Window name from the RWA Template or CSL. The Control Window is highlighted in green.

Step 2. Move the cursor and Choose a position in the RWA Template or an empty line in the CSL. (Available space in the RWA is designated with a yellow background.)

Removing Windows From The Set-up

Complete the following steps to take a Control Window out of the set-up:

Step 1. Choose the Control Window name from the RWA Template or CSL. The Control Window name is highlighted in green.

Step 2. Move the cursor and Choose the Name column of the Window Resource List.

4.5.4.3 INSERTING BLANK LINES IN THE SUMMARY LIST

You can use blank lines to physically separate different channel groups from each other and different trunking groups from each other within the CSL.

This feature is also used to insert a Control Window name into a group in the CSL without having to move all the names in the list.

Complete the following steps to insert a blank line in the CSL:

Step 1. Choose the **Insert CSL Line** menu key from the menu line at the bottom of the screen. The key is highlighted in green.

Step 2. Choose the window name in the CSL below the window name where you want to insert the blank line. A blank line now separates the two Control Window names in the CSL. Insert a Control Window name.

4.5.4.4 DELETING BLANK LINES FROM THE SUMMARY LIST

Complete the following steps to delete a blank line from the CSL:

Step 1. Choose the **Delete CSL Line** menu key from the menu line at the bottom of the screen. The key is highlighted in green.

Step 2. Choose the blank line in the CSL to be deleted. The blank line is removed from the CSL.

4.5.4.5 CSL MODE KEYS

The CSL Mode keys may be added to the CSL to allow the user to select or instant transmit in CSL by choosing a CSL channel entry. The CSL Mode keys may be added in the Place Window Screen only when a CSL exists. If the CSL has been deleted or does not appear then the **Add CSL Mode** or **Del CSL Mode** keys at the bottom of the screen will not appear.

Complete the following steps to create CSL Mode keys:

Step 1. If there is no CSL then create the rightmost CSL. The **Add CSL Mode** key appears at the bottom of the screen.

Step 2. Choose the **Add CSL Mode** key at the bottom of the screen. The SEL MODE/ITX MODE keys appear at the top of the rightmost CSL and the **Add CSL Mode** key changes to **Del CSL Mode**.

Complete the following step to delete CSL Mode keys:

Step 1. Choose the **Del CSL Mode** key at the bottom of the screen. The SEL MODE/ITX MODE keys disappear from the top of the rightmost CSL and the **Del CSL Mode** key changes to **Add CSL Mode**.

4.6 ENABLE/RENAME FUNCTIONS OF THE MAIN SCREEN

Access the Enable/Rename Functions Screen from the Main Set-Up Menu. This function lets you enable/disable or rename the functions listed in Main Screen menus. For example, if an

operator position has no need to move windows, you can disable the **Move Window** function and the **Move Window** option is not displayed on Main Screen.

The Enable/Rename Functions Screen contains a scrollable list of all the functions in that console's Personality PROM. The column on the left is called the Option Key List. It lists the function keys that are displayed in Main Screen and the associated menu option keys. The column on the right lists the status of the menu options as either **Enabled** or **Disabled**.

To exit this function, choose the **Close** menu key at the bottom of the Enable/Disable Screen.

Enabling/Disabling Functions Of The Main Screen

When you disable functions, the menus in the Main Screen automatically resize to accommodate the reduction of menu options. If all the keys in the menu are disabled, the menu function key is not displayed on the Main Screen. When you enable menu options, the size of the menus in Main Screen automatically increases to accommodate the increased number of menu options.

Complete the following steps to enable or disable an option:

Step 1. Choose a Main Screen function.

Step 2. Choose the **Enabled/Disabled** key to alternate the option status of the Main Screen function.

Renaming Main Screen Function Keys And Menu Options

Complete the following steps to rename Main Screen menu function keys and menu options:

Step 1. Choose a menu function key or menu option key from the Option Key Text List. An edit window is displayed and prompts you to enter a new, eight character name.

Step 2. To save the new text, Choose the **Save New Text** menu key. The new text is displayed in the corresponding Option Key List. Choose the **Save Default** key to close the edit window and save the default text. Choose the **Abort** key to close the edit window without making any changes.

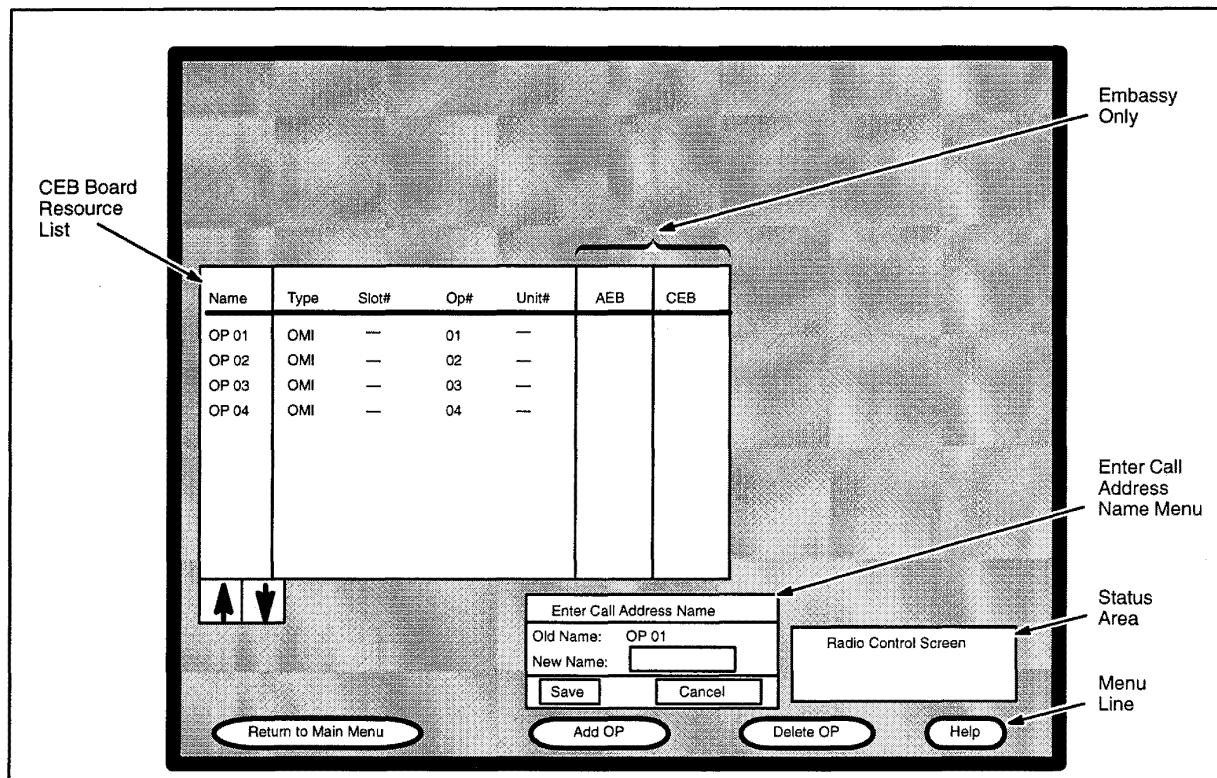


Figure 23. Edit CEB Board Names Screen

4.7 EDIT CEB BOARD NAMES

The Central Electronics Bank (CEB) contains all entries in the CEB Resource List. You can assign names to each board. These names are used primarily by the Intercom, Channel Disable, and Console Disable functions in Main Screen. Default names are assigned initially. The default name has a prefix for the board type, AEB ID and CEB ID (Embassy system only), and Operator Position (OP) number. This is also called the MID/BID number of a board and is used to identify the board in relation to the As-built document of the CEB.

Access the Edit CEB Board Names Screen from the Main Set-Up Menu. This screen displays a scrollable list of the OPs in the CEB.

NOTE

The same CEB Board Resource List is used for all set-ups.

Use the **Return To Main Menu** key at the bottom of the screen to exit this menu.

The CEB Board Resource List displays the following information for all OPs in the CEB (see Figure 23):

- **Name:** Refers to an alternative board name (up to eight characters) which identifies the board. The Administrator enters this name.
- **Type:** Specifies the type of board.
- **OP#:** Specifies the number associated with that operator position.
- **Unit#:** Refers to the location of a remote intercom unit.
- **AEB ID:** (Embassy systems only) refers to the Embassy system number.
- **CEB/Sys ID:** (Embassy systems only) refers to the address of the CEB in the Embassy system.

Assigning Alternative Names To A Board In The CEB

Complete the following steps to change the name of a CEB board:

Step 1. Choose a board name from the Name column of the scrollable list. The Enter Call Address Name menu is displayed.

Step 2. Enter the new, eight character text with the keyboard. Choose the **Save** menu key to save the new name. Choose the **Cancel** menu key to close the menu without making changes.

Adding Boards To The CEB Board Resource List

If an additional operator is added to the current system, you must add an additional entry for that operator to the CEB Resource List.

Complete the following steps to add an operator to the CEB Resource List.

Step 1. Choose the **Add OP** menu key at the bottom of the Edit CEB Board Names Screen.

Step 2. The Enter Board window is displayed. This window prompts for an AEB ID, a CEB ID, and an OP number. Use AEB ID and CEB ID for Embassy systems only.

Choose the **Cancel** key to close the window without adding any boards to the CEB Resource List.

Choose the **Save** key to display the Enter Call Address Name window. Enter a name up to eight characters.

Step 3. Choose the **Save** key from the Enter Call Address Name window to save the new board and its name. Choose the **Cancel** key to close the window and save the default name as shown in the "Old Name" field of the Enter Call Address Name window.

NOTE

The CEB Board Resource List holds a maximum of 200 board names.

Deleting Names From The CEB Board Resource List

You can delete an infrequently referenced CEB board name. The board is not deleted from the system, the board name is deleted from the list.

Complete the following steps to delete a board name from the CEB Resource List:

Step 1. Choose the **Delete OP** menu key at the bottom of the screen. A window is displayed prompting you to Choose the **Name** of the board to be deleted.

Step 2. Choose the **Cancel** key to close the window without deleting any boards from the CEB Resource List.

Step 3. Choosing a board name from the CEB Board Resource List displays a window which verifies the board name Chosen.

Step 4. Choose the **OK** key to delete the board name. Choose the **Cancel** key to close the window without deleting board names from the CEB Resource List.

4.8 CHANGE PASSWORD

Access the Change Password Screen from the Main Set-Up Menu. The password function prevents unauthorized personnel from altering the Main Screen configurations or from accidentally leaving the Main Screen. The Change Password Screen allows the administrator to enter and save an administrator level and a dispatcher level password.

The Administrator level password allows access to all Program Menu functions such as the **Set-Up Screen**, **Personality PROM Download**, and **File Maintenance**. The Dispatcher level password allows the dispatcher to re-enter the Main Screen with a different screen configuration but does not allow access to any of the Program Menu functions.

The CRT console prompts for a password when you attempt to leave the Main Screen. The console prompts for a password only if a password was saved as part of the set-up.

A set-up configuration with a dispatcher password but without an administrator password gives the dispatcher access to all Program Menu functions. A set-up configuration with an administrator password but without a dispatcher password allows the dispatcher to re-enter Main Screen with a different screen configuration but does not allow access to any of the Program Menu functions. You must enter an administrator level password in order to prevent unauthorized personnel from altering Main Screen configurations or from accidentally leaving Main Screen.

NOTE

The administrator and console operator should keep a record of their passwords in a safe place.

NOTE

The password is the same for all set-up configurations at that console.

4.8.1 Changing/Entering A Password

Complete the following steps to change or enter an administrator and dispatcher level password:

Step 1. Choose the **Change Password** key from the Main Set-Up menu. A window is displayed prompting you to Choose either the Administrator level or Dispatcher level password for modification. The choice is highlighted in green.

Step 2. Choose the **Quit** key to return to the Main Set-Up menu. Choose the **OK** key to display a window which prompts for a password name up to ten characters. The password does not display on the screen as you enter it.

Step 3. Choose the **Save** key to save the password. You are prompted to enter the password a second time to confirm the password. Enter the password again and Choose the **Save** key. Choose the **Cancel** key to close the window without making changes to the password.

Unlike the other Set-Up functions, once a password is entered and the **Save** key is Chosen, the password is saved immediately rather than being saved at the time you exit the Main Set-Up menu.

NOTE

The password is the same for all set-up configurations at that console.

Step 4. Choose the **Quit** key to return to the Main Set-Up menu.

4.8.2 Removing The Password

Complete the following steps to configure a set-up without a password:

Step 1. Choose the **Change Password** key from the Main Set-Up menu. A window is displayed prompting you to Choose either the Administrator level or Dispatcher level password for modification.

Step 2. Choose the **Quit** key to return to the Main Set-Up menu. Choose the **OK** key to display a window which prompts for a password name up to ten characters.

Do not enter any characters from the keyboard.

Step 3. Choose the **Save** key to save the set-up without a password. You are prompted to enter the password a second time to confirm the password. Do not enter any characters and Choose the **Save** key again. Choose the **Cancel** key to close the window without making changes to the password.

The set-up without a password is saved immediately rather than being saved at the time you exit the Main Set-Up menu.

The no password configuration applies to all set-up configurations at that console. In other words, you are not allowed to have passwords for one set-up and no passwords for another set-up.

Step 4. Choose the **Quit** key to return to the Main Set-Up menu.

4.9 EDITING SPEAKER NAMES

If the the Assignable Speaker option is not listed in the As-built document, you cannot perform this function at this console.

Access the Edit Speaker Names Screen from the Main Set-Up Menu. This screen displays a list of speakers at the operator position and allows you to assign a name to each speaker. These names are used by the **Assign Speaker** function of the Main Screen. Editing names allows you to assign meaningful names to the speaker positions. Default names are assigned initially. The default name is a speaker number which identifies the speaker in relationship to the As-built document for the operator position.

Complete the following steps to modify speaker names:

Step 1. Choose a speaker name from the Speaker List. The Enter Speaker Name window is displayed.

Step 2. Enter the new, eight character name on the keyboard.

Step 3. Choose the **Save** key to save the new speaker name. Choose the **Cancel** key to close the window without changing the speaker name. Choosing another speaker name from the Speaker List before saving the new name also cancels the operation.

4.10 SAVE/EXIT

NOTE

Except for passwords, none of the set-up information is saved. You must complete this option to save the remaining set-up information.

Access the Save/Exit Screen from the Main Set-Up menu. This screen allows you to save the current set-up or exit the Set-Up Screen without saving the set-up. You can replace an existing set-up with a new set-up or save the new set-up under a new name.

Choose the **Cancel** menu key from the Save/Exit menu to return to the Main Set-Up Screen.

The menu selections for the screen are:

- **Save Set-Up as the Initial Configuration:** saves the new set-up as the Initial Configuration for that operator position.

NOTE

This selection lets you save set-up names, not Control Window configurations. Therefore, do not use this option if the intent is to save Control Window configurations.

- **Save New Set-Up:** saves the set-up under a new name.
- **Replace Existing Set-Up:** modifies an existing set-up by writing over the current set-up.

- **Exit Set-Up Screen:** exits the Main Set-Up Menu without saving changes to the set-up.

4.10.1 Save The Set-up As The Initial Configuration

This selection displays two menu keys with a window stating that the window placement information will not be saved in the initial file.

NOTE

This selection lets you save set-up names, not Control Window configurations. Therefore, do not use this option if the intent is to save Control Window configurations.

Complete the following steps to save the Set-Up:

Step 1. Choose the **Abort Save Operation** key to cancel the save operation and return to the Main Set-Up menu. Choose the **Continue Save Operation** to continue saving the set-up as the Initial Configuration for that operator position.

NOTE

The Control Window placement information is not saved as part of the Initial Configuration.

Step 2. After Choosing to save the configuration, a submenu is displayed stating that the save was successful and is displayed two menu keys. Choose the **Exit Set-Up Screen** key to return to the Program menu. Choose the **Continue Editing** key to return to the Main Set-Up menu.

4.10.2 Save New Set-up

This selection displays a window prompting you to enter a name for the new configuration. The name can be 30 characters.

Choose the **Cancel** key to close the window without making any changes and return to the Main Set-Up Menu.

Complete the following steps to save a new Set-Up:

Step 1. Enter the new name and Choose the **Save/Close** key to save the new set-up name.

Step 2. After Choosing to save the new set-up name, a submenu is displayed stating that the save was successful and is displayed two menu keys. Choose the **Exit Set-Up Screen** key to return to the Program menu. Choose the **Continue Editing** key to return to the Main Set-Up menu.

4.10.3 Replace Existing Set-up

This selection overwrites the configuration used to enter the Set-Up Screen. It displays a window warning that an existing set-up is about to be overwritten.

Complete the following steps to replace an existing Set-Up:

Step 1. Choose the **No** key to close the window without saving the changes and return to the Main Set-Up menu. Choose the **Yes** key to write the new set-up information over the existing set-up.

Step 2 After you Choose to overwrite the existing file, a submenu is displayed stating that the save was successful and displays two menu keys. Choose the **Exit Set-Up Screen** key to return to the Program menu. Choose the **Continue Editing** key to return to the Main Set-Up menu.

4.10.4 Exiting The Main Set-up Screen

This selection displays two menu keys with a window warning that changes are not saved.

Complete the following steps to exit the Main Set-Up Screen:

Step 1. Choose the **Exit Set-Up** key to exit the Set-Up Screen and return to the Program menu without saving any changes to the new set-up.

Step 2. Choose the **Return to Main Set-Up Menu** key to close the window and return to the Main Set-Up menu.

5. GENERAL CONSOLE OPERATING PROCEDURES

5.1 RECEPTION

The Call Line flashes when receive audio is present on the associated channel. If the channel is not selected, you hear audio through the UNSELECT speaker. If the channel is selected, you hear audio through the SELECT speaker. Adjust the volume level on each channel with the Volume wedge on the channel control window. Adjust overall volume with the volume control on the SELECT and UNSELECT speakers.

5.2 TRANSMISSION

To transmit, first select a channel (or more than one channel using the multi-select feature). The word **Busy** indicates that the channel is in use. Listen to the SELECT audio speaker for any calls in progress before transmitting. On systems using *Private-Line* (coded squelch), press and hold the monitor key to check for any channel activity before transmitting.

There are five ways to initiate a transmit function:

- Press the transmit bar on the mouse (middle button).
- Use the right treadle on the optional footswitch.
- Choose the General Transmit Window (GTW).

- Choose an Instant Transmit option on the CCW.
- Press the instant Transmit mouse button (right button) on the channel control window.

An optional Multi-Select Instant Transmit feature is also available.

5.3 MICROPHONE AND VU METER USAGE

Proper usage of the microphone and VU meter is essential to good communications. The VU meter indicates the relative intensity of sounds. Louder sounds cause a greater deflection.

Microphone performance is improved if unnecessary microphone tapping is avoided. Use the VU meter as a guide to proper use of the microphone. When you speak in a normal voice approximately eight inches from the microphone, the majority of meter deflections should be as close as possible to "O" VU. Consistently low readings indicate that you are speaking too softly or are too far from the microphone. Consistently high readings indicate that you are too close to the microphone or that you are speaking in too loud a voice.

If you have difficulty getting consistently good readings, contact maintenance personnel.

5.4 HEADSET/HANDSET OPERATION

Plug the headset cord plug into the appropriate socket on the front edge of the headset jack assembly. Headset jack assemblies are normally mounted under the writing surface at the operator positions. The console microphone and SELECT speaker audio are transferred from the console to the headset. For the CRT console, the headset and handset volume controls for radio and telephone audio are clearly marked and are located on the front of the Console Interface Electronics enclosure.

6. TOUCH SCREEN OPERATION

6.1 BEFORE YOU START

To operate the Touch Screen CRT Console, you need the following items:

- Monitor fitted with Touch Screen including cables.
- *CENTRACOM Gold Series Classic CRT* Installation Disk.
- *CENTRACOM Gold Series Classic CRT* Video Display Console Disk.
- *CENTRACOM Gold Series Classic CRT* User's Guide (this manual).
- IBM compatible PC.

If you are missing any of the items listed above, contact your local service provider.

6.2 INSTALLATION

6.2.1 Hardware Installation

To install the touch screen hardware, follow the touch screen manufacturer's instructions. COM port 1 cannot be used to connect the touch screen monitor because it is used by the CRT Console. If your touch screen requires the use of a COM port, use COM port 2 or 3.

NOTE

The Touch Screen does not support operation of the TDN8092 trackball.

6.2.2 Software Installation

If the CRT Console software has not yet been installed on the PC, follow the touch screen manufacturer's instructions to install the touch screen software before installing the CRT Console software. Next, load the standard CRT Console software. (See Section 7.3).

NOTE

The mouse driver should be installed before installing the touch screen software or the CRT Console software. If the mouse driver has not been installed, follow the mouse manufacturer's instructions to install the mouse driver before installing the touch screen software or CRT Console software.

If the CRT Console software has already been installed on the PC, follow the touch screen manufacturer's instructions to install the touch screen software. Complete the following steps to update your installation of the CRT Console software:

Step 1. Turn on the Personal Computer.

Step 2. Insert the diskette with the following label into the drive of the Personal Computer.

CENTRACOM Gold Series Classic CRT
Installation Disk

Step 3. At the DOS prompt, type the letter of the floppy drive that you will be installing from, followed by a colon and press the <Enter> key. For example, if you are installing from the A drive, you will type A: and then press the <Enter> key. After you have done this, type the word "install" and then press the <Enter> key.

Step 4. Select the Update option from the first menu and follow the instructions.

6.3 GETTING STARTED

6.3.1 Operation

Mouse Emulation

The CRT Touch Screen emulates the left (Choose) button of a mouse. Touching an item on the touch screen is similar to a click of the left button on a mouse.

Making a Selection

Use a screen touch to select channels and activate functions. To select an item or resource, simply touch the area on the screen where the resource is located. The cursor jumps to the spot touched.

Moving Around

You can move the cursor by dragging your finger across the screen to a location. The item is not selected when you remove your finger from the screen. A second touch on the item selects it.

Initiating a Transmit

The General Transmit and Instant Transmit buttons of the mouse are not emulated by the CRT Touch Screen. To initiate an Instant Transmit, position the cursor over a channel and press the right button on the mouse or the <-> button on the keyboard. To initiate a General Transmit, press the center button on the mouse, press the <+> button on the keyboard, or step on the footswitch.

IMPORTANT

To transmit, a Touch Screen CRT Console must have a keyboard, mouse, footswitch, Instant Transmit auxio(s) on associated channels, or General Transmit Window.

6.3.2 Shutting Down

Complete the following actions to shut down a CRT Console equipped with a Touch Screen:

Table 2. Touchscreen Shutdown Procedure

Action	Result
Touch the DISPLAY button on the bottom of the CRT Console's Main Screen	Display menu pops up.
Touch the Leave Main Screen menu key. If password protection is enabled, enter the programmed password.	The Program Menu is displayed on the screen.
Turn off power to the PC.	
Turn off power to the touch screen monitor.	

IMPORTANT

Turning off power to your Touch Screen monitor when the CRT is active disables the Touch Screen to PC interface. You must reboot your system to enable the Touch Screen to PC interface.

6.4 TAKING CARE OF YOUR EQUIPMENT

6.4.1 Cleaning

IMPORTANT

Before cleaning, make sure that the CRT console is at the Program menu (NOT IN MAIN SCREEN or SETUP SCREEN) and the Touch Screen monitor is turned off.

To clean the outside of the Touch Screen, wipe it with a soft damp cloth. To remove finger stains or dirt, add a drop of standard liquid glass cleaner to the cloth and wipe the surface of the screen.

For internal cleaning, see the User's Guide for the Touch Screen Monitor.

You must reboot the *CENTRACOM Gold Series* CRT Console after cleaning.

6.4.2 Storage

See the User's Guide for the Touch Screen Monitor.

6.5 POINTS TO REMEMBER

Always exit the Main Screen or Setup Screen before cleaning.

Reboot to calibrate if the current calibration is not accurate.

Turning off power to the Touch Screen Monitor when the CRT is active disables the connection between the Touch Screen and the PC.

7. OPERATOR MAINTENANCE

7.1 DIAGNOSTIC MESSAGES

The control console and central electronics are constantly tested by internal self-test programs. These programs display a diagnostic “OOPS” message on the Error Line whenever a system operating fault is detected. The “OOPS” message is displayed in a gray background on the Error Line and you hear a beep from the SELECT speaker.

Write down the date, the time of day, and the sequence of events leading up to the time of error. Call maintenance personnel and provide them with the recorded information. (An optional logging printer is available for recording the diagnostic information.) If you are busy and unable to write down the diagnostic message, inform the maintenance personnel that a diagnostic message was displayed but not written down.

7.2 CARE AND CLEANING

Keep the equipment in a clean environment free of excessive dust, heat, high humidity, and other contaminants. Clean the equipment using the following cautions and guidelines.

CAUTION

Do not use any petroleum-based solvents or cleaners.

Clean the writing surfaces and external cabinetry with any *mild, non-abrasive cleaner* such as a mixture of mild soap and water. Most non-abrasive glass and countertop cleaners work fine. Test the cleaner in a small, unobtrusive area on the equipment before cleaning.

CAUTION

Do not spray liquids onto the operator control panel switches and controls. Excess dripping into the equipment electronics can cause serious mechanical and electrical damage.

Clean the front panels and controls with a damp cloth. Refer to the Cautionary notice provided above. Make sure the cloth does not drip cleaning solution into the controls of the console positions. The equipment is not waterproof.

7.3 SOFTWARE INSTALLATION

To install the applications software into the CRT console, complete the following steps.

Step 1. Turn on the Personal Computer.

Step 2. Insert the diskette with the following label into the drive of the Personal Computer.

*CENTRACOM Gold Series Classic CRT
Installation Disk*

Step 3. At the DOS prompt, type the letter of the floppy drive that you will be installing from, followed by a colon and press the <Enter> key. For example, if you are installing from the A drive, you will type A: and then press the <Enter> key. After you have done this, type the word “install” and then press the <Enter> key.

Step 4. The installation program will ask you a series of questions. To answer these questions, use the space bar or tab key on the keyboard to highlight the proper menu choice and press <Enter>. The default choice will have a double border.

NOTE

The mouse driver and the touchscreen driver must be installed before the CRT application software is installed or the CRT Console may not work properly. If either of these drivers are installed after the CRT software is installed, the CRT installation should be run again and the Update option should be performed.

Step 5. If the CRT is to be run under Windows or full screen mode invoked from Windows, make sure that the hard lock is connected to the parallel port of the PC at all times (see Section 8.4).

7.4 OMI PERSONALITY PROM CHANGES

If you change an OMI Personality PROM with the Field PROM Programmer, complete the following steps to use the existing screen configurations with the new Personality PROM.

When changing the Personality PROM in the TOMI:

Step 1. Change the TOMI Personality PROM. An error message is displayed on the CRT console.

Step 2. Exit the current screen to go to the Program menu.

Step 3. Select Download Personality.

Step 4. After download is done, the Program menu is displayed.

Step 5. Select File Maintenance.

Step 6. Select Convert Configuration File.

Step 7. A menu is displayed listing all previously created configuration files. You must convert every configurations.

Step 8. After all configurations have been converted, type: "r" and then press <enter> to return to the File Maintenance menu.

Step 9. Type: "r" and then press <enter> to return to the Program Menu.

Step 10. Select Enter Main Screen.

Step 11. Choose a CRT Console screen configuration. Normal CRT Console operation resumes. Verify that the channels and functions of EACH setup configuration are operational (see Section 7.6.).

To backup the new configuration onto diskette, proceed with the following steps:

Step 12. After checking each configuration, exit the final screen to return to the Program menu.

Step 13. Select File Maintenance.

Step 14. Select Transfer Files to Diskette.

Step 15. Select Backup CRT Console System Files to Diskette.

Step 16. When prompted to insert a diskette, use a blank diskette, or the diskette that was originally shipped with the console system.

Step 17. When the backup is completed, the Transfer Files to Diskette menu is displayed. Remove the diskette from the drive.

Step 18. Type: "r" and then press <Enter> to return to File Maintenance menu.

Step 19. Type: "r" and then press <Enter> to return to the Program menu.

Step 20. Select Enter Main Screen.

Step 21. Choose the CRT Console screen configuration. Normal CRT console operation resumes.

7.5 TRANSFERRING SCREEN CONFIGURATIONS FROM ONE OPERATOR POSITION TO ANOTHER

If the channels/options on the CRT console in a system are very similar, it is convenient to create a screen configuration at one CRT position and then transfer it (via diskette) to the other operator positions.

Create the initial screen configurations at the supervisor position (which has the highest functionality) and use a diskette to transfer these screen configurations to the other positions. After you transfer the configurations to the non-supervisor positions, you can modify them with the Set-up Screen Program.

Complete the following steps to load information from the hard disk to diskette:

Step 1. After creating the screen configuration, exit the Set-up Screen to return to the Program menu.

Step 2. Select File Maintenance.

Step 3. Select Transfer Files to Diskette.

Step 4. Select Transfer Configuration File to Diskette.

Step 5. Another menu is displayed with a numbered list of all previously created configuration files. To transfer each file, enter the number corresponding to that configuration and then press <Enter>.

Step 6. In order to transfer aliases for other operators or CEB boards (used by the intercom function) to the diskette, select Transfer Call Address file to Diskette.

Step 7. In order to transfer aliases or pre-programmed pages (if applicable to this OMI) to the diskette, select Transfer Page Alias file to Diskette.

Step 8. Remove the diskette. Type: "r" and then press <Enter> twice to return to the Program menu. Select Enter Main Screen.

Complete the following steps to load information from the diskette onto another operator position:

Step 1. Insert the diskette at the operator position. Exit the current screen to get to the Program menu.

Step 2. Select File Maintenance.

Step 3. Select Transfer Files from Diskette.

Step 4. Select Load Configuration file from Diskette.

Step 5. A menu is displayed with a numbered list of all configuration files on the diskette. Transfer each to the operator position by entering the number corresponding to that configuration and pressing <Enter>.

NOTE

If a screen configuration of the same name already exists at that operator position, an error message is displayed. Enter a different name for this configuration at this operator position. Use File Maintenance functions to rename or delete configurations later.

Step 6. To transfer aliases for other operators or CEB boards (used by the intercom function) from the diskette, select Load Call Address file from Diskette.

Step 7. To transfer aliases or pre-programmed pages (if applicable to this OMI) from the diskette, select Load Page Alias file from Diskette.

Step 8. Remove the diskette. Type: "r" and then press <Enter> twice to return to the Program menu. Select Enter Main Screen.

7.6 CONVERTING CONFIGURATIONS

When you convert configuration files because a Personality PROM changed or because you transferred a setup from one console position to another, the following occurs:

- Channels common between the old personality PROM and the new personality PROM are displayed as they were in the original setup.
- Channels in the old personality PROM which do not exist in the new personality PROM are deleted from the setup.
- Channels in the old personality PROM which do not exist in the new personality PROM are not displayed in the converted setup. You must go into Set-up Screens and use the Place Control Window feature to add the new channels to the setup.
- Functions common between the old personality PROM and the new personality PROM are displayed as they were in the original setup.
- Functions in the old personality PROM which do not exist in the new personality PROM are deleted from the setup.
- Functions in the old personality PROM which do not exist in the new personality PROM are not displayed in the converted setup.

To add the new functions to the screen configurations:

- If the new functions are console-wide options (those which are controlled through the function keys at the bottom of Main Screen), you must go into Set-Up Screens and use the Enable Functions feature to add features to the setup.
- If the new functions are channel related or Aux I/O type functions (those which are controlled through a Channel Control Window or an Aux Control Window), you must go into Set-up Screens and use the Place Option feature to add the new option to the setup.

8. CRT OPERATION UNDER WINDOWS

8.1 STAYTOP PROGRAM

The StayTop program allows you to quickly pull the CRT Console window to the top of the work area. StayTop is started when Windows is started.

8.1.1 StayTop Program Operation

When StayTop is started it does two things:

1. Creates a StayTop window which can not usually be covered up by other windows in the Windows work area (see Figure 24). The StayTop window can be covered up by screen savers and some other windows.
2. Starts the CRT Console program. If the CRT Console program is already running, the StayTop program brings the CRT Console program to the top of the work area.

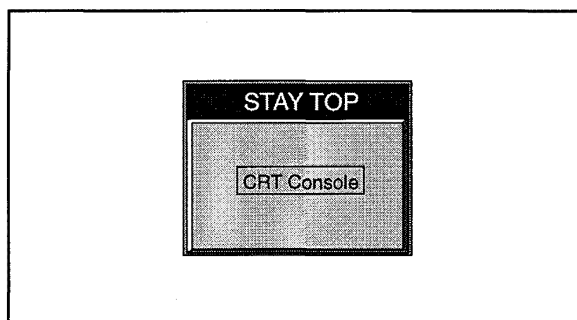


Figure 24. StayTop Window

Clicking the left mouse button in the StayTop window brings the CRT Console window to the top of the work area. If the CRT Console is not running when you press the StayTop window, StayTop starts the CRT Console program and brings it to the top of the work area.

NOTE

When StayTop brings the CRT Console window to the top of the work area, the CRT Console window could still be covered by top most windows such as StayTop. To prevent top most windows from interfering with the CRT Console window move, resize, or minimize them.

8.1.2 StayTop Icon

The StayTop icon looks like a window on top of other windows (see Figure 25). The StayTop icon is located both in the Startup program group and the CRT Console Program Group. If the StayTop program is not running, double-click on the StayTop icon to start the StayTop program. Double-clicking on the StayTop icon also starts the CRT Console if it is not running.

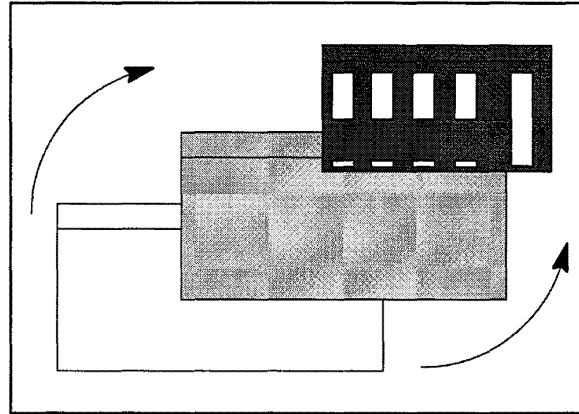


Figure 25. StayTop Icon

NOTE

Double-clicking on the StayTop icon will not start a second instance of either the StayTop program or the CRT Console program.

If you do not want the StayTop program and the CRT Console to be started when Windows is started, complete the following steps.

Step 1. Select the StayTop icon in the Startup program group in the Windows Program Manager.

Step 2. From the File menu of the Windows Program Manager, select the Delete option.

Step 3. When a dialogue box asks "Are you sure you want to delete StayTop?", select the yes button.

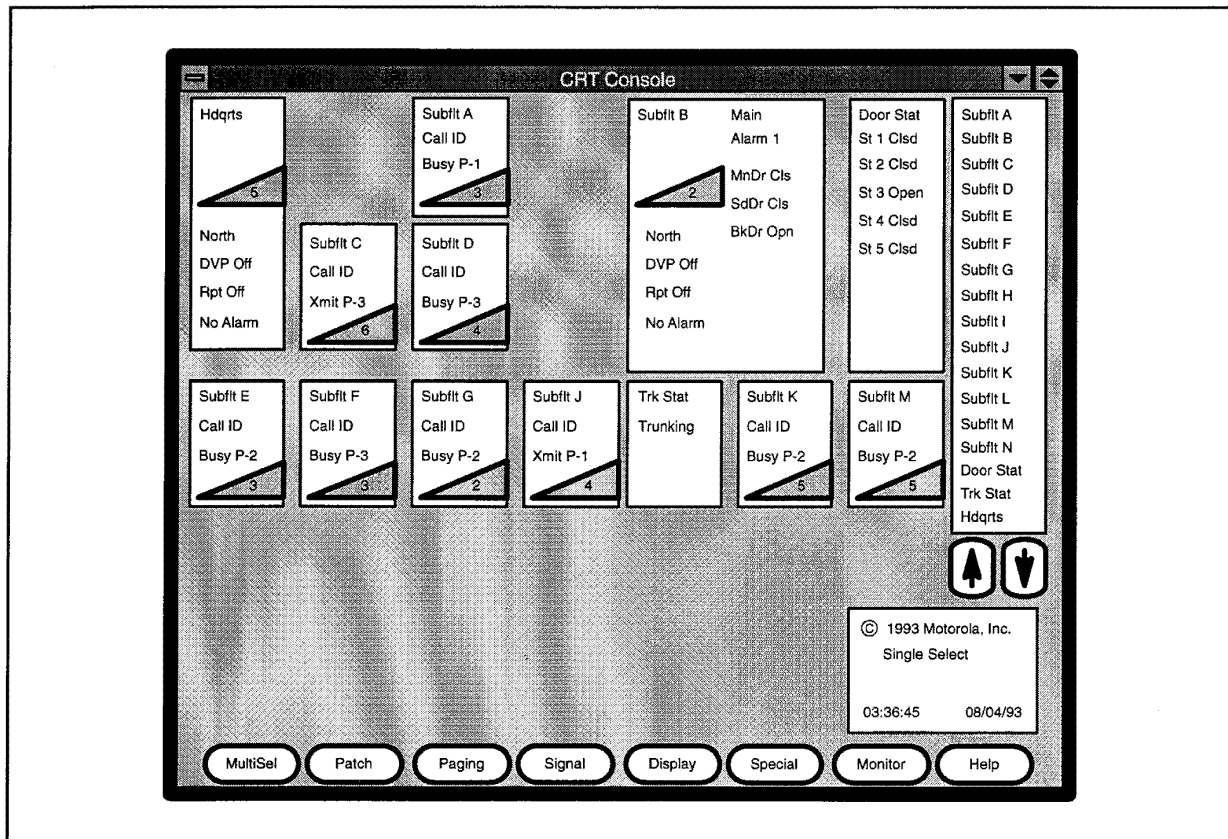


Figure 26. CRT Console Window

If the StayTop program is not started when Windows is started and you want it to be, complete the following steps.

Step 1. Select the StayTop icon in the CRT Console program group in the Windows Program Manager.

Step 2. From the File menu of the Windows Program Manager, select the Copy option.

Step 3. Use the Group listbox to select the Startup group. Select the OK button.

8.2 CRT CONSOLE PROGRAM

The CRT Console program is started by StayTop when Windows is started. The CRT Console program runs as a standard window and it can be moved, resized, maximized, and minimized like any other window (see Figure 26).

When the CRT Console window is resized to be smaller than normal, scroll bars appear on the right and bottom of the window to allow you to selectively view the entire window. The CRT Console window cannot be resized to be larger than normal, but it can be run in full-screen mode. To run the CRT Console in full-screen mode, complete the following steps.

Step 1. Make sure that the CRT Console window is the current window by choosing the title bar at the top of the window.

Step 2. Press the <Alt> and <Enter> keys simultaneously. The CRT Console should now be in full-screen mode. To return the CRT Console to normal window mode, press the <Alt> and <Enter> keys simultaneously again.

8.2.1 CRT Console Icon

The CRT Console icon looks like a CRT Console (see Figure 27). The CRT Console icon is located in the CRT Console program group. If you minimize the CRT Console window, the CRT Console icon will also appear near the bottom of the Windows work area.

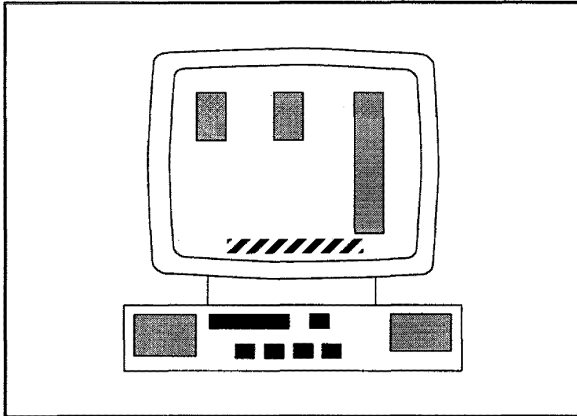


Figure 27. CRT Console Icon

NOTE

Minimizing the CRT Window does not affect the audio of the CRT Console.

Double-clicking on the CRT Console icon inside the CRT Console program group will start the CRT Console program if it is not already running. If you double-click on the CRT Console program group when the CRT Console program is already running, it will bring the currently running CRT Console program to the top of the work area.

Double-clicking on the CRT Console icon in the Windows work area causes the CRT Console window to appear in the same location and size as it was when you minimized it.

8.3 SPECIAL WINDOWS CONSIDERATIONS

8.3.1 386 Enhanced Icon

WARNING

Changing the 386 Enhanced options could cause the CRT Console software to malfunction. Specifically, the exclusive in foreground box should not be checked. Also, Com Port 1 should always warn if multiple applications try to access it.

The CRT Console installation program removed the 386 Enhanced icon from the Control Panel group. This was done to prevent someone from accidentally changing the 386 En-

hanced options in the Control Panel. If you need to change 386 Enhanced options, perform the following steps.

Step 1. Locate the Windows system directory. For most installations, this directory will be the C:\WINDOWS\SYSTEM directory.

Step 2. Rename the file CPWIN386.MOT to CPWIN386.CPL in this directory. The Control Panel will now allow access to the 386 Enhanced options.

8.3.2 LANs

The CRT Console software does not require a LAN. LANs limited to those supported by Microsoft Windows will be tolerated with the addition of a Windows compatible ethernet card and the accompanying cabling. Each operator must have the CRT Console software and their setups located locally on their own PC.

8.3.3 Hourglass Pointer

The hourglass pointer indicates that Windows is busy and cannot continue until it has finished a certain task.

CAUTION

When the hourglass pointer appears, mouse, touchscreen, and keyboard events **WILL NOT** register with the CRT Console program. The footswitch will still be operational, and the audio portion of the CRT Console will still function.

8.3.4 System Dialogue Boxes

System dialogue boxes are messages from Windows that must be responded to before the user continues.

CAUTION

Just as when the hourglass pointer appears, mouse, touchscreen, and keyboard events **WILL NOT** register with the CRT Console program. After the user responds to the dialogue box, the system returns to normal.

COM 1 Dialogue Box

When two programs attempt to use the COM 1 device under windows, a system dialogue box appears. This dialogue box asks you to choose a program to use the device. If this dialogue box appears, you should always choose the CRT Console program.

CAUTION

If you do not choose the CRT Console program when this dialog box appears, the CRT Console program will no longer be able to receive packets.

8.3.5 Other Windows Software

The CRT Console should only be run with software specifically approved by Motorola to run with CRT Console under Windows.

WARNING

Use of non-approved software could result in poor performance or software failure. Only one Windows program at a time can be run with the CRT Console under Windows. DOS windows can not be run at the same time as the CRT Console, because they can sharply decrease the performance of the CRT Console.

8.4 HARD LOCK

A hard lock that fits on the parallel port of the PC is required for operating the CRT under Windows or under full screen

mode invoked from Windows. If your PC does not have a hard lock please contact the Hi Tech Center at 1-800-HiTech5.

If you also desire to run a device on the parallel port, simply attach the hard lock to the parallel port and attach the device to the hard lock. Operation of the device will function normally with the hard lock on the parallel port.

8.5 BACKWARDS COLOR COMPATIBILITY

The CRT Under Windows offers a new color palette that is used under all operating environments (i.e. Windows, full screen mode invoked from Windows, and DOS). Previous versions of the CRT that ran only under DOS operated with an older color palette. To provide backwards compatibility to existing CRT users, the current version of CRT can be installed under DOS to run with the old color palette.

NOTE

The old color palette can only be used while running under DOS. The new color palette must be used if the CRT is intended to be used under Windows or full screen mode invoked from Windows.

To set up the CRT to run with the old color palette, the user must first select an operating system of DOS from the CRT installation program and then select old colors.

The chart on page ~~72~~⁷⁴ lists the colors for the new color palette. If colors for the old color palette are desired, refer to the chart on page ~~73~~⁷⁵.

Channel Control Windows		Channel Control Window				Summary List	Name Line
Item/Activity		Location	Text/Indicator	Text Color	Background Color	Channel Name Color	Background Color
CCW Normal State (no activity)		Channel Name Line	Channel Name	White	Dark Blue		
		Call/Status/ID Line	Blank		Dark Blue		
		Transmit Patch Line	Blank		Dark Blue		
		Volume Control Line	Volume Wedge & Numerical Indicator	Yellow Wedge & Number	Dark Blue		
Summary List Name Line	Active In List – Audio Disabled					Light Gray	Dark Blue
	Active In List – Audio Enabled					White	Dark Blue
	Active In List (Red Wk Area)					Black	Light Gray
Selected Channel	Single or Multi-Select	Channel Name Line	Blank	White	Green	White	Green
Inbound Call	Selected Channel	Call/Status/ID Line	"Call"/trunked ID Flashes	Red	Dark Blue	Red Flashing (1)	Dark Blue
	Unselected Channel	Call/Status/ID Line	"Call"/trunked ID Appears	Red	Dark Blue	Red (1)	Dark Blue
	Channel Unselected at all Op Positions	Call/Status/ID Line	"Call"/trunked ID Flashes	Red	Dark Blue	Red Flashing (1)	Dark Blue
Channel Busy		Transmit/Patch Line	"Busy" Appears	Yellow	Dark Blue	Yellow (1)	Dark Blue
Trunked Repeater Busy		Transmit/Patch Line	"Busy" Flashes	Yellow	Dark Blue	Yellow Flashing (1)	Dark Blue
Transmit		Transmit/Patch Line	"Xmit" Appears	White	Red	White	Red
Trunked Repeater Call-Check		Transmit/Patch Line	"Xmit" Appears	White	Red	White Flashing	Red
Telephone Ringing		Transmit/Patch Line	"Ring" Flashes	Light Magenta	Dark Blue	Light Magenta Flashing	Dark Blue
Telephone Off-Hook	At This Operator Position	Transmit/Patch Line	"Hook" Flashes	Light Green	Dark Blue	Light Green Flashing	Dark Blue
Telephone Off-Hook	At Another Operator Position	Transmit/Patch Line	"Hook" Appears	Light Green	Dark Blue	Light Green	Dark Blue
Telephone On Hold		Transmit/Patch Line	"Hold" Flashes	Light Magenta	Cyan	Light Magenta Flashing	Cyan
Channel In Patch	At This Operator Position	Transmit/Patch Line	"P-x" (x=1, 2, or 3) Appears	Dark Blue	Cyan	Dark Blue (2)	Cyan
Patch Idle	At This Operator Position	Transmit/Patch Line	"P-x" (x=1, 2, or 3) Appears	Cyan	Dark Blue	Cyan	Dark Blue
Patch Busy	At Another Operator Position	Transmit/Patch Line	"PBsy" Appears	Yellow	Dark Blue	Cyan	Dark Blue
Receive Emergency Alarm		Border & Call Status/ID Line	Border Flashes and Trunked ID Appears on Status/ID Line	Red Border, White ID Text	Light Gray	White Flashing	Red
Receive Emergency Call		Border & Call Status/ID Line	Border Flashes and Trunked ID Appears on Status/ID Line. If Unanswered, Channel Name Flashes.	Red Border, White ID Text	Light Gray	White Flashing	Red
Recognize Emergency		Border & Call Status/ID Line	Border Stops Flashing If Last Emergency on Channel is recognized. Trunked ID Appears on Status/ID Line	Red Border, White ID Text	Dark Blue	White Flashing	Red
Emergency Call Setup		Border		Red Border		White Flashing	Red
Receive Private Call		Transmit/Patch Line & Call Status ID Line	"Rcvd" Flashes on Transmit/Patch Line & Trunked ID is Seen on Call/Status/ID Line	Light Magenta "Rcvd" Text, White Trunked ID	Dark Blue	Light Magenta Flashing	Dark Blue
Monitor Channel		Transmit/Patch Line	"Mon" Appears	Light Magenta	Dark Blue	Light Magenta	Dark Blue
Receive Urgency Call		Border	Border Flashes	Magenta Border		Magenta	Dark Blue
Urgency Call Setup		Border		Magenta Border		Magenta	Dark Blue
Auxiliary Control Windows							
ACW Name	ACW in Radio Work Area	Name Line	ACW Name	White	Dark Blue	White	Light Gray
	ACW in Auxiliary Control Scr	Name Line	ACW Name	White	Dark Blue	White	N/A
	ACW in Summary List, Not in Radio Work Area (Radio Control Screen Only).					Light Gray	Dark Blue
Channel Control Windows & Auxiliary Control Windows							
Option Line	On or Off State	Option Line (Any)	On Text or Off Text	White	Dark Blue		
	Indeterminate State	Option Line (Any)	Off Text	Cyan	Dark Blue		
Option Line Protected by Safety Switch	Option Line Locked	Option Line (Any)	On Text or Off Text	Black	Light Gray		
	Option Line Unlocked	Option Line (Any)	On Text or Off Text	White	Dark Blue		
NOTES: 1. THIS INDICATOR APPEARS ONLY WHEN THE CHANNEL IS ENABLED FOR SUMMARY LIST AUDIO. 2. A CHANNEL ACTIVE IN THE SUMMARY LIST WILL INDICATE CHANNEL IN PATCH STATUS (DARK BLUE LETTERS) ONLY WHEN THAT PATCH IS OPEN 3. A CHANNEL ACTIVE IN THE SUMMARY LIST WILL INDICATE PATCH BUSY STATUS ONLY WHEN A PATCH IS OPEN.							

Table 4. CRT Console CCW, ACW, and Summary List Operation Indicators

Channel Control Windows		Channel Control Window				Summary List	Name Line
Item/Activity		Location	Text/Indicator	Text Color	Background Color	Channel Name Color	Background Color
CCW Normal State (no activity)		Channel Name Line	Channel Name	Black	Light Blue		
		Call/Status/ID Line	Blank		Light Blue		
		Transmit Patch Line	Blank		Light Blue		
		Volume Control Line	Volume Wedge & Numerical Indicator	Yellow Wedge & Number	Light Blue		
Summary List Name Line	Active In List – Audio Disabled					Black	Light Blue
	Active In List – Audio Enabled					White	Light Blue
	Active In List (Red Wk Area)					Black	Gray
Selected Channel	Single or Multi-Select	Channel Name Line	Blank	Black	Green	Black	Green
Inbound Call	Selected Channel	Call/Status/ID Line	"Call"/trunked ID Flashes	Red	Light Blue	Red Flashing (1)	Light Blue
	Unselected Channel	Call/Status/ID Line	"Call"/trunked ID Appears	Red	Light Blue	Red (1)	Light Blue
	Channel Unselected at all Op Positions	Call/Status/ID Line	"Call"/trunked ID Flashes	Red	Light Blue	Red Flashing (1)	Light Blue
Channel Busy		Transmit/Patch Line	"Busy" Appears	Gold	Light Blue	Gold (1)	Light Blue
Trunked Repeater Busy		Transmit/Patch Line	"Busy" Flashes	Gold	Light Blue	Gold Flashing (1)	Light Blue
Transmit		Transmit/Patch Line	"Xmit" Appears	Black	Red	Black	Red
Trunked Repeater Call – Check		Transmit/Patch Line	"Xmit" Appears	Black	Red	Black Flashing	Red
Telephone Ringing		Transmit/Patch Line	"Ring" Flashes	Yellow	Light Blue	Yellow Flashing	Light Blue
Telephone Off – Hook	At This Operator Position	Transmit/Patch Line	"Hook" Flashes	Purple	Light Blue	Purple Flashing	Light Blue
Telephone Off – Hook	At Another Operator Position	Transmit/Patch Line	"Hook" Appears	Purple	Light Blue	Purple	Light Blue
Telephone On Hold		Transmit/Patch Line	"Hold" Flashes	Black	Yellow	Black Flashing	Yellow
Channel In Patch	At This Operator Position	Transmit/Patch Line	"P-x" (x=1,2, or 3) Appears	Light Blue	Dark Blue	Light Blue (2)	Dark Blue
Patch Idle	At This Operator Position	Transmit/Patch Line	"P-x" (x=1,2, or 3) Appears	Light Blue	Yellow	Dark Blue (2)	Light Blue
Patch Busy	At Another Operator Position	Transmit/Patch Line	"PBy" Appears	Dark Blue	Light Blue	Dark Blue (2)	Light Blue
Receive Emergency Alarm		Border & Call Status/ID Line	Border Flashes and Trunked ID Appears on Status/ID Line	Red Border, Black ID Text	Light Blue	Black Flashing	Red
Receive Emergency Call		Border & Call Status/ID Line	Border Flashes and Trunked ID Appears on Status/ID Line. If Unanswered, Channel Name Flashes.	Red Border, Black ID Text	Light Blue	Black Flashing	Red
Emergency Call Setup		Border		Red Border		Black Flashing	Red
Receive Private Call		Transmit/Patch Line & Call Status ID Line	"Rcvd" Flashes on Transmit/Patch Line & Trunked ID is Seen on Call/Status/ID Line	Yellow "Rcvd" Text Black Trunked ID	Light Blue	Yellow Flashing	Light Blue
Monitor Channel	Transmit/Patch Line	"Mon" Appears	Yellow	Light Blue	Yellow	Light Blue	
Receive Urgency Call		Border	Border Flashes	Fuschia Border		Fuschia Flashing	Light Blue
Urgency Call Setup		Border		Fuschia Border		Fuschia	Light Blue
Auxiliary Control Windows							
ACW Name	ACW in Radio Work Area	Name Line	ACW Name	Black	Light Blue	Black	Gray
	ACW in Auxiliary Control Scr	Name Line	ACW Name	Black	Light Blue	Black	N/A
	ACW in Summary List, Not in Radio Work Area (Radio Control Screen Only)					Black	Light Blue
Channel Control Windows & Auxiliary Control Windows							
Option Line	On or Off State	Option Line (Any)	On Text or Off Text	Black	Light Blue		
	Indeterminate State	Option Line (Any)	Off Text	Light Gray	Light Blue		
Option Line Protected by Safety Switch	Option Line Locked	Option Line (Any)	On Text or Off Text	Black	Gray		
	Option Line Unlocked	Option Line (Any)	On Text or Off Text	Black	Light Blue		
NOTES: 1. THIS INDICATOR APPEARS ONLY WHEN THE CHANNEL IS ENABLED FOR SUMMARY LIST AUDIO. 2. A CHANNEL ACTIVE IN THE SUMMARY LIST WILL INDICATE CHANNEL IN PATCH STATUS (DARK BLUE LETTERS) ONLY WHEN THAT PATCH IS OPEN 3. A CHANNEL ACTIVE IN THE SUMMARY LIST WILL INDICATE PATCH BUSY STATUS ONLY WHEN A PATCH IS OPEN.							
Table 4. CRT Console CCW, ACW, and Summary List Operation Indicators							

9. TROUBLESHOOTING GUIDE

This section outlines the solutions to the most commonly encountered CRT Console installation questions. Understanding

this section requires some knowledge of how to use the Field Prom Programmer. CRT Software versions are referenced by the last three digits of the part number on the CRT Software diskette (T05, T12, ...).

Problem	Solution
CRT hangs when exiting setup screen using version T05 CRT software.	Request a software upgrade to at least T12 CRT Console software. (Note that T12 CRT requires at least Release 12 TOMI if off-screen channels are used.)
Get error message "Cannot read option file" or function keys have incorrect default names.	For every Multi-Select button (K363-1,2,3) in the persprom, there must be an APB button (K337) directly underneath it. If there is a missing APB button, you cannot use the set-ups created with the bad persprom. All set-ups must be completely recreated. For each patch button (KPatch1, K103-2,3), there must be a corresponding patch transmit button (KPatch1) which can be located anywhere on the console.
DPI channel does not have RING or HOLD auxios.	The DPI Ring and Hold buttons are programmed as random auxios. The CCP, CCM, and LED number for these buttons is determined by looking at the As-built Document. Locate the corresponding random auxios in the option list using the CCP, CCM, and LED number. Place these auxios in the CCW. Note: Make sure the auxios are named correctly as you placed them in the CCW. LED 5 = On Hold/Off Hold LED 11 = Off-hook/On-hook LED 12 = Ringing/No Ring
Main Screen locks up while displaying "Initializing Console Settings."	The pre-programmed paging buttons in the persprom were changed. T05 CRT Software does not allow holes in paging data. Therefore, a CRT software upgrade to version 12 is required. Before doing the upgrade, check for off-screen channels. If you have off-screen channels, upgrade to release 12 TOMI firmware or later before you upgrade the CRT Console software to T12.
Paging data is lost when you reprogram the persprom.	None. Paging data is stored in the TOMI EEPROM, not in the CRT. The TOMI EEPROM is reinitialized when the persprom is programmed. You must enter the pre-programmed pages again.
Can't set the clock.	The operator position must be a supervisor in order to set the clock. The CRT Console must have at least one supervisor function to be a supervisor position. The Op/Chn disable function (K161) or supervisor paging lockout function (K836) suffice. Note: The paging operation changes if K836 is used.
The persprom was changed and the old set-ups are gone.	Set-ups must be converted. Use the File Maintenance menu to convert set-ups.
Set-ups need to be transferred between operator positions.	Use the File Maintenance menu to load set-ups (configurations) to a diskette and transfer them between operator positions. Note: The transferred setups are converted when they are loaded from diskette (see Section 7.5).
Need to use the enter ID (K519AA) function on the CRT for Private Call II Enhanced or MDC Signaling. However, you cannot see the aliases on the screen.	Release 11 TOMI firmware or later is needed.

Problem	Solution
Mouse driver does not load.	You must move the mouse.com (for mouse) or msmouse.com (for the trackball) to the root directory. The necessary file is in the \mouse directory. Note: Be sure there is only one mouse driver in the root directory.
The 4 freq, 8 freq, 4 PL, or 8 PL channel options do not work correctly in the CCW.	Interlocked Frequency/PL buttons must be used rather than the Scrolling Frequency/PL buttons. Scrolling frequency buttons can only be used with 2 Freq. K680-C instead of K680 -> 8 freq K66-C instead of K66 -> 4 freq K264-C instead of K264 -> 8 pl K158-C instead of K158 -> 4 pl B1657-C instead of B1657 -> T4R4 DCCM B1658-C instead of B1658 -> T4R4 DCCM Q2960 instead of B1430 -> T8R8 Q2956 instead of B1409 -> T4R4
The pre-program paging menu displays "Unable to Edit Pages" for a long period of time.	Every CRT operator position with pre-programmed paging buttons must have a Page Safety switch (K841) in its persprom. If the supervisor console has a Supervisor Page Enable switch (K836), the supervisor must enable the Page Edit Lock Menu Key.
You add the emergency function (KEmerg) to the personality PROM, but the emergency reset is not enabled.	A software upgrade must be made to at least T12 CRT Console software. Note: T12 CRT requires at least Release 12 TOMI if off-screen channels are used. Or perform a download and completely recreate the set-ups starting with Initial Configuration File.
Off-screen channels are not marked as off-screen in the Window Resource List.	If the CRT software is version T06, take the off-screen channels out of the setups, rename osc_link.exe to off_scrn.exe and download the personality prom again. If the CRT Software is newer than version T06, make sure the channels are marked as off-screen in the personality prom.
Emergencies show up on the CRT, but the radio's ID is not displayed in the CCW.	Channel must be a DCCM.
Modifications to the Initial Configuration File are lost after a download.	The Initial Configuration File is recreated from the information in the personality prom during a download. A warning regarding this situation is displayed on the screen during the download. To avoid losing the modifications, create a setup called "Template" or some other suitable name and use this to represent the initial configuration.
CALL CHECK module is not displayed on the CRT or does not seem to work correctly.	The CALL CHECK buttons are programmed in the persprom as local auxios. The CCP and CCM containing the CALL CHECK CCM need to be located by looking at the As-built Document. See Figures 28 and 29 for the On and Off text corresponding to the the two types of CALL CHECK modules.
You programmed your operator position as a Supervisor, but the CRT does not allow any Supervisor functions.	The TOMI personality PROM does not contain either the Op/Chn Disable (K161) option or the Supervisor Lockout (K836) option. Note: The paging operation changes if Option K836 is used.
You changed and saved the channel name for a CCW during set-up, but the changes are not being saved.	The channel was not placed in the CSL or in the RWA before saving the set-up.

LED	CCM	CRT ON TEXT	CRT OFF TEXT
1	o Prev/Rwd	-> Rewinding	Prev/Rwd
2	o Playing	-> Playing	-----
3	o Restore	-> Recording	Restore
4	o Recording		
5	o Next	-> Fast Fwd	Next/Fwd
6	o Fast Fwd		
7	o Pause	-> Pause On	Pause
8	o Paused	-> Paused	-----
9	o		
10	o		
11	o		
12	o		
13	o		
14	o		
15	o		
16	o		

Figure 28. Digital Call - Check with Pause (Recorder BDN6412, CCM B160)

9.1 COMMON TOUCHSCREEN PROBLEMS

- Cannot find the cursor.
 - The Touch Screen software is not installed or is installed improperly, or
 - You turned on power to the Touch Screen monitor after turning on power to the PC, or
 - You accidentally shut down the Touch Screen monitor when the CRT is active.

See Section 6.2 for installation instructions.

- The cursor is a bit off from the spot where I placed my finger.
 - The touch screen is not calibrated properly or the monitor is positioned at an angle. See Section 4 for calibration procedure.
- Cannot transmit.
 - You must have a mouse, keyboard, footswitch, Instant Transmit auxio(s) on associated channels, or General Transit Window to transmit. The touch screen software does not emulate the transmit buttons. Make sure the mouse is connected to the PC and the mouse driver is installed. See Section 5 for operating instructions or Section 3 for installation instructions.

- Trackball does not work with Touch Screen.
 - The Touch Screen does not support trackball operation for the TDN8092.

9.2 TECHNICAL SUPPORT

If you read this manual, follow the installation procedures, and still have problems, call your local service provider.

In order to simplify troubleshooting, gather the following information before you call.

- Make and model of Touch Screen monitor.
- Make and model of mouse or trackball.
- Version of mouse driver.
- Version of DOS.
- Version of Windows (if applicable).
- Version of CRT System software.
- Version of Touch Screen software.
- Description of problem.
- How problem can be duplicated.
- Any recent changes in hardware configurations.

Try to be near your system when you call in order to follow any instructions quickly and easily.

LED			CRT ON TEXT	CRT OFF TEXT
1	o Back		-> Rewinding	Recall
2	o Recalling		-> Recalling	-----
3	o Restore		-> Restoring	Restore
4	o			
5	o		-> Fwd On	Forward
6	o Fast Fwd			
7	o Hvy Trfc		-> Hvy Trfc	Normal
8	o Recording		-> Recording	-----
9	o			
10	o			
11	o			
12	o			
13	o			
14	o			
15	o			
16	o			

Figure 29. Analog Call-Check (CCM B1448)

The following charts show the function names and descriptions of buttons associated with the Call Check recorder.

• **Analog Call Check Button Descriptions**

CONTROL / FUNCTION	DESCRIPTION
Back	For reversing through messages
Recall LED	Indicates that playback is in progress
Restore	For returning to the end of the newest messages
Forward	For advancing through the messages
Hvy Traffic	For periodically updating the recording during heavy traffic
Recording	Indicates that recording is in progress

• **Digital Call Check Button Descriptions**

CONTROL / FUNCTION	DESCRIPTION
Prev / Rwd	Reverses through the messages
Playing LED	Indicates that playback is in progress
Recording	Indicates that recording is in progress
Next / Fast Fwd	Advances through the messages
Pause	Stops the playback / resumes playback
Paused	Indicates that playback is paused

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



APPENDIX A CONTROL WINDOWS AND SUMMARY LIST

1. TYPES OF CONTROL WINDOWS

Through the Set-Up screens, the manager may change the display of all Main Screen CCWs and ACWs from 4-line to 5-line. The three types of 4-line Descriptions for each type of 4- and 5-line CCW and ACW are shown in Table 1.

2. (CONTROL WINDOW) SUMMARY LIST

The Control Window Summary List contains the names of all CCWs and ACWs which the dispatcher may access in the Radio Control Screen of this Set-Up. If several Set-Ups exist, only those control windows that the dispatcher needs to access while using a specific Set-Up need to be in that Set-Up's Summary List. If the dispatcher needs to access a control window not in this Set-Up's Summary List, another Set-Up which includes this control window can be quickly loaded.

During Set-Up, the user determines how many columns are to be dedicated to the Summary List, and which control windows are to be in it. There may be from zero to seven columns devoted to the Summary List. If a Summary List is required, there are two ways it can be configured:

1) One column, the far right one, can contain the Summary List. This Summary List column can contain any number of control windows, each represented by a Summary List name line. While only 17 Summary List name lines can be viewed at a time, the operator can use the scrolling arrows to scroll to others.

2) If the operator needs to view more than 17 Summary List name lines at a time, several columns can contain the Summary List. These columns will always be those furthest to the right on the screen. While the Summary List column furthest to the right is scrollable, none of the others are. They can contain and display a maximum of 19 name lines.

The right-most Summary List column scrolls 1/2 of the visible list at a time, allowing the operator to go through the Summary List quickly. For example, if the operator chooses the down scroll arrow, the top 8 Summary List name lines will disappear from view, the bottom 9 name lines will move to the top half, and the next 8 name lines will appear in the bottom half.

Table 1. CCW and ACW Capabilities

4—Line Display

	Name Line	Call Status/ ID Line	Transmit/ Patch Line	Volume Control Lines	Option Line	Can Hide Options?
Single—Sized CCW	yes	yes	yes	yes	0	n/a
Double—Sized CCW	yes	yes	yes	yes	6	yes
Quad—Sized CCW	yes	yes	yes	yes	16	yes
Single—Sized ACW	yes	no	no	no	3	no
Double—Sized ACW	yes	no	no	no	9	no
Quad—Sized ACW	yes	no	no	no	19	no

5—Line Display

	Name Line	Call Status/ ID Line	Transmit/ Patch Line	Volume Control Lines	Option Line	Can Hide Options?
Single—Sized CCW	yes	yes	yes	yes	1	n/a
Double—Sized CCW	yes	yes	yes	yes	8	yes
Quad—Sized CCW	yes	yes	yes	yes	20	yes
Single—Sized ACW	yes	no	no	no	4	no
Double—Sized ACW	yes	no	no	no	11	no
Quad—Sized ACW	yes	no	no	no	23	no

3. RADIO CONTROL SCREEN CAPACITY

There are 8 columns and 3 rows available in the Radio Control Screen for the control windows and Summary List columns, totaling 24 blocks. The number of control windows which can be displayed on the Radio Control Screen depends upon 3 factors:

- 1) the number of Summary List columns
- 2) the size of the control windows, and
- 3) the position of the control windows.

Each Summary List column takes up one column, or 3 blocks. For example, if there were two Summary List columns, each would occupy the two right—most columns and take up 6 blocks. Eighteen blocks would be available for the Radio Work Area to display control windows.

Different sizes of control windows take up different numbers of blocks:

- Single—sized: 1 block
- Double—sized: 2 blocks
- Quad—sized: 4 blocks

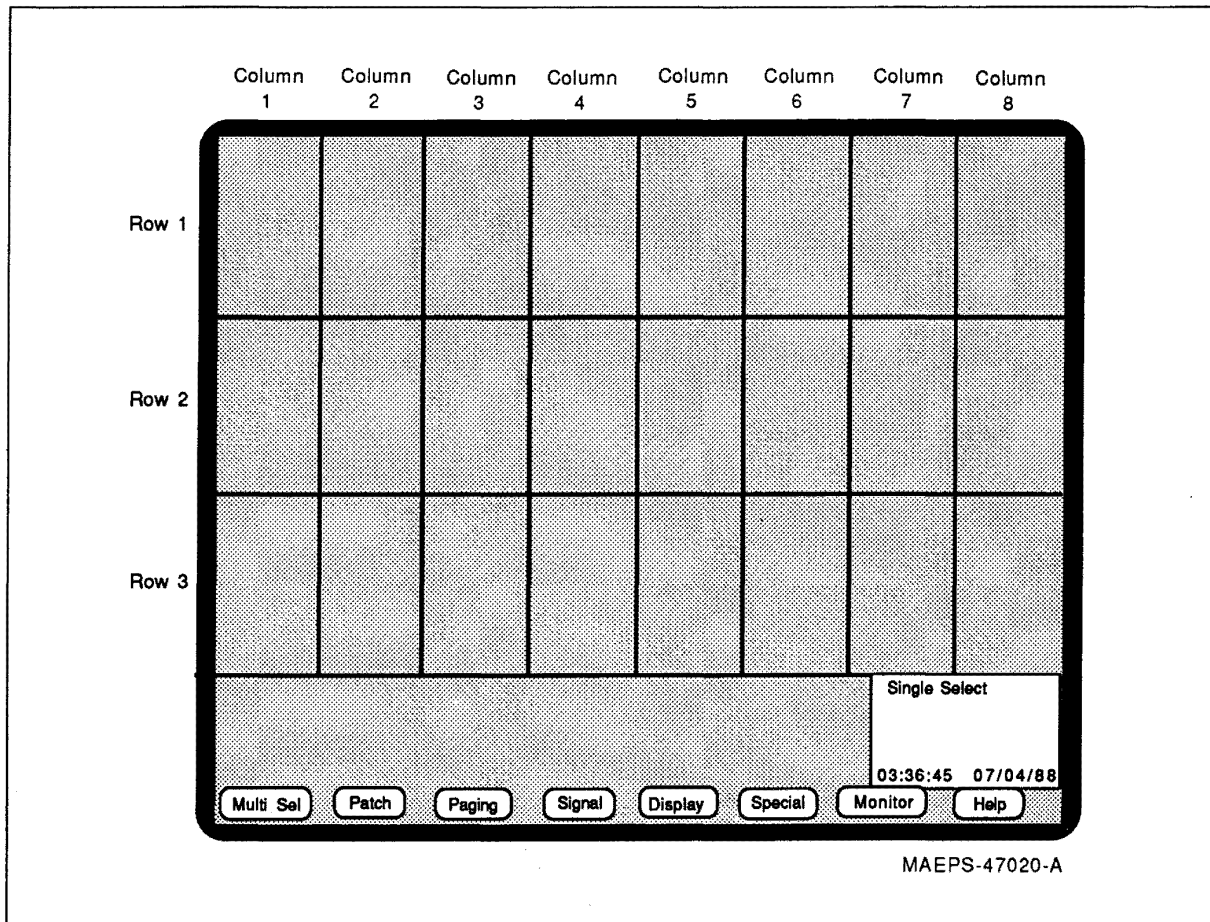


Figure 1. Radio Control Screen Location Blocks

Since CCWs with options can be expanded and contracted, these can be normally displayed as single-sized and expanded into double-, or quad-sized temporarily (subject to the constraints listed in 3). ACWs cannot be expanded or contracted. ACWs always display all of their options.

Expanded portions of control windows cannot extend into the function menu area (below the third row) or into a Summary List column (to the right of the right-most Radio Work Area column. Therefore:

Only single-sized control windows can be positioned in the third row.

Only single- and double-sized control windows can be positioned in the right-most Radio Work Area column.

Also, to display the maximum number of control windows, they must be positioned optimally so that there are no open blocks.

Some of the possible Radio Control Screen configurations are listed below.

No Summary List columns:

- 24 single-sized control windows
- 8 double-sized and 8 single sized control windows
- 4 quad-sized and 8 single-sized control windows.

One Summary List column:

- 21 single-sized control windows
- 7 double-sized and 7 single sized control windows
- 3 quad-sized, 1 double-sized, and 7 single-sized control windows.



CENTRACOM GOLD SERIES CONTROL CONSOLES

GLOSSARY

ABORT—All the data entered since the last SAVE is discarded when the ABORT key is pressed. If the SAVE key was never pressed, the configuration when the current function was invoked is restored. This is used when new data has been entered, but the user wants to return to the original configuration.

AEI—Audio Expansion Interface. A board in the CEB which routes the audio to and from an OMI board.

Aliasing—The console feature that allows the user to assign names to trunking talks groups, unit ids, or BIMs.

All Mute Delay—The delay between the time the all mute feature mutes the speakers and the time that the normal volume is restored. The default value is 30 seconds. It can be changed to any value from 1 to 255 seconds.

All Mute Level—The output level for the audio when the ALL MUTE feature is invoked. The default is 42 dB. This can be changed to 0 dB, 6 dB, 12 dB, 18 dB, 24 dB, 32 dB, and 36 dB.

Asblown—The printout produced by the Trunked *Centracom* Field PROM Programmer which describes the configuration of the console.

Asbuilt—The printout produced by the factory which describes the configuration of the console.

Assignability—The console feature that allows CCMs to be dynamically assigned to specific demands.

Audio Destinations—The AEI board and AEI output number used to route the audio to the correct speakers while the channel is selected, and while it is not selected.

Automatic Switching—An option which causes the idle central to become active automatically when the console determines that there is a failure in both data links to the active trunking central.

Auxio—Auxiliary I/O line on a CEB board. An auxiliary output can be activated by a CCSM closure. An auxiliary input can be routed to light a CCSM LED.

Audio Card—The card which sits in the CEB above a BIM, TBIM or DR to buffer auxios. There are two varieties of auxio cards:—Auxio I (or 3-in/6-out) and Auxio II (or 6-in/2-out).

Auxio Number—The auxios on each board are numbered on the schematic diagrams. The auxio number refers to this number.

Backup Files—A copy of the archive files that can be used when the original archive files are corrupted. This back-up file holds the version of each file previous to the last saved.

Base Stations—The repeater which is the source of audio received by the console, and the destination of audio transmitted from the console.

Base Type—One of sixteen types of base stations recognized by the console.

Baud Rate—Number of bits transferred per second.

BID Code—Base ID code. The code used to identify a talk channel.

BIM—Base station Interface Module. A board in the CEB which interfaces to a base station.

CAD—Computer-Aided Dispatch. Console feature that allows dynamic reconfiguration of the system via a computer.

CAD Host—VAX computer which interfaces to the console for the CAD feature.

Call LED Delay—The minimum time that the call LED will be lit when a call is received. The default is 1 second. This time can be changed to any time from 1 to 255 seconds.

CCM—Channel Control Module. The hardware module on the operator position containing eight switches which

generally control one or two channels. There are eight CCMs on a CCP.

CCP—Channel Control Panel. One of the panels containing space for eight CCMs on the operator position.

CCSM—Channel Control Switch Module. One switch/LED combination on an operator position.

CEB—Central Electronics Bank. A rack or multiple racks of card cages containing the circuit boards which are connected to a common TDM bus.

Central Switch—The mechanism by which the console switches central controllers.

Channel Marker (Priority)—The feature that causes a half second tone burst to be transmitted on a selected channel every 10 seconds to identify that channel as a priority channel. The interval between tone bursts can be changed from the default of 10 seconds to 1 to 255 seconds.

CIMI—Computer Interface to Mux Interface. The 68000 OMI board which interfaces to the CAD host.

Codeplug—The UVEPROMs or EEPROMs in the console which store the customer-dependent configuration for the console.

COM1, COM2—The logical names of the two serial ports available on MSDOS-type personal computers.

Common Database—Databases that must be the same in all the OMIs in the system. Only one of each of these databases is kept on the disk.

Comparator Interface—16 I/O board with the auxios for a voting system.

Conditional Switching—The console keeps track of the number of channels that are active on both centrals. The conditional switching option causes the console to deny any attempt to switch to a central with fewer channels active.

Console—A console is made up of one or more operator positions and a CEB.

Conventional Channel—A non-trunked channel. A channel that always transmits at the same frequency.

COR—Carrier-Operated Relay. An option which causes the call LED and patch keying circuits to be activated by a relay closure rather than VOX.

Database—File containing the components of the personality PROM.

DATAIO—Model of PROM programmer supported by the Field PROM Programmer Software.

DC Control—Base station control via dc currents generated by the BIM.

DC Competitive—DC control which is compatible with G.E. base stations.

DCCM—Display CCM. CCM with an 8-digit 5x7 dot matrix display, and various LED annunciators, for displaying data.

Dedicated Auxios—Auxios which perform a function related to the channel for the BIM they are assigned to. Examples:—Main Standby, Supervisor Takeover, Dedicated auxios are always assigned to the same auxio number.

Dedicated Fallback CCM—CCM which is only used in fallback mode.

Download—Transfer data to the personal computer's disk through the serial port.

DIP—A BIM which interfaces to a phone line. Allows the operator to answer or initiate a call on a telephone line.

DR—Dual Receive board. A board in the CEB which interfaces with 2 base station receive channels. A DR takes up two TDM slots.

Dual CCM—A single slot CCM controlling two separate channels.

Duplex—Simultaneous two-way radio.

Duplex Patch Dropout—The interval between the time that the activity on a patch stops and the time that the channel dequeys. The default value is 5 seconds as opposed to 3 seconds to dequey a channel normally. This can be changed to any value from 1 to 255 seconds.

DVP—*Digital Voice Privacy* encryption. Base station feature which encrypts audio for privacy.

EEPROM—Electrically Erasable Programmable Read-Only Memory. Memory chips used for TOMI and MO-DEM customer configuration data.

EPROM—Erasable Programmable Read-Only Memory. Memory chips used for customer configuration data.

Extended Tone Control—Option which causes the BIM to generate extended duration guard tone.

Failsoft Mode—Operation of the trunking system when the trunking central controller is not operational. One

repeater is designated for each channel to use during failsoft mode.

Failsoft TDM slot—The TBIM's TDM slot for the repeater which a trunking channel uses during failsoft mode.

Fallback Mode—The mode entered when the link to the CAD host fails.

Fallback Status—Status for each assignable channel which denotes one of three possible courses of action during fallback mode:—keep the current assignment, revert to the fallback CCM, or deassign the current assignment.

FID—Function ID. The code used in ordering an auxio denoting the type of the auxio.

Fleet—A subgrouping of the users in a trunking system.

Fleet Map—Fleet Map is referred to as Size Code in this document and in the software.

Fleet Prefix—The fleet prefix is the first digit of the three digit fleet ID.

Fleetwide Channel—A channel which transmits to all subfleets in a fleet.

Function Keys—The keys on the personal computer's keyboard marked F1 through F10.

GTW—General transmit Window, Pressing/releasing the GTW is equivalent to pressing/releasing the general transmit mouse button.

Help Files—The files on the program disk which are displayed when the user presses F1 HELP.

High Speed Mute—Option to a BIM which uses an auxio input to activate high-speed audio muting.

Individual ID—One radio or console in a subfleet.

ICOM—Intercom Interface Module. CEB module for the purpose of intercom.

K Option Number—The code used in ordering to describe an optional CCSM or group of CCSMs. It consists of K followed by up to 7 alphanumeric characters.

KOPT_TBL—The file on the program which contains the K options and their attributes.

Local Auxios—Auxios on a TOMI which can only be used on the operator position connected to the same TOMI.

Logging Tracks—Tape tracks on the logging recorder.

LOMI—Logging Recorder/Operator Interface Module. A board in the CEB controlling a logging recorder.

LOBL—Line Operated Remote Busy Light.

LORI—Logging Recorder Interface. The interface between the LOMI board and the logging recorder.

MDC—Motorola Data Communications. Alternate signalling format supported by the console.

Mechanism—In general, the switch mechanism is either a relay closure or tones generated by dedicated switch BIMs.

MID Code—Module ID Code. Each board in the CEB that does not have a BID code has an MID code. MID codes start with a letter indicating the type of board it belongs to, followed by a 2-digit decimal number.

Main Standby 2W—An auxio two-pole double-throw switch to alternate between two phone lines.

Main Standby 4W—An auxio four-pole double-throw switch to alternate between two phone lines.

MOD_TBL—The file on the program disk which contains the model numbers, the switches that make them up, and other attributes.

Model Number—The code used in ordering to describe a CCM with certain default CCSMs. It contains up to 8 alpha or numeric characters.

MS/DOS—Microsoft Disk Operating System. The operating system used by IBM PC compatible computers.

Mux Bus—One of three TDM buses which carry the audio between CEB boards.

Node—The channel type.

No Volume Pot Level—The audio level for the mute button without a volume pot. The default is 24 dB. This can be changed to 0, 6, 12, 18, 32, 36, and 42 dB.

OMI—Operator Interface Module. Generic term for TOMIs, LOMIs, CIMIs, and TIMIs.

Operator Position—The interface to the operator.

PC/DOS—Personal Computer Disk Operating System. The version of MS/DOS used by IBM PC computers.

PARAMS—The PARAMS file resides in the directory with the program. It is created to hold the installation parameters when the software installation is performed.

Patch Idle Delay—The amount of time when there is no activity on a patch before the patch ACTIVE/IDLE LED flashed. The default is 30 seconds. It can be changed to any value from 1 to 255 seconds.

Pathname—The description of the relationship of a sub-directory to the ROOT directory of the disk.

Example: \FLD_PROG\CUSTS\CHESTER

FLD_PROG is a directory under the root directory. CUSTS is a directory under the FLD_PROG directory, and CHESTER is a directory under the CUSTS directory.

Personality—The specific customer configuration of the console.

Phantom Boards—Boards which appear in the personality PROM, but do not really exist in the system yet. Phantom boards are specified so that all the personality PROMs do not need to be updated when the new board is added.

Phone Patch—A BIM switch which interfaces to a phone line rather than a base station. Allows patches between phone lines and radios.

PL Strip—A BIM option which allows paging without PL (*Private—Line Coded Squelch*).

Private Call—A type of trunking channel used to talk to one individual radio.

Random Auxios—Auxios that are used for functions not related to the BIM to which they are assigned.

RCM—Radio Control Module. The control module containing the clock and keypad.

RCP—Radio Control Panel. The lowest numbered CCP which contains the RCM.

Regroupable—A subfleet is regroupable if it can be redefined with another subfleet into a supergroup during a patch or multi-select operation, and using one repeater.

Relay Keying Control—An option to a BIM in which a relay is used to key the base station.

RS232 Card—The BLN6755 which sits above an OMI or modem board in the CEB and provides an RS232 interface.

S Record Format—Data format for transferring the EPROM data to and from the personal computer.

Save—Transfer the databases from personal computer memory to diskette for permanent storage.

Sixteen I/O Board—Board in the CEB whose purpose is to handle extra auxios.

Select Audio—The AEI board and AEI output number used to route the audio to the correct speakers while the channel is selected.

Separate TBIMs/Repeaters—A trunking system option in which a different set of TBIMs is used when the system is switched to the redundant trunking central controller.

Serial Link Baud Rate—The baud rate of the link from the TOMI to the operator position.

SGBM—Signalling BIM. A BIM which interfaces to a modem board.

Shared TBIMs/Repeaters—Trunking system option in which the same TBIMs are used when the system switches to the redundant trunking central controller.

Size Code—The code which defines the format of the trunking ID. The trunking ID can be decoded into fleet, subfleet, and individual using the size code.

Subfleet—A subgrouping of the channels in a trunking fleet.

Supervisor Status—The supervisory level for each operator position. Primary, secondary, and non-supervisory are the different supervisory levels.

Supervisor Takeover—A switch on the operator position which controls an auxio on a BIM which inhibits T1600 or *Series 90* type controllers from using a base station.

Switch BIM—A dedicated BIM for switching centrals by generating switching tones.

System ID—The trunking system ID as it is known to the trunking central controller.

System—Related K Options—K options which are associated with a trunking system ID, such as central switch buttons.

System—Wide Channel—A channel whose talk group is the whole trunking system.

TBIM—Trunking Base Interface Module. A BIM for trunking channels.

TDM Slot—Time Division Multiplexing Slot. Unique identification for each board in the CEB with values from 0 to 95.

Terminal Baud Rate—The baud rate of the diagnostic terminal link.

TIMI—Trunked Input/Output Interface Module. A board in the CEB interfacing to a trunking central.

TOMI—Trunked Operator Interface Module. A board in the CEB controlling an operator position.

Tone Control—A BIM option in which the BIM generates the tones to control a base station.

Trunking Central Controller—The controller hardware which coordinates trunking repeater assignments. The TIMI interfaces directly to the trunking central controller.

Trunking Channel—A channel that is part of a trunking system. It is not associated with a particular base station since it can be allocated dynamically to any base station in the trunking system to which the channel belongs. A

trunking channel is identified by system, fleet, subfleet, and individual.

Trunking Talk Group—The system, fleet, and subfleet to which a trunking channel belongs.

Unselect Audio—The AEI board and AEI output number used to route the audio to the correct speakers while the channel is not selected.

Upload—Transfer of data from the personal computer as when programming a UVEPROM.

UVEPROM—Ultraviolet Erasable Programmable Read Only Memory. The type of memory chip used for the TIMI, TOMI, CIMI, and LOMI personality PROMs.

Version—The section of the personality EPROM which tells how many revisions have been made to the EPROM data and the date the last change was made.

**CENTRACOM Gold Series
Classic CRT
User's Guide**

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