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AUDIX® Voice Power System R3.0

Switch Integration to
the ROLM 8000, 9000, and 9751 CBX

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Acknowledgment

This document was prepared by the AT&T Product Documentation Development Department, Denver, CO 80234-2703.

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About This Document

AUDIX® Voice Power™ Switch Integration to ROLM® 8000, 9000, and 9751 CBX, 585-310-206, contains installation and administration instructions for integrating a ROLM CBX with an AUDIX Voice Power system Release 3.0 (R3.0). The document contains instructions or information on the following topics.

- Switch integration planning strategies
- Switch Integration Device (SID) hardware installation instructions
- Software installation instructions
- ROLM 8000, 9000, and 9751 administration instructions
- Acceptance test procedures
- Cut-to-Service procedures
- SID troubleshooting guide

The document contains information only for the ROLM CBX integration with the AUDIX Voice Power system R3.0. If you have another type of switch, refer to the switch integration document for that switch.

INTENDED AUDIENCES

This document is designed primarily for the on-site AT&T services technician, the customer's technical personnel, and the customer's ROLM services technician. Use the document to install AUDIX Voice Power system integration-required hardware and software, perform acceptance tests, and perform cut-to-service. The customer or the customers' switch vendor should use the document when performing switch administration tasks and other customer required tasks.

Secondary audiences include the AT&T personnel shown in the following list.

- Field support
- The Technical Service Center (TSC)
- Provisioning project managers
- The Sales and Technical Resource Center (STRC)
- Helpline personnel
- Factory assemble, load, and test (ALT) personnel

PREREQUISITE SKILLS OR KNOWLEDGE

Typical readers should understand AT&T computer systems, switches, and hardware and software installation procedures. AT&T provides and recommends AUDIX Voice Power system training for customers. Customers should be familiar with the ROLM CBX or contact their switch vendor.

DOCUMENT ORGANIZATION

- Chapter 1 — *Prerequisites*, explains the AUDIX Voice Power configuration and includes a component connectivity diagram that shows you each component in the configuration. The chapter also contains a hardware and software component checklist.
- Chapter 2 — *Switch Integration Device Basics*, explains the basic components of the SID and how to use the system "forms" or screens. The chapter contains SID hardware component descriptions and illustrations, menu, edit, and action form explanations, and provides basic help functions.
- Chapter 3 — *Switch Integration Planning*, helps you plan, track, and record the switch integration. The chapter includes instructions for completing SID and switch integration worksheets that you use throughout the document as you complete the integration.
- Chapter 4 — *Hardware Installation*, describes the installation of the SID, cables to the switch, and cables to the AUDIX Voice Power system. This chapter only contains information for installing the hardware components required for the integration.
- Chapter 5 — *Software Installation*, contains instructions for installing the AUDIX Voice Power system software required to integrate with the ROLM 8000, 9000, 9751 CBX.
- Chapter 6 — *AUDIX Voice Power R3.0 Switch Parameters*, contains instructions for administering an AUDIX Voice Power system R3.0 to integrate with the switch. The chapter includes instructions for setting the message waiting lamp parameters, setting the switch interface parameters, and associating the application and the switch interface.
- Chapter 7 — *ROLM 8000 CBX Administration*, contains information and instructions for administering a ROLM 8000 CBX to work with an AUDIX Voice Power system.
- Chapter 8 — *ROLM 9000 and 9751 CBX Administration*, contains information and instructions for administering a ROLM 9000 or 9751 CBX to work with an AUDIX Voice Power system.
- Chapter 9 — *Switch Integration Device Administration*, contains information and instructions for administering the SID to work with the AUDIX Voice Power system.
- Chapter 10 — *Acceptance Tests*, provides instructions for the switch administration you must perform before you can continue with the acceptance tests.
- Chapter 11 — *Cut-to-Service*, provides instructions for the switch administration you must perform before you can continue with cut-to-service.

The document also includes a list of common abbreviations, a glossary, and an index.

HOW TO USE THIS DOCUMENT

This document provides additional information you need to know when integrating a ROLM CBX with an AUDIX Voice Power system R3.0. Use this document as additional information with the following documents:

- *6386/33 and 6386/25 Voice Processing Hardware Installation*, 585-310-111
- *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115

Do not perform any tasks in this document until you complete the required tasks in the installation documents.

CONVENTIONS USED IN THIS DOCUMENT

The document uses the following typographic conventions.

- Rounded boxes represent terminal keys that you must press.
Example: Press **ENTER** shows you an instruction to press the enter, carriage return, or equivalent key.
- Square boxes represent phone pad keys that you must press.
Example: Press **0** shows you an instruction to press zero.
- The word *enter* means to type a value and press **ENTER**.
Example: Enter **y** to continue.
instructs you to type **y** and press **ENTER**.
- A rounded box that contains two or more words separated by hyphens represents two or three keys that you press at the same time. To use these keys, you hold down the first key while pressing the second key and, if appropriate, the third key.
Example: Press **ALT-d**.
shows you an instruction to press and hold **ALT** while typing the letter *d*.
- Typewriter-style constant-width type represents information you see displayed on your terminal screen, including screen displays, field names, prompts, and error messages. Constant-width bold type represents information you must enter from your keyboard.
Example: At the Login ID? prompt, enter **snowfox**
- Italic type represents variables that the system supplies or that you must supply.
Example: Your file *filename* is formatted incorrectly.
shows you a generic error message displayed on the screen that would include one of your filenames.

TRADEMARKS AND SERVICE MARKS

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- AUDIX® is a registered trademark of AT&T.
- Voice Power™ is a trademark of AT&T.
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- IBM® is a registered trademark of International Business Machines Corporation.
- ROLMphone™ is a trademark of International Business Machines Corporation.
- UNIX® is a registered trademark of UNIX System Laboratories Inc.

RELATED RESOURCES

In addition to this document, you may need to reference the following documents.

- *6386/33 and 6386/25 Voice Processing Hardware Installation*, 585-310-111
- *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115
- *AUDIX Voice Power System Release 3.0 Installation Checklist*, 585-310-112
- *AUDIX Voice Power System Release 3.0 Maintenance*, 585-310-113
- *AUDIX Voice Power System Release 3.0 Administration*, 585-310-532
- *AUDIX Voice Power System Release 3.0 Planning*, 585-310-602
- *IBM CBX II 8000 System Service Manual Volume II, April 1985*
- *IBM CBX II 9000 Definition and Configuration, Volume I*

HOW TO MAKE COMMENTS ABOUT THIS DOCUMENT

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1. Introduction and Requirements for Integration

This chapter describes the requirements for the ROLM 8000, 9000, and 9751 CBX integration with an AUDIX® Voice Power™ system Release 3.0 (R3.0). The chapter includes a diagram and checklists that show the configuration for the AUDIX Voice Power system. For information on installing the AUDIX Voice Power system R3.0, refer to *6386/33 and 6386/25 Voice Processing Hardware Installation*, 585-310-111, and *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115.

Switch integration refers to the sharing of information between a voice mail system and a switch in order to provide a seamless interface to callers and subscribers. A fully integrated voice mail system answers each incoming phone call with information taken directly from the switch. To create an integrated environment between an AUDIX Voice Power system and a ROLM 8000, 9000, or 9751 CBX, AT&T uses an electronic box called a Switch Integration Device (SID). The SID operates as a digital telephone set emulator, transferring calls to the AUDIX Voice Power system while sending integration information over an out-of-band serial data link. The SID converts ROLMphone™ 400 display set information into Simplified Message Desk Interface (SMDI) format and sends the SMDI information to the AUDIX Voice Power system. The SID does not restrict any switch features.

For the SID to perform integrated call transactions, the switch must include a properly configured ROLMphone 400 station set. The SID uses the ROLMphone 400 set to provide integration information to the AUDIX Voice Power system. The ROLMphone 400 connects to the SID through a standard ROLM telephone line cord. The SID connects to the AUDIX Voice Power system through an RS-232 cable called a DB-25 Centrex cable. Figure 1-1 shows the connections between the ROLM CBX, the SID, and the AUDIX Voice Power system.

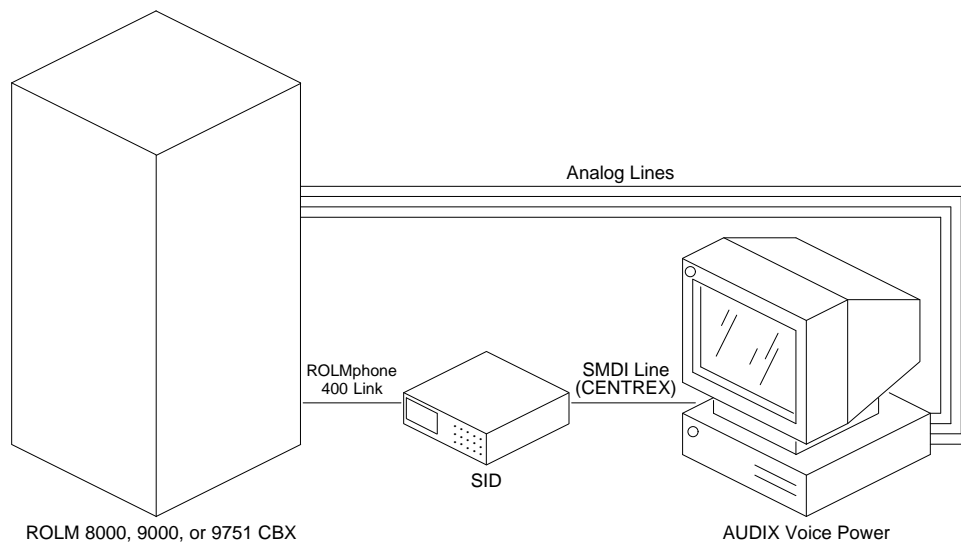


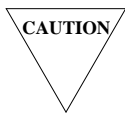
Figure 1-1. ROLM 8000, 9000, and 9751 Integration Hardware Connections

The SID emulates a ROLMphone 400 digital telephone set that communicates with the switch. Because the switch recognizes the SID as a digital station set, the SID's extension acts as the AUDIX Voice Power voice mail extension. When calls appear at the SID, the SID searches (hunts) for an open port on the voice mail system. After finding an available port, the SID uses the switch call party information to create a Centrex SMDI packet and sends the packet to the AUDIX Voice Power system.

The SID acts as the call traffic manager and subscribers use the SID extension to access the AUDIX Voice Power system. All covered and forwarded calls are sent to the SID's call appearances and then the AUDIX Voice Power system. When the SID receives a `set` or `clear` command from the AUDIX Voice Power system, the SID uses the ROLM message center capability to provide subscribers with a stutter dial tone. The feature also lights message waiting lamps (MWL) if subscribers have MWLs on their telephone sets.

Before you connect the ROLM 8000, 9000, or 9751 CBX to the SID and the AUDIX Voice Power system, you must confirm that you have all required hardware and software integration components. Use the diagrams, checklists, and descriptions in this chapter to confirm that you have all required integration components.

SAFETY CONSIDERATIONS



Electrostatic discharge damages electronic equipment. Do not touch any electronic component until you properly ground yourself.

To prevent damage to the equipment and yourself, follow these precautions:

- Familiarize yourself with the procedures necessary to prevent electrostatic damage to equipment.
- Shut off all power and remove all cables from equipment.
- Properly ground a work mat and wrist strap.
- Place the equipment on the work mat.
- Place the grounded wrist strap on your bare wrist. The wrist strap must contact your bare skin directly. *Do not* wear the wrist strap over your clothes.

FACTORY ASSEMBLED SYSTEMS

If your customer ordered the complete hardware platform, an AT&T 6386 WGS with the AUDIX Voice Power system R3.0, the factory performs assembly, load, and test (ALT) processes for most of the hardware and software before shipping the system to the site. The factory identifies these systems by placing an orange sticker over the floppy disk drive door. The sticker indicates that you do not need to reload the software.

Before you begin the installation, look for the ALT sticker. If you see the sticker, use the information in this chapter to confirm that the system contains the hardware and software for your configuration. After checking the installed hardware and software, perform all tasks not completed during ALT, such as connecting the voice and data lines, setting up and cabling the peripherals, and installing the switch communications software. Use the *AUDIX Voice Power System Release 3.0 Installer's Checklist*, 585-310-112, to make sure you complete all necessary tasks.

DETERMINING THE PLACEMENT OF THE SID

The Switch Integration Device (SID) and the 6386 application computer represent *local* devices. Local devices must be located in the same physical area. Place the SID and the 6386 computer in the same area and close enough together so the RS-232 cable supplied with the SID connects to the computer. During installation, the AT&T technician will place the SID and the 6386 in the location specified by the customer. The SID is installed exactly like a ROLMphone 400 station set and requires the same components.

The link between the ROLM CBX and the SID uses a six foot ROLMphone telephone line cord. The SID must be installed within the local loop length limit for a ROLMphone 400 set. If the distance between the SID and the set is greater than the line cord reaches or the local loop length, the customer must consult with the ROLM CBX technical representative to determine the best method of connecting the switch to the SID. AT&T does not recommend any particular methods. AT&T assumes responsibility only for the RS-232 cable that connects between the SID and the AUDIX Voice Power system.

SYSTEM CONFIGURATION

The AUDIX Voice Power system R3.0 connects to the ROLM 8000, 9000, and 9751 CBX through a Switch Integration Device (SID). Figure 1-2 shows you the connections between the AUDIX Voice Power system and the CBX. Each component in Figure 1-2 contains a label. Table 1-1 following the diagram provides a name for each component in the diagram. Use Figure 1-2 and Table 2-1 to understand how the system components connect. The component checklists in the remainder of this chapter provides you with the Price Element Codes (PECs) and Comcodes for the AUDIX Voice Power system R3.0 components.

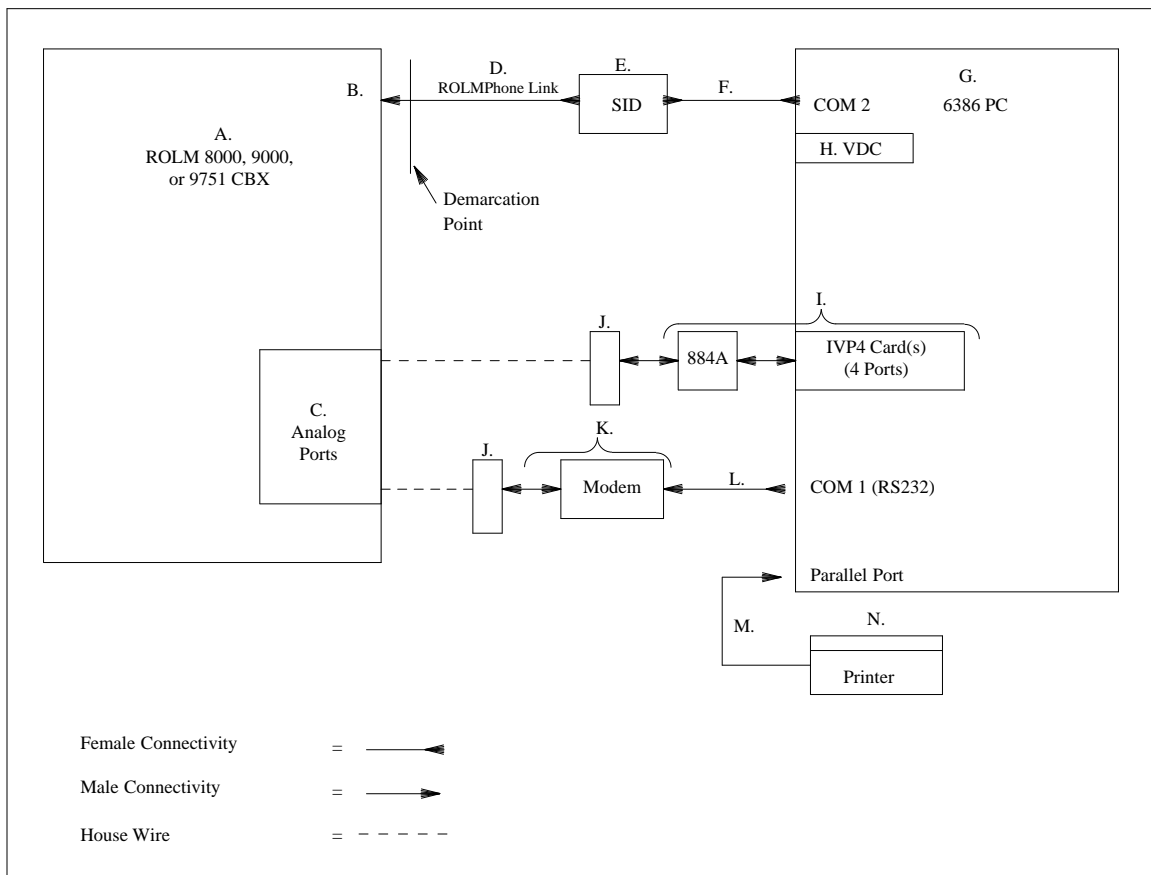


Figure 1-2. Connectivity Diagram for the ROLM 8000, 9000, and 9751 CBX

Table 1-1. AUDIX Voice Power System R3.0 Component List

Item #	Description	Item #	Description
A.	ROLM 8000, 9000, or 9751 CBX	H.	AT&T VGA Video Display Controller (VDC600)
B.	Digital (ROLMphone) line port	I.	1-3 Integrated Voice Processing (IVP4) cards (including 1 884A adaptor and cables)
C.	Analog line port	J.	1-4 103A Connect Block
D.	ROLMphone telephone line cord used to connect the SID to the CBX. AT&T only assumes responsibility for connecting the cord to the SID.	K.	1 1200/2400 baud, asynchronous modem with cord
E.	Switch Integration Device (SID) including power cord	L.	1 RS-232, M/F cable required for the modem
F.	RS-232 cable (DB-25) used to connect the SID to the AUDIX Voice Power system - includes 25-pin to 9-pin adapter (DB-9)	M.	1 7-ft, 25-36 parallel cable required with the printer
G.	An AT&T 6386/25 WGS or a 06386/33 WGS system modules	N.	1 9-pin, 80-column parallel printer (optional)

COMPONENT CHECKLISTS

The checklists on the next few pages identify the components required for the AUDIX Voice Power system R3.0 to ROLM 8000, 9000, and 9751 switch integration. Compare the components that you have on site with the checklists to make sure you have everything required for the installation. The checklists contain each AUDIX Voice Power system component and list a Price Element Code (PEC) for each component. You can use the PECs to order systems, upgrades, and additions. Some PEC descriptions include comcodes or J-drawing numbers used by AT&T Services personnel when required. For a complete list of PECs, refer to *AUDIX Voice Power System Release 3.0 Planning*, 585-310-602.

ROLM 8000, 9000, and 9751 CBX Hardware

The customer must provide the correct switch and related components. The customer should use this ROLM CBX component checklist to make sure that they have all required items before an AT&T technician arrives to install the system. The AUDIX Voice Power system R3.0 integrates only with the following ROLM CBXs:

- ROLM 8003 or later series CBX
- ROLM 9000 series CBX
- ROLM 9751 series CBX

The ROLM integration with the AUDIX Voice Power system requires the ROLM switches to have the components and features shown in the following table.

Switch Type	Card Type	Model #	Description
ROLM 8000	RPI circuit pack	78011	RPI1 card for 8000 and 9000
		78012	RPI2 card for 8000 and 9000
	Analog circuit pack	85540	8 channel line interface for 8000 and 9000
	Analog OPS circuit pack	85691	OPS for 8000 and 9000
		85690	OPX for 8000 and 9000
	Message Waiting Card	75520	MWL line interface for 8000 and 9000
ROLM 9000	RPI circuit pack	78011	RPI1 card for 8000 and 9000
		78012	RPI2 card for 8000 and 9000
	Analog circuit pack	85540	8 channel line interface for 8000 and 9000
	Analog OPS circuit pack	85691	OPS for 8000 and 9000
		85690	OPX for 8000 and 9000
	Message Waiting Card	75520	MWL line interface for 8000 and 9000
ROLM 9751	RPI circuit pack	90678	RLI card for 9751
	Analog circuit pack	90666	Analog Telephone Interface (ATI) for 9751
	Analog OPS circuit pack	90618	OPS 9751
	Message Waiting Card (for stations with neon lamps)	90502	MWL line interface 9751

NOTE

The RPI circuit pack for the 8000 and 9000 consists of two cards, the RPI1 and the RPI2. You must have both cards to create a set of RPI ports. On the 9751 CBX, a single ROLMLink Interface card (RLI) performs the same action.

Analog OPS and OPX cards provide *wink off* upon disconnect.

Switch Integration Device Hardware

PEC	Comcode/J-Drawing	Description
8304-RLM	J1P287AA-1 List 2	Switch Integration Device (SID) including power cord
Same	Same	RS-232 cable (DB-25) used to connect the SID to the AUDIX Voice Power system — includes 25-pin to 9-pin adapter (DB-9)
Same	Same	ROLMphone telephone line cord used to connect the SID to the CBX. AT&T only assumes responsibility for connecting the cord to the SID.

AUDIX Voice Power Release 3.0 Base Operating System Software

PEC	Comcode/J-Drawing	Description
6950-BD1		UNIX 3.2.2

AUDIX Voice Power Release 3.0 Hardware

PEC	Comcode/J-Drawing	Description
6950-DB1		6386/25 without disk
6950-DC1		6386/33 with 300MB disk
69595		300MB disk
69581		2MB RAM SIM Modules
8304-IV4		4 port card
69587		VDC600 card

AUDIX Voice Power Release 3.0 Peripherals

PEC	Comcode/J-Drawing	Description
69579		Monochrome monitor
69586		Color monitor
6950-EB1		Printer cable
6951-417		NCR parallel printer
63183		Hayes Smartmodem Optima 2400 modem
2721-28E		Modem cable

AUDIX Voice Power Release 3.0 Kits

PEC	Comcode/J-Drawing	Description
1228-300	J1P287TB-1 List 2 J1P287TB-1 List 1 J1P287TB-1 List 3 106810880 106856503 106810898 106841513 601306004 106435878	AUDIX Voice Power R3.0 Application Kit IVPSS R3.0 Software AUDIX Voice Power R3.0 Application Software AUDIX Voice Power R3.0 Speech Software <i>6386/33 and 6386/25 Voice Processing Hardware Installation</i> <i>AUDIX Voice Power System R3.0 Software Installation</i> <i>AUDIX Voice Power System R3.0 Installer's Checklist</i> <i>AUDIX Voice Power System R3.0 Maintenance</i> IVP4 Circuit pack, cords, manual AUDIX Voice Power Video and Workbook
1228-RLM	J1P287TB-1 List 9 106835812	AUDIX Voice Power R3.0 Switch Integration for ROLM 8000, 9000, and 9751 CBX ROLM Switch Integration Software <i>AUDIX Voice Power System R3.0 Switch Integration to ROLM 8000, 9000, and 9751 CBX</i>

AUDIX Voice Power Release 3.0 Documentation

Select Code	PEC	Comcode	Description
585-310-202 585-310-013		106810856 106810864	<i>AUDIX Voice Power System R3.0 System and Feature Description</i> <i>AUDIX Voice Power System R3.0 Documentation Guide</i>
585-310-602 585-310-111 585-310-115 585-310-112 585-310-113		106810872 106810880 106856503 106810898 106841513	<i>AUDIX Voice Power System R3.0 Installation Planning</i> <i>6386/33 and 6386/25 Voice Processing Hardware Installation</i> <i>AUDIX Voice Power System R3.0 Software Installation</i> <i>AUDIX Voice Power System R3.0 Installer's Checklist</i> <i>AUDIX Voice Power System R3.0 Maintenance</i>
585-310-532 585-310-711 585-310-712 585-310-713 585-310-714 585-310-715		106810922 106810930 106810948 106810955 106810963 106810971	<i>AUDIX Voice Power System R3.0 Administration</i> <i>AUDIX Voice Power System R3.0 Portable User's Guide</i> <i>AUDIX Voice Power System R3.0 Quick Reference</i> <i>AUDIX Voice Power System R3.0 Artwork Package</i> <i>AUDIX Voice Power System R3.0 Wallet Card</i> <i>AUDIX Voice Power System R3.0 Business Card Sticker</i>
585-310-208 585-310-206	70702	106835838 106835812	<i>AUDIX Voice Power System R3.0 Switch Integration Toolkit</i> <i>AUDIX Voice Power System R3.0 Switch Integration to ROLM 8000, 9000, and 9751 CBX</i>

Documentation Advance Shipment Kit

PEC	Comcode	Description
70700		Documentation Advance Shipment Kit
	106810856	<i>AUDIX Voice Power System R3.0 System and Feature Description</i>
	106810864	<i>AUDIX Voice Power System R3.0 Documentation Guide</i>
	106810872	<i>AUDIX Voice Power System R3.0 Installation Planning</i>
	106810922	<i>AUDIX Voice Power System R3.0 Administration</i>
	106810930	<i>AUDIX Voice Power System R3.0 Portable User's Guide</i>
	106810948	<i>AUDIX Voice Power System R3.0 Quick Reference</i>
	106810955	<i>AUDIX Voice Power System R3.0 Artwork Package</i>
	106810963	<i>AUDIX Voice Power System R3.0 Wallet Card</i>
	106810971	<i>AUDIX Voice Power System R3.0 Business Card Sticker</i>

2. Switch Integration Device Basics

Before you attempt to operate and administer the Switch Integration Device (SID) and integrate a ROLM 8000, 9000, or 9751 series CBX with an AUDIX Voice Power system R3.0, you need to understand the hardware components of the SID and how to use the device. The information in this chapter explains the basic components of the SID and how to use the system "forms" or screens. The chapter covers the following topics.

- SID hardware component descriptions
- SID hardware component illustrations
- Menu forms
- Edit forms
- Action forms
- Help functions

Read the information in this chapter to understand the SID hardware and software.

THE SWITCH INTEGRATION DEVICE HARDWARE

Before you use the SID, you need to understand each hardware component. Read the descriptions below of each component and refer to Figure 2-1 to locate the component.

Front Panel

LCD display	A two-line, 40-character, backlit LCD display screen used to show all menus and information on the SID.
Diagnostic lights	LED lights used to indicate and trace possible problems in the SID. The LEDs help to determine if problems exist in the SID, the link to the PBX, the link to AUDIX Voice Power, or any combination of the different links or systems. The Status LED lights when you power on the SID.
Keypad	A 19-key, membrane-style keypad used to select menu items, enter information, and perform all administration on the SID. The keys include ten numbered keys (0-9), four directional arrow keys, a pound sign (#) key, a star key (*), a Function key, a Mode key, and an Enter key. Chapter 8, <i>Switch Integration Device Administration</i> , of this document contains tables that show the function of each key, if different than marked.

Rear Panel

Power switch	The toggle switch used to turn the SID on and off.
Power cord outlet	The male outlet where you plug in the power cord shipped with the SID.
Link A and Link B	Two RS-232 ports used to connect the SID to the PBX and the AUDIX Voice Power system R3.0. Chapter 4, <i>Hardware Installation</i> of this document explains the proper connections for the two ports.
Modem port	The SID contains an internal modem used for diagnostic and software upgrade purposes. Use the modem port to connect the SID's modem to an analog line.

Continue to the next section, *Using the Switch Integration Device Software*, for an explanation of how to use the SID displays and menus.

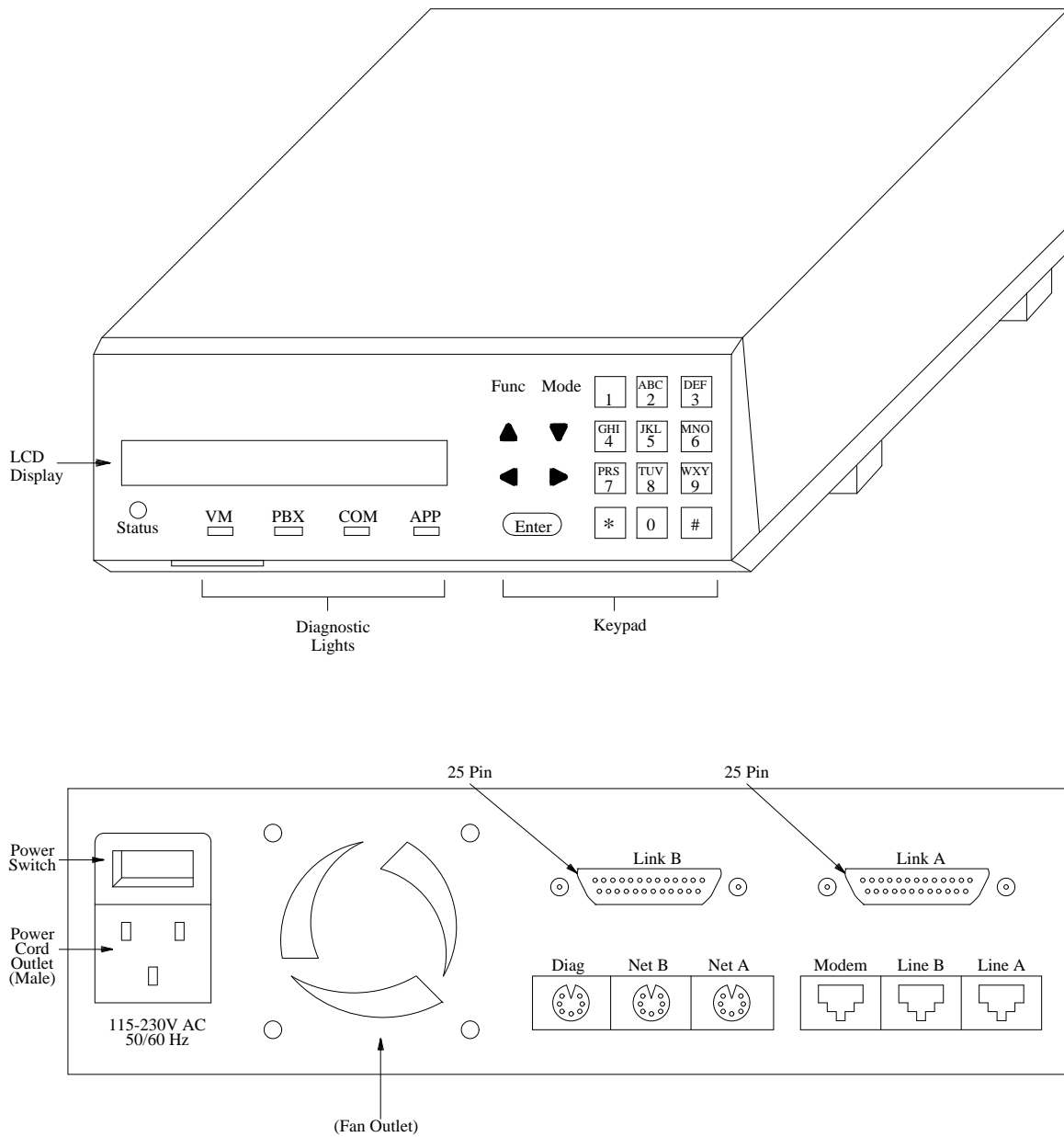


Figure 2-1. Top: SID Front Panel Bottom: SID Back Panel

THE SWITCH INTEGRATION DEVICE SOFTWARE

The SID contains software that allows you to perform installation, configuration, and diagnostic tasks by using the keypad and the LCD screen. As you administer the SID, you use three types of forms or screen displays. Each type of form has a specific task.

- Menu Forms — Used to select one of several options.
- Edit Forms — Used to enter information into the SID’s configuration.
- Action Forms — Used to perform an action, view event logs, or monitor the system.

This section contains descriptions and examples of each form and provides you with instructions for using the forms. You also can find tables that show you valid key actions for each form.

Menu Forms

Menu forms allow you to select options by pressing a key. You can select another menu, an edit form, or an action form. The menu forms allow you to move between important forms by pressing only a few keys. Figure 2-2 shows you the ROLM USER INTERFACE MAIN MENU.

ROLM	1-View	2-Utils	3-System
	4-Setup	5-Logs	6-Diags

Figure 2-2. The ROLM User Interface Main Menu

A menu form contains two items:

- Name** You can find the menu name in the upper left hand corner of the LCD display. Use the name as a reference item.
- List of options** Menus show you different options. Each option has a number and a label. Not all menus contain the same number of options. To select an option from a menu, press the option number on the keypad. The SID clears the current form from the LCD display and places the form you selected on the display. The label you selected appears as the name of the form.

Example: If you wanted option 4, SETUP, from the ROLM USER INTERFACE MAIN MENU shown in Figure 2-2, press **4** on the keypad. After you press **4**, you see the SETUP form appear on the screen as shown in Figure 2-3.



SETUP	1-Params 4-Advanced	2-Ports	3-Clear
-------	------------------------	---------	---------

Figure 2-3. The Setup Form

The SID uses menus to organize all options and functions into categories. Menus also permit the user to navigate easily through the forms by pressing one or more keys.

Each type of form requires you to use different keys on the keypad to make selections and enter information. The table below shows you what keys to use with the menu forms.

Key	Action
1,2,3,4,5,6,7,8,9,0	Select menu option
*,#	No action
Func	Return to main menu
Mode	No action
Arrows	No action
Enter	No action

Edit Forms

Edit forms allow you to use the keypad to enter information into the SID's configuration. There are three types of edit forms:

- Single Item
- Two Item
- Scroll Item

This section contains descriptions and examples of each type of edit form and provides you with instructions for using the forms.

Single Item Edit Forms

On a Single Item Edit form, you must enter one piece of information or answer one question. Figure 2-4 shows you an example of a single item edit form, the `SETUP` form. On the form, you need to enter the number of ports assigned to the AUDIX Voice Power system `R3.0`. In this example, you enter the appropriate value using the digits on the keypad and press `ENTER`.

SETUP	Number of Ports	-----
-------	-----------------	-------

Figure 2-4. The Setup Form — Single Item

Two Item Edit Forms

Two Item Edit forms ask two related questions. After you answer the first question and press `ENTER`, the cursor moves to the second line. You must now enter information for the second question. When you press `ENTER` the second time, the cursor *wraps* or moves back to the first line. If you have entered all information correctly, press `↑` or `↓` to move to the next edit form. You can press `FUNC` to return to Main Menu. If you did not enter the information correctly, you can change the information until you have everything correct. Figure 2-5 shows you the `VM PORT` form, an example of a two item edit form.

VM Port 1	LTN:	0001
	Extension:	-----

Figure 2-5. The VM Port Form

Scroll Item Edit Forms

Scroll Item Edit forms ask questions that have a limited number of answers. The SID places a default value in the field, but allows you to "scroll" or search through the options. Use the left and right arrow keys on the keypad to scroll through the options. Figure 2-6 shows you a sample scroll item edit form, the CENTREX BAUD RATE form.

CENTRX Baud Rate:	1200
<- ->	

Figure 2-6. The CENTREX Baud Rate Form

In the example, you use the CENTREX BAUD RATE form to set the baud rate for the Centrex link. You can set the baud rate to specific values between 1200 and 9600 baud. On the form you see a default value of 1200. To see the other options, you press the left arrow key to decrease the baud rate or press the right arrow key to increase the rate. When you find the rate you want, press **ENTER** to confirm your choice. You can recognize scroll item edit forms by the small arrow symbols (<- ->) shown below the form name.

Edit Form Keys

Edit forms require you to enter data for SID setup and configuration. Most edit forms have default values already entered on them. If you choose to use the default value, press **FUNC** to exit the form. As you edit forms, you can move to the next or previous edit form, return to the main menu, or access a help screen. Refer to the table below for a list of keys and the action each key performs.

Key	Action
1,2,3,4,5,6,7,8,9,0	Data entry keys
*,#	Data entry keys
Func	Return to main menu
Mode	Help
Up Arrow	Go to previous edit form
Down Arrow	Go to next edit form
Right Arrow	Get higher value
Left Arrow	Get lower value
Enter	Confirm entry, move to next field

With some menu selections, you can access multiple edit forms that link together. When you access multiple edit forms, press **↓** to move to the next form or press **↑** to move to the previous form.

Edit Form Help Functions

Edit forms allow you to actively access help screens. To access the help screen, press **MODE** at any edit form. The SID places the help screen on the LCD display. The SID retains any information you may have entered on the edit form and places the edit form with your information back on the display when you exit the help screen. You do not lose any information. Most help screens appear as shown in Figure 2-7, although certain edit forms add or delete options.

EDIT	1-Overtyp	2-Insert	3-Clear
	4-Undo		

Figure 2-7. Help Screen Options Accessed from an Edit Form

The following list shows you each available option and explains the action of each option shown on the help screen.

Overtyp	The option places the editor into a mode that allows you to enter new characters over existing characters.
Insert	The option changes the editor into a mode that allows you to insert new characters between existing characters.
Clear	The option erases all characters in the field.
Undo	The option replaces any new information typed in the field with information from the stored configuration.

Action Forms

Action Forms provide you with a "window" or a view into the integration application. With action forms, you can monitor the application activity, review event logs, or check statistical information. Figure 2-8 shows a sample action form, the STATISTICS VIEW form.

VW_STA	Calls: 1024	Inc: 45	Abnd: 123
	MWIs: 988	Inc: 12	Q: 234-06%

Figure 2-8. The Statistic View Action Form

Action forms operate in a dynamic or real-time mode. The screen changes with each transaction processed by the SID. When you finish observing an action form, press **FUNC** to return to the main menu. You also can press **MODE** to access any available help options for the action form. Although not all action forms have help options, by pressing **MODE** you usually can find optional ways to look at the information presented on the action form.

All action forms use the same keys on the keypad to perform functions and make selections. The table below shows you what keys to use with the action forms.

Key	Action
1,2,3,4,5,6,7,8,9,0	No action
*,#	No action
Func	Return to main menu
Mode	Help for Action Form
Arrows	No action
Enter	No action

You have read the basic information necessary to integrate the AUDIX Voice Power system R3.0 to a ROLM 8000, 9000, or 9751 series CBX. Proceed to Chapter 3, *Switch Integration Planning*, to plan the switch integration and prepare for the installation and administration procedures.

3. Switch Integration Planning

Before you implement the ROLM CBX integration with the AUDIX Voice Power system R3.0, you must plan the process. This chapter provides worksheets and information to help you plan and record the integration.

By completing the worksheets you collect the following information:

- Number of voice mail ports
- Message desk number
- Extension length
- Calling party identification pad string
- Message waiting indicator pad string
- Message waiting indicator features
- Simplified message desk interface baud rate
- Extensions/logical terminal number plan

Continue with the instructions on the next page to plan the switch integration.

DETERMINE THE NUMBER OF VOICE MAIL PORTS

You must specify the number of voice mail ports for the Switch Integration Device (SID) to support and monitor. The number of ports for the SID is the same as the number of ports assigned to the integrated services on the AUDIX Voice Power system. To determine the number of voice mail ports the SID must support, count the total number of ports assigned to the CA+VM and CA+VM+AA services. Refer to the *PBX Worksheet* in Appendix A, *Planning Worksheets*, of *AUDIX Voice Power R3.0 Planning*, 585-310-602, for a list of the services assigned on the AUDIX Voice Power system R3.0.

The ROLM 8000, 9000, and 9751 CBXs support a maximum number of 20 lines. After you determine the number of voice mail ports you need to assign on the SID, write the number on line 1 of worksheet A.

Worksheet A: Switch Integration Information

Line #	Field or Feature Name	Value	Default
1.	Number of voice mail ports:	_____	20
2.	ROLM COS #:	_____	00
3.	RPI PAD:	_____	--
4.	Feature Configuration Table:	_____	--
5.	Message Desk Number:	001	001
6.	Extension Length	_____	3
7.	CPID Pad String Number:	_____	0000xxx
8.	MWI Pad String Number:	_____	0000xxx
9.	MWI Feature: (ENABLE = on, DISABLE = off)	_____	ENABLE
10.	SMDI Baud Rate:	_____	1200
11.	MWI Interleave:	5	5
12.	Call Sequence:	Call/Data	Data/Call

SELECT A CLASS OF SERVICE

During the ROLM CBX administration, you must configure a Class of Service (COS) for the integration. The COS determines the availability of features to an extension. The COS configured for and assigned to the AUDIX Voice Power system must have the following features set:

- Feature 3 — Private Call (PRV), enabled
- Feature 9 — Do Not Disturb (DND), disabled
- Feature 13 — No Flash Allowed (NFL), disabled
- Feature 17 — No Howler if Left Off-Hook (NOH), enabled

Try to use a COS not currently assigned on the ROLM CBX. If all COS are assigned, use a COS that has the required features set. Once you determine the COS number that you plan to use for the AUDIX Voice Power system, write the number on line 2 of worksheet A. If you plan to use the default, you must check the administration of the default COS as outlined in Chapter 7, *ROLM 8000 CBX Administration*, or Chapter 8, *ROLM 9000 and 9751 CBX Administration*. If you have a problem determining a COS for the application, contact the ROLM switch vendor.

DETERMINE THE RPI PORT ADDRESS

Before you can administer the ROLMphone 400 emulation on the ROLM CBX, you must determine the ROLMphone Interface (RPI) Port Address (PAD) number. The RPI serves as the basic digital port used by ROLMphone digital sets. Any ROLM CBX with version 8003 software or greater should have standard support for the ROLMphone 400. To determine the RPI PAD number, consult with the ROLM switch vendor or system administrator. Once you determine the RPI PAD number that you plan to use for the connection to the SID, write the number on line 3 of worksheet A.

DETERMINE THE FEATURE CONFIGURATION TABLE

The Feature Configuration Table contains all of the configuration information for the ROLMphone 400 emulation including the line appearance extensions, the busy indicators, and the feature keys. Before you can administer the ROLMphone 400 emulation, you must find an unused Feature Configuration Table. Use the `LFC RP400` command to find the number of an unused Feature Configuration Table. Consult with the ROLM switch vendor or system administrator for assistance in determining the table number. Once you determine the Feature Configuration Table number, write the number on line 4 of worksheet A.

SELECT THE MESSAGE DESK NUMBER

The Simplified Message Desk Interface (SMDI) message desk number must match the number assigned on the voice mail system. For the AUDIX Voice Power system, use the default value assigned to the SID. The default value is **001**. Line 5 of worksheet A already contains the value 001 as the message desk number.

SELECT THE EXTENSION LENGTH NUMBER

The CPID and MWI extension length fields must match the extension length assigned on the switch. The SID defaults to an extension length of 3. The extension length is used with the CPID and MWI pad strings. If your switch has a different extension length number, enter that number on line 6 of worksheet A.

SELECT THE CPID PAD STRING

The SID retrieves calling and called party information identical to the display information provided at the ROLMphone 400 set. The SID operates on Simplified Message Desk Interface (SMDI) protocol which uses a seven-digit field. To compensate for the difference between the protocols, the SID uses a seven-digit string, called the Calling Party Identification Pad (CPID) string, that the SID overwrites with caller identification information. For example, if the CPID pad string is 0000xxx and the SID receives a caller ID of 245, the SMDI caller ID information becomes 0000245.

The SID assigns the field a default value of 0000xxx which matches the default extension length. When you change the extension length, the SID automatically updates the CPID pad string number. If you change the default extension length number, write the correct CPID pad string on line 7 of worksheet A.

SELECT THE MWI PAD STRING

The Message Waiting Indicator (MWI) Pad String operates on the same basis as the CPID Pad String. As with the CPID Pad String, the SID uses a seven-digit string, called the Message Waiting Indicator (MWI) pad string, that informs the SID about the format of MWI information generated by the AUDIX Voice Power system. The SID uses the MWI pad string to strip off digits not required by the ROLMphone 400. The SID assigns a default MWI pad string of 0000xxx. If you change the default extension length number, write the correct MWI pad string on line 8 of worksheet A.

SELECT THE MESSAGE WAITING INDICATOR FEATURE

By using the MWI feature, you can allow the AUDIX Voice Power system to activate message waiting lamps. The SID sets the default value for this field to **ENABLE**, which activates the MWI feature. If you do not want the AUDIX Voice Power system to activate the MWIs, change the field to **DISABLE**. Write the value on line 9 of worksheet A.

DETERMINE THE SMDI BAUD RATE

You must set the baud rate for the Simplified Message Desk Interface (SMDI) link. The SID provides baud rate selections of 1200, 2400, and 9600 baud and sets a default of 1200 baud. Write the SMDI link baud rate on line 10 of worksheet A. If you plan to use the default setting, write **1200** on the worksheet.

DETERMINE THE MWI INTERLEAVE FACTOR

The SID normally processes incoming calls before processing an MWI. When the system is busy, MWI packets back up on the system. Use the MWI interleave factor to force the SID to process MWI packets on busy systems. The interleave factor instructs the SID to process a single MWI after *n* calls. The SID uses a default setting of 5. For the AUDIX Voice Power system, use the default setting. Line 11 on worksheet B already contains the default value.

DETERMINE THE CALL SEQUENCE

Use the field to indicate the order in which the call and SMDI information are sent to the AUDIX Voice Power system. The SID is configured with the sequence **Call/Data**. Use the default value as shown on Line 12 of worksheet B.

DETERMINING THE EXTENSION/LTN PLAN

The AUDIX Voice Power system R3.0 receives speech from the switch over analog channels, also called voice ports. Each channel has an assigned service on the AUDIX Voice Power system. For example, if a subscriber calls the AUDIX Voice Power number and accesses voice mail, the subscriber dialed an extension for a channel connected to the voice mail service.

On the AUDIX Voice Power system, you assign an extension to each channel to allow for switch communications. For the SID application, you associate a Logical Terminal Number (LTN) with each analog extension number used by the AUDIX Voice Power system. For example, if an AUDIX Voice Power system assigns channel 0 to extension 2222, you assign LTN 1 (0001) to the extension. Assigning the LTN to an extension tells the SID where to send information for the extension. If you do not assign the LTNs, the SID does not integrate calls properly.

NOTE

The AUDIX Voice Power system uses 0 as the first channel number assigned to an extension. The SID assigns 1 as the first LTN assigned to an extension. As you assign channels and LTNs, the number is always one greater than the AUDIX Voice Power assigned number.

Appendix A of *AUDIX Voice Power System Release 3.0 Planning*, 585-310-602, contains a PBX worksheet that lists each channel number and the extensions assigned to the channel. Use the information recorded on the PBX worksheet as you complete the switch administration procedures in this document. Worksheet B provides a space for the channel extension and lists the LTN number. Copy the channel extension from the planning document onto worksheet B.

Worksheet B: Extension/LTN Plan

Analog Voice Port (Channel) Extension	LTN LTN	Analog Voice Port (Channel) Extension	LTN LTN
_____	0001	_____	0007
_____	0002	_____	0008
_____	0003	_____	0009
_____	0004	_____	0010
_____	0005	_____	0011
_____	0006	_____	0012

DETERMINE PILOT AND CALL APPEARANCE EXTENSIONS

The pilot number is the extension number assigned to the SID. AUDIX Voice Power system subscribers dial the pilot number to access their voice mail. If the pilot number is busy, the SID "hunts" or searches through eight keys or "call appearances" to use to complete the call. The pilot number serves as the extension number that the CBX associates with the ROLMphone 400 set.

For the AUDIX Voice Power system ROLM CBX integration to work, you need to determine the pilot number for the SID. You also need to determine the call appearances for the ROLMphone 400 emulation. Appendix A of *AUDIX Voice Power System Release 3.0 Planning* contains a PBX Worksheet. The worksheet contains a section titled *AUDIX Voice Power phone number or switch group extension*. Copy the number listed in that section onto line 1, Pilot Number, on worksheet C. If the planning document does not contain the AUDIX Voice Power phone number, the customer and the account team should use the information in the planning document to determine an AUDIX Voice Power system number.

When selecting the eight line or call appearance extensions, select eight sequential extensions not currently assigned on the CBX. For example, you determine that you want to use **400** as the first call appearance. Assign **401, 402, 403, 404, 405, 406, and 407** as the remaining extensions. Write the call appearance extension numbers on lines 2 through 9 of worksheet C.

Worksheet C: Pilot Number and Call Appearances for the Integration

Line #	Extension Type	Extension
1.	Pilot Number:	_____
2.	Call Appearance:	_____
3.	Call Appearance:	_____
4.	Call Appearance:	_____
5.	Call Appearance:	_____
6.	Call Appearance:	_____
7.	Call Appearance:	_____
8.	Call Appearance:	_____
9.	Call Appearance:	_____

TEST SUBSCRIBER EXTENSIONS

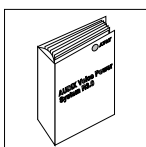
To perform the acceptance test procedures, you must administer two test subscribers on the switch. In Appendix A of *AUDIX Voice Power System Release 3.0 Planning*, 585-310-602, you completed a PBX worksheet. The PBX worksheet had you identify two test subscriber names and extensions and record the information on Table A-4. You must use the information you recorded on the table as you complete the switch administration procedures in this document. You can copy the information from the planning document onto worksheet D to avoid referencing two documents during the switch administration procedures. Record the test subscriber names and extensions on lines 1 and 2 of worksheet D, *Test Subscriber Information*.

Worksheet B: Test Subscriber Information

Line #	Information Type	Value
1.	Test subscriber 1 extension:	_____
	Test subscriber 1 name:	
2.	Test subscriber 2 extension:	_____
	Test subscriber 2 name:	

4. Hardware Installation

This chapter describes the hardware and cable installation tasks required to integrate the ROLM 8000, 9000, or 9751 series CBX with an AUDIX Voice Power system R3.0 through a switch integration device (SID).



Before you perform the tasks in this chapter, complete the instructions in *6386/33 and 6386/25 Voice Processing Hardware Installation* (585-310-111).

For an Assembly, Load, and Test (ALT) system, you may not need to perform the steps in the other documents. Use the *AUDIX Voice Power Installation Checklist* to verify that all other AUDIX Voice Power system R3.0 hardware has been installed and continue with the instructions in this chapter.

This chapter covers the installation of all CBX integration-related hardware components. The tasks must be performed by the installation technician, the customer, or the customer's switch vendor. Each task provides an explanation of who should perform the task. If you do not know the hardware components required for the integration, refer to Chapter 1, *Prerequisites*, of this document for more information.

The hardware installation tasks covered in this chapter include:

- Connecting the analog line to the SID modem
- Connecting the ROLM line cord to the switch
- Connecting the ROLM line cord to the SID
- Connecting the cable from the SID to COM2

Continue with the instructions on the next page to install the hardware.

TASK 1: CONNECT AN ANALOG LINE TO THE MODEM

The SID contains an internal modem that allows for remote site access and maintenance. You must connect an analog line from the switch to the modem. This task should be performed by the installation technician and the customer or the customer's switch vendor. The customer or the customer's switch vendor should connect the analog line to the switch before the installation technician arrives.

Use the following procedure to connect the analog line to the modem.

1. Connect the analog line to the **MODEM** port on the SID, as shown in Figure 4-1.

Proceed to Task 2, *Connect the SID to the ROLM Switch*.

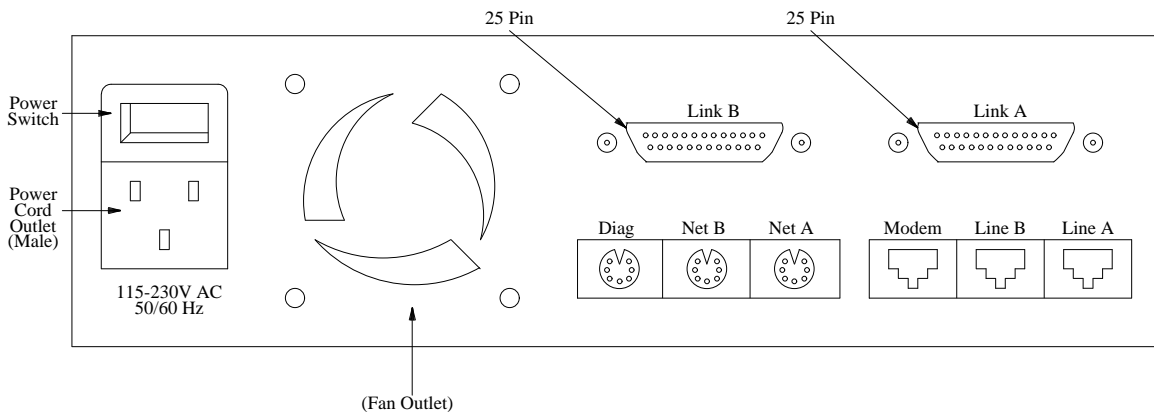


Figure 4-1. Back view of the SID — Modem Connection

TASK 2: CONNECT THE SID TO THE ROLM CBX

The customer or the customer's switch vendor must complete this task. AT&T does not assume responsibility for any connections to the ROLM switch.

The SID connects to the switch exactly the same as a ROLMphone 400 digital station set connects to the CBX. The ROLM CBX communicates with the SID through a standard six-foot telephone line cord. If you need a cord longer than the one shipped with the SID, you must supply the cable.

Use the following instructions to connect the SID to the ROLM switch.

1. Connect one end of the six foot ROLM telephone line cord to the RJ-45 outlet labeled **Line A** on the back of the SID. Use Figure 4.1 to locate Line A.
2. Connect the free end of the cord into the wall outlet that connects to the ROLM CBX.

Proceed to Task 3, *Connect the SID to AUDIX Voice Power*.

TASK 3: CONNECT THE SID TO AUDIX VOICE POWER

This task requires you to connect the 10-foot DB-25 Centrex cable to the SID and to the AUDIX Voice Power computer and should be completed by the AT&T installation technician. The cable connects to the AUDIX Voice Power computer through a DB-25 to DB-9 adaptor. Use the following procedure to connect the cable.

1. Connect one end of the DB-25 connector to **LINK A** on the back of the SID. Figure 4-2 shows you the location of **LINK A**.
2. Attach the DB-9 adaptor to the free end of the DB-25 cable.
3. Connect the 9-pin connector to the COM2 port on the AUDIX Voice Power system computer.

Proceed to Task 4, *Connect the SID Power Cord*.

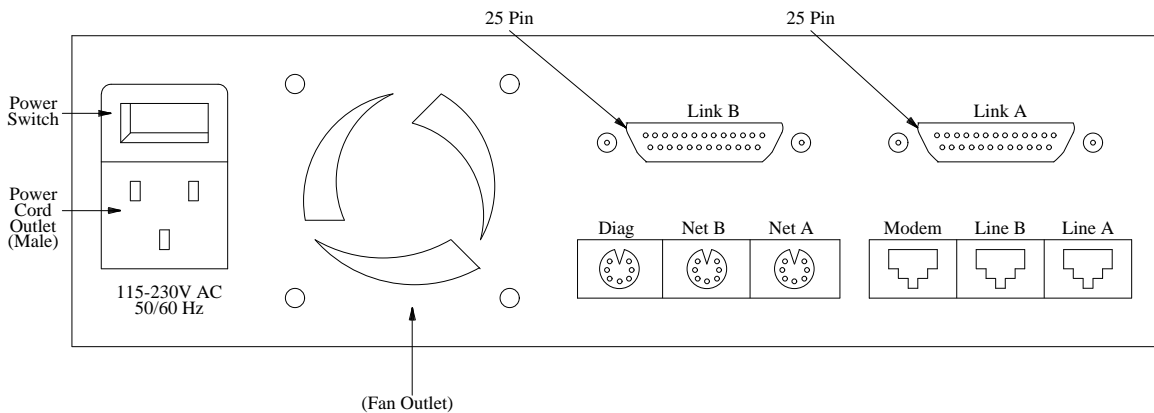


Figure 4-2. Back view of the SID — Link A Connection

TASK 4: CONNECT THE SID POWER CORD

The installation technician or the customer must complete this task.

1. Plug the female end of the power cord into the AC power-in socket on the SID as shown in Figure 4-2.
2. Plug the male end of the power cord into the AC outlet provided by the customer.
3. Locate the power switch on the back of the SID, shown in Figure 4-2.
4. Toggle the power switch to the **ON** position.

When you turn on the power switch, the Status LED on the front of the SID illuminates.

You have completed the hardware installation steps required for the ROLM 8000, 9000, or 9751 series CBX integration. Proceed to Chapter 5, *Software Installation*, in this document.

5. Software Installation

This chapter contains instructions for installing the software on the 6386 platform required to integrate a ROLM 8000, 9000, or 9751 CBX with an AUDIX Voice Power system R3.0. The *AUDIX Voice Power Switch Integration Software R3.0 for ROLM PBX* diskette contains the software required to integrate a ROLM 8000, 9000, or 9751 CBX with an AUDIX Voice Power system R3.0. The software should be installed only by an authorized and trained installation technician or by the system administrator.

Before you install the switch integration software, install all AUDIX Voice Power system R3.0 software as instructed in *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115. Use the following instructions to install the switch integration software.

1. Enter **root** at the Console Login prompt to log in as the AUDIX Voice Power administrator.

The system responds with the Password prompt.

2. Press **ENTER**.
3. The system responds with the UNIX system prompt (#).
4. Enter **installpkg** at the UNIX system prompt (#).

The system responds with the following prompt:

Confirm

Please insert the floppy disk.

If the program installation requires more than one floppy disk, be sure to insert the disks in the proper order, starting with disk number 1.

After the first floppy disk, instructions will be provided for inserting the remaining floppy disks.

Strike ENTER when ready
or ESC to stop.

5. Insert the *AUDIX Voice Power Switch Integration Software R3.0 for ROLM PBX* diskette in the floppy drive and press **ENTER**.

The system starts the installation process and displays the following series of informational messages.

Moving files to proper directories...done.

Switch package associated with AUDIX Voice Power R3.0.

Adding ROLM Switch related information.

6. After displaying the messages, the system displays the SWITCH INTEGRATION DEVICES form as shown in the following example.

Switch Integration Devices		
Serial Port	Baud Rate	Comments
1.	1200	
2.	1200	
3.	1200	
4.	1200	
5.	1200	
6.	1200	

The form you see may appear different than the example, depending on the hardware installed in your system. On the form you need to enter the port number connected to the SID.

7. With the cursor in the first `Serial Port` field, press `CHOICES` to view a list of valid port names. After you press the key, you see a menu that lists each port name.
8. Use the arrow keys to move the cursor to the `/dev/tty01` port name.

The SID connects to the serial port on the 6386. The name for the serial port is `/dev/tty01`. You can enter comments about the port name in the `Comments` field.

9. Press `ENTER` to select the port and return to the SWITCH INTEGRATION DEVICES form.
10. Press `SAVE` to enter the information and continue with the installation process.

After you press the key, the system saves the port name information and completes the installation process. You see the following messages on the screen:

```
ROLM Switch Integration Package R3.0 has been successfully
installed.
```

```
You may now remove the floppy disk.
```

```
The voice system is not presently running.
```

```
Use the "start_vs" command to start the voice system.
```

```
The installation of the AUDIX Voice Power Switch
Integration Software (for ROLM PBX) R3.0 is now
complete.
```

The system returns you to the `Console Login` prompt.

11. Remove the diskette from the floppy disk drive.



Return to Chapter 6, *Verifying the Software Installation*, in *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115.

6. AUDIX Voice Power R3.0 Switch Parameters

This chapter contains administration information for integrating AUDIX Voice Power R3.0 with the ROLM 8000, 9000, or 9751 CBX. The AUDIX Voice Power system needs to know specific information about the switch, for example whether to activate message waiting lamps and the type and length of the disconnect. This chapter includes instructions for the following procedures:

- Associating the application and the switch interface
- Setting the message waiting lamp parameters
- Setting the switch interface parameters

Continue with the procedures on the next page to integrate an AUDIX Voice Power system R3.0 with a ROLM CBX.

SET THE MESSAGE WAITING INDICATOR PARAMETERS

You need to instruct the AUDIX Voice Power system R3.0 if you want to activate the message waiting indicator option. If you plan to activate the message waiting indicator feature, you also need to determine if you want the system to "refresh" or make sure the message waiting indicators are in the correct state. To use the refresh feature, you also need to set a time interval for the AUDIX Voice Power system to perform the sequential refresh process. Use the instructions in this section to set the message waiting indicator parameters.

1. Enter **audix** at the Console Login prompt.
2. Enter your password at the Password prompt.

After you enter the password, you see the IVPSS 3.0 menu as shown in the following example.

IVPSS R3.0
AT&T FACE Voice System Administration Exit

3. Select the Voice System Administration option from the menu.

After you select the option, you see the VOICE SYSTEM ADMINISTRATION menu as shown in the following example.

Voice System Administration
Application Package Administration Configuration Management Reports Switch Interfaces System Monitor

4. Select the Switch Interfaces option from the menu.

After you select the option, you see the SWITCH INTERFACES menu as shown in the following example.

Switch Interface
>Analog Interfaces Data Interfaces

5. Select the **Data Interfaces** option from the menu.

After you select the option, you see the **DATA INTERFACES** menu as shown in the following example.

Data Interfaces
>Application/Switch Interface Association
Message Waiting Lamp Parameters
Switch Interface Package Administration

6. Select the **Message Waiting Lamp Parameters** option from the **DATA INTERFACES** menu.

After you select the option, you see the **MESSAGE WAITING LAMP PARAMETERS** form as shown in the following example.

Message Waiting Lamp Parameters
Allow Message Waiting Lamp Control? <u>YES</u>
Allow Refresh? <u>Yes</u>
Refresh Interval: <u>90</u> sec

7. Enter **Y** for yes or **N** for no in the **Allow Message Waiting Lamp Control** field.

The field allows you to turn the message waiting lamp option on or off. If you enter **NO**, the system does not update message waiting lamps.

8. Enter **Y** for yes or **N** for no in the **Allow Refresh** field.

By turning the feature on, AUDIX Voice Power "refreshes" or makes sure the message waiting lamps are in the correct state. Different types of telephones use different methods of turning message waiting lamps off and on. Refresh turns the lamp on again to make sure the lamp is in the correct state.

9. Enter a time, in seconds, in the **Refresh Interval** field.

The **Allow Refresh** feature selects one lamp at a time in a sequential method and performs the refresh process. The **Refresh Interval** field specifies the amount of time to pause between each lamp refresh.

10. When you finish entering the information, press **(SAVE)** to enter the information into the system. After you press the key, you see a confirmation window as shown in the following example.

Information
Message waiting lamp parameters saved.
Press any key to continue.

11. Press **(ENTER)** to exit the window and return to the **DATA INTERFACES** menu.

Proceed to the next section, *Administer the Switch Interface Package*.

ADMINISTER THE SWITCH INTERFACE PACKAGE

The AUDIX Voice Power system R3.0 needs to know which communication port connects to the SID. This section explains how you specify the port used. You use the SWITCH INTEGRATION PACKAGE screen to specify the port. Use the following procedure to administer the port.

1. Select the Switch Interface Package Administration option from the DATA INTERFACES menu.

After you select the option, you see the SWITCH INTERFACE PACKAGE ADMINISTRATION menu as shown in the following example.

Switch Interface Package Administration
Switch Integration Devices

2. Select the Switch Integration Devices option from the menu.

After you press the key, you see the SWITCH INTEGRATION DEVICES form as shown in the following example.

Switch Integration Devices			
	Serial Port	Baud Rate	Comments
1.		1200	
2.		1200	
3.		1200	
4.		1200	
5.		1200	
6.		1200	

You need to enter the number of the port connected to the SID. The system uses a default port number of **/dev/tty01**. The default identifies the serial part, or COM 2.

3. With the cursor in the first Serial Port field, press **CHOICES** to view a list of valid port names.

After you press the key, you see a menu that lists each port name.

4. Use the arrow keys to move the cursor to the **/dev/tty01** port name.

The SID connects to the serial port on the 6386. The name for the serial port is **/dev/tty01**. You also can enter comments about the port name in the Comments field.

5. Press **ENTER** to select the port and return to the SWITCH INTEGRATION PACKAGE ADMINISTRATION menu.
6. Press **SAVE** to enter the information into the system and return to the DATA INTERFACES form.

Proceed to the next section, *Set the Switch Interface Parameters*.

SET THE SWITCH INTERFACE PARAMETERS

AUDIX Voice Power R3.0 must know specific switch interface parameters to communicate with a ROLM CBX. The values for the parameters are set at the factory as the system defaults. Table 6-1 shows you the system default switch interface values.

Table 6-1. Switch Interface Parameter Values

Parameter	Default Value
Switchhook Flash Duration	600
Wink Disconnect Interval	300
Signaling Type	TT

NOTE

You must set Signaling Type to **TT** (touch-tone dialing) for the system to operate correctly. If you set the field to **DP** (dial-pulse dialing), the AUDIX Voice Power system R3.0 cannot dial the pound sign (#) or a star (*).

Although the parameters are set at the factory, you need to check the parameters to make sure they are correctly set. Use the following instructions to access the ANALOG INTERFACES form and check the parameters.

1. After completing the instructions in the last section, *Administer the Switch Interface Package*, you should see the DATA INTERFACES menu on the screen. Press **CANCEL** to exit the menu and return to the SWITCH INTERFACES menu as shown in the following example.

Switch Interface
>Analog Interfaces
Data Interfaces

2. Select the Analog Interfaces option from the menu.

After you select the option, you see the ANALOG INTERFACES form as shown in the following example.

Analog Interfaces	
ROLM Switch	
Switch Hook Flash Duration	<u>600</u>
Wink Disconnect Interval	<u>300</u>
Type of Signaling	<u>TT</u>
Incoming Speech Volume	<u>4000</u>
Outgoing Speech Volume:	<u>1000</u>
Dial-Tone Training	<u>Yes</u>

Compare the values you see on the ANALOG INTERFACES form with the values shown in the example form and in Table 6-1. Select one of the following options.

- If the values on the form match the values in the example and Table 6-1, proceed to step 7.
 - If any value on the form does not match the value shown in the example or Table 6-1, continue with the next step.
3. Use the arrow keys to move the cursor to the field that contains a different value.
 4. Enter the correct value in the field. Use Table 6-1 and the example ANALOG INTERFACES form to enter all correct values.

The Incoming Speech Volume and the Outgoing Speech Volume fields are display only. You cannot change the information in the fields.

5. Press **SAVE** to enter the information into the system database. After you press the key, you see the following information window.

Information
<p>In order for the Switch Interface Parameters to be effective, execute Stop Voice System. For Changes to Transfer Sequence to be effective, any installed applications must be re-installed.</p> <p>Press <Enter> to continue.</p>

6. Press **ENTER** to exit the information window and return to the SWITCH INTERFACES menu.
7. Press **CANCEL** to exit the menu and return to the VOICE SYSTEM ADMINISTRATION menu.

Proceed to the next section, *Associate the Application and Switch Interface*.

ASSOCIATE THE APPLICATION AND SWITCH INTERFACE

When you install the *AUDIX Voice Power R3.0 Switch Integration to ROLM PBX* software, the installation process automatically associates the switch integration with the AUDIX Voice Power system R3.0. By associating the software packages, the AUDIX Voice Power system R3.0 knows to use the ROLM CBX integration software to receive call information and complete transactions. Perform the procedure in this section only to verify that the system is associated with the software packages.

1. Select the **Data Interfaces** option from the SWITCH INTERFACES menu.

After you select the option, you see the DATA INTERFACES menu as shown in the following example.

Data Interfaces
>Application/Switch Interface Association
Message Waiting Lamp Parameters
Switch Interface Package Administration

2. Select the **Application/Switch Interface Association** option from the menu.

After you select the option, you see the APPLICATION/SWITCH INTERFACE ASSOCIATION form as shown in the following example.

Application/Switch Interface Association
Application: AUDIX Voice Power
Switch Interface: <u>ROLM 8000/9000/9751 Switch Integration</u>

3. If the **Switch Interface** field does not contain the correct application, press **CHOICES** to view and select the options.

4. Press **SAVE** to enter the information into the system. After you press the key, you see a confirmation window as shown in the following example.

Confirmation
Associations have been updated. Press any key to continue.

5. Press **ENTER** to exit the confirmation window and return to the DATA INTERFACES menu.



You need to stop and start the voice system. Return to *Administering System Parameters* in Chapter 9, *Initial Administration*, of *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115, and complete the initial administration procedures. As you complete the instructions, you will stop and start the voice system.

7. ROLM 8000 CBX Administration

NOTE

The information presented in this chapter represents guidelines for administering the ROLM CBX to integrate with an AUDIX Voice Power system. Each switch may have a different administration. The switch administration process should be performed by a trained ROLM technician. *AT&T services personnel will not administer the ROLM CBX.*

This chapter contains instructions for administering a ROLM 8000 Computerized Branch Exchange (CBX) to operate with an AUDIX Voice Power system R3.0. If you have a ROLM 9000 or 9751 CBX, use the instructions in Chapter 8, *ROLM 9000 and 9751 CBX Administration*. If you have another type of switch, refer to the documentation provided with that switch or the switch integration package for more information. The instructions only explain the screen fields and information necessary for the integration.

Each procedure in this chapter uses examples to illustrate the instructions. All examples use standard information such as the pilot number, analog voice port extensions, and call appearance extensions. The examples use the following information.

- The SID uses a pilot extension of **500**.
- Eight extensions, **551, 552, 553, 554, 555, 556, 557, and 558**, will be created and administered on the ROLMphone™ keys. The extensions belong in the **500** hunt group.
- The AUDIX Voice Power system R3.0 uses four analog voice ports (channels) numbered 501, 502, 503, and 504.

Use the examples only for illustration purposes. Refer to Chapter 3, *Switch Integration Planning*, to find the correct information for your integration.

ROLM 8000 CBX ADMINISTRATION

The procedures in this section guide you through the ROLM 8000 CBX administration required for an AUDIX Voice Power system R3.0 integration. The following list shows you the procedures you must perform to administer the ROLM 8000 CBX for the integration.

- Administer a Class of Service (COS) for the voice ports.
- Assign an analog port and extension to each integrated voice port.
- Assign the Class of Service (COS) to each voice port.
- Administer the ROLMphone station emulation using the following guidelines.
 - Assign eight line appearance to the required keys.
 - Assign hold, transfer, connect, and message waiting center functions to the correct buttons.
 - Assign consecutive line appearance (busy indicators) for the voice ports on the ROLMphone 400.
- Program the hunt group.

Proceed to the next section, *Administer the Class of Service*.

Administer the Class of Service

The Class of Service (COS) identifies the features available to an extension, such as no flash allowed (NFL) and private call (PRV). The procedure in this section explains how to enable or disable features in a COS. In Chapter 3, *Switch Integration Planning*, a COS was selected and recorded on worksheet A. Before you can assign the COS to an extension, you must check the COS administration and configure the COS, if necessary. For the AUDIX Voice Power system R3.0 integration, the COS must have the following configuration.

- Feature 3 — Private call (PRV), enabled
- Feature 9 — Do not disturb (DND), disabled
- Feature 13 — No flash allowed (NFL), disabled
- Feature 17 — No howler if left off-hook (NOH), enabled

Use the following procedure to check the COS administration.

1. Log on to the ROLM 8000 administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact the system administrator.
2. After you log on to the administration terminal, you see the ? prompt on the screen.
3. Enter **LCSF** (List Class of Service Features) at the ? prompt.
4. Enter the COS number listed on worksheet A in Chapter 3 at the COS # prompt.

After you enter the command, you see the screen shown in Figure 7-1.

```
? LCSF
Cos#: 15

F M P E C E S S D D S T N C A C N U I V M N R T C F M M C C C V
O O R O F C V P N T Y K F A P S O N N D O A F E A R S S N C F P
C H V V I P D D D S C Q L S K F H V T C N C U R A O R C D C E L
0102030405060708091011121314151617181920212223242526272829303132
COS#
15      X X X X X X X X      X X X      X X X
```

Figure 7-1. ROLM 8000 CBX Class of Service Features Screen

The screen lists each COS feature, provides a number for the feature, and shows you the assignment for the feature, either enabled or disabled. Read the screen from top to bottom. For example, in Figure 7-1 the Do Not Disturb (DND) feature is the ninth feature listed (from left to right) and appears as:

```
D
N
D
09
```

If a feature is enabled, an **X** appears under the feature number. If a feature is disabled, the area under the feature number appears blank. When you administer a COS for the AUDIX Voice Power system integration, you must edit an existing COS. Some of the features may already be set correctly. In the example above, the PRV and DND features are set correctly. Feature 13, No Flash Allowed (NFL), and feature 17, No Howler if Left Off Hook (NOH), are not set correctly. Check your COS carefully.

If the COS you entered *does not* have features 3, 9, 13 and 17 correctly set, continue with the next step. If your COS *does* have the features set correctly, proceed to the next section, *Administer the Analog Voice Ports*.

5. Enter **SCSF** (Set Class of Service Features) at the ? prompt.
6. At the COS prompt, enter the COS number listed on worksheet A in Chapter 3.
7. Enter feature number **3** at the # prompt.
8. Enter **1** at the FLAG prompt to enable feature 3, PRV.
9. Enter **SCSF** (Set Class of Service Features) again at the ? prompt.
10. Enter the COS number listed on worksheet A in Chapter 3 at the COS prompt.
11. Enter feature number **9** at the # prompt.
12. Enter **0** at the FLAG prompt to disable feature 9, DND.
13. Enter **SCSF** (Set Class of Service Features) again at the ? prompt.
14. Enter the COS number listed on worksheet A in Chapter 3 at the COS prompt.
15. Enter feature number **13** at the # prompt.
16. Enter **0** at the FLAG prompt to disable feature 13, NFL.
17. Enter **SCSF** (Set Class of Service Features) again at the ? prompt.
18. Enter the COS number listed on worksheet B in Chapter 3 at the COS prompt.
19. Enter feature number **17** at the # prompt.
20. Enter **1** at the FLAG prompt to enable feature 17, NOH.

After you enter the commands, the screen appears as shown in Figure 7-2.

```
? SCSF
COS#: 15
#: 13
FLAG: 0
```

```
? SCSF
COS#: 15
#: 17
FLAG: 1
```

Figure 7-2. ROLM 8000 CBX Set Class of Service Features Screen

You assign the COS to the analog voice port extensions in the next section, *Administer the Analog Voice Ports*.

Administer the Analog Voice Ports

Each analog voice port must be connected to a CBX analog station line. These lines are configured as "2500" telephone sets. The extension numbers assigned to the analog voice ports are also entered into the SID. Use sequential numbering for the extensions to make the process easier. For each analog port you must complete the following steps in the administration process:

1. Create new extensions for the analog ports.
2. Assign the extensions to the analog voice ports.
3. Disable the automated testing feature for the analog voice ports.
4. Assign a COS to each analog voice port.
5. Verify the administration of each analog voice port.

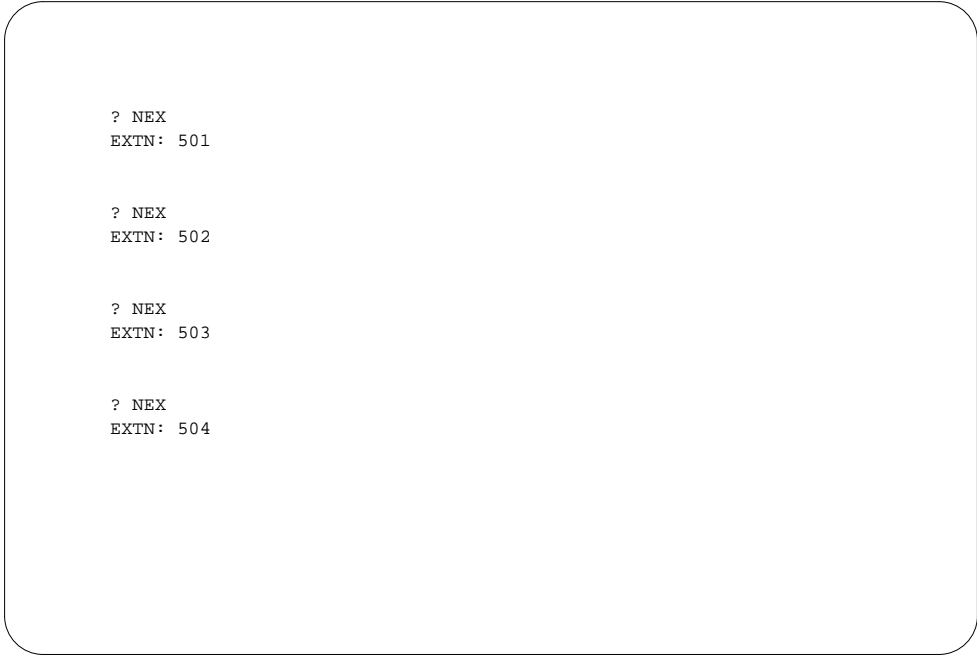
Continue with the following procedures to administer the analog voice ports.

Create Analog Voice Port Extensions

The AUDIX Voice Power system R3.0 supports a maximum of 12 analog voice ports, also called channels. You need to repeat the procedure in this section for each analog port you plan to use. Use worksheet B, *Extension/LTN Plan*, in Chapter 3, *Switch Integration Planning*, to make sure you create an extension for each analog voice port. The worksheet should have been completed by the customer and the Account Team.

Use the following procedure to create analog extensions for each analog voice port.

1. Enter **NEX** (New Extension) at the ? prompt.
2. Enter the first channel extension listed on worksheet B in Chapter 3 at the EXTN prompt.
3. Repeat the procedure for each analog voice port extension listed on worksheet B. After you create each extension, you see the screen shown in Figure 7-3. Figure 7-3 shows a four channel system as an example. The four analog voice port extensions created were 501, 502, 503, and 504.



```
? NEX
EXTN: 501

? NEX
EXTN: 502

? NEX
EXTN: 503

? NEX
EXTN: 504
```

Figure 7-3. Analog Port Extension Creation Screen on the ROLM 8000 CBX

When you finish creating analog voice port extensions, continue with next procedure, *Assign the Extensions to Analog Ports*.

Assign the Extensions to the Analog Ports

Use the following procedure to assign the extensions you created in the previous section to analog voice ports.

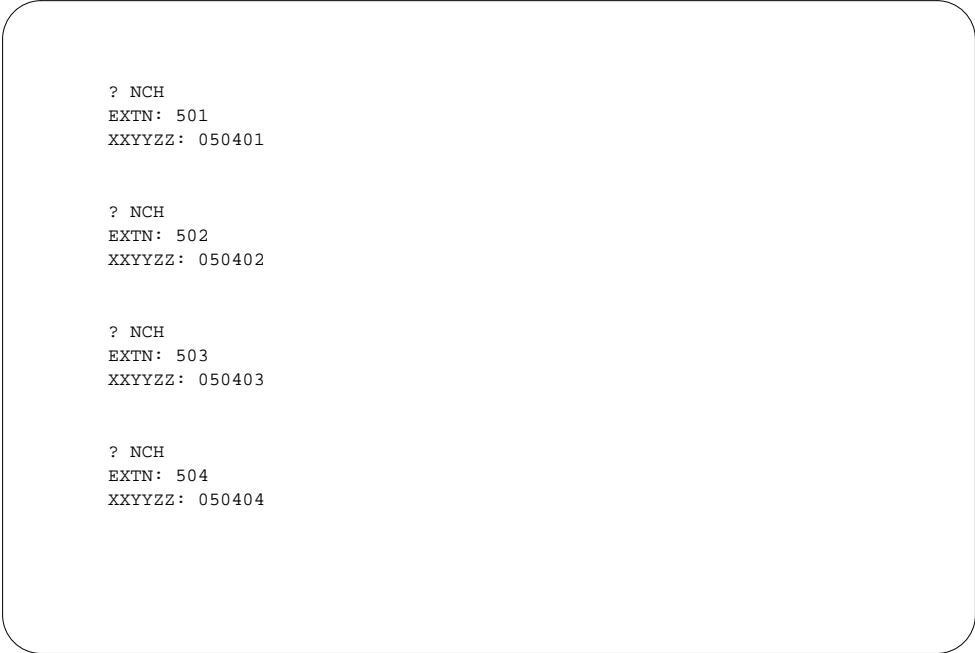
1. Enter **NCH** (New Channel) at the ? prompt.
2. Enter the first channel extension listed on worksheet B in Chapter 3 at the **EXTN** prompt.
3. Enter the Port Address (PAD) for the analog voice port at the **XXYYZZ** prompt.

The PAD identifies the shelf, slot, and channel location for the port. For example, in Figure 7-4 the sample screen assigns 050401 to the first extension, 501.

- 05 (XX) identifies the shelf location for the port.
- 04 (YY) identifies the slot location for the port.
- 01 (ZZ) identifies the channel location for the port.

If you do not know how to identify the PAD, refer to the documentation provided with the switch.

4. Repeat the procedure for each analog voice port extension listed on worksheet B. After you assign the extensions, you see the screen shown in Figure 7-4.



```
? NCH
EXTN: 501
XXYYZZ: 050401

? NCH
EXTN: 502
XXYYZZ: 050402

? NCH
EXTN: 503
XXYYZZ: 050403

? NCH
EXTN: 504
XXYYZZ: 050404
```

Figure 7-4. ROLM 8000 CBX Extension to Analog Port Assignment Screen

When you finish assigning extensions to the analog voice port, continue with the next procedure, *Disable Testing of the Voice Ports*.

Disable Testing of the Voice Ports

Use the following procedure to disable the automated testing feature of the CBX. If you do not disable the feature, the port assigned to the AUDIX Voice Power system fails the ROLM background test. When the port fails, the CBX disconnects the port and cannot communicate with the SID or the AUDIX Voice Power system.

1. Enter **CNT** (Change No Test) at the ? prompt.
2. Enter the first analog port extension listed on worksheet B in Chapter 3 at the EXTN prompt.
3. Enter **1** in the FLAG field to cancel the automatic testing to cancel the automatic testing for this port.
4. Repeat the procedure for each analog voice port extension listed on worksheet B in Chapter 3. After you disable the test for all port your screen appears as shown in Figure 7-5.

```
? CNT
EXTN: 501
FLAG: 1
```

```
? CNT
EXTN: 502
FLAG: 1
```

```
? CNT
EXTN: 503
FLAG: 1
```

```
? CNT
EXTN: 504
FLAG: 1
```

Figure 7-5. ROLM 8000 CBX Disable Testing Screen

Continue with the next procedure, *Assign the Class of Service*.

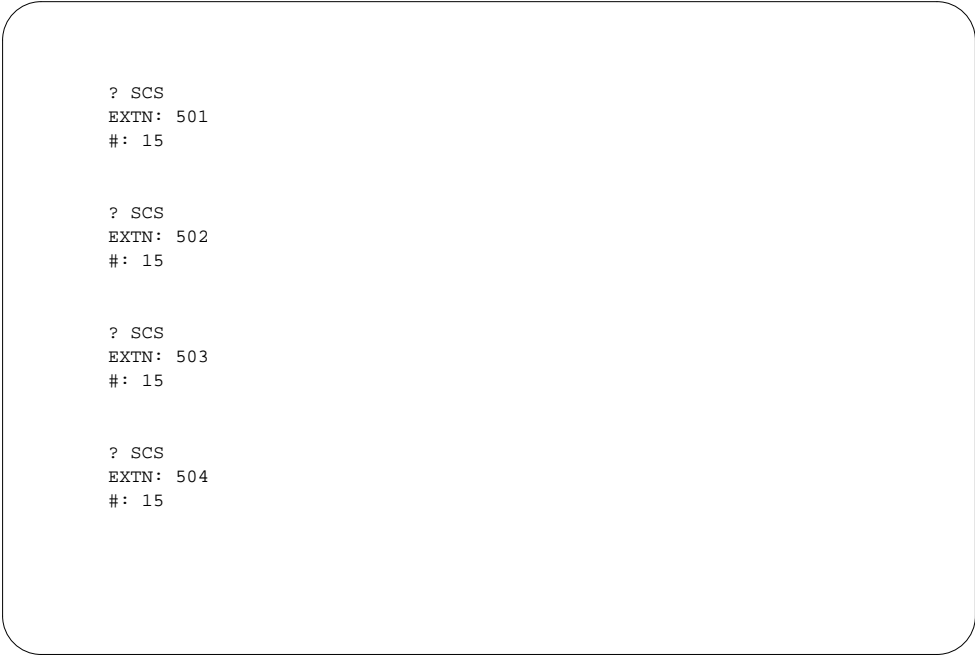
Assign the Class of Service

The Class of Service (COS) identifies the features available to an extension, such as no flash allowed (NFL) and private call (PRV). You administered the COS in the first section of this chapter. This section provides instructions for assigning the COS to each analog voice port.

Use the following procedure to assign the COS administration.

1. Enter **SCS** (Set Class of Service) at the ? prompt.
2. Enter the first analog port extension listed on worksheet B in Chapter 3 at the **EXTN:** prompt.
3. Enter the COS number listed on worksheet A in Chapter 3 at the **#:** prompt. You administered the COS in the first section of this chapter.
4. Repeat steps 1 through 3 for each analog voice port extension listed on worksheet B.

After you enter the information, you see the screen shown in Figure 7-6.



```
? SCS
EXTN: 501
#: 15

? SCS
EXTN: 502
#: 15

? SCS
EXTN: 503
#: 15

? SCS
EXTN: 504
#: 15
```

Figure 7-6. ROLM 8000 CBX Set Class of Service Screen

When you finish assigning the COS to the analog voice port extensions, proceed to the next section, *Verify the Analog Voice Port Administration*.

Verify the Analog Voice Port Administration

Use the procedure in this section to confirm that you entered all analog voice port information correctly. If the ports are not configured correctly, the AUDIX Voice Power system R3.0 integration fails.

Use the following procedure to verify the administration.

1. Enter **LEX** (List Extension) at the ? prompt.
2. Enter the first analog port extension listed on worksheet B in Chapter 3 at the EXTN: prompt.

After you enter the information, you see the screen shown in Figure 7-7. The screen shows the information you entered for the voice port. Use worksheets A and B to check the information and confirm that you correctly administered the voice port. If any of the information does not appear as you administered the information, repeat the necessary procedure to correct the information.

The example in Figure 7-7 shows the administration for four ports numbered 501, 502, 503, and 504. The screen shows the Port Address (PAD) and the Class of Service (COS) number you assigned.

3. Repeat steps 1 and 2 for each analog voice port extension listed on worksheet B.

```
? LEX
EXTN: 501
PAD   COS PIK COM DTP TTF  VC  MW OPS
050401 15 000 000 10 10
Name:

? LEX
EXTN: 502
PAD   COS PIK COM DTP TTF  VC  MW OPS
050402 15 000 000 10 10
Name:

? LEX
EXTN: 503
PAD   COS PIK COM DTP TTF  VC  MW OPS
050403 15 000 000 10 10
Name:

? LEX
EXTN: 504
PAD   COS PIK COM DTP TTF  VC  MW OPS
050404 15 000 000 10 10
Name:
```

Figure 7-7. ROLM 8000 CBX Analog Port Verification Screen

When you finish checking each voice port administration, proceed to the next section, *Administer the ROLMphone 400 Digital Station Set*.

Administer the ROLMphone 400 Digital Station Set

For a ROLM 800 CBX to integrate properly with an AUDIX Voice Power system R3.0, you must administer a ROLMphone 400 digital station emulation on the CBX. The administration of the ROLMphone set controls how the SID integration operates. After the ROLMphone has been configured on the CBX, the SID emulates the set and automatically handles button management.

Before you begin the ROLMphone set configuration, locate an available ROLMphone Interface (RPI) channel on the CBX. Worksheet A in Chapter 3, *Switch Integration Planning*, contains a space for the RPI. The RPI should have been selected during the switch integration planning. The examples in this section use RPI 010402.

NOTE

Any CBX with 8003 or later software should contain support features for the ROLMphone 400.

During the ROLMphone administration, you revise the RPI configuration and identify the attached device for the port as a ROLMphone 400. You then assign eight extensions to the line buttons of the set. To simplify the administration process, use a sequential numbering scheme for the extensions. The administration process includes the following procedures.

- List and verify an unused Feature Configuration table.
- Configure the ROLMphone key emulation using the key assignments shown in Table 7-1.

Table 7-1. Key Assignments for the ROLMphone 400

Key	Assignment
1, 2, 3, 4, and 5	Line appearances (busy lamps) 9, 10, 11, 12, and 13, respectively
6, 7, 8, and 9	Line appearances 4, 3, 2, and 1, respectively
10	HOLD
11-25	Line appearances (busy lamps) 14-28, respectively
26, 27, 28, and 29	Line appearances 5, 6, 7, and 8, respectively
30	Connect (CNCT)
37	Message Waiting Center (MWCTR)
38	Transfer (XFER)

- Assign 20 line appearances to serve as the analog voice port busy indicators as indicated in Table 7-1.
- Verify the Feature Configuration table you created.
- Assign the Feature Configuration table to the RPI PAD.
- Define the ROLMphone 400 as a display telephone.
- Create eight extensions for the line appearances on the SID.
- Assign the extensions to the line appearance keys.
- Assign the analog voice port extension numbers to non-ringing ROLMphone 400 line appearances.
- Forward each analog voice port extension assigned to call appearances to the same extension.
- List and verify the ROLMphone 400 programming.
- Assign a Class of Service (COS) to each ROLMphone 400 call appearance.

Continue with the procedures in this section to administer the ROLMphone 400 station emulation.

Select the Feature Configuration Table

You use the Feature Configuration table to set up the ROLMphone 400 digital station set emulation. In the table, you specify the key assignments, the line appearance assignments, and the line appearance extensions.

Before you can administer the table, you must select an unused table. Worksheet A in Chapter 3, *Switch Integration Planning*, provided instructions for selecting a Feature Configuration table. Refer to worksheet A and verify that a table was selected. If no table was recorded on worksheet A, use the instructions for the worksheet to select a Feature Configuration table.

After you check the worksheet, continue with the instructions in the next section, *Configure the Function Keys*.

Configure the Function Keys.

Use the procedure in this section to configure the Hold, Connect, Transfer, and Message Waiting Center keys for the ROLMphone 400 digital station emulation. Assign the functions to the keys as listed in Table 7-2.

Table 7-2. Function Key Assignments for the ROLMphone 400

Key	Command to Assign	Feature
10	HOLD	Hold
30	CNCT	Connect
37	MWCTR	Message Waiting Center
38	XFER	Transfer

1. Enter **RFC** (Revise Feature Configuration) at the ? prompt.
2. Enter **RP400** at the TYPE : prompt specify that you are configuring the ROLMphone 400 keys.
3. Enter the Feature Configuration Table number at the REF# prompt.
Refer to worksheet A in Chapter 3 to find the Feature Configuration Table number.
4. Enter the first key listed in the *Key* column of Table 7-2.
5. Enter the command for the key you entered in the previous step at the FEATURE prompt. Use the command listed in the *Command to Assign* column of Table 7-2. For example, if you entered **10** in the previous step, enter the **HOLD** command.
6. Press at the # : prompt. You do not need enter any information in the field.
7. Repeat steps 1 through 6 for each key listed in Table 7-2. Use Table 7-2 to find the correct key number (Key column) and the correct function (Command to Assign).

After you enter the information, your screen appears as shown in Figure 7-8.


```
? RFC
TYPE: RP400
REF#: 9
INDEX: 10
FEATURE: HOLD
#:
? RFC
TYPE: RP400
REF#: 9
INDEX: 30
FEATURE: CNCT
#:
? RFC
TYPE: RP400
REF#: 9
INDEX: 38
FEATURE: XFER
#:
? RFC
TYPE: RP400
REF#: 9
INDEX: 37
FEATURE: MWCTR
#:
```

Figure 7-8. ROLMphone 400 Key Emulation Configuration Screen

When you finish configuring each function key, proceed to the next section, *Assign Line Appearances for the Call Queue*.

Assign Line Appearances for the Call Queue

The procedure in this section explains how to create a queue of eight ringing line appearances. Later in the chapter, you associate extension with the line appearances and program the extensions in a hunt group.

The queue holds all calls forwarded to the SID. The SID answers any call that appears on one of the appearances and extracts the call information. The SID then sends the information to the AUDIX Voice Power system and transfers the call to an available ports. Table 7-3 shows you the key number and the line appearance number to assign to the key.

Table 7-3. Line Appearance Assignments for the ROLMphone 400

Key	Line Appearance Number
9	1
8	2
7	3
6	4
29	5
28	6
27	7
26	8

Use the procedure in this section to assign the line appearances to the ROLMphone emulation keys.

1. Enter **RFC RP400 <Feature Configuration Table number>** (Revise Feature Configuration) at the ? prompt.

Enter the Feature Configuration Table number as listed on worksheet A in Chapter 3, *Switch Integration Planning*. The RFC command tells the system to update or create the specified Feature Configuration Table.
2. Enter the first number listed in the *Key* column in Table 7-3 at the INDEX prompt.

Use the INDEX field to enter the key number to be assigned as a line appearance. For example, to assign key 9 as line appearance 1, enter **9** at the INDEX prompt.
3. Enter **LINE** at the FEATURE prompt.
4. Enter the first number listed in the *Line Appearance Number* column in Table 7-3 at the #: prompt.

Use the #: field to enter the line appearance number to be assigned to the key. For example, to assign line appearance 1 to key 9, enter **1** at the #: prompt.
5. Repeat steps 1 through 4 for each line appearance and key listed in Table 7-3.

After you enter the number at the #: prompt, the screen appears as shown in Figure 7-9.

```
? RFC RP400 9
INDEX: 9
FEATURE: LINE
#: 1

? RFC RP400 9
INDEX: 8
FEATURE: LINE
#: 2

? RFC RP400 9
INDEX: 7
FEATURE: LINE
#: 3

? RFC RP400 9
INDEX: 6
FEATURE: LINE
#: 4

? RFC RP400 9
INDEX: 29
FEATURE: LINE
#: 5

? RFC RP400 9
INDEX: 28
FEATURE: LINE
#: 6

? RFC RP400 9
INDEX: 27
FEATURE: LINE
#: 7

? RFC RP400 9
INDEX: 26
FEATURE: LINE
#: 8
```

Figure 7-9. ROLMphone 400 Line Appearance Configuration Screen

When you finish assigning line appearances, proceed to the next section, *Assign Busy Indicator Line Appearances*.

Assign Busy Indicator Line Appearances

The procedure in this section explains how to program the 20 line appearances onto the ROLMphone as busy indicators for the analog voice ports. Table 7-4 shows each key number and the line appearance number you must assign to that key.

Table 7-4. Busy Indicator Key Assignments

Key	Line Appearance Number
1	9
2	10
3	11
4	12
5	13
11	14
12	15
13	16
14	17
15	18
16	19
17	20
18	21
19	22
20	23
21	24
22	25
23	26
24	27
25	28

Use the procedure in this section to assign the twenty line appearances as busy indicators for the analog voice ports.

1. Enter **RFC** (Revise Functions) at the ? prompt.
2. Enter **RP400** at the TYPE : prompt to specify that you are configuring the ROLMphone 400 keys.
3. Enter the Feature Configuration Table number at the REF# prompt. Refer to worksheet A in Chapter 3 to find the Feature Configuration Table number.
4. Enter the first number listed in the *Key* column of Table 7-4 at the INDEX prompt.
Use the INDEX field to enter the key number to be assigned as a line appearance. For example, to assign key 1 as line appearance 9, enter **1** at the INDEX prompt.
5. Enter **LINE** at the FEATURE prompt.

6. Enter the first number listed in the *Line Appearance Number* column in Table 7-4 at the # : prompt.

Use the # : field to enter the line appearance number to be assigned to the key. For example, to assign line appearance 9 to key 1, enter **9** at the # : prompt.

After you enter the number at the # : prompt, the screen appears as shown in Figure 7-10.

```
? RFC
TYPE:  RP400
REF#:  9
INDEX: 1
FEATURE: LINE
#:  9

?RFC RP400 9 2 LINE 10

?RFC RP400 9 3 LINE 11
```

Figure 7-10. ROLMphone 400 Busy Indicators Configuration Screen

7. Repeat steps 1 through 6 for each busy indicator line appearance and key listed in Table 7-4.
8. Enter **LFC RP400 <Feature Configuration Table number>** at the ? prompt to view the Feature Configuration table you administered. Look at the table and check the information you entered. If any of the information is incorrect, use the procedures in the this section to correct the information.

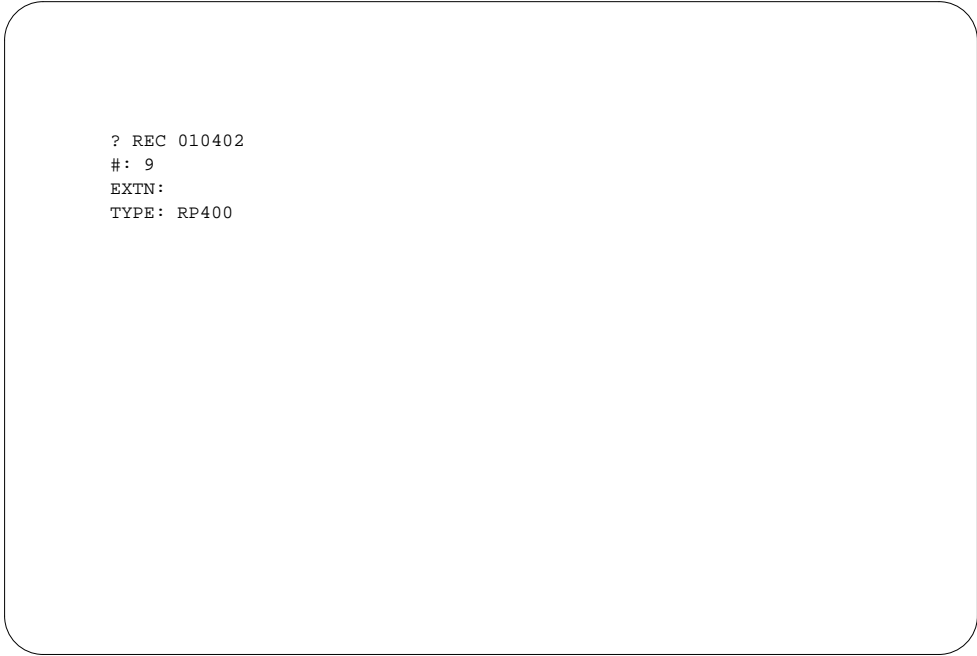
When you finish assigning line appearances and checking the information, proceed to the next section, *Assign the Feature Configuration Table to a PAD*.

Assign the Feature Configuration Table to a PAD

For the information you administered in the Feature Configuration Table to work with the SID, you must assign the table to the RPI PAD that will connect with the SID. Use the procedure in this section to assign the Feature Configuration table to the RPI PAD.

1. Enter **REC <PAD Number>** (Revise ETS Configuration) at the ? prompt. Refer to worksheet A in Chapter 3, *Switch Integration Planning*, to find the PAD number.
2. Enter the Feature Configuration table number, listed on worksheet A, at the # : prompt. The example in Figure 7-11 assigns Feature Configuration Table 9.
3. Press to move past the EXTN : prompt. You do not need to enter any information in the field.
4. Enter **RP400** in the TYPE field to assign the Feature Configuration table to the ROLMphone 400.

After you enter the information in the fields, the screen appears as shown in Figure 7-11.



```
? REC 010402
#: 9
EXTN:
TYPE: RP400
```

Figure 7-11. Feature Configuration Table Assignment Screen

Proceed to the next section, *Define the ROLMphone 400 as a Display Phone*.

Define the ROLMphone 400 as a Display Phone

The SID operate as a ROLMphone 400 digital telephone set. The ROLM 8000 CBX must recognize that a ROLMphone 400 set is attached to the RPI. Use the procedure in this section to define the port on CBX as a ROLMphone 400 port.

1. Enter **ROM** (Revise Option Module) at the ? prompt.
2. Enter the Port Address (PAD) for the ROLMphone 400 emulation port at the XXYZZ: prompt.
The PAD identifies the shelf, slot, and channel location for the port. Refer to worksheet A in Chapter 3, *Switch Integration Planning*, to find the PAD number.
3. Enter **1** at the first FLAG prompt.
4. Press **ENTER** twice to move past the next two FLAG fields. You do not need to enter any information in the fields.

After you enter the information, the screen appears as shown in Figure 7-12.

```
? ROM
XXYZZ: 010402
FLAG: 1
FLAG:
FLAG:
```

Figure 7-12. ROLMphone 400 Definition Screen

When you complete the procedure, proceed to the next section, *Create Line Appearance Extensions*.

Create Eight Line Appearance Extensions

This section explains how you create extensions on the switch for the line appearances. In a later procedure, the extensions are used to create a call queue and assigned to buttons on the phone.

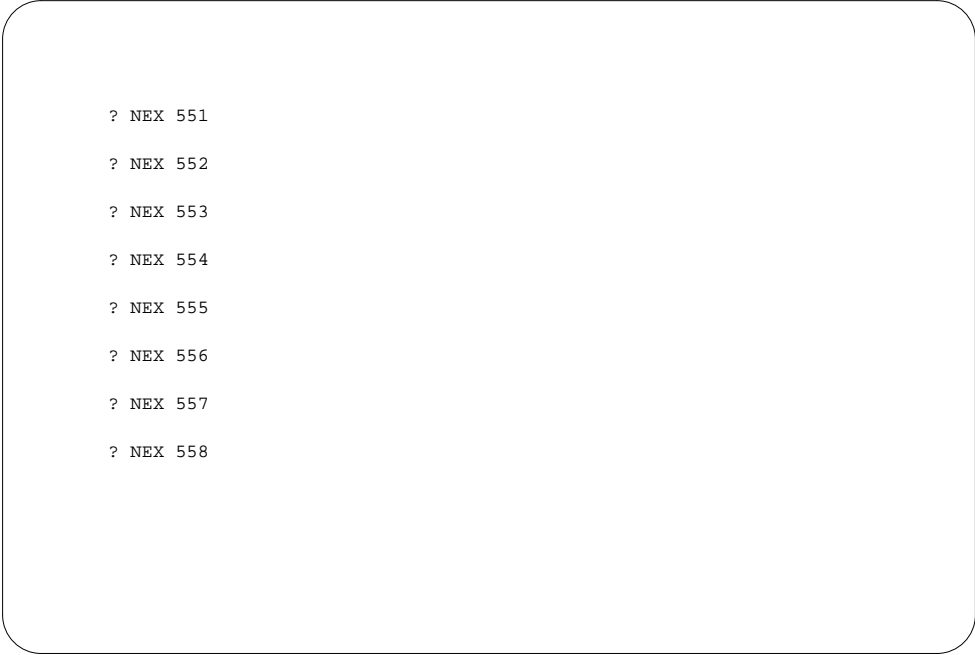
Use the following procedure to create eight line appearance extensions for the SID.

1. Enter **NEX <extension>** (New Extension) at the ? prompt.

You need to enter a line appearance extension. Refer to worksheet C in Chapter 3, *Switch Integration Planning*, for a list of line appearance extensions.

2. Repeat the previous step for each extension listed on worksheet C.

After you enter the information, the screen appears as shown in Figure 7-13.



```
? NEX 551
? NEX 552
? NEX 553
? NEX 554
? NEX 555
? NEX 556
? NEX 557
? NEX 558
```

Figure 7-13. Creating the Line Appearance Extensions for the SID Screen

When you complete the procedure, proceed to the next section, *Assign Line Appearance Extensions to Line Appearance Keys*.

Assign Line Appearance Extensions to Line Appearance Keys

This section explains how you associate the line appearance extensions with specific buttons on the ROLMphone 400. Use the following procedure to assign the eight line appearance extensions you created in the previous section to the ROLMphone 400 keys. Assign the line appearances to keys 1 through 8.

1. Enter **RKB** (Revise Key Button) at the ? prompt.
2. Enter the PAD for the ROLMphone port at the **XXYYZZ:** prompt. Refer to worksheet A for the PAD assigned to the ROLMphone 400 emulation port.
3. Enter **1** at the **BT#:** prompt to assign the first key to the first line appearance extension.
4. Enter the first line appearance extension at the **EXTN:** prompt.

You created the line appearance extensions in the previous section. Worksheet C in Chapter 3 also lists each line appearance extension.

5. Enter **1** at the first **FLAG** prompt.
6. Press **ENTER** twice to move past the next two **FLAG** fields. You do not have to enter any information into the fields.

After you enter the information, the screen appears as shown in Figure 7-14.

```
? RKB
XXYYZZ: 010402
BT#: 1
EXTN: 551
FLAG: 1
FLAG:
FLAG:

? RKB 010402 2 552 1 0 0

? RKB 010402 3 552 1 0 0
```

Figure 7-14. Assign Line Appearance Extensions to Keys Screen

7. Repeat steps 1 through 6 for each line appearance extension listed on worksheet C. In steps 3 and 4, assign the remaining keys, 2, 3, 4, 5, 6, 7, and 8, to the remaining line appearance extensions listed on worksheet C. For example, assign the second extension to key **2** and the third extension to key **3**.

After you complete the procedure for each line appearance extension, proceed to the next section, *Assign the Analog Extensions to the Line Appearances*.

Assign the Analog Extensions to Line Appearances

The next process you must perform is to assign the analog voice port extensions to non-ringing line appearance on the ROLMphone 400. You assign the voice ports to line appearances to the SID can monitor the status, whether on-hook or off-hook, of the voice ports. You created the analog extension in the first section of this chapter and the extension are listed on worksheet B in Chapter 3.

Begin with line appearance **9** and continue with **10** through the number of analog voice ports on your system. For example, if you have a four port AUDIX Voice Power system R3.0, assign line appearances 9, 10, 11 and 12.

Use the following procedure to assign the analog extensions to the line appearances.

1. Enter **RKB** (Revise Key Button) at the ? prompt.
2. Enter the PAD for the ROLMphone port at the **XXYYZZ :** prompt. Refer to worksheet A for the PAD assigned to the ROLMphone 400 emulation port.
3. Enter **9** at the **BT# :** prompt to assign the first key to the first analog port.
4. Enter the first extension assigned to the analog port at the **EXTN :** prompt.

You created the analog port extensions earlier in this chapter. Worksheet B in Chapter 3 also lists each analog voice port extension.

5. Press **ENTER** three times to move past the three FLAG fields. You do not have to enter any information into the fields.

After you enter the information, the screen appears as shown in Figure 7-15.

```
? RKB
XXYYZZ: 010402
BT#: 9
EXTN: 501
FLAG:
FLAG:

? RKB 010402 10 502 0 0 0

? RKB 010402 11 503 0 0 0

? RKB 010402 12 504 0 0 0
```

Figure 7-15. Assign Analog Port Extensions to Line Appearances Screen

6. Repeat steps 1 through 5 for each analog voice port extension listed on worksheet B. In step 3, use the next higher key number than you used in the previous step. For example, since you entered **9** as the first key, assign key **10** to the second analog port extension.

After you complete the procedure for each analog port extension, continue with the next section, *Forward the Call Appearances*.

Forward the Call Appearances

The next process you must perform is to forward each call appearance extension to the same call appearance extension. For example, extension 551 forwards to 551. The process prevents ring-no-answer calls from forwarding to an error tone and allows the system to keep a call in the queue hearing ringback as long as the caller remains on the call.

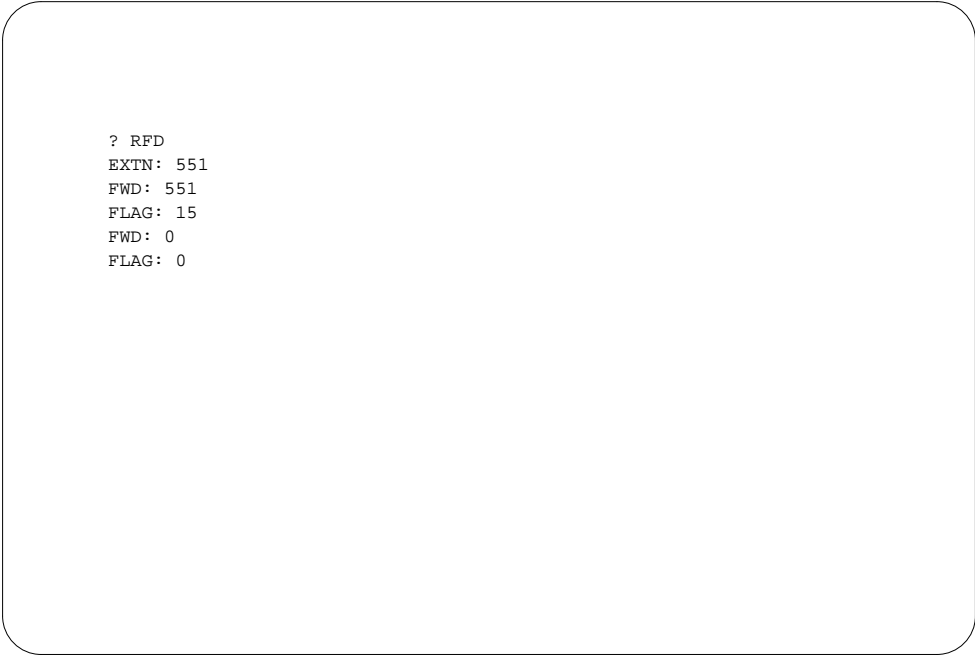
Use the following procedure to forward the call appearances.

1. Enter **RFD** (Revise Forwarding) at the ? prompt.
2. Enter the first call appearance extension at the **EXTN:** prompt. Refer to worksheet C for the line appearance extensions assigned to the ROLMphone 400.
3. Enter the same call appearance extension at the **FWD** prompt that you entered in step 2.
4. Enter **15** at the **FLAG:** prompt.
15 signifies that the call must forward under all conditions.
5. Enter **0** at both of the **FLAG:** prompts.

You specified forward under all conditions in the first flag field and you do not need to specify any additional conditions. Forwarding under all conditions includes the following four conditions:

- Forward on busy for external call (BE=1)
- Forward on busy for internal call (BI=2)
- Forward on ring-no-answer for external call (RE=4)
- Forward on ring-no-answer for internal call (RI=8)

After you enter the information, the screen appears as shown in Figure 7-16. The example assigns call appearance extension 551 to extension 551.



```
? RFD
EXTN: 551
FWD: 551
FLAG: 15
FWD: 0
FLAG: 0
```

Figure 7-16. Forward Call Appearance Lines Screen

6. Repeat steps 1 through 5 for each call appearance extension listed on worksheet C.

After you complete the procedure for each call appearance, continue with the next section, *Assign a Class of Service to Call Appearances*.

Assign a Class of Service to Call Appearances

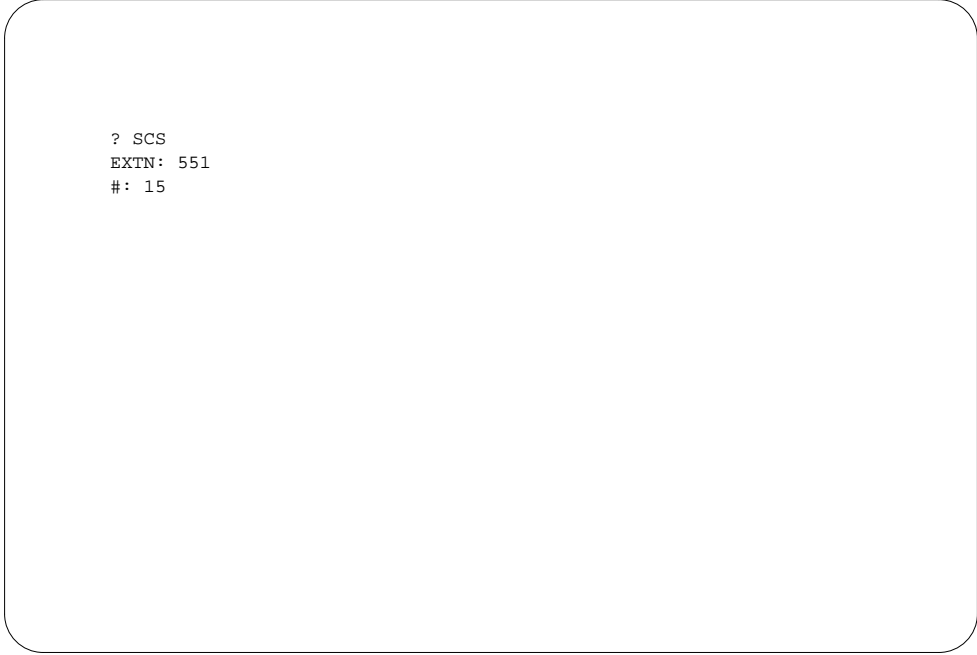
You must assign a Class of Service (COS) to each ROLMphone 400 call appearance. Use the instructions in the *Administer the Class of Service* section of this chapter to configure a COS for the call appearances. Use the COS number listed on worksheet A in Chapter 3, *Switch Integration Planning*. The COS must have the following features:

- Feature 3 — Private Call (PRV), set to **1**
- Feature 9 — Do Not Disturb (DND), set to **0**
- Feature 13 — No Flash Allowed (NFL), set to **0**
- Feature 17 — No Howler if Left Off-Hook (NOH), set to **1**

After you configure the COS, use the following procedure to assign the COS to the ROLMphone call appearances.

1. Enter **SCS** (Set Class of Service) at the ? prompt.
2. Enter the first call appearance extension listed on worksheet C in Chapter 3 at the EXTN: prompt.
3. Enter the COS number listed on worksheet A at the #: prompt.

After you enter the information, you see the screen shown in Figure 7-17.



```
? SCS  
EXTN: 551  
#: 15
```

Figure 7-17. ROLM 8000 CBX Set Class of Service Screen

4. Repeat the procedure for each call appearance extension listed on worksheet C.

When you finish assigning the COS to the call appearance extensions, you have completed the procedures for administering the ROLMphone 400 digital station. Proceed to the next section, *Administer the Hunt Group*.

Administer the Hunt Group

The SID uses one "hunt group" or switch group that contains the eight call appearance extensions assigned to the ROLMphone 400. You assign the AUDIX Voice Power system R3.0 number as the pilot number for the hunt group. The eight call appearances are assigned to the pilot number. Worksheet C in Chapter 3, *Switch Integration Planning*, contains the pilot number.

NOTE

AT&T recommends that you do not administer a name for the voice port hunt group. If you administer a name, the CBX must pass the information to the SID for each call. The increased information slows the integration process.

Use the following procedure to set up a hunt group for the SID.

1. Enter **RHG** (Revise Hunt Group) at the ? prompt.
2. Enter the hunt group pilot number at the REF# prompt. The pilot number is the extension subscribers use to call the AUDIX Voice Power system. The example in Figure 7-18 uses 500 as the pilot number. Refer to worksheet C for the pilot number assigned to the AUDIX Voice Power system.
3. Enter **1** at the INDEX: prompt.

The field allows you to declare the position of the extension in the hunt group. For example, if you entered the pilot number, you enter **1** for the index number since the pilot number is the first extension in the hunt group. When you enter the second extension, enter **2** for the index number. Continue increasing the index until you enter all hunt group members.

4. Enter the first call appearance extension at the EXTN: prompt.
You created the call appearance extensions in this chapter. Worksheet C in Chapter 3 lists each call appearance extension. Refer to worksheet C for a list of the extensions.
5. Repeat steps 1 through 4 for each call appearance extension listed on worksheet C.

Enter the AUDIX Voice Power system R3.0 pilot number at the REF: prompt for each call appearance. Increase the value in the INDEX field by one for each call appearance. For example, you enter **2** in the INDEX field for the second call appearance. After you assign each call appearance to the hunt group, the screen appears as shown in Figure 7-18.

```
? RHG
REF#: 500
INDEX: 1
EXTN: 551

? RHG 500 2 552

? RHG 500 3 553

? RHG 500 4 554

? RHG 500 5 555

? RHG 500 6 556

? RHG 500 7 557

? RHG 500 8 558
```

Figure 7-18. Completed Hunt Group Assignment Screen

You have finished the ROLM 8000 CBX switch administration. Proceed to Chapter 9, *Switch Integration Device Administration*, to configure the switch integration device.

8. ROLM 9000 and 9751 CBX Administration

NOTE

The information presented in this chapter represents guidelines for administering the ROLM 9000 and 9751 CBX to integrate with an AUDIX Voice Power system. Each switch may have a different administration. The switch administration process should be performed by a trained ROLM technician. *AT&T services personnel will not administer the ROLM CBX.*

This chapter contains instructions for administering a ROLM 9000 and 9751 Computerized Branch Exchange (CBX) to operate with an AUDIX Voice Power system R3.0. The instructions only explain the screen fields and information necessary for the integration. If you have a ROLM 8000 CBX, refer to the instructions in Chapter 7, *ROLM 8000 CBX Administration*. If you have another type of switch, refer to the documentation provided with that switch or the switch integration package for more information.

Each procedure in this chapter uses examples to explain the process. All examples use standard information such as the pilot number, analog voice port extensions, and call appearance extensions. The examples use the following information.

- The SID uses a pilot extension of **500**.
- Eight extensions, **551, 552, 553, 554, 555, 556, 557, and 558**, will be created and administered on the ROLMphone™ keys. The extensions belong in the **500** hunt group.
- The AUDIX Voice Power system R3.0 uses four analog voice ports (channels) numbered 501, 502, 503, and 504.

Use the examples to help you understand the administration process. Refer to Chapter 3, *Switch Integration Planning*, to find the correct information for your integration.

The following list shows you the procedures you must perform to administer the ROLM 9000 and 9751 CBX for the integration.

- Administer a Class of Service (COS) for the voice ports
- Administer the analog voice ports
- Administer the ROLMphone 400 station
- Administer the hunt group

Proceed to the next section, *Administer the Class of Service*.

ADMINISTER THE CLASS OF SERVICE

The Class of Service (COS) identifies the features available to an extension, such as no flash allowed (NFL) and private call (PRV). The procedure in this section explains how to enable or disable features in a COS as required for the AUDIX Voice Power system R3.0 integration. In Chapter 3, *Switch Integration Planning*, a COS was selected and recorded on worksheet A. Before you can assign the COS to an extension, you must check the COS administration and configure the COS, if necessary. For the AUDIX Voice Power system R3.0 integration, the COS must have the following configuration.

- Always in Privacy (APV) set to **Yes**
- No Flash Allowed (NFL) set to **No**
- No Howler (NOH) set to **Yes**
- Do Not Disturb (DND) set to **No**

Use the following procedure to administer the COS.

1. Log on to the ROLM 9000 or 9751 administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact the system administrator.
2. After you log on to the administration terminal, you see the COMMAND prompt on the screen.
3. Enter **MO COS_FEATURE NOH** (Modify Class of Service Feature Command for No Howler) at the COMMAND prompt.

After you enter the command, you see the screen shown in Figure 8-1.

```
COMMAND: MO COS_FEATURE NOH
```

```
ALL
```

```
FEAT SAME VALUE
```

```
NOH N -
```

RANGE	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0..19	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Y	-	-	-	-
20..39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
40..59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60..63	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Figure 8-1. ROLM 9000/9751 CBX Class of Service Features Screen

The screen lists each COS number and shows you the assignment for the feature, either enabled or disabled. If the feature is enabled for the COS, a **Y** appears under the COS number. If the feature is disabled for the COS, the area under the COS number appears blank.

4. Move the cursor to the COS you need to modify by pressing **ENTER** until the cursor appears under the COS number.

Refer to worksheet A in Chapter 3, *Switch Integration Planning*, to find the COS number you must modify. The example in Figure 8-1 uses COS 15.
5. Enter **Y** to enable NOH if the field does not already contain the value.
6. Enter **MO COS_FEATURE APV** (Modify Class of Service Feature Command for Always in Privacy) at the COMMAND prompt.
7. Move the cursor to the COS number you need to modify by pressing **ENTER** until the cursor appears under the COS number.
8. Enter **Y** to enable APV if the field does not already contain the value.
9. Enter **MO COS_FEATURE NFL** (Modify Class of Service Feature Command for No Flash Allowed) at the COMMAND prompt.
10. Move the cursor to the COS number you need to modify by pressing **ENTER** until the cursor appears under the COS number.
11. Enter a space in the field to disable NFL if the field does not already contain a space.
12. Enter **MO COS_FEATURE DND** (Modify Class of Service Feature Command for Do Not Disturb) at the COMMAND prompt.
13. Move the cursor to the COS number you need to modify by pressing **ENTER** until the cursor appears under the COS number.
14. Enter a space in the field to disable DND if the field does not already contain a space.

You have finished the COS administration process. Proceed to the next section, *Administer the Analog Voice Ports*.

ADMINISTER THE ANALOG VOICE PORTS

Each analog voice port must be connected to a CBX analog station line. The analog station lines are configured as "2500" telephone sets. The extension numbers you assign to the analog voice ports are also entered into the SID. For each analog voice port you must complete the following steps in the administration process:

- Create new extensions for the analog ports
- Assign the extensions to the analog ports
- Disable the automated testing feature for the analog ports
- Verify the administration of each analog port

NOTE

You must assign each analog voice port a unique Port Address (Pad) number because each port is configured as a single-line telephone.

Continue with the following procedures to administer the analog voice ports.

Create Analog Voice Port Extensions

The AUDIX Voice Power system R3.0 supports a maximum of 12 analog voice ports, also called channels. You need to repeat the procedure in this section for each analog voice port you plan to use. Use worksheet B, *Extension/LTN Plan*, in Chapter 3, *Switch Integration Planning*, to make sure you create an extension for each analog voice port. The worksheet should have been completed by the customer and the Account Team.

Use the following procedure to create extensions for each analog voice port.

1. Enter **CRE EXT <extension number>** (Create Extension) at the **COMMAND** prompt. Enter the first channel extension listed on worksheet B in Chapter 3. After you enter the command, you see the screen shown in Figure 8-2.

```

COMMAND: CRE EXT 501

                                FORWARD  ON
                                BSY RNA DND
                                I E I E I E
                                -----
EXTN  TYPE  COS  TARGET 1 TARGET 2  I E I E I E RINGDOWN NAME
-----
501   EXT   15               - - - - -

```

Figure 8-2. Analog Port Extension Creation Screen

The cursor should appear in the **TYPE** field. If the cursor does not appear in the field, press and move the cursor to the field.

2. Enter **EXT** in the **TYPE** field to identify the type as an extension. The cursor moves to the **COS** field.
3. Enter the **COS** number in the **COS** field. Refer to worksheet A for the **COS** number you must enter. The number is the same **COS** number you configured in the previous section.
4. Press to move through the rest of the fields on the screen. Do not enter any information in the fields.
5. Repeat the procedure for each analog voice port extension listed on worksheet B in Chapter 3.

The example in Figure 8-2 shows the screen for a four channel system. The four analog port extensions created were 501, 502, 503, and 504.

When you finish creating analog voice port extensions, continue with next procedure, *Create and Assign SLI Ports*.

Create and Assign SLI Ports

You must create and assign a single line interface (SLI) for each analog voice port extension. The ROLM 9000 and 9751 CBXs use the SLI to associate each extension with an equipment address and to define characteristics, such as the dial type, for the extension.

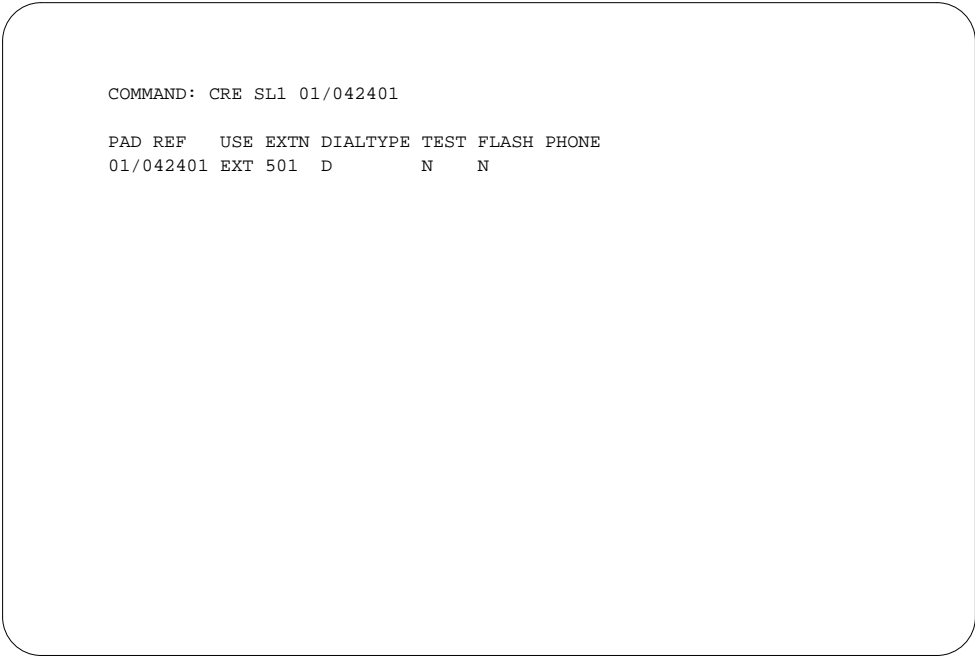
Use the following procedure to create and assign the SLI ports.

1. Enter **CRE SLI 01/<PAD Address>** (Create) at the **COMMAND** prompt.

The PAD identifies the shelf, slot, and channel location for the port. For example, in Figure 8-3 the sample screen assigns 01/042401 to the first extension, 501.

- 01 (XX) identifies the system node number.
- 04 (XX) identifies the shelf location for the port.
- 24 (YY) identifies the slot location for the port.
- 01 (ZZ) identifies the channel location for the port.

If you do not know how to identify the PAD, refer to the documentation provided with the switch. After you enter the command, you see the screen shown in Figure 8-3. The cursor appears in the **USE** field.



```
COMMAND: CRE SLI 01/042401

PAD REF    USE EXTN DIALTYPE TEST FLASH PHONE
01/042401  EXT 501  D          N      N
```

Figure 8-3. Create and Assign SLI Ports Screen

2. Enter **EXT** in the USE field.

The value tells the system to assign an extension to the PAD.

3. Enter an analog voice port extension in the EXTN field.

For a list of analog voice port or channel extensions, refer to worksheet B in Chapter 3. The voice port extension you enter in this step is assigned to the PAD address.

4. Enter **D** in the DIALTYPE field.

The value tells the system to set the dial type to DTMF for the system. If you do not set the dial type correctly, AUDIX Voice Power cannot dial out.

5. Enter **N** in the TEST field.

The value tells the system to disable the automated testing feature of the CBX. If you do not disable the feature, the port assigned to the AUDIX Voice Power system fails the ROLM background test. When the port fails, the CBX disconnects the port and cannot communicate with the SID or the AUDIX Voice Power system.

6. Enter **N** in the FLASH field.

The value disables the message waiting lamp flash feature. The ROLM 9000 and 9751 use voltage to flash neon lamps. Analog voice ports detect the voltage and believe they are receiving a signal, which causes system problems.

7. Repeat the procedure for each analog voice port extension.

Continue to the next procedure, *Verify the Analog Voice Port Administration*.

Verify the Analog Voice Port Administration

Use the procedure in this section to confirm that you entered all analog voice port information correctly. If the ports are not configured correctly, the AUDIX Voice Power system R3.0 integration fails.

1. Enter **LI LEX** and an analog port extension at the COMMAND prompt.

Enter the analog voice port extension after the **LI LEX** (List Extension) command. For example, if you needed to use extension 501, you would enter **LI LEX 501**. Refer to worksheet B in Chapter 3 for a list of analog voice port extensions.

After you enter the information, you see the screen shown in Figure 8-4. The screen shows the information you entered for the voice port. Use worksheets A and B to check the information and confirm that you correctly administered the voice port. If any of the information does not appear as you administered the information, repeat the necessary procedure to correct the information.

2. Repeat the verification procedure for each analog voice port extension listed on worksheet B.

```
COMMAND: LI LEX 501

                                FORWARD  ON
                                BSY RNA DND
      FORWARDING
EXTN   TYPE  COS  TARGET 1 TARGET 2 I E I E I E RINGDOWN NAME
-----
501    EXT   15              - - - - -

* EXTENSION IS NOT A MEMBER OF ANY GROUP *

TERMINAL EQUIPMENT CROSS REFERENCE
TYPE PAD      TYPE PAD      TYPE PAD      TYPE PAD
SL1   01/042401
```

Figure 8-4. ROLM 8000 CBX Analog Port Verification Screen

Proceed to the next section, *Administer the ROLMphone 400 Station*.

ADMINISTER THE ROLMPHONE 400 STATION

For a ROLM 9000 or 9751 CBX to integrate properly with an AUDIX Voice Power system R3.0, you must administer a ROLMphone 400 digital station emulation on the CBX. The administration of the ROLMphone set controls how the SID integration operates. After the ROLMphone has been configured on the CBX, the SID emulates the set and automatically handles button management.

Before you begin the ROLMphone set configuration, locate an available ROLMphone Interface (RPI) channel on the CBX. Worksheet A in Chapter 3, *Switch Integration Planning*, contains a space for the RPI. The RPI should have been selected during the switch integration planning.

During the ROLMphone administration, you revise the RPI configuration and identify the attached device for the port as a ROLMphone 400. You then assign eight extensions to the line buttons of the set. To simplify the administration process, use a sequential numbering scheme for the extensions. The administration process includes the following procedures.

- Select an unused Feature Configuration table.
- Edit the Feature Configuration table using the key assignments shown in Table 8-1.

Table 8-1. Key Assignments for the ROLMphone 400

Key	Assignment
1, 2, 3, 4, and 5	Line appearances (busy lamps) 9, 10, 11, 12, and 13, respectively
6, 7, 8, and 9	Line appearances 4, 3, 2, and 1, respectively
10	HOLD
11-25	Line appearances (busy lamps) 14-28, respectively
26, 27, 28, and 29	Line appearances 5, 6, 7, and 8, respectively
30	Connect (CNCT)
37	Message Waiting Center (MWCTR)
38	Transfer (XFER)

- Assign 20 line appearances to serve as the analog voice port busy indicators as shown in Table 8-1.
- Create eight line appearance extensions.
- Program the ROLMphone 400.
- Administer the hunt group.

Continue with the procedures in this section to administer the ROLMphone 400 station emulation.

Select the Feature Configuration Table

A Feature Configuration table (FCT) serves as a semi-standardized guideline for programming a subscriber's phone. When you apply the Feature Configuration table to a PAD address, the terminal associated with that equipment location immediately has a function template applied to the terminal's button set. Feature Configuration tables provide a method for grouping subscriber telephones into similar functional groups. If you apply the same FCT to 100 terminals, each subscriber will have line appearances, key assignments, and other functions in the same physical place. An FCT represents a blueprint for the telephone buttons.

Before you can administer the table, you must select an unused FCT. Worksheet A in Chapter 3, *Switch Integration Planning*, provides instructions for selecting a Feature Configuration table. Refer to worksheet A and verify that a Feature Configuration table was selected. If no table was recorded on worksheet A, use the instructions for the worksheet to select a Feature Configuration table. After you check worksheet A, continue with the instructions in the next section, *Edit the Feature Configuration Table*.

Edit the Feature Configuration Table

The procedure in this section explains how to program the 20 line appearances onto the ROLMphone as busy indicators for the analog voice ports. Use Table 8-1 as a guide to each key number and line appearance number you must assign to that key.

This section contains information for both the novice user and the experienced user. If you are an experienced user, you can proceed past the novice information and set up the Feature Configuration table by following Table 8-1. If you are a novice user, carefully follow the procedures to make sure you correctly set up the Feature Configuration table.

Use the following procedure to edit the Feature Configuration table.

1. Enter **CRE BUTTON_400** and a Feature Configuration table number at the COMMAND prompt.

Enter the FCT number after the **CRE BUTTON_400** (Create) command. For example, if you needed to use FCT 9, you would enter **CRE BUTTON_400 9**. Refer to worksheet A in Chapter 3 for the Feature Configuration table number.

After you enter the command, you see the screen shown in the Figure 8-5. The example uses Feature Configuration Table number 9 and the cursor appears in the **FEAT** field for button 1.

```

COMMAND: CRE BUTTON_400 9

PHONE
TYPE      TABLE #
-----
RPS_400    9

      BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX
      ---
1  REPD  1    11  REPD  6    16  REPD  11   21  STASP    31  SYSSP
1                                21          31

```

Figure 8-5. Feature Configuration Table, Row 1

Figure 8-5 shows you the first physical row of buttons on the phone. If you look at a ROLMphone 400, you see that the top row of buttons are 1, 11, 16, 21, and 31. Think of the Feature Configuration table as the layout of the physical keys and the place to assign line appearances or functions to the keys. Each field on the screen represents an area where you can assign functions to the keys as shown in the following list.

- The **BTN** field represents the key number.
- The **FEAT** field tells you the function, if any, assigned to the keys. For example, **HOLD** or **CNCT** may be assigned to the keys.
- The **IDX** field tells you the index number for the key. You need to enter a value for the index if you assign the line as an appearance. For example, key one needs to be assigned as line appearance nine. Enter **LINE** in the **FEAT** field and **9** in the **IDX** field for key one.

For each key, the Feature Configuration Table shows two lines. The first line contains the default value for the field. Use the second line to enter your changes. To simplify the instructions, each row of keys has been placed into a section. Proceed to the first key assignment section, *Feature Configuration Table, Row 1*.

Feature Configuration Table, Row 1

Use the instructions in this section to configure keys 1, 11, 16, 21, and 31. For an explanation of the key assignments, refer to Table 8-1.

- 1. With the cursor in the FEAT field for key 1 as shown in Figure 8-5, enter **LINE**.
- 2. Enter **9** in the IDX field. The cursor moves to the FEAT field for key 11.
- 3. Enter **LINE** in the FEAT field for key 11.
- 4. Enter **14** in the IDX field. The cursor moves to the FEAT field for key 16.
- 5. Enter **LINE** in the FEAT field for key 16.
- 6. Enter **19** in the IDX field. The cursor moves to the FEAT field for key 21.
- 7. Enter **LINE** in the FEAT field for key 21.
- 8. Enter **24** in the IDX field. The cursor moves to the FEAT field for key 31.
- 9. Press **ENTER** to accept the default value and move the cursor to the LINE field for key 2.

After you press the key, you see the screen as shown in Figure 8-6.

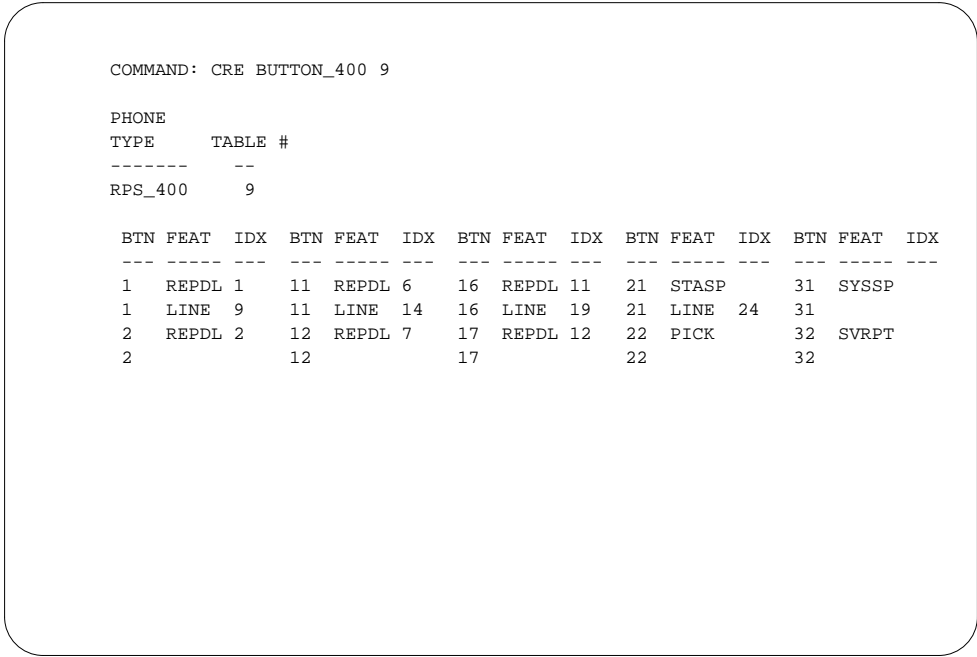


Figure 8-6. Feature Configuration Table, Row 2

Feature Configuration Table, Row 2

Use the instructions in this section to configure keys 2, 12, 17, 22, and 32. For an explanation of the key assignments, refer to Table 8-1.

1. With the cursor in the FEAT field for key 2 as shown in Figure 8-6, enter **LINE**.
2. Enter **10** in the IDX field. The cursor moves to the FEAT field for key 12.
3. Enter **LINE** in the FEAT field for key 12.
4. Enter **15** in the IDX field. The cursor moves to the FEAT field for key 17.
5. Enter **LINE** in the FEAT field for key 17.
6. Enter **20** in the IDX field. The cursor moves to the FEAT field for key 22.
7. Enter **LINE** in the FEAT field for key 22.
8. Enter **25** in the IDX field. The cursor moves to the FEAT field for key 32.
9. Press **ENTER** to accept the default value and move the cursor to the LINE field for key 3.

After you press the key, you see the screen as shown in Figure 8-7.

```

COMMAND: CRE BUTTON_400 9

PHONE
TYPE      TABLE #
-----
RPS_400    9

      BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX
      ---  ---  ---  ---  ---  ---  ---  ---  ---  ---  ---
1  REPD 1    11 REPD 6    16 REPD 11   21 STASP    31 SYSSP
1  LINE 9    11 LINE 14   16 LINE 19   21 LINE 24   31
2  REPD 2    12 REPD 7    17 REPD 12   22 PICK     32 SVRPT
2  LINE 10   12 LINE 15   17 LINE 20   22 LINE 25   32
3  REPD 3    13 REPD 8    18 REPD 13   23 PARK     33 MSGWT
3                      18          23          33

```

Figure 8-7. Feature Configuration Table, Row 3

Feature Configuration Table, Row 3

Use the instructions in this section to configure keys 3, 13, 18, 23, and 33.

1. With the cursor in the FEAT field for key 3 as shown in Figure 8-7, enter **LINE**.
2. Enter **11** in the IDX field. The cursor moves to the FEAT field for key 13.
3. Enter **LINE** in the FEAT field for key 13.
4. Enter **16** in the IDX field. The cursor moves to the FEAT field for key 18.
5. Enter **LINE** in the FEAT field for key 18.
6. Enter **21** in the IDX field. The cursor moves to the FEAT field for key 23.
7. Enter **LINE** in the FEAT field for key 23.
8. Enter **26** in the IDX field. The cursor moves to the FEAT field for key 33.
9. Press **ENTER** to accept the default value and move the cursor to the LINE field for key 4.

After you press the key, you see the screen as shown in Figure 8-8.

COMMAND: CRE BUTTON_400 9

PHONE

TYPE TABLE #

----- --
RPS_400 9

BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX
1	REPD	1	11	REPD	6	16	REPD	11	21	STASP		31	SYSSP	
1	LINE	9	11	LINE	14	16	LINE	19	21	LINE	24	31		
2	REPD	2	12	REPD	7	17	REPD	12	22	PICK		32	SVRPT	
2	LINE	10	12	LINE	15	17	LINE	20	22	LINE	25	32		
3	REPD	3	13	REPD	8	18	REPD	13	23	PARK		33	MSGWT	
3	LINE	11	13	LINE	16	18	LINE	21	23	LINE	26	33		
4	REPD	4	14	REPD	9	19	REPD	14	24	BUSS		34	TIME	
4			14			19			24			34		

Figure 8-8. Feature Configuration Table, Row 4

Feature Configuration Table, Row 4

Use the instructions in this section to configure keys 4, 14, 19, 24, and 34.

1. With the cursor in the FEAT field for key 4 as shown in Figure 8-8, enter **LINE**.
2. Enter **12** in the IDX field. The cursor moves to the FEAT field for key 14.
3. Enter **LINE** in the FEAT field for key 14.
4. Enter **17** in the IDX field. The cursor moves to the FEAT field for key 19.
5. Enter **LINE** in the FEAT field for key 19.
6. Enter **22** in the IDX field. The cursor moves to the FEAT field for key 24.
7. Enter **LINE** in the FEAT field for key 24.
8. Enter **27** in the IDX field. The cursor moves to the FEAT field for key 34.
9. Press **ENTER** to accept the default value and move the cursor to the LINE field for key 5.

After you press the key, you see the screen as shown in Figure 8-9.

```

COMMAND: CRE BUTTON_400 9

PHONE
TYPE      TABLE #
-----
RPS_400    9

  BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX  BTN FEAT  IDX
  ---
1  REPD 1  11  REPD 6  16  REPD 11  21  STASP  31  SYSSP
1  LINE 9  11  LINE 14  16  LINE 19  21  LINE 24  31
2  REPD 2  12  REPD 7  17  REPD 12  22  PICK  32  SVRPT
2  LINE 10  12  LINE 15  17  LINE 20  22  LINE 25  32
3  REPD 3  13  REPD 8  18  REPD 13  23  PARK  33  MSGWT
3  LINE 11  13  LINE 16  18  LINE 21  23  LINE 26  33
4  REPD 4  14  REPD 9  19  REPD 14  24  BUSS  34  TIME
4  LINE 12  14  LINE 17  19  LINE 22  24  LINE 27  34
5  REPD 5  15  REPD 10  20  SET  25  INTCM  35  AINTC
5                                20  25  35

```

Figure 8-9. Feature Configuration Table, Row 5

Feature Configuration Table, Row 5

Use the instructions in this section to configure keys 5, 15, 20, 25, and 35.

1. With the cursor in the FEAT field for key 5 as shown in Figure 8-9, enter **LINE**.
2. Enter **13** in the IDX field. The cursor moves to the FEAT field for key 15.
3. Enter **LINE** in the FEAT field for key 15.
4. Enter **18** in the IDX field. The cursor moves to the FEAT field for key 20.
5. Enter **LINE** in the FEAT field for key 20.
6. Enter **23** in the IDX field. The cursor moves to the FEAT field for key 25.
7. Enter **LINE** in the FEAT field for key 25.
8. Enter **28** in the IDX field. The cursor moves to the FEAT field for key 35.
9. Press **ENTER** to accept the default value and move the cursor to the LINE field for key 6.

After you press the key, you see the screen as shown in Figure 8-10.

COMMAND: CRE BUTTON_400 9

PHONE

TYPE TABLE #

----- --
RPS_400 9

---	BTN	FEAT	---	IDX	---	BTN	FEAT	---	IDX	---	BTN	FEAT	---	IDX	---	BTN	FEAT	---	IDX	---
1	REPD	L	1	11	REPD	L	6	16	REPD	L	11	21	STASP			31	SYSSP			
1	LINE		9	11	LINE		14	16	LINE		19	21	LINE	24		31				
2	REPD	L	2	12	REPD	L	7	17	REPD	L	12	22	PICK			32	SVRPT			
2	LINE		10	12	LINE		15	17	LINE		20	22	LINE	25		32				
3	REPD	L	3	13	REPD	L	8	18	REPD	L	13	23	PARK			33	MSGWT			
3	LINE		11	13	LINE		16	18	LINE		21	23	LINE	26		33				
4	REPD	L	4	14	REPD	L	9	19	REPD	L	14	24	BUSS			34	TIME			
4	LINE		12	14	LINE		17	19	LINE		22	24	LINE	27		34				
5	REPD	L	5	15	REPD	L	10	20	SET			25	INTCM			35	AINTC			
5	LINE		13	15	LINE		18	20	LINE		23	25	LINE	28		35				
6	LINE		1									26	CAMP							
6												26								

Figure 8-10. Feature Configuration Table, Row 6

Feature Configuration Table, Rows 6, 7, and 8

Use the instructions in this section to configure keys 6, 7, 8, 26, 27, 28, and 36.

1. With the cursor in the FEAT field for key 6 as shown in Figure 8-10, enter **LINE**.
2. Enter **4** in the IDX field. The cursor moves to the FEAT field for key 26.
3. Enter **LINE** in the FEAT field for key 26.
4. Enter **8** in the IDX field. The cursor moves to the FEAT field for key 7.
5. Enter **LINE** in the FEAT field for key 7.
6. Enter **3** in the IDX field. The cursor moves to the FEAT field for key 27.
7. Enter **LINE** in the FEAT field for key 27.
8. Enter **7** in the IDX field. The cursor moves to the FEAT field for key 8.
9. Enter **LINE** in the FEAT field for key 8.
10. Enter **2** in the IDX field. The cursor moves to the FEAT field for key 28.
11. Enter **LINE** in the FEAT field for key 28.
12. Enter **6** in the IDX field. The cursor moves to the FEAT field for key 36.
13. Press to accept the default value and move the cursor to the LINE field for key 9.

After you press the key, you see the screen as shown in Figure 8-11.

COMMAND: CRE BUTTON_400 9

PHONE

TYPE TABLE #

----- --
RPS_400 9

BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX
1	REPD	1	11	REPD	6	16	REPD	11	21	STASP		31	SYSSP	
1	LINE	9	11	LINE	14	16	LINE	19	21	LINE	24	31		
2	REPD	2	12	REPD	7	17	REPD	12	22	PICK		32	SVRPT	
2	LINE	10	12	LINE	15	17	LINE	20	22	LINE	25	32		
3	REPD	3	13	REPD	8	18	REPD	13	23	PARK		33	MSGWT	
3	LINE	11	13	LINE	16	18	LINE	21	23	LINE	26	33		
4	REPD	4	14	REPD	9	19	REPD	14	24	BUSS		34	TIME	
4	LINE	12	14	LINE	17	19	LINE	22	24	LINE	27	34		
5	REPD	5	15	REPD	10	20	SET		25	INTCM		35	AINTC	
5	LINE	13	15	LINE	18	20	LINE	23	25	LINE	28	35		
6	LINE	1							26	CAMP				
6	LINE	4							26	LINE	8			
7	LINE	2							27	FORWD				
7	LINE	3							27	LINE	7			
8	LINE	3							28	CONF		36	SPKR	
8	LINE	2							28	LINE	6	36		
9	LINE	4							29	FLASH		37	MUTE	
9		1							29		5	37		

Figure 8-11. Feature Configuration Table, Row 7

Feature Configuration Table, Rows 9 and 10

Use the instructions in this section to configure keys 9, 10, 29, 30, 37, 38.

1. With the cursor in the FEAT field for key 9 as shown in Figure 8-11, enter **LINE**.
2. Enter **1** in the IDX field. The cursor moves to the FEAT field for key 29.
3. Enter **LINE** in the FEAT field for key 29.
4. Enter **5** in the IDX field. The cursor moves to the FEAT field for key 37.
5. Enter **MWCTR** in the FEAT field to assign key 37 as the message waiting center key. After you enter the value, the cursor moves to the FEAT field for key 10.
6. Enter **HOLD** in the FEAT field to assign the hold function to the key. The cursor moves to the FEAT field for key 30.
7. Enter **CNCT** in the FEAT field to assign the connect function to the key. After you enter the value, the cursor moves to the FEAT field for key 38.
8. Enter **XFER** in the FEAT field to assign the transfer function to the key.

After you enter the value, you see the screen as shown in Figure 8-12.

9. Compare your Feature Configuration Table with Figure 7-27 and Table 8-1. Make sure you entered the information correctly. If you find any information that is not correct, edit the Feature Configuration table and enter the correct information.

COMMAND: CRE BUTTON_400 9

PHONE

TYPE TABLE #

----- --
RPS_400 9

BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX	BTN	FEAT	IDX
1	REPD	1	11	REPD	6	16	REPD	11	21	STASP		31	SYSSP	
1	LINE	9	11	LINE	14	16	LINE	19	21	LINE	24	31		
2	REPD	2	12	REPD	7	17	REPD	12	22	PICK		32	SVRPT	
2	LINE	10	12	LINE	15	17	LINE	20	22	LINE	25	32		
3	REPD	3	13	REPD	8	18	REPD	13	23	PARK		33	MSGWT	
3	LINE	11	13	LINE	16	18	LINE	21	23	LINE	26	33		
4	REPD	4	14	REPD	9	19	REPD	14	24	BUSS		34	TIME	
4	LINE	12	14	LINE	17	19	LINE	22	24	LINE	27	34		
5	REPD	5	15	REPD	10	20	SET		25	INTCM		35	AINTC	
5	LINE	13	15	LINE	18	20	LINE	23	25	LINE	28	35		
6	LINE	1							26	CAMP				
6	LINE	4							26	LINE	8			
7	LINE	2							27	FORWD				
7	LINE	3							27	LINE	7			
8	LINE	3							28	CONF		36	SPKR	
8	LINE	2							28	LINE	6	36		
9	LINE	4							29	FLASH		37	MUTE	
9	LINE	1							29	LINE	5	37	MWCTR	
10	HOLD								30	CNCT		38	XFER	
10	HOLD								30	CNCT		38	XFER	

Figure 8-12. Completed Feature Configuration Table

You have configured the function keys, assigned line appearances for the call queue, and assigned the busy indicator line appearances. Proceed to the next section, *Create Eight Line Appearance Extensions*.

Create Eight Line Appearance Extensions

This section explains how you create extensions on the switch for the line appearances. The extension are assigned to eight ROLMphone 400 line appearance keys to form the SID hunt group for incoming integrated calls.

Use the following procedure to create eight line appearance extensions for the SID.

1. Enter **CRE EXT** and a line appearance extension at the COMMAND prompt.
Enter the line appearance extension after the **LI LEX** (List Extension) command. For example, if you needed to use extension 551, you would enter **CRE EXT 501**. Refer to worksheet C in Chapter 3 for a list of line appearance extensions.
2. After you enter the command, you see the screen shown in Figure 8-13. The cursor appears in the **TYPE** field.

```

COMMAND: CRE EXT 501

EXTN      TYPE      COS      FORWARDING      FORWARD  ON
          BSY RNA DND
-----
501      EXT      15

```

Figure 8-13. Create Extension Screen

3. Enter **EXT** in the **TYPE** field.
The value tells the ROLM 9000 and 9751 CBX to use the extension as a line appearance. After you enter the value, the cursor moves to the **COS** field.
4. Enter the Class of Service number in the **COS** field. Refer to worksheet A for the **COS** number.
5. Press **ENTER** to move the cursor through the remaining fields on the screen and accept the default values.
6. Repeat the procedure for each extension listed on worksheet C.

When you complete the procedure, proceed to the next section, *Program the ROLMphone 400*.

Program the ROLMphone 400

After creating the analog voice port extensions and line appearance extensions and editing the Feature Configuration Table, you must program the ROLMphone 400. When you program the ROLMphone 400, you associate the Feature Configuration table with a PAD, program the eight extensions of the call queue onto the line appearances, and associate the analog voice ports with their appropriate busy indicators. Use the following procedure to assign the table and the extensions.

1. Enter **CRE RPI** and a PAD number at the COMMAND prompt.

Enter the Port Address (PAD) number after the **CRE RPI** (Create ROLMphone Interface) command. For example, if you needed to use PAD number 01/010402, you would enter **CRE RPI 01/010402**. Refer to worksheet A in Chapter 3 for PAD number. After you enter the command, you see the screen shown in Figure 8-14. The cursor appears in the **TYPE** field.

```

COMMAND: CRE RPI 01/010402

      REF      TBL BUZZ      SPKR      CLD
      DATA NO.  TYPE NO. INTERCOM VOICE C PHONE EXTN 1 R  MW BI NME
      -----
DF >      N    0    >    ?              ?    >      Y  Y  Y  N
CR 01/010402 N    0

      # 'S      EXTN      R MW BI EXTN      R MW BI EXTN      R MW BI EXTN      R MW BI
      -----
DF >              N N N              N N N              N N N              N N N
CR 2..5
CR 6..9
CR 10..13
CR 14..17
CR 18..21
CR 22..25
CR 26..28

```

Figure 8-14. Create ROLMphone Interface Screen

2. Enter **400** in the **TYPE** field.

The value designates the RPI type as a ROLMphone 400.

3. Enter the Feature Configuration table number in the **TBL No** field.

Refer to worksheet A in Chapter 3 for the Feature Configuration table number. The example in Figure 8-14 assigns Feature Configuration table number 9.

4. Press **ENTER** to move the cursor to the **SPKR PHONE** field.
5. Enter **N** in the **SPKR PHONE** field to disable the speaker phone option.

6. Enter the first line appearance extension in the EXTN 1 field.
The first line appearance number is listed on the second line of worksheet C in Chapter 3.
7. Enter **Y** in the R field. The value defines the extension as a ringing extension.
8. Enter **N** for the MW field to turn off the message waiting feature. The feature is not used in a call queue.
9. Enter **N** for the BI field to turn off the buzz intercom feature. The feature is not used in a call queue.
10. Enter **N** for the CLD NME field to turn off the called name feature. The feature is not used in a call queue. The cursor moves to the EXTN field on the CR 2 . . 5 line.
11. Enter the next line appearance extension in the EXTN field.
Refer to worksheet C in Chapter 3 for a list of line appearance extensions.
12. Enter **Y** in the R field.
13. Enter **N** for the MW field to turn off the message waiting feature.
14. Enter **N** for the BI field to turn off the buzz intercom feature.
15. Repeat Steps 11 through 14 for each line appearance extension listed on worksheet C. You must enter an extension for each key up to key number 9.
16. Enter the first analog voice extension at the EXTN field for key number 9.
The example in Figure 8-15 uses extension 501 as the first analog voice port.
17. Enter **N** for the R, WM, and BI fields.
18. Repeat Steps 16 and 17 for each analog voice port extension listed on worksheet B.
19. After you enter each analog voice port extension, press **ENTER** for each of the remaining fields. You do not have to enter or change the information in the fields.
20. When you finish entering the information, your screen appears as shown in Figure 8-15. Check the screen to make sure you entered the information correctly.

COMMAND: CRE RPI 01/010402

PAD	DATA	REF NO.	TYPE	TBL NO.	BUZZ INTERCOM	VOICE C	SPKR PHONE	EXTN 1	R	MW	BI	CLD NME
DF >	N	0	>	?			?	>	Y	Y	Y	N
CR 01/010402	N	0	400	9			N	551	Y	N	N	N

#'S	EXTN	R	MW	BI	EXTN	R	MW	BI	EXTN	R	MW	BI	EXTN	R	MW	BI
DF >		N	N	N		N	N	N		N	N	N		N	N	N
CR 2..5	552	Y	N	N	553	Y	N	N	554	Y	N	N	555	Y	N	N
CR 6..9	556	Y	N	N	557	Y	N	N	558	Y	N	N	501	N	N	N
CR 10..13	502	N	N	N	503	N	N	N	504	N	N	N				
CR 14..17																
CR 18..21																
CR 22..25																
CR 26..28																

Figure 8-15. Create ROLMphone Interface Screen

In the example, extensions 551 through 558 were programmed as the eight line appearances for the ROLMphone 400 call queue. The analog voice ports associated with their busy keys were extensions 501, 502, 503, and 504. If you have a system with more than four ports, your screen contains more analog voice port extension assignments.

Proceed to the next section, *Administer the Hunt Group*.

ADMINISTER THE HUNT GROUP

The SID uses one "hunt group" or switch group that contains the eight call appearance extensions assigned to the ROLMphone 400. You assign the AUDIX Voice Power system R3.0 number as the pilot number for the hunt group. The eight call appearances are assigned to the pilot number. Worksheet C in Chapter 3, *Switch Integration Planning*, contains the pilot number.

NOTE

AT&T recommends that you do not administer a name for the voice port hunt group. If you administer a name, the CBX must pass the information to the SID for each call. The increased information slows the integration process.

Use the following procedure to set up a hunt group for the SID.

1. Enter **CRE HD_Group** and the hunt group pilot number at the **COMMAND** prompt.

Enter the hunt group pilot number after the **CRE HD_Group** (Create Hunt Group) command. The pilot number is the extension subscribers use to call the AUDIX Voice Power system. The example in Figure 8-16 uses 500 as the pilot number. Refer to worksheet C for the pilot number assigned to the AUDIX Voice Power system.

After you enter the command, you see the screen shown in Figure 8-16. The cursor appears in the **Group No.** field.

```
COMMAND: CRE HD_Group 500
```

Pilot No.	Group No.	Group Type	Cos	Fwd/Busy C	Number
---	---	----	---	-	-----
500	1	H	0	N	

EXTN	EXTN	EXTN	EXTN	EXTN	EXTN	EXTN	EXTN	EXTN
----	----	----	----	----	----	----	----	----
551	552	553	554	555	556	557	558	

Figure 8-16. Hunt Group Assignment Screen

2. Press to accept the default value of **1** in the Group No. field.
3. Enter **H** in the Group Type field.
The value defines the group type as a hunt group.
4. Press to accept the default value of **0** in the COS field.
No COS features are used for the hunt group.
5. Enter **N** in the Fwd/Busy C field.
Hunt groups do not use forwarding.
6. Enter the first hunt group call appearance extension in the first EXTN field.
Refer to worksheet C in Chapter 3 for a list of call appearance extensions.
7. Enter the next hunt group call appearance number in the next EXTN field.
8. Repeat Step 7 until you enter all hunt group call appearance extensions listed on worksheet C.
9. When you finish entering call appearance extensions, press twice to exit the screen and complete the process.

You have finished the ROLM 9000 or 9751 CBX switch administration. Proceed to Chapter 9, *Switch Integration Device Administration*, to configure the switch integration device.

9. Switch Integration Device Administration

The instructions in this chapter explain how to configure the SID to integrate with a ROLM 8000, 9000, or 9751 series CBX and an AUDIX Voice Power system R3.0. The installation technician administers the SID based on ROLM CBX administration information provided by the customer. As you administer the SID configuration, you must perform the following tasks:

- Administer the basic parameters
 - Number of analog voice ports
 - Message desk number
 - CPID pad string
 - MWI pad string
 - MWI feature
- Administer the extensions and logical terminal numbers
- Save and start the configuration
- Administer the serial data links
- Change the system parameters
 - Adjust the LCD contrast
 - Adjust the volume
 - Set the date and time
 - Set the remote access device control
- Set the security level

Continue with the instructions on the next page to administer the SID.

POWER ON AND CHECK THE SID

The first process you must perform is to turn on or power on the SID. Use the following procedure to power on the SID.

1. Toggle the SID power switch to the **on** position. The power switch is located on the back of the SID on the right side.

After you power on the SID, you see the following screen.

VoiceBridge Bootstrap Module	V1.xx
Selftest.....	

When you see the screen, the system is "bootstrapping" or initializing. You see the App . . . and Com . . . messages appear briefly on the screen. The procedure lasts about 20 seconds.

2. Continue to watch the SID until you see the following screens.

ROLM Integration Module	V1.xx
Copyright 1992 Voice Technologies Group	

SETUP	1-Params	2-Ports	3-Clear
	4-Advanced		

3. To access the ROLM MAIN MENU, press **(FUNC)** on the SID keypad.

After you press the key, you see the ROLM MAIN MENU as shown in the following example.

ROLM	1-View	2-Utils	3-System
	4-Setup	5-Logs	6-Diags

Continue to the next section, *Administer the Basic Parameters*.

ADMINISTER THE BASIC PARAMETERS

In Chapter 3, *Switch Integration Planning*, you completed switch integration planning worksheets and determined the values for each of the basic parameters. If you did not complete the worksheets, turn to Chapter 3 and complete them now before you proceed with the instructions in this chapter.

After you complete the worksheets in Chapter 3, continue with the instructions in this section to configure the basic parameters.

1. To access the basic parameters edit forms, press **FUNC** on the SID keypad.

After you press the key, you see the ROLM MAIN MENU as shown in the following example.

ROLM	1-View	2-Utils	3-System
	4-Setup	5-Logs	6-Diags

2. Press **4** on the SID keypad to select the SETUP option.

After you press the key, you see the SETUP menu as shown in the following example.

SETUP	1-Params	2-Ports	3-Clear
	4-Advanced		

3. Press **1** on the SID keypad to access the first in a series of eight PARAMS edit forms as shown in the following example.

SETUP	Number of Ports	20
-------	-----------------	----

4. Enter the number of analog voice ports from worksheet A that the SID must support for the AUDIX Voice Power system.

5. Press to confirm the number and move to the next basic parameter edit form, the MSG DESK NUMBER form, as shown in the following example.

SETUP	Msg Desk Number:	001
-------	------------------	-----


6. Enter the three-digit message desk number from worksheet A in Chapter 3.
7. Press to confirm the number and move to the next basic parameter edit form, the CPID PAD STRING form, as shown in the following example.

SETUP	CPID Extension Length:	3
	CPID Pad String:	0000xxx


8. Press to accept the default CPID Extension Length number of 3.
- The extension length must match the extension length assigned on the switch. If the switch has a different extension length number, enter that number instead of the default.
9. Press to accept the default CPID Pad String number of 0000xxx.
10. Press to move to the next basic parameter edit form, the MWI PAD STRING form, as shown in the following example.

SETUP	MWI Extension Length:	3
	MWI Pad String:	0000xxx


11. Press to accept the default MWI extension length number of 3.
- The extension length must match the extension length assigned on the switch. If the switch has a different extension length number, enter that number instead of the default.
12. Press again to accept the default MWI Pad String number of 0000xxx.

13. Press  to move to the next basic parameter edit form, the MWI FEATURE form, as shown in the following example.


SETUP	MWI Feature:	ENABLE
<-	->	

14. Set the value for the message waiting feature as listed on worksheet A in Chapter 3.
- The SID defaults to *Enable*. If you want to turn off the feature, press the left or right arrow key to change the value to *Disable*.
15. Press  to move to the next basic parameter edit form, the MWI INTERLEAVE form, as shown in the following example.

SETUP	MWI Interleave:	5_
-------	-----------------	----

16. Press  to accept the default value and move to the next basic parameter edit form, the CALL SEQUENCE form, as shown in the following example. Check worksheet A in Chapter 3 to verify that you need to use the default value.

SETUP	Call Sequence:	Data/Call
-------	----------------	-----------

17. You have finished entering the ROLM basic parameter information. Press  to save the basic parameter information and return to the ROLM MAIN MENU.

Proceed to the *Assign Extensions and LTNs* section on the next page to continue the SID configuration.

ASSIGN EXTENSIONS AND LTNS

As you assign extensions and LTNs, you associate an LTN (Centrex LTN) with each analog extension used by an AUDIX Voice Power system R3.0. For each extension, you must assign the same LTN as the AUDIX Voice Power system assigns to the extension. If you do not assign the same LTN, the SID does not integrate calls properly. Read the section on the AutoFill feature before you assign extensions and LTNs.

Use the following instructions to assign extensions and LTNs.

1. To access the extension and LTN edit forms, press **FUNC** on the SID keypad.

After you press the key, you see the **SETUP** menu as shown in the following example.

SETUP	1-Params	2-Ports	3-Clear
	4-Advanced		

2. Press **2** to select **Ports** and access the chain of forms used to enter and edit extension and LTN information.

After you press the key, you see the **VM PORT** form as shown in the following example.

VM Port 1	LTN:	0001
	Extension:	-----

The **VM PORT** form and the next series of forms link together. The number of **VM PORT** forms linked together depends on the number you entered on the **NUMBER OF VOICE MAIL PORTS** form in the *Basic Parameters* section. If you entered 4, for example, the SID would link 4 **VM PORT** forms together.

3. If you do not want to use the default LTN, use the keypad to type an LTN over the default. The sample screen uses an LTN of 0001.

In Chapter 3, you completed worksheet B, *Extension/LTN Plan*. Use worksheet B as you enter LTNs and extensions.

4. Press **ENTER** to confirm the LTN. The cursor moves to the `Extension` field.
5. Use the keypad to type an extension for the LTN.

Use worksheet B as you enter LTNs and extensions.

NOTE

Each `VM PORT` form contains a default LTN, starting with 0001. If you want to use the default, press **ENTER** to select the default and move the cursor to the `Extension` field. Enter the extension number for the LTN. Press **ENTER** to confirm the number then press **↓** to move to the next form.

6. After you enter the extension, press **↓** to move to the next `VM PORT` form as shown in the following example.

VM Port 2	LTN:	0002
	Extension:	211__

In the example, notice that the LTN default automatically increased by one to 0002. You also can set the extension field to automatically increase by using the Autofill feature. For more information on the Autofill feature, refer to the section titled *Using Autofill*.

7. Repeat steps 4 through 6 until you have entered an LTN and an extension for each analog voice port.
8. After you have entered valid LTNs and extensions for all forms, press **FUNC** to return to the `ROLM MAIN MENU`.

Using AutoFill

If you use consecutive extension numbers, numbers that increase by one, the `SID` provides an *AutoFill* feature that automates the entry process. Using *AutoFill*, you enter the first extension number on the first `VM PORT` form. As you move to the next `VM PORT` form, *AutoFill* adds one to the extension you entered and places the number in the `Extension` field.

Example: At the first `VM PORT` form for a four port configuration, you enter **210** in the `Extension` field. After selecting *AutoFill*, you move to the next `VM PORT` form. The `SID` adds one to the extension and places 211 in the `Extension` field. On the next form, the `SID` places 212 in the field and 213 in the extension number field on the fourth (last) form.

Follow the instructions on the next page to use the *AutoFill* feature.

1. After accessing the first VM PORT form as instructed in the previous section of this document, enter an extension number in the Extension field. The following example uses 210 as the first extension number.

VM Port 1	LTN:	0001
	Extension:	210__

2. Position the cursor on the extension number you entered.
3. Press the MODE key for editor help.

After you press the key, you see an editor help screen as shown in the following example.

EDIT	1-Overtyp	2-Insert	3-Clear
	4-Undo	5-AutoFill	6-Lockport

4. Press **(5)** to activate the AutoFill option. The SID now uses the number you entered in the first extension field as the base number, adds one to the number for each form, and places the new number in the extension fields of the remaining forms. In the example, 210 was used as the first extension number. AutoFill automatically places the extension numbers 211, 212, and 213 into the second, third and fourth forms and returns you to the VM PORT form.

If only part of your extensions are numbered consecutively, you can still use the AutoFill feature.

Example: You have a 12 port system. The five extension numbers from 100 to 104 are consecutive. After extension 104, your extensions skip to 200 and continue consecutively to 206. To use the AutoFill feature, follow the regular Autofill instructions for numbers 100 to 104. When you reach the form that contains extension 105, move the cursor to the Extension field. Enter 200 in the field and turn on AutoFill again. The SID places extensions 201 to 206 in the remaining 6 edit forms.

You also can use AutoFill for LTN data. If you need to start your LTNs at 0010, for example, enter **0010** into the first form. Turn on AutoFill. AutoFill enters 0011 and up in the LTN fields of the remaining forms.

Continue to the procedure in the next section, *Saving and Starting the Configuration*.

SAVING AND STARTING THE CONFIGURATION

After you administer the basic parameters and assign extensions and LTNs, you must save the configuration. You also can start the integration at this point, although you should perform the tasks in the *Administer Serial Data Links* section to check the default settings for the SMDI communication link.

Use the following instructions to save the configuration and start the system.

1. Press **FUNC** on the SID keypad.

After you press the key, you see the **SETUP** menu.

2. Press **FUNC** again to return to the **ROLM MAIN MENU**.

After you press the key and return to the **ROLM MAIN MENU**, the **SID** checks the current configuration against the information you entered. Because you made changes to the configuration, the **SID** places the following prompt on the screen.

SAVE EDITS?	1-Yes	2-No
-------------	-------	------

3. Press **1** to select **Yes** and save your configuration changes.

After you press the key, the **SID** saves the information you entered and shows the following message on the screen.

Setup Saved...

4. After a short pause, the **SID** places another prompt on the screen as shown below.

START SYSTEM?	1-Yes	2-No
---------------	-------	------

5. If you want to start the integration, press **(1)** to select Yes.

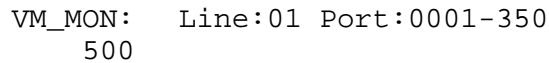
If you are not ready to start the integration, press **(2)** to select No.

After you press **(1)** you see the `Restarting System...` message on the screen. The SID pauses for a few seconds then starts the integration. When the integration starts, you see the `VM_MON` screen as shown in the following diagram.

A rectangular box representing a screen with the text "VM_MON Idle" centered on a single line.

```
VM_MON Idle
```

When the SID receives calls, the screen changes to show the SMDI packet being sent to the AUDIX Voice Power system. The screen appears similar to the following example.

A rectangular box representing a screen with two lines of text. The first line is "VM_MON: Line:01 Port:0001-350" and the second line is "500".

```
VM_MON: Line:01 Port:0001-350
      500
```

For more information on view modes, refer to Appendix B, *Using Views During Integration*, in this document. Continue to the procedure in the next section, *Administer Serial Data Links*.

ADMINISTER SERIAL DATA LINKS

The SID assigns default configurations to both the Centrex (SMDI) and AuxPort communication ports. You need to check the SID to make sure the defaults are set correctly and match the requirements of your integration. The SID sets the defaults shown in Table 9-1 for the serial data links.

Table 9-1. Serial Data Link Default Values

Link Type	Settings
SMDI: (Link A)	1200 baud 7 data bits 1 stop bit EVEN parity
AuxPort: (Link B)	2400 baud 8 data bits 1 stop bit NO parity

Use the following instructions to check or correct the default settings.

1. To access the edit forms used to change the serial data links, press **FUNC** to access the ROLM MAIN MENU.

After you press the key, you see the ROLM MAIN MENU as shown in the following example.

ROLM	1-View 4-Setup	2-Utils 5-Logs	3-System 6-Diags
------	-------------------	-------------------	---------------------

2. Select **Utils** from the menu by pressing **2** on the SID keypad.

After you press the key, you see the UTILS menu as shown in the following example.

UTILS	1-Login 4-Misc	2-Date/Time 5-Upgrade	3-Serial
-------	-------------------	--------------------------	----------

3. Press **3** on the SID keypad to access the SERIAL menu.

After you press the key you see the SERIAL menu as shown in the following example.

SERIAL	1-Centrex	2-AuxPort
--------	-----------	-----------

4. Enter the menu item number of the serial data link you need to edit.

When you select Centrex (SMDI) or AuxPort from the menu, you access four edit forms. Use the forms to set the serial data to the values your application requires. For example, press **1** on the keypad.

NOTE

Both the Centrex and AuxPort edit forms appear the same, except for the edit form name. The Centrex forms were chosen only as an example in this document. You can select either serial data link or both. You also can use the default values, as described earlier in this section.

5. After you press the key, you see the BAUD RATE edit form as shown in the following example.

CENTRX Baud Rate:	1200
<- ->	

6. To change the default value shown, press the left or right arrow key to toggle through the optional values. The value you set for the baud rate must equal the value set for the SID to AUDIX Voice Power system link baud rate. Do not set two different values for these links. Stop pressing the arrow keys when you find the value you want to use.


NOTE

In Chapter 3 you completed worksheet A which contained lines for the Centrex baud (SMDI) rate and the AuxPort baud rate. Refer to the worksheet to review the baud rates you selected.

7. Press **↓** to confirm your choice and move to the next form.


After you press the key, you see the PARITY form as shown in the following example.

CENTRX Parity:	EVEN
<- ->	

8. To change the default parity value shown in the field, press the left or right arrow key to toggle through the optional values. Stop pressing the arrow keys when you find the parity value you want to use.
9. Press  to confirm your choice and move to the next form.


After you press the key, you see the `BYTE LENGTH` form as shown in the following example.

<code>CENTRX Byte Length:</code>	<code>7 Bits</code>
<code><- -></code>	

10. To change the default byte length shown in the field, press the left or right arrow key to toggle through the optional values. Stop pressing the arrow keys when you find the byte length you want to use.
11. Press  to confirm your choice and move to the last form.

After you press the key, you see the `STOP BITS` form as shown in the following example.

<code>CENTRX Stop Bits:</code>	<code>1</code>
<code><- -></code>	

12. To change the default stop bit value shown in the field, press the left or right arrow key to toggle through the optional values. Stop pressing the arrow keys when you find the stop bit value you want to use.
13. Press  to confirm your choice and return to the `ROLM MAIN MENU`. If you need to reconfigure the AuxPort data link, return to step 2.

You have completed the SMDI or AuxPort configuration setup. The SID automatically accepts and saves any information you change.

Continue to the procedure in the next section, *Changing System Parameters*.

CHANGING SYSTEM PARAMETERS

The SID provides access to some adjustable global system parameters. You can change the following parameters.

- Time and date
- LCD contrast setting
- Speaker volume
- Remote access device control

Use the instructions in this section to change the system parameters.

Setting the Date and Time

Set the date and time when you install your SID system so error log messages are properly timestamped. Although the date and time are set at the factory, you may need to change the time to correct differences in time zones. Follow the instructions below to set the date and time.

1. Press **FUNC** to access the ROLM MAIN MENU.
2. Press **2** to access the UTILITIES menu.
3. Press **2** to access the DATE AND TIME form.

After you press the key, you see the DT/TM form as shown in the following example. The cursor appears in the month field.

DT / TM	Date:	11 / 18 / 92
	Time	15 : 35 : 00

4. Place the cursor on the Date field.
5. Enter the correct date in the format MM/DD/YY (month/day/year) by pressing **ENTER** and typing the month, day, and year in each each part of the date field. If the date is correct, do not change the information and proceed to the next step.
6. After you enter the year in the last date field, press **ENTER** to confirm the date and move the cursor to the Time field.
7. Enter the correct time in the format HH:MM:SS (hour:minute:second) by pressing **ENTER** and typing the hour, minutes, and seconds in each each part of the time field. If the time shown is correct, proceed to the next step.
8. Press **FUNC** to return to the ROLM MAIN MENU.

The SID accepts and uses the information. You do not have to save the information or restart the integration. Continue to the next section, *Adjusting the LCD Contrast*.

Adjusting the LCD Contrast

The LCD has a contrast adjustment edit form that you use to adjust the screen. Follow the instructions below to adjust the LCD contrast.

1. Press **FUNC** to access the ROLM MAIN MENU.
2. Press **3** to access the SYSTEM TOOLS menu.

After you press the key, you see the SYSTEM TOOLS menu as shown in the following example.

SYSTEM	1-Info	2-Contrast	3-Volume
	4-Start	5-Stop	6-Reboot

3. Press **2** to access the CONTRAST form.

After you press the key, you see the CONTRAST form as shown in the following example.

CONTRAST 50%		
<- ->		

4. Change the setting by pressing the right and left arrow keys. As you press the arrow keys, the display changes.
5. Stop pressing the arrow keys when you adjust the LCD to a comfortable level.
6. Press **FUNC** to return to the ROLM MAIN MENU.

Continue to the next section, *Adjusting the Speaker Volume*.

Adjusting the Speaker Volume

The SID uses a speaker used with the telephone emulator/monitor form. You adjust the volume similar to the contrast adjustment. Follow the instructions below to adjust the speaker volume.

1. Press **FUNC** to access the ROLM MAIN MENU.
2. Press **3** to access the SYSTEM TOOLS menu.

After you press the key, you see the SYSTEM TOOLS menu as shown in the following example.

SYSTEM	1-Info	2-Contrast	3-Volume
	4-Start	5-Stop	6-Reboot

3. Press **3** to access the VOLUME form.

After you press the key, you see the VOLUME form as shown in the following example.

VOLUME 75%		
<- ->		

4. Change the loudness by pressing the right and left arrow keys. As you press the arrow keys, the volume level changes.
5. Press **FUNC** to return to the ROLM MAIN MENU.

Continue to the procedure in the next section, *Setting the Remote Access Device Control*.

Setting the Remote Access Device Control

The SID contains an internal 2400 baud modem for remote maintenance. You must connect an analog line to the modem port. Follow the instructions below to set the control for the modem.

1. Press **FUNC** to access the ROLM MAIN MENU.
2. Press **2** to access the UTILITIES menu.
3. Press **4** to access the Miscellaneous Tools menu.

After you press the key, you see the MISC menu as shown in the following example.

MISC	Remote Access:	MODEM
<- ->		

4. If you see **MODEM** in the upper right corner of the form, press **FUNC** to return to the ROLM MAIN MENU.

If you do not see **MODEM** in the field, press the right and left arrow keys until **MODEM** appears in the field then press **FUNC** to return to the ROLM MAIN MENU.

Continue to the procedure in the next section, *Setting a Security Level*.

SETTING A SECURITY LEVEL

The various features and functions of the SID are available only at specific security levels. The list below shows each security level and the options available to that level.

- Access Level 0 — The lowest security level. The only options available to level 0 are the ability to view integration activities, change the contrast on the LCD display, see the software version level, and log in to other access levels. The SID normally operates at level 0 and you do not need a password to access level 0.
- Access Level 1 — The second security level. Level 1 allows you to access all level 0 features and all of the tools needed to administer the system. The password for this level is the last five digits of your serial number.
- Access Level 2 — The highest level of security. Level 2 allows you to access all level 0 and level 1 features and several special diagnostic tools available only to trained personnel. Only AT&T authorized personnel can access this level, either on-site or remotely, to perform testing and diagnostics on the SID. The password for this level is only given to authorized personnel.

The factory sets the SID to access level 1. When you first power on the SID, the unit accesses the **SETUP** menu and allows you to access all tools required to perform the administration tasks. You can select a security level for the SID and make the security level part of the configuration. AT&T recommends that you select security level 0 as the normal operating mode for the SID. Users only can access level 0 features, which reduces the risk of tampering by unauthorized users.

Use the following instructions to set the security level on the SID.

1. Press **FUNC** to access the ROLM MAIN MENU as shown in the following example.

ROLM	1-View	2-Utils	3-System
	4-Setup	5-Logs	6-Diags

2. Press **2** to select the UTILS menu as shown in the following example.

UTILS	1-Login	2-Date/Time	3-Serial
	4-Misc	5-Upgrade	

3. Press **1** to select the LOGIN form as shown in the following example.

LOGIN	Access Level: 1
<- ->	Password

4. Press the arrow (<- ->) keys to change the access level to 0.
5. Press **ENTER** to save the change. The SID immediately updates your security level.

To log in to level 1, use the instructions above to access the LOGIN form. Use the arrow keys to set Access Level to **1**. The SID now asks you for a password. Type in the level 1 password and press **ENTER**.

NOTE

As you type the password, you do not see the letters on the screen.

When you complete the instructions in this chapter, proceed to Chapter 10, *Acceptance Tests*, in this document.

10. Acceptance Tests

NOTE

The information presented in this chapter represents guidelines for administering the ROLM CBX to integrate with an AUDIX Voice Power system. Each switch may have a different administration. The switch administration process should be performed by a trained ROLM technician. *AT&T services personnel will not administer the ROLM CBX.*

Acceptance tests begin after you complete the initial AUDIX Voice Power system administration and administer two test subscribers. The process includes call-through tests to each AUDIX Voice Power system port and voice mail tests for each test subscriber. Before you can perform the acceptance tests, though, you must administer the two test subscribers on the ROLM CBX. Use the instructions in this chapter to administer the test subscribers before you perform the acceptance tests.



Read the instructions for performing AUDIX Voice Power system R3.0 acceptance tests in Chapter 10, *Acceptance Tests*, in *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115.

This chapter explains how to administer two test subscribers on the ROLM CBX for acceptance tests. If you have another type of switch, refer to the documentation provided with that switch or the switch integration package for more information.

Forwarding a subscriber to the SID pilot number provides the subscriber with integrated voice mail services. Examine the needs of the individual users when you determine the call forwarding conditions.

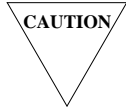
NOTE

ROLMphone users should already have a message waiting button defined on their phones. If they do not have the button defined, the system administrator must add the feature. By assigning the pilot number of the SID to the message waiting button, subscribers can retrieve their messages by pressing the button when the message waiting lamp is lit. This chapter provides instructions for adding the feature.

Continue with the procedures in this chapter to administer the switch for acceptance tests. To perform the acceptance test, you must have two test subscriber extensions selected for the tests. Refer to worksheet D in Chapter 3, *Switch Integration Planning*, to find the test subscriber extensions.

ADMINISTER THE TEST SUBSCRIBERS

This section contains instructions for three types of switches, the ROLM 8000, 9000, and 9751 series CBX. Administration tasks for the ROLM 9000 and 9751 CBXs are similar and explained in one section. Refer to the *Administer the ROLM 8000 CBX* section if you have a ROLM 8000 CBX. Refer to the *Administer the ROLM 9000 and 9751 CBX* section if you have a ROLM 9000 or 9751 CBX.

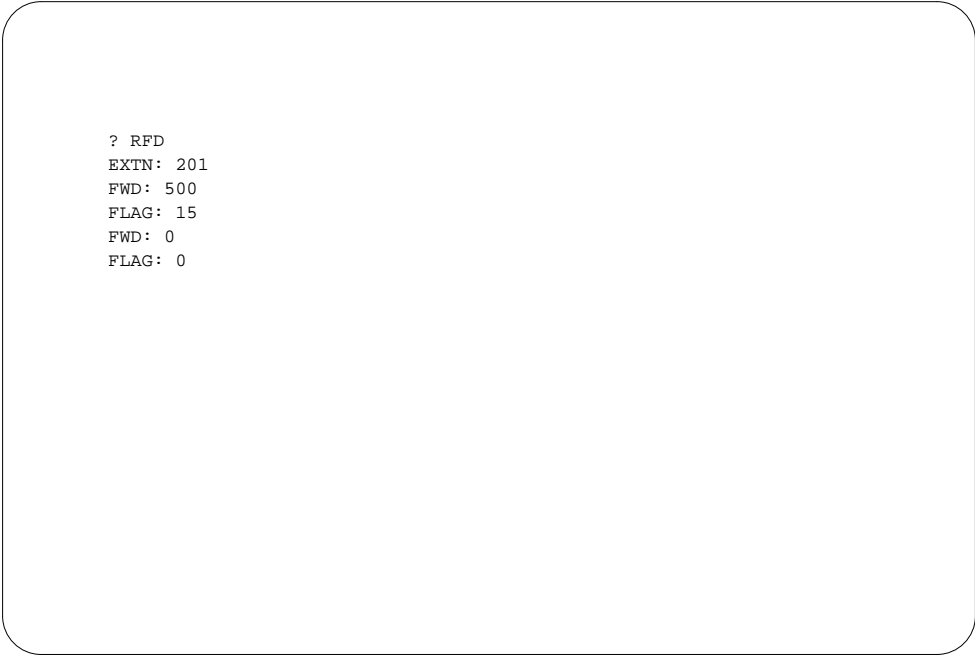


Do not change any subscriber information unless instructed by this document. If you change subscriber information, the subscriber may experience a loss of voice mail service or phone service.

ROLM 8000 CBX Test Subscriber Administration

Use the following instructions to administer test subscribers on the ROLM 8000 CBX. If you have a ROLM 9000 or 9751 CBX, refer to the procedure in the *ROLM 9000 and 9751 CBX* section.

1. Log on to the ROLM 8000 administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact your system administrator.
2. After you log on to the administration terminal, you see the ? prompt on the screen.
3. Enter **RFD** (Revise Forwarding) at the prompt.
4. Enter the test subscriber extension at the EXTN prompt. Refer to worksheet D in Chapter 3 for the test subscriber extensions.
5. Enter the SID pilot number at the FWD prompt. Refer to worksheet C in Chapter 3 for the pilot number.
6. Enter **15** at the FLAG prompt. **15** instructs the CBX to forward a call to the SID under all conditions.
7. Enter **0** at the second FWD prompt.
8. Enter **0** at the second FLAG prompt. After you enter the information, the screen appears as shown in Figure 10-1.



```
? RFD
EXTN: 201
FWD: 500
FLAG: 15
FWD: 0
FLAG: 0
```

Figure 10-1. Forward Calls to the Pilot Number Screen

Repeat steps 1 through 8 for the second test subscriber. After you administer the two test subscribers, return to the *Acceptance Tests* chapter in *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115.

NOTE

Some subscribers may not have the message waiting button defined on their ROLMphone 400 sets. For message waiting button definition instructions, refer to the *Defining the Message Waiting Button* section at the end of this chapter.

ROLM 9000 and 9751 CBX Test Subscriber Administration

Use the following instructions to administer test subscribers on the ROLM 9000 and 9751 CBX. If you have a ROLM 8000 CBX, refer to the procedure in the *ROLM 8000 CBX* section.

1. Log on to the ROLM CBX administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact your system administrator.
2. After you log on to the administration terminal, you see the COMMAND prompt on the screen.
3. Enter **MO EXT <test subscriber extension>** (Modify Extension) at the prompt. Refer to worksheet D for a list of test subscribers. After you enter the command, you see the screen shown in Figure 10-2.

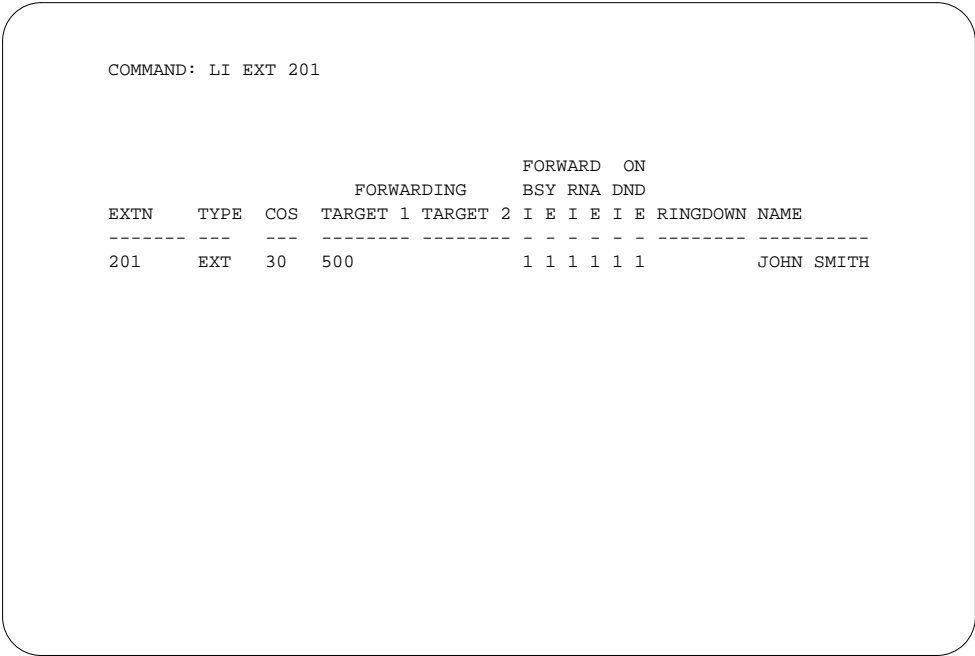


Figure 10-2. Forward Subscriber to Pilot Number Screen

4. Enter the SID pilot number in the FORWARDING TARGET 1 field. Refer to worksheet C for the pilot number.
5. Enter 1 in each of the FORWARD ON fields as shown in Figure 10-2.

Repeat steps 1 through 5 for the second test subscriber. After you administer the two test subscribers, return to the *Acceptance Tests* chapter in *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115.

NOTE

Some subscribers may not have the message waiting button defined on their ROLMphone 400 sets. For message waiting button definition instructions, refer to the *Defining the Message Waiting Button* section at the end of this chapter.

DEFINING THE MESSAGE WAITING BUTTON

The ROLMphone sets used for acceptance tests must have a message waiting button defined on the phones. If the set does not have the button defined, you must define the button before anyone performs acceptance tests. By assigning the pilot number of the SID to the message waiting button, subscribers can retrieve their messages by pressing the button when the message waiting lamp is lit. Use the procedure in this section to add the feature to the subscriber ROLMphone 400 sets.

1. Using the phone of the first test subscriber, lift the handset and listen for the dial tone.
2. Press on the phone keypad.
After you enter the numbers, you hear silence. Continue with the next step.
3. Press .

After you enter the numbers, you hear silence. Continue with the next step.

4. Enter the SID pilot number. Refer to worksheet C in Chapter 3 to find the pilot number.
5. Hangup the phone. You have completed the task.

11. Cut-to-Service

NOTE

The information presented in this chapter represents guidelines for administering the ROLM CBX to integrate with an AUDIX Voice Power system. Each switch may have a different administration. The switch administration process should be performed by a trained ROLM technician. *AT&T services personnel will not administer the ROLM CBX.*



Do not complete any tasks in this chapter until you complete the instructions in Chapter 11, *Cut-to-Service*, in *AUDIX Voice Power System R3.0 Software Installation*, 585-310-115, or Chapter 3, *Getting Started*, in *AUDIX Voice Power System R3.0 Administration*, 585-310-532. The documents explain the cut-to-service procedures you must perform before you perform the instructions in this chapter.

This chapter explains how to administer the ROLM 8000, 9000, and 9751 CBX to start or "cut-to-service" subscribers on the AUDIX Voice Power system R3.0. If you have another type of switch, refer to the documentation provided with that switch or the switch integration package for more information.

Cutting to service on the ROLM CBX is a switch-based task. You must administer each subscriber and the process may require a large amount of time if you have a large subscriber base. Determine a time and a strategy for administering the subscribers. For example, you may plan to perform the administration at night or during a period of low call volume.

NOTE

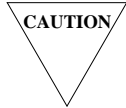
When you cut the subscribers into service, all subscribers receive AUDIX Voice Power system service. You need to prepare the subscribers and train the system attendants before you cut to service.

ROLMphone users should already have a message waiting button defined on their phones. If they do not have the button defined, the system administrator must add the feature. By assigning the pilot number of the SID to the message waiting button, subscribers can retrieve their messages by pressing the button when the message waiting lamp is lit. This chapter provides instructions for adding the feature.

Continue with the instructions on the next page to cut to service.

ADMINISTER THE SUBSCRIBERS

This section contains instructions for three types of switches, the ROLM 8000, 9000, and 9751 series CBX. Administration tasks for the ROLM 9000 and 9751 CBXs are similar and explained in one section. Refer to the *Administer the ROLM 8000 CBX* section if you have a ROLM 8000 CBX. Refer to the *Administer the ROLM 9000 and 9751 CBX* section if you have a ROLM 9000 or 9751 CBX.

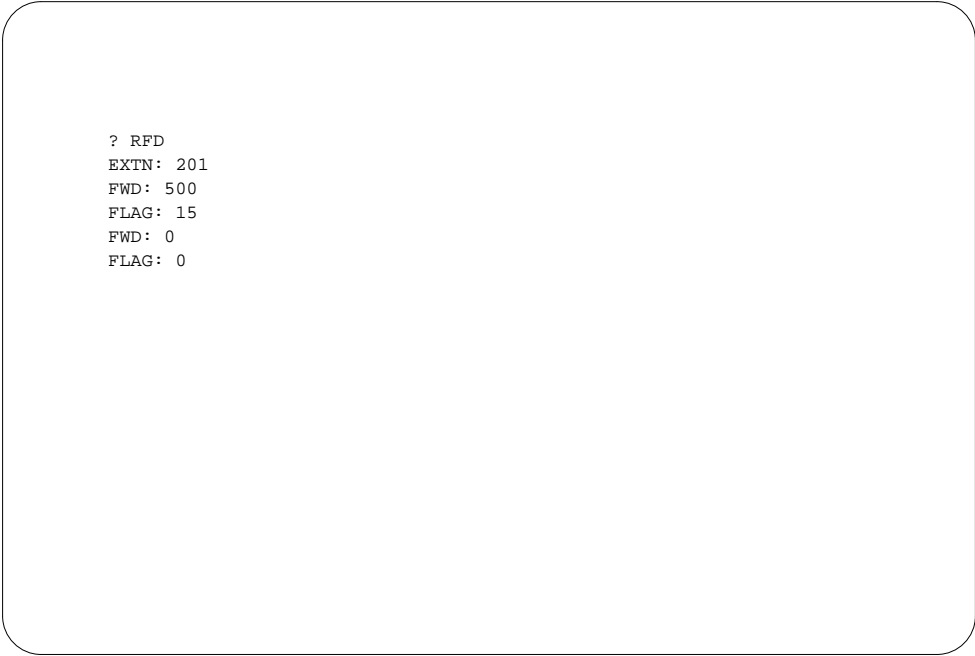


Do not change any subscriber information unless instructed to by this document. If you change subscriber information, the subscriber may experience a loss of voice mail service or phone service.

ROLM 8000 CBX Subscriber Administration

Use the following instructions to administer subscribers on the ROLM 8000 CBX. If you have a ROLM 9000 or 9751 CBX, refer to the procedure in the *ROLM 9000 and 9751 CBX* section.

1. Log on to the ROLM 8000 administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact your system administrator.
2. After you log on to the administration terminal, you see the ? prompt on the screen.
3. Enter **RFD** (Revise Forwarding) at the prompt.
4. Enter an AUDIX Voice Power system subscriber extension at the EXTN prompt. Refer to Appendix A, Table A-1 in *AUDIX Voice Power R3.0 Planning*, 585-310-602, for a list of subscriber extensions.
5. Enter the SID pilot number at the FWD prompt. Refer to worksheet C in Chapter 3 for the pilot number.
6. Enter **15** at the FLAG prompt. **15** instructs the CBX to forward a call to the SID under all conditions.
7. Enter **0** at the second FWD prompt.
8. Enter **0** at the second FLAG prompt. After you enter the information, the screen appears as shown in Figure 11-1.



```
? RFD
EXTN: 201
FWD: 500
FLAG: 15
FWD: 0
FLAG: 0
```

Figure 11-1. Forward Calls to the Pilot Number Screen

9. Repeat steps 1 through 8 for each AUDIX Voice Power system subscriber.

After you finish administering system subscribers, the AUDIX Voice Power system R3.0 installation and administration process is complete. Your system is receiving and processing calls. Refer to Chapter 3, *Getting Started*, in *AUDIX Voice Power System R3.0 Administration*, 585-310-532, for information on using and maintaining the system.

NOTE

Some subscribers may not have the message waiting button defined on their ROLMphone 400 sets. For message waiting button definition instructions, refer to the *Defining the Message Waiting Button* section at the end of this chapter.

ROLM 9000 and 9751 CBX Subscriber Administration

Use the following instructions to administer AUDIX Voice Power system R3.0 subscribers on the ROLM 9000 and 9751 CBX. If you have a ROLM 8000 CBX, refer to the procedure in the *ROLM 8000 CBX* section.

1. Log on to the ROLM CBX administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact your system administrator.
2. After you log on to the administration terminal, you see the COMMAND prompt on the screen.
3. Enter **MO EXT <subscriber extension>** (Modify Extension) at the prompt. Refer to Appendix A, Table A-1 in *AUDIX Voice Power System Release 3.0 Planning*, 585-310-602, for a list of AUDIX Voice Power system subscribers. After you enter the command, you see the screen shown in Figure 11-2.

COMMAND: LI EXT 201

EXTN	TYPE	COS	FORWARDING		FORWARD ON						RINGDOWN	NAME
			TARGET 1	TARGET 2	BSY	RNA	DND	I	E	I		
201	EXT	30	500		1	1	1	1	1	1		JOHN SMITH

Figure 11-2. Forward Subscriber to Pilot Number Screen

4. Enter the SID pilot number in the FORWARDING TARGET 1 field. Refer to worksheet C for the pilot number.
5. Enter 1 in each of the FORWARD ON fields as shown in Figure 11-2.
6. Repeat steps 1 through 5 for each AUDIX Voice Power system subscriber.

After you finish administering system subscribers, the AUDIX Voice Power system R3.0 installation and administration process is complete. Your system is receiving and processing calls. Refer to Chapter 3, *Getting Started*, in *AUDIX Voice Power System R3.0 Administration*, 585-310-532, for information on using and maintaining the

NOTE

Some subscribers may not have the message waiting button defined on their ROLMphone 400 sets. For message waiting button definition instructions, refer to the *Defining the Message Waiting Button* section at the end of this chapter.

DEFINING THE MESSAGE WAITING BUTTON

The AUDIX Voice Power system subscriber ROLMphone sets must have a message waiting button defined on the phones. If the set does not have the button defined, you must define the button for the subscriber. By assigning the pilot number of the SID to the message waiting button, subscribers can retrieve their messages by pressing the button when the message waiting lamp is lit. Use the procedure in this section to add the feature to the subscriber ROLMphone 400 sets.

1. Using the subscriber phone, lift the handset and listen for the dial tone.
2. Press on the phone keypad.

After you enter the numbers, you hear silence. Continue with the next step.

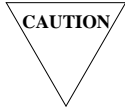
3. Press .

After you enter the number, you hear silence. Continue with the next step.

4. Enter the SID pilot number. Refer to worksheet C in Chapter 3 to find the pilot number.
5. Hangup the phone. You have completed the task.

CUT-FROM-SERVICE PROCEDURES

When you install system upgrades or perform system maintenance, you may have to cut the subscribers from AUDIX Voice Power system service. To perform the task, you must change the subscriber administration on the ROLM CBX. Do not perform the cut-from-service tasks unless instructed by one of the documents in the AUDIX Voice Power system R3.0 documentation sets.



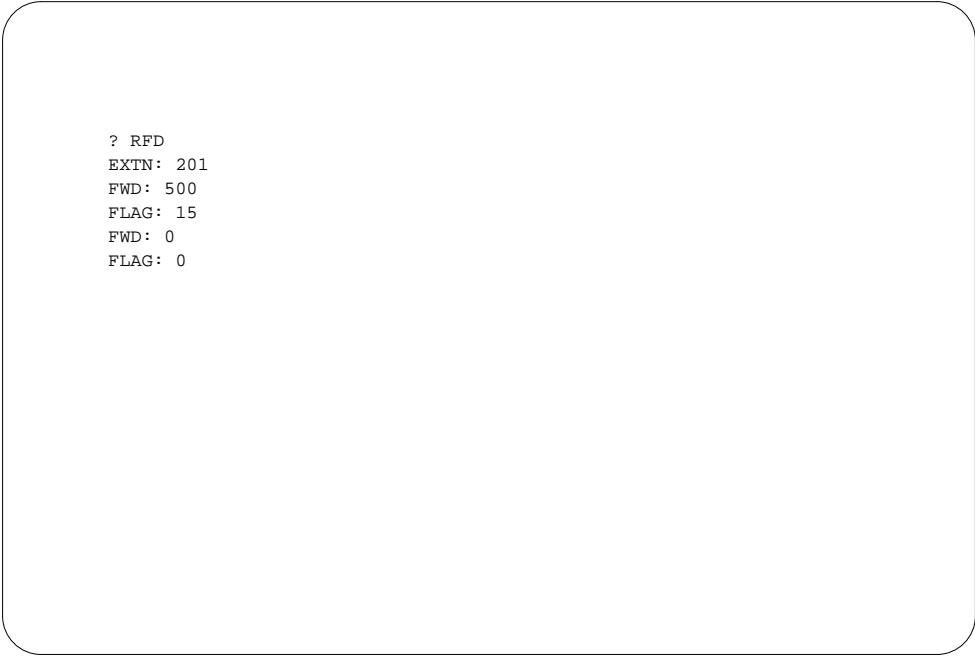
Do not change any subscriber information unless instructed to by this document. If you change subscriber information, the subscriber may experience a loss of voice mail service or phone service.

Use the instructions in this section to cancel subscriber administration and cut the subscribers from AUDIX Voice Power system service.

Cutting from Service on the ROLM 8000

Use the following instructions to remove subscribers from AUDIX Voice Power on a ROLM 8000 CBX. If you have a ROLM 9000 or 9751 CBX, refer to the procedure in the *Cutting from Service on the ROLM 9000 and 9751 CBX* section. This procedure explains how to forward all calls for subscribers to the attendant. Before you complete the procedure, inform the attendant that the call volume will increase and inform the subscribers that they will experience a loss of voice mail service.

1. Log on to the ROLM 8000 administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact your system administrator.
2. After you log on to the administration terminal, you see the ? prompt on the screen.
3. Enter **RFD** (Revise Forwarding) at the prompt.
4. Enter an AUDIX Voice Power system subscriber extension at the EXTN prompt. Refer to Appendix A, Table A-1 in *AUDIX Voice Power R3.0 Planning*, 585-310-602, for a list of subscriber extensions.
5. Enter the attendant extension at the FWD prompt. All calls forward to the number you enter.
6. Enter **15** at the FLAG prompt. **15** instructs the CBX to forward a call to the SID under all conditions.
7. Enter **0** at the second FWD prompt.
8. Enter **0** at the second FLAG prompt. After you enter the information, the screen appears as shown in Figure 11-3.



```
? RFD  
EXTN: 201  
FWD: 500  
FLAG: 15  
FWD: 0  
FLAG: 0
```

Figure 11-3. Forward Calls to the Attendant Station Screen

9. Repeat steps 1 through 8 for each AUDIX Voice Power system subscriber.

After you finish removing subscribers from service, return to the document that instructed you to remove subscribers from service.

Cutting from Service on the ROLM 9000 and 9751 CBX

Use the following instructions to remove subscribers from AUDIX Voice Power on a ROLM 9000 or 9751 CBX. If you have a ROLM 8000 CBX, refer to the procedure in the *Cutting from Service on the ROLM 8000* section. This procedure explains how to forward all calls for subscribers to the attendant. Before you complete the procedure, inform the attendant that the call volume will increase and inform the subscribers that they will experience a loss of voice mail service.

1. Log on to the ROLM CBX administration terminal. For logon instructions, refer to the documentation supplied with the ROLM CBX or contact your system administrator.
2. After you log on to the administration terminal, you see the COMMAND prompt on the screen.
3. Enter **MO EXT <subscriber extension>** (Modify Extension) at the prompt. Refer to Appendix A, Table A-1 in *AUDIX Voice Power System Release 3.0 Planning*, 585-310-602, for a list of AUDIX Voice Power system subscribers. After you enter the command, you see the screen shown in Figure 11-4.

COMMAND: LI EXT 201

EXTN	TYPE	COS	FORWARDING		FORWARD ON						RINGDOWN	NAME	
			TARGET 1	TARGET 2	BSY	RNA	DND	I	E	I	E		
201	EXT	30	500		1	1	1	1	1	1			JOHN SMITH

Figure 11-4. Forward Subscriber to Pilot Number Screen

4. Enter the attendant station extension in the FORWARDING TARGET 1 field. The system will forward all calls to the attendant station.
5. Enter **1** in each of the FORWARD ON fields as shown in Figure 11-2.
6. Repeat steps 1 through 5 for each AUDIX Voice Power system subscriber.

After you finish removing subscribers from service, return to the document that instructed you to remove subscribers from service.

A. Troubleshooting and Error Logs

Appendix A provides troubleshooting information to help you isolate and correct problems that may occur with an AUDIX Voice Power system R3.0 integrated with the ROLM 8000, 9000, or 9751 CBX. The problems outlined in this appendix only refer to problems related to the integration device and processes. If you do not find your problem in this appendix, refer to *AUDIX Voice Power System R3.0 Maintenance*, 585-310-113, for more information.

SWITCH INTEGRATION DEVICE PROBLEMS

The SID does not power on.

Possible Reason:	The power cord connection may be loose or disconnected.
Remedy:	Make sure the power cord is firmly plugged into the wall outlet and the SID.

Possible Reason:	The wall outlet may not have power.
Remedy:	Make sure the circuit breaker for the wall outlet is on.

Possible Reason:	The SID power switch may be set to the off position.
Remedy:	Turn the SID power switch to the on position.

Possible Reason:	The SID may have a bad fuse.
Remedy:	Check the fuse on the SID.

The SID does not boot.

Possible Reason:	The power cord connection may be loose or disconnected.
Remedy:	Make sure the power cord is firmly plugged into the wall outlet and the SID.
Possible Reason:	The wall outlet may not have power.
Remedy:	Make sure the circuit breaker for the wall outlet is on.
Possible Reason:	The SID power switch may be set to the off position.
Remedy:	Turn the SID power switch to the on position.
Possible Reason:	The SID may have a bad fuse.
Remedy:	Check the fuse on the SID.
Possible Reason:	The SID may have a bad CPU board.
Remedy:	Check all other possible reasons for the problem and perform the recommended actions. If you still have the problem, contact your AT&T service representative.

The SID LCD shows NDSP for every call the SID receives.

Possible Reason:	The ROLMphone 400 station was not configured as a display module on the CBX.
Remedy:	If you have a ROLM 8000 CBX, refer to Chapter 7, <i>ROLM 8000 CBX Administration</i> , for instructions on configuring the ROLMphone station. If you have a ROLM 9000 or 9751 CBX, refer to Chapter 8, <i>ROLM 9000 and 9751 CBX Administration</i> .
Possible Reason:	The ROLM CBX and the SID are not properly connected.
Remedy:	Refer to Chapter 4, <i>Hardware Installation</i> , for instructions on connecting the cables to the SID and the CBX.
Possible Reason:	The SID may have a bad internal board.
Remedy:	Check all other possible reasons for the problem and perform the recommended actions. If you still have the problem, contact your AT&T service representative.

Calls are not integrated.

Possible Reason:	The cables between the SID and the AUDIX Voice Power computer may not be correctly connected.
------------------	-----------------------------------------------------------------------------------------------

Remedy:	Refer to Chapter 4, <i>Hardware Installation</i> , and check the cable connections.
---------	-------------------------------------------------------------------------------------

Possible Reason:	The AUDIX Voice Power system may not be correctly administered.
------------------	-----------------------------------------------------------------

Remedy:	Refer to <i>AUDIX Voice Power System R3.0 Administration</i> , and check the administration of the system.
---------	------------------------------------------------------------------------------------------------------------

Possible Reason:	The SID may be administered incorrectly.
------------------	------------------------------------------

Remedy:	Refer to Chapter 9, <i>Switch Integration Device Administration</i> , and check the administration of the system. Make sure the channels and extensions are configured correctly.
---------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Possible Reason:	The baud rate for the SID to AUDIX Voice Power connection may not be set correctly.
------------------	-------------------------------------------------------------------------------------

Remedy:	Refer to Chapter 9, <i>Switch Integration Device Administration</i> , and set the baud rate correctly.
---------	--------------------------------------------------------------------------------------------------------

Possible Reason:	The subscriber name field administration on the ROLM CBX may be incorrect.
------------------	----------------------------------------------------------------------------

Remedy:	If you have a ROLM 8000, refer to Chapter 7, <i>ROLM 8000 CBX Administration</i> , and administer the name field. If you have a ROLM 9000 or 9751 CBX, refer to Chapter 8, <i>ROLM 9000 or 9751 CBX Administration</i> .
---------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Calls are integrated but the message waiting lamp (MWL) does not work.

Possible Reason:	The MWL may not be administered correctly on the AUDIX Voice Power system.
Remedy:	Refer to Chapter 6, <i>AUDIX Voice Power R3.0 Switch Parameters</i> , and check the administration of the system.
Possible Reason:	The packet format and MWL codes are set incorrectly on the switch.
Remedy:	For a ROLM 8000 CBX, refer to Chapter 7, <i>ROLM 8000 CBX Administration</i> , and set the information correctly. For a ROLM 9000 or 9751 CBX, refer to Chapter 8, <i>ROLM 9000 and 9751 CBX Administration</i> .
Possible Reason:	The cable between the SID and the AUDIX Voice Power system may be defective.
Remedy:	Replace the cable.
Possible Reason:	The ROLMphone 400 station is not administered in a COS the permits MWCTR.
Remedy:	For a ROLM 8000 CBX, refer to Chapter 7, <i>ROLM 8000 CBX Administration</i> , and administer the COS correctly. For a ROLM 9000 or 9751 CBX, refer to Chapter 8, <i>ROLM 9000 and 9751 CBX Administration</i> .

Most calls end with the ABOR message.

Possible Reason:	The busy indicator administration may not be correct for the ROLMphone 400.
Remedy:	For a ROLM 8000 CBX, refer to Chapter 7, <i>ROLM 8000 CBX Administration</i> , and administer the busy indicator correctly. For a ROLM 9000 or 9751 CBX, refer to Chapter 8, <i>ROLM 9000 and 9751 CBX Administration</i> .

Possible Reason:	The SID dial plan may not be administered correctly.
Remedy:	Refer to Chapter 9, <i>Switch Integration Device Administration</i> , to check the LTN/extension administration on the SID.

Possible Reason:	The AUDIX Voice Power system ports are not dialing out or are being called directly.
Remedy:	Use the AUDIX Voice Power System Monitor to observe the ports.

Possible Reason:	The AUDIX Voice Power system IVP4 board may have a bad port.
Remedy:	Use the diagnostic procedures to check the voice ports on the boards.

PBX LED is red constantly.

Possible Reason:	The ROLM modular cable is loose.
Remedy:	Tighten the cable connections.

Possible Reason:	The ROLM modular cable may be defective.
Remedy:	Replace the cable. Refer to Chapter 4, <i>Hardware Installation</i> , for instructions on connecting the modular cable to the SID and to the CBX.

Possible Reason:	The SID may contain a bad internal board.
Remedy:	Check all other possible reasons for the problem and perform the recommended actions. If you still have the problem, contact your AT&T service representative.

Possible Reason:	The polarity may be set incorrectly for the digital line.
Remedy:	Reverse the polarity for the digital line. Refer to the documentation supplied with the ROLM CBX for instructions on changing the polarity or contact your CBX service representative.

The VM LED is yellow constantly (more than 5% packet transmission error).

Possible Reason:	The cable connecting the AUDIX Voice Power system to the SID is loose.
Remedy:	Tighten the cable connections.
Possible Reason:	The Centrex communications port baud rate, parity, and other settings are not set correctly on the SID.
Remedy:	Refer to Chapter 9, <i>Switch Integration Device Administration</i> , for instructions on configuring the Centrex link.
Possible Reason:	The Centrex communications port baud rate, parity, and other settings are not set correctly on the AUDIX Voice Power system.
Remedy:	Refer to the administration document in your documentation set for instructions on configuring the port.
Possible Reason:	The Centrex cable may be defective.
Remedy:	Replace the cable. Refer to Chapter 4, <i>Hardware Installation</i> , for instructions on connecting the Centrex cable.
Possible Reason:	The AUDIX Voice Power system IVP4 board may have a bad port.
Remedy:	Use the diagnostic procedures to check the voice ports on the boards.

VM LED is red constantly (more than 50% packet transmission error).

Possible Reason: The ROLM modular cable is loose.

Remedy: Tighten the cable connections.

Possible Reason: The Centrex communications port baud rate, parity, and other settings are not set correctly on the SID.

Remedy: Refer to Chapter 9, *Switch Integration Device Administration*, for instructions on configuring the Centrex link.

Possible Reason: The Centrex communications port baud rate, parity, and other settings are not correctly set on the AUDIX Voice Power system.

Remedy: Refer to the administration document in your documentation set for instructions on configuring the port.

Possible Reason: The ROLM modular cable may be defective.

Remedy: Replace the cable. Refer to Chapter 4, *Hardware Installation*, for instructions on connecting the modular cable to the SID and to the CBX.

Possible Reason: The AUDIX Voice Power system IVP4 board may have a bad port.

Remedy: Use the diagnostic procedures to check the voice ports on the boards.

ERROR LOGS

The SID accumulates and records or "logs" error messages. The error messages can help solve problems and trace errors. You can access the error logs on the SID if you are authorized to use security level 1 features. The error logs also are available to trained support personnel to assist with troubleshooting. Use the instructions in this section to log on to the SID and view the error logs.

1. Press **FUNC** to access the MAIN MENU as shown in the following example.

ROLM	1-View	2-Utils	3-System
	4-Setup	5-Logs	6-Diags

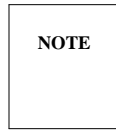
2. Press **5** to select Logs. After you press the key, you see the LOGS menu as shown in the following example.

LOGS	1-View	2-Purge
------	--------	---------

3. Press **1** to view the error logs. After you press the key, you see the an error log screen similar to the following example.

ER_LOG	16-Bad PBX Pkts in 60 secs	I
	01/12 12:34 01/16 23:14	056

Read the explanation of the error log below to understand the information shown on an error log screen.



Your error log screens may appear different than the screen shown in the example.

16	The error code number used by AT&T support personnel when they access the SID through the remote diagnostic modem.
No PBX Pkts in 60 Secs.	Informational text that provides a brief description of the error. In the example, the SID wrote an informational message indicating that no packets had been received from the switch in the previous 60 seconds.
I	A letter that indicates the error type and severity. The error messages can be informational (I), warning (W), or error (E) types.
01/12_12:34	The date and time, rounded to the nearest minute, that the error or warning first occurred.
01/16_23:14	The date and time the error or warning last occurred.
56	The number of times the SID produced the error or warning between the first and last occurrence. The number tells you the how frequently the errors occur. If you see a severe error occurring frequently, contact your support representative.

The SID can record many different errors. All errors are displayed in the same format, explained in the above example. You may use the up arrow and down arrow to scroll through the list of messages. The table on the next page lists all SID error codes and contains a description for each error code.

Code	Description	Type
1	VM Comm Error	Warning
2	No Free VM_IN Packets	Warning
3	Excess Data -- VM_IN Pkts	Warning
4	NULL MWI Pkt from VM_IN_Q	Error
5	Bad MWI Pkt	Warning
6	No Free Centrex Pkts	Warning
7	NULL Cntrx Pkt from OUT_Q	Error
8	MWI Dropped	Error
9	Lockout Timeout	Error
10	AP to CP Cmd Timeout	Error
11	Kernel Error	Error
12	Wait Light Timeout	Warning
13	Idle Task Not Enough Time	Warning
14	Intgr Stall, Reboot Sys	Error
15	Line Dropped	Warning
16	No CBX Pkts in 60 Secs	Information
17	System Startup	Information
18	CP: LCA Not Programmed	Error
19	System Powerdown	Information
20	CP: > 5% Unknown Pkts	Information
21	CP: Lost Carrier Detect	Information
22	CP: > 50% Unknown Pkts	Information
23	CP: Hardware Watchdog Tout	Error
24	CP: Loss of CD > 15 Min	Error
25	No CP activity in 30 Secs	Error
26	CP: Gained Carrier Detect	Information
27	Bad MWI Pkts > 50%	Information
28	Bad MWI Pkts > 5%	Information
29	CP: Unknown PBX Packet	Error
30	Cntrx Not Xmting, Reboot	Error
31	CP: Error Pkt Overflow	Error
32	Hardware Watchdog Reboot	Error
33	Integration Stop	Information
34	Integration Start	Information
35	No Display Info	Error
36	Hardware Reset	Information
37	VM Remote Reset	Information
38	Software Reset	Information

Continued on next page

Code	Description	Type
39	Boot Error: RTC	Error
40	Boot Error: SCC	Error
41	Boot Error: LED	Error
42	Boot Error: Modem	Error
43	Boot Error: DPRAM	Error
44	VM Comm Error > 5%	Error
45	VM Comm Error > 50%	Error
46	CP Load Timeout	Error
47	Wait Disp Timeout	Warning
48	Wait Spl Light Timeout	Error
49	Wait Any Light Timeout	Error
50	Wait Light State Timeout	Error

From time to time, you may need to purge your error logs. You can purge error logs on the SID if you have authorization to access security level 1 features. Use the following instructions to purge error logs.

1. Press **FUNC** to access the MAIN MENU.
2. Press **5** to select Logs. After you press the key, you see the LOGS menu as shown in the following example.

LOGS	1-View	2-Purge
------	--------	---------

3. Press **2** to select Purge. After you press the key, you see the screen shown in the following example.

PURGE LOGS?	1-Yes	2-No
-------------	-------	------

4. Press **2** to cancel the purge. The SID save the error logs.

Press **1** to erase the error logs. The SID starts to record new error messages after you purge the old logs. After the SID completes the purge, you see the following message on the screen.

```
Purging Logs...
```

CLEARING YOUR CONFIGURATION

When you add voice mail ports or change the switch dial plan, you may need to reconfigure the SID. In most cases, you can accomplish the task by editing the existing setup and restarting the system. If required, the SID provides the capability to restore the factory default settings. To clear your configuration and restore the factory setting, use the following instructions.

1. Press **FUNC** to access the MAIN MENU.
2. Press **4** to select the Setup option. After you press the key, you see the SETUP menu as shown in the following example.

```
SETUP      1-Params    2-Ports    3-Clear
           4-Advanced
```

3. Press **3** to select Clear. After you press the key, you see the CLEAR SETUP screen as shown in the following example.

```
CLEAR SETUP?    1-Yes    2-No
```

4. Press **2** to cancel the clear and return to the SETUP menu.

Press **1** to restore the factory default settings. When you clear your configuration, you remove all global parameter information, dial plan, logical terminal number information, and Centrex serial port information. The contrast and Enhanced MWI handling settings are restored to the factory defaults. The only information preserved are your error logs and statistical tables. Using the clear command stops the integration. You must configure and start the system to integrate calls.

TEST THE SID ROLMPHONE SET EMULATION

If the SID integration does not operate properly after you administer the system, use the procedure in this section to test the SID's ROLMphone emulation.

To test the ROLMphone emulation, you must perform the following tasks.

- Receive a call on the SID
- Place a call from the SID
- Transfer a call with the SID
- Light a message waiting lamp with the SID

Use the instructions in this section to test the SID emulation.

1. Press **FUNC** to access the ROLM MAIN MENU.

After you press the key, you see the ROLM MAIN MENU as shown in the following example.

ROLM	1-View	2-Utils	3-System
	4-Setup	5-Logs	6-Diags

2. Press **6** on the SID keypad to access the Diagnostics menu.

After you press the key, you see the DIAGS menu as shown in the following example.

DIAGS	1-Emulator	2-Centrex
-------	------------	-----------

3. Press **1** on the SID keypad to access the telephone emulator screen. After you press the key, you see the EM form as shown in the following example.

EM	00000000	oooooooooooooooooooo	0 0
----	----------	----------------------	-----

The top line of the EM form contains the following sections:

- The first eight characters show the state of the call appearance lamps on the ROLMphone 400.
- The next 20 characters show the state of the lamps on the busy indicators.
- The last set of upper-case characters shows the state of the message waiting lamp and the call waiting lamp on the ROLMphone.

The bottom line of the form is split and reflects the first 20 characters of each line on the ROLMphone LCD display.

When the switch updates the lamp status on the ROLMphone 400, the EM form changes. Use Table A-1 to understand the EM form display characters.

Table A-1. Lamp Status for Appearance Fields and Feature Buttons

Character	Lamp Status: Appearance Field and Feature Buttons
O or o	Dark — no activity
F or f	Flashing — ringing
F or f	Flicker steady — hold or transfer
E or e	Flicker pause — error
S or s	Steady — selected or off-hook
B or b	Busy

In addition to viewing the phone activity, the EM form also allows you to manipulate the phone. Table A-2 shows you the SID keys and the action the keys produce on the EM form.

Table A-2. SID Key Functions

Key	Action
1,2,3,4,5,6,7,8,9,0	Data Entry
*,#	Data Entry
Func	Return to the main menu
Mode	Key code prefix command
Up arrow ↑	Go off hook
Down arrow ↓	Go on hook
Left/Right arrows	No action
Enter	Toggle the speaker on or off

By using the SIDs ability to display the telephone state and to manipulate the telephone, you can perform four tests to determine if the SID is properly installed as a ROLMphone 400 digital station. Continue to the next section, *Test One: Receive a Call at the SID*, to perform the first test.

Test One: Receive a Call at the SID

Perform the first test by placing a call from a test subscriber station to the AUDIX Voice Power system.

1. Select a subscriber to use for the test. The example in this section uses subscriber John Smith at extension 201.
2. From the test subscriber's phone, dial the extension number assigned to the SID. After you dial the number, you see the EM screen as shown in the following example.

EM

FOOOOOOO

oooooooooooooooooooooooo

O O

201

SMITH, JOHN

The first call appearance, f in the example, has changed to a ringing state. This indicates that a call is available on the selected appearance. You can answer the call by pressing **MODE** **0** **1** to go off-hook. The EM form changes as shown in the following example.

EM

SOOOOOOO

oooooooooooooooooooooooo

O O

201

SMITH, JOHN

If you speak into the test subscriber's handset, you can hear the voice through the SID's speaker. To end the test, press **MODE** **1** **7** to hang up the call.

If the test fails, perform the same troubleshooting procedures on the switch that you would perform if a ROLMphone 400 digital set was connected to the CBX instead of the SID. Continue to the next test procedure, *Test Two: Place a Call from the SID*.

Test Two: Place a Call from the SID

In the second test, you place an outgoing call from each call appearance. To press a button on the phone that is not obvious on the SID keypad, use Table A-3 to determine the correct SID key to use for the phone set key. To use the keys shown in the table, you must first press **MODE**.

Table A-3. SID Key Mapping for ROLMphone Station Keys

Press MODE then	To Emulate
01	Call appearance 1
02	Call appearance 2
03	Call appearance 3
04	Call appearance 4
05	Call appearance 5
06	Call appearance 6
07	Call appearance 7
08	Call appearance 8
11	Transfer
12	Hold
14	Connect
15	MWCTR

1. Press **MODE** **0** **5** to initiate a call from the fifth appearance.
2. Press **MODE** **0** **1** to place the SID in an off-hook state.

After you press the keys, you hear dial tone and the EM form changes as shown in the following example.

EM	0000S000	oooooooooooooooooooo	0 0
551	SID		

3. Use the SID to dial the test subscriber's extension. For example, if the subscriber's extension was 201, you would press **2** **0** **1**.

After you dial the number, the EM form changes to the form shown in the following example. The test subscriber's phone should be ringing.

EM	S0000000	oooooooooooooooooooooooo	O	O
201	SMITH, JOHN			

4. Press **MODE** **1** **7** to release the call.

NOTE

Use this test procedure on each of the call appearance buttons.


Continue to the next section, *Test Three: Transfer a Call with the SID*.

Test Three: Transfer a Call with the SID




In the third test, you transfer a call using the SID. To perform the test, you place a call to the SID then transfer the call. You need two test subscriber extensions to perform the test. Use the following instructions to complete the test.

1. Using the test subscriber telephone, dial the extension number of the SID. After you dial the number, you see the EM form as shown in the following example.




EM	F0000000	oooooooooooooooooooo	O O
201	SMITH, JOHN		

2. Answer the call on the SID by pressing  on the SID keypad to go off-hook. The EM form appears as shown in the following example.

EM	S0000000	oooooooooooooooooooo	O O
201	SMITH, JOHN		

3. Transfer the call by pressing   . You hear a dial tone and the form appears as shown in the following example.

EM	S0000000	oooooooooooooooooooo	O C
----	----------	----------------------	-----

The call message waiting lamp is lighted which indicates a transfer. Enter the subscriber extension to which you want to transfer. For example, if the subscriber extension is 202, enter   .

After you enter the extension, the EM form changes as shown in the following example.

EM	S0000000	oooooooooooooooooooo	0 0
202	DOE, JANE		

4. Release the transfer by pressing **MODE** **1** **4**.

The switch completes the transfer. The first subscriber extension is now connected to the second subscriber extension and not the SID. After the transfer, you see the EM form as shown in the following example.

EM	00000000	oooooooooooooooooooo	0 0
----	----------	----------------------	-----

You have completed the transfer test. Proceed to the next section, *Test Four: Lighting a Message Waiting Lamp with the SID*.

Test Four: Lighting a Message Waiting Lamp with the SID

In the final emulation test, you light a message waiting lamp through the SID. Use the following instructions to complete the test.

1. At the EM form, press **MODE** **1** **8** to select the last call appearance. After you press the keys, you see the EM form as shown in the following example.

EM	0000000S	oooooooooooooooooooooooo	0	0
558	SID			

2. Dial the extension of the subscriber then **MODE** **1** **5**.

After you dial the extension, the EM form appears as shown in the following example.

EM	0000000S	oooooooooooooooooooooooo	0	0
201	SMITH, JOHN			

The message waiting lamp remains off, indicating that the subscriber's MWI lamp is dark.

3. Press **MODE** **1** **5** on the SID keypad to light the lamp.
4. To turn the message waiting lamp off, repeat steps 1 through 3, but use the MCK key, or **MODE** **1** **6** on the SID keypad.

If you completed all four test without any problems, the ROLMphone station emulation is configured correctly and ready for the integration. If any of the tests did not work correctly, consult with the switch technician to confirm that the ROLMphone digital station set emulation is configured properly.

SPECIAL PROCESSING FOR MESSAGE WAITING LAMPS

NOTE

The instructions in this section only can be performed by trained AT&T software specialists.

The SID can buffer up to 4000 individual message waiting transactions and wait for small intervals of time to perform the transactions. Incoming calls receive a higher priority. If you use the Statistics View and discover that the SID is holding a large number of MWL transactions, you can perform one of the following actions.

- You can alter the MWL Interleave Factor. By decreasing the MWL Interleave Factor, the speed of transactions out of the queue increases, but call processing speed decreases. See the documentation supplied with your switch for more information.
- You can use the SID's enhanced MWL processing. Continue with the instructions in this section to use the enhanced MWL processing.

On a very active voice mail system, a subscriber can receive multiple messages in a very short period of time. Each message turns on the MWL which quickly increases the size of the buffer. Enhanced MWL handling insures that only a single entry in the MWL queue is used for a specific subscriber, which reduces the queue loading.

For example, the AUDIX Voice Power system receives three MWL requests in rapid succession. The first turns on John Smith's lamp, the second turns off J. Doe's lamp, and the third turns on John Smith's lamp. Each is a valid request and each is queued for processing. John Smith's lamp does not need to be lit twice, however.

Enhanced MWL processing defaults to disabled and the SID queues and processes all MWL requests in sequence. In the example above, all three requests would be processed and John Smith's lamp would be lit twice in quick succession.

If you enable enhanced MWL processing, the MWL command for John Smith is sent to the queue as a normal request. Any future requests for John Smith overwrite the first, insuring that John's lamp is only turned on once and set to the state that the voice messaging system expects at the time of the operation. When enhanced MWL processing is activated, the number of requests made by AUDIX Voice Power can be considerably larger than the actual number of transactions undertaken by the SID.

Use the instructions on the next page to enable the enhanced MWL processing feature.

1. Press **FUNC** to access the the SETUP menu as shown in the following example.

SETUP	1-Params	2-Ports	3-Clear
	4-Advanced		

2. Press **4** to select the Advanced option. After you press the key, you see the ADVNC screen as shown in the following example.

ADVNC	MWI Compress:	OFF
<- ->		

3. Use the left and right arrow keys to turn MWL Enhanced processing to **On**.

After you set enable MWL Enhanced processing, the SID automatically begins to use the feature. You do not have to save or restart the configuration.

B. Using Views During Integration

The SID provides you with three real-time views of the integration process:

- View mode
- Statistics mode
- Metrics mode

Each mode shows you different information in a common screen layout. A typical view mode appears as shown in the following example.

VW_MON	Line:02 Port:0002-351	OK
201	SMITH, JOHN	

View modes remain on the screen, constantly changing as calls and message waiting transactions are processed. Use the information in this appendix to access and use the view modes.

VIEW MODE

The first option on the VIEW menu is the View mode. The mode permits you to observe transactions as they occur at the SID. View mode is a useful tool that provides condensed, real-time reporting of all transactions between the SID and the AUDIX Voice Power system. View mode is set as the default display mode for a configured SID. When the system first boots up and is idle, the display appears as shown in the following example.

VW_MON Idle

Use the following instructions to access the View mode.

1. At the ROLM MAIN MENU, press **1** to select the View option. After you press the key, you see the VIEW menu as shown in the following example.

VIEW	1-Monitor	2-Stats	3-Metrics
------	-----------	---------	-----------

2. Press **1** to select the Monitor option and access the VIEW mode form as shown in the following example.

VW_MON	Line:02 Port:0002-351	OK
201	SMITH, JOHN	

3. To exit the VIEW mode form, press **MODE** to return to the ROLM MAIN MENU.

When transactions are being processed, the form updates continuously. The following descriptions explain the contents of each field in the example VIEW mode form. Each type of view form contains similar fields.

Line:02	The field indicates the line appearance button from which the SID processed the call.
Port:0002-351	The field shows you the LTN sent to the AUDIX Voice Power system and the extension to which the call was transferred. The SID uses the LTN/extension pairing you administered in Chapter 8, <i>Switch Integration Device Administration</i> .
OK	<div>The field informs you of the status of the call transfer process.<ul style="list-style-type: none">• OK tells you that the SID successfully transferred the call to the AUDIX Voice Power system.• RTRY indicates that the SID is again attempting the transfer operation.• ABOR indicates that the caller disconnected during the transfer.• FAIL indicates that the SID could not transfer the call.• NDSP indicates that the SID could not retrieve display information from the ROLMphone set.</div>
201 SMITH, JOHN	The second line of the display shows you a duplicate of each line of the ROLMphone display. In the example, extension 201 called extension 202, which was busy. The SID intercepted the call because the subscriber stations were programmed to forward to the SID during ring-no-answer and busy situations. The SID informed the AUDIX Voice Power system that the calling party was 201, the called party was 202, and the call was not answered because the extension was busy.

When the SID processes a message waiting command, the screen appears as shown in the following example.

```
VW_MON
      MWI SET      Ext 201      OK
```

The example indicates that the message waiting lamp at extension 500 is turned on. The MWI field can contain the following values.

- SET — Indicates that the MWI is turned on.
- CLEAR — Indicates that the MWI is turned off.
- RTRY — Indicates that the MWI process is being repeated.
- FAIL — Indicates that the MWI process failed.

If all of the analog ports on the AUDIX Voice Power system are busy, you see the VIEW mode form as shown in the following example.

```
VW_MON      Line:01 Waiting for Port
```

As soon as an analog port becomes available, the SID processes the call and the VIEW mode form updates. The SID processes as many MWIs as possible when waiting for an open port. The VIEW mode form appears as shown in the following example.

```
VW_MON      Line:01 Waiting for Port
      MWI Clear Ext 501      OK
```

If you attempt to use the view monitor before configuring the SID, the warning shown below appears on your screen. You must first configure your system before you use the view modes.

```
VW_MON  Integration Stopped
```

USING STATISTICS MODE

Use the following instructions to use the Statistics monitor mode.

1. Access the VIEW menu as described in the previous section.
2. Press **MODE**.
3. Press **2** to select the Stats option. You see the following screen.

```
VW_STA  Calls: 1024 Inc:  45 Abnd:    123
        MWIs:  988 Inc:  12  Q:  234-06%
```

The screen updates continuously, showing the total number of calls processed and the number of bad packets received from the switch. The screen also shows the total number of message waiting commands processed, the number of bad MWI packets received from the AUDIX Voice Power system, and the total number of MWI commands residing in the SID's queue. Use the Statistics mode to monitor activity on your integrated system.

USING METRICS MODE

Use the following instructions to use the Metrics monitor mode.

1. Access the VIEW menu as described in the previous section.
2. Press **MODE**.
3. Press **3** to select the Metrics option. You see the following screen.

VM_MET	Calls ATQ	3	Min:	2	Max:	8
	Calls/Hr	980	MWIs/Hr:			670

This display updates occasionally, showing performance measurements for both the SID's call processing and message waiting activities. The top line shows a running average time in queue for each call appearing at the SID and the minimum and maximum time in queue for all calls measured. The measurements are shown in seconds. On the bottom line, you can observe the current running average for calls processed per hour and message waiting commands processed per hour. Use the Metric mode to monitor the performance characteristics of your integrated system.

USING DIAGNOSTIC MONITORS

You can use two types of diagnostic views, emulation and monitor, on the SID. You must have access to security level 1 to use the views. The first view, emulation, is the telephone emulator described in Appendix A, *Troubleshooting and Error Logs*, in the *Test the SID ROLMphone Set Emulation* section. When the integration is stopped, the EM form operates as an active emulator that allows you to interact and use the SID as a telephone.

You access the second type of diagnostic view, monitor, when the integration is operating. The MN form, shown in the example below, acts as a passive monitor and allows you to view the activity of the ROLMphone display and the MWI lamp updates. Use the following instructions to use the diagnostic monitor view.

1. Press **FUNC** to access the ROLM MAIN MENU.
2. Press **6** to select the Diagnostic option. You see the following screen.

DIAGS	1-Emulator	2-Centrex
-------	------------	-----------

3. Press **1** to select the Emulator option. You see the following form.

MN	FFFWOOOO	oooooooooooooooooooooooooooo	OOS
201	SMITH, JOHN	BFWD 202	DOE, JANE

The name of the form, MN, stands for "monitor". If you saw the name EM on the form, the integration would not be operating. Similar to the EM form, the top line of the form shows you the state of the call appearance lamps, feature buttons, and the message waiting lamps. The bottom line of the form "echos" or mirrors the display shown on the ROLMphone 400. Use Table B-1 to understand the display as you use the diagnostic monitor.

Table B-1. Lamp Status for Appearance Fields and Feature Buttons

Character	Lamp Status: Appearance Field and Feature Buttons
B or b	Busy
E or e	Flicker pause — error
F or f	Flashing — ringing
F or f	Flicker steady — hold or transfer
O or o	Dark — no activity
S or s	Steady — selected or off-hook

CLEARING STATISTICAL INFORMATION

The SID accumulates data that supports the Statistics and Metrics views. You may wish to purge the data to begin taking new measurements, especially when you add subscribers to the system, analog voice mail ports, or change your usage habits. To clear the data, use the following instructions.

1. Log into security level 1. For instructions on logging in to the security level, refer to Chapter 7, *Switch Integration Device Administration*, in this document.
2. Press **MODE** at the VIEW action form.
3. Press **5** to select **Clear** and remove the old statistics. After you press the key, you see the following message on the screen.

Clearing Statistics...

The SID clears all statistical information. After a few seconds, the display clears and the SID returns to the VIEW menu.

Abbreviations

ALT	assemble, load, and test
APV	Always in Privacy
AUDIX	Audio Information Exchange
BT	button
CBX	Computerized Branch Exchange
CNT	change no text
COS	class of service
CPU	central processing unit
CRE	create
Cyprs	Cypress
DND	do not disturb
EXTN	extension
FKY	function key
FMLI	form and menu language interpreter
FOOS	facility out of service
FWD	forward
HD_Group	hunt distribution group
I/O	input/output
IVP4	Integrated Voice Processing board (4 analog channels)
IVPSS	Integrated Voice Processing System Software
LCSF	list class of service features
LEX	list extension
LHG	list hunt group
LI	list
LKB	list key button
LTN	logical terminal number
MANOOS	manual out of service
MO	modify
MWI	message waiting indicator

MWL	message waiting lamp
NCH	new channel
NEX	new extension
NFL	no flash allowed
NOH	no howler if left off hook
OPX	off premis extension
PBX	private branch exchange
PEC	price element code
POST	power-on self test
RAM	random access memory
REC	revise ETS configuration
REF	reference
RFD	revise forwarding
RHG	revise hunt group
RKB	revise key button
RPI	ROLMphone interface
SCS	set class of service
SCSF	set class of service features
SID	switch integration device
SLI	single line interface
SMDI	simplified message desk interface
TSC	Technical Support Center
VDC	video display card
WGS	work group station

Glossary

administration	The process of setting up software on a system so that the software functions as needed.
analog	The representation of numerical quantities by means of physical variables such as translation, rotation, voltage, or resistance (contrasted with <i>digital</i> .) In teleprocessing usage, an analog channel usually refers to a voice-grade telephone line.
attendant console	A larger, special-purpose telephone with numerous lines and features used by the attendant or operator to answer and transfer calls.
Audio Information Exchange (AUDIX™)	A complete voice-mail messaging system accessed and operated by touch-tone telephones and integrated with a switch or PBX.
automated attendant	A feature that allows customers to set up a main number with a menu of options that route callers to an appropriate department at the touch of a button.
backup	A duplicate copy of a file system saved on a removable cartridge or a separate disk than the original. You can restore the back-up file system if the original active version becomes corrupted (damaged) or lost.
call answer	A feature that allows the AUDIX Voice Power™ system to answer a call and record a message when the subscriber is not available.
call coverage	A switch feature that defines a preselected path for calls to follow if the first or second coverage points are not answered.
channel	A telecommunications transmission path for voice and/or data.
cold boot	A process of restarting the computer by turning the computer off then on. A cold boot erases the contents of the system's volatile memory.
configuration	The set of hardware and software components selected for a system, including internal components and external or peripheral components.
coverage path	An ordered sequence of coverage points to which coverage calls are redirected.
data base	A collection of file systems and files in disk memory that store the voice and nonvoice or program information necessary for the operation of the AUDIX Voice Power system and the switch.
data link	The connection from the AUDIX Voice Power computer to the Switch Integration Device and the switch that enables nonvoice data messages to pass between the AUDIX Voice Power system and the switch. The link setup varies depending on your configuration.
data terminal equipment (DTE)	A standard type of data interface normally used for the endpoints in a connection. Normally, the AUDIX Voice Power system, most terminals, and the switch interface are DTE devices.

default	A value automatically supplied by the system if you do not specify any other value.
digital	Discontinuous or discrete data or signals such as zero (0) or one (1), as opposed to continuous analog signals.
direct call	A call made directly to the AUDIX Voice Power system or AUDIX Voice Power Lodging system extension, usually for voice mail retrieval.
direct inward dialing (DID)	A feature that allows an incoming call from the public network to reach a specific telephone without attendant assistance. DID calls to DID-restricted telephone lines are routed to an attendant or recorded announcement, depending on the option selected.
extension	A one- to five-digit number that routes calls through a switch or private network. Extension numbers are primarily associated with telephones and data terminals, but can also be used for functions associated with specific features.
field	An area on a screen, menu, or report where you type information or see information displayed.
file system	A collection of related files, programs, or data stored on disk.
host switch	The switch or PBX connected directly to the AUDIX Voice Power system over the data link.
hunt feature	A feature that allows the digital set emulation to search through the call appearance keys for available DN if the primary DN is busy.
local installation	A system, adjunct, or piece of peripheral equipment installed physically near the host switch or system.
maintenance	The process of identifying system errors and correcting them, or taking steps to prevent problems from occurring.
message waiting indicator (MWI)	A method of alerting subscribers that they have voice mail messages, such as a stutter dial tone or message waiting lamp.
message waiting lamp (MWL)	A small light on a telephone that lights or flashes when the subscriber has voice mail messages.
peripheral	An external hardware component connected to the AUDIX Voice Power computer such as a voice terminal, printer, or display terminal.
phone-based	The term applies to tasks performed at the telephone or information pertaining to the telephone interface.
port	A connection or link between two devices that allows information to travel through the connection to a desired location.
private branch exchange (PBX)	An analog, digital, or electronic communication system where data and voice transmissions are not confined to fixed communications paths, but are routed among available ports or channels; also known as a "switch."
switch	See "PBX."
switch integration device (SID)	A digital telephone emulator connected between a non-AT&T switch and the AUDIX Voice Power system. The SID emulates a digital telephone set and receives switch call information and passes the information to the AUDIX Voice Power system in SMDI format.

system administrator	The person at the customer site responsible for AUDIX Voice Power system administration.
terminal-based	The term applies to tasks performed at the AUDIX Voice Power computer terminal or information pertaining to the terminal interface.
voice link	The call distribution group, or hunt group, of analog ports on the switch.
voice mail	An AUDIX Voice Power feature similar to a "verbal letter" that you can send to one or more AUDIX Voice Power system subscribers. The AUDIX Voice Power system acts as an electronic post office that delivers spoken messages.
warm boot	A process to restart the computer while you have the computer turned on.

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