

**Lucent Technologies**  
Bell Labs Innovations



# **INTUITY™ CONVERSANT® System**

Version 7.0

New System Installation

585-313-106  
Comcode 108173659  
Issue 1.0  
December 1997

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#### Notice

Every effort was made to ensure that the information in this book was complete and accurate at the time of printing. However, information is subject to change.

#### Your Responsibility for Your System's Security

Toll fraud is the unauthorized use of your telecommunications system by an unauthorized party, for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf. Note that there may be a risk of toll fraud associated with your telecommunications system and, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

You and your system manager are responsible for the security of your system, such as programming and configuring your equipment to prevent unauthorized use. The system manager is also responsible for reading all installation, instruction, and system administration documents provided with this product in order to fully understand the features that can introduce risk of toll fraud and the steps that can be taken to reduce that risk. Lucent Technologies does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. Lucent Technologies will not be responsible for any charges that result from such unauthorized use.

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#### Federal Communications Commission Statement

**Part 15: Class A Statement.** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

**Part 68: Network Registration Number.** This equipment is registered with the FCC in accordance with Part 68 of the FCC Rules. It is identified by an FCC registration number.

**Part 68: Answer-Supervision Signaling.** Allowing this equipment to be operated in a manner that does not provide proper answer-supervision signaling is in violation of Part 68 Rules. This equipment returns answer-supervision signals to the public switched network when:

- Answered by the called station
- Answered by the attendant
- Routed to a recorded announcement that can be administered by the CPE user

This equipment returns answer-supervision signals on all DID calls forwarded back to the public switched telephone network. Permissible exceptions are:

- A call is unanswered
- A busy tone is received
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#### Canadian Department of Communications (DOC) Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of the Canadian Department of Communications.

Le Présent Appareil Numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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For additional documents, refer to the section in "About This Document" entitled "Related Resources."

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#### European Union Declaration of Conformity

Lucent Technologies Business Communications Systems declares that the equipment specified in this document conforms to the referenced European Union (EU) Directives and Harmonized Standards listed below:

EMC Directive 89/336/EEC  
Low-Voltage Directive 73/23/EEC



The "CE" mark affixed to the equipment means that it conforms to the above directives.

#### Comments

To comment on this document, return the comment card at the front of the document.

#### Acknowledgment

This document was prepared by Product Publications, Lucent Technologies, Columbus, OH.

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## About This Book

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### **Purpose**

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This book, Lucent *INTUITY™ CONVERSANT® System Version 7.0 New System Installation*, contains instructions for installing an INTUITY CONVERSANT system that has been assembled, loaded, and tested (ALT) at the Lucent Technologies factory. It includes procedures for assembling, setup, configuration, initial administration, acceptance testing, and cut to service. These procedures apply to all platforms and the INTUITY CONVERSANT system and most of its optional features.

### **Intended Audiences**

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This book is intended primarily for the on-site technical personnel who are responsible for installing the system and performing initial administration and acceptance testing. Secondary audiences include the following from Lucent Technologies:

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

We assume that the primary users of this book have completed the INTUITY CONVERSANT hardware installation training course (see "Related Resources" below).

## **Release History**

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This is the first release of this book.

## **Trademarks**

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- QuickStart is a trademark of the Enhanced Software Technologies, Corporation.

## **How to Use This Book**

---

This book is designed to step you through the entire installation process. You can also use it as a quick-reference to obtain specific information you may need on a particular topic.

Each chapter contains the installation information common to all CONVERSANT platforms. Any differences are identified in the paragraph heading, table headings, and noted within the text.

### **For Complete Installation Instructions**

---

Read Chapter 1, "Getting Started", before you begin for information on prerequisites, including site preparation and the tools and information you need to complete the installation successfully. From there, read and use each chapter in the order presented. This takes you step by step through the procedures you must perform to install a factory-assembled, -loaded, and -tested (ALT) Lucent INTUITY system.

#### **⇒ NOTE:**

If you are installing a non-ALT system, see Appendix C, "Building a System," in the maintenance book specific to your platform, for instructions.

### **For a Quick Reference**

---

If you want a quick reference, "System Installation Checklist" in Chapter 1, "Getting Started" contains a checklist of procedure titles. These titles are listed in the order in which you must perform them. Also included are references to where you will find the complete procedures in this book.

### **For Troubleshooting Information**

---

Where troubleshooting information is available, notes in the text refer you to the appropriate place in Appendix A, "Troubleshooting Procedures", to look for help.

### **For Connectivity Information**

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For supplemental connectivity information, see Appendix B, "Cable Connectivity".

### **To Locate Specific Topics**

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This book includes an alphabetical index at the end for quick access to specific topics.

## Conventions Used in This Book

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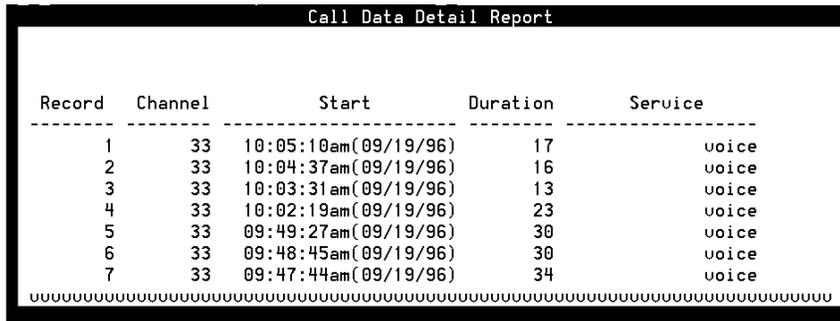
This section describes the conventions used in this book.

### Terminology

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- The word “type” means to press the key or sequence of keys specified. For example, an instruction to type the letter “y” is shown as  
Type **y** to continue.
- The word “enter” means to type a value and then press `(ENTER)`. For example, an instruction to type the letter “y” and press `(ENTER)` is shown as  
Enter **y** to continue.
- The word “select” means to move the cursor to the desired menu item and then press `(ENTER)`. For example, an instruction to move the cursor to the start test option on the Network Loop-Around Test screen and then press `(ENTER)` is shown as  
Select **Start Test**.
- The INTUITY CONVERSANT system displays *windows, screens, and menus*. Windows and screens both show and request system information (Figure 1 through Figure 4). Menus (Figure 5) present options from which you can choose to view another menu, or a screen or window.

---



Record	Channel	Start	Duration	Service
1	33	10:05:10am(09/19/96)	17	voice
2	33	10:04:37am(09/19/96)	16	voice
3	33	10:03:31am(09/19/96)	13	voice
4	33	10:02:19am(09/19/96)	23	voice
5	33	09:49:27am(09/19/96)	30	voice
6	33	09:48:45am(09/19/96)	30	voice
7	33	09:47:44am(09/19/96)	34	voice

---

**Figure 1. Example of an INTUITY CONVERSANT Window Showing Information**

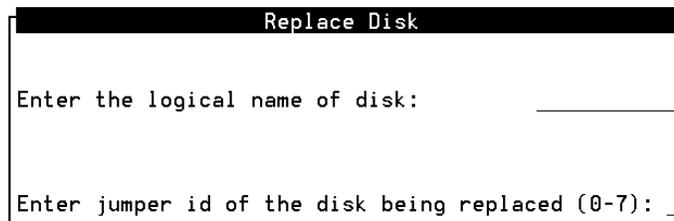
In order to install UnixWare, you must reserve a partition (a portion of your hard disk's space) on your primary hard disk for the UNIX System. After you press 'ENTER' you will be shown a screen that will allow you to create new partitions, delete existing partitions or change the active partition of your primary hard disk (the partition that your computer will boot from).

WARNING: All files in any partition(s) you delete will be destroyed. If you wish to attempt to preserve any files from an existing UNIX System, do not delete its partition(s).

The UNIX System partition that you intend to use on the primary hard disk must be at least 120 MBs and labeled 'ACTIVE.'

**Figure 2. Example of an INTUITY CONVERSANT Screen Showing Information**

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The screenshot shows a window titled "Replace Disk" with a black title bar. Inside the window, there are two lines of text with input fields:

```
Enter the logical name of disk: _____
```

```
Enter jumper id of the disk being replaced (0-7): _
```

**Figure 3. Example of an INTUITY CONVERSANT Window Requesting Information**

You may use a partition of your secondary hard disk. If you choose to use a partition of your secondary hard disk you will be shown a screen that will allow you to partition your secondary hard disk.

WARNING: All files in any partition(s) you delete will be destroyed.

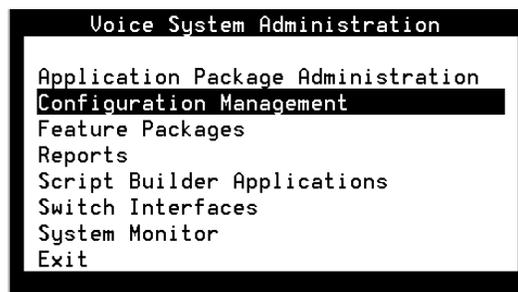
If you choose to create a UNIX System partition on your secondary hard disk, it must be at least 40 MBS.

Your Options are:

1. Do not use a partition of the secondary hard disk for the UNIX System.
2. Use a partition of the secondary hard disk for the UNIX System.

Press '1' or '2' followed by 'ENTER'.

**Figure 4. Example of an INTUITY CONVERSANT Screen Requesting Information**



**Figure 5. Example of an INTUITY CONVERSANT Menu**

## Terminal Keys

---

- Keys that you press on your terminal or PC are represented as rounded boxes. For example, an instruction to press the enter key is shown as

Press **ENTER**.

- Two or three keys that you press at the same time on your terminal or PC (that is, you hold down the first key while pressing the second and/or third key) are represented as a series of separate rounded boxes. For example, an instruction to press and hold **ALT** while typing the letter "d" is shown as

Press **ALT** **D**.

- Function keys on your terminal, PC, or system screens, also known as *soft keys*, are represented as round boxes followed by the function or value of that key enclosed in parentheses. For example, an instruction to press function key 3 is shown as

Press **F3** (Choices).

- Keys that you press on your telephone keypad are represented as square boxes. For example, an instruction to press the first key on your telephone keypad is shown as

Press **1** to record a message.

## Screen Displays

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- Values, system messages, field names, and prompts that appear on the screen are shown in typewriter-style `constant-width` type, as shown in the following examples:

Example 1:

Enter the number of ports to be dedicated to outbound traffic in the  
`Maximum Simultaneous Ports` field.

Example 2:

`Alarm Form Update was successful.`  
Press `<Enter>` to continue.

- The sequence of menu options that you must select to display a specific screen or submenu is shown as follows:

Start at the Voice System Administration Menu and select

```
> Customer/Services Administration
```

```
> Alarm Management
```

In this example, you would access the Voice System Administration Menu and select the Customer/Service Administration menu. From the Customer/Service Administration menu, you would then select the Alarm Management screen.

- Screens shown in this book are examples only. The screens you see on your machine will be similar, but not exactly the same.

## Other Typography

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- Commands and text you type in or enter appear in **bold type**, as in the following examples:

Example 1:

Enter **change-switch-time-zone** at the `enter` command: prompt.

Example 2:

Type **high** or **low** in the `Speed:` field.

- Command variables are shown in ***bold italic*** type when they are part of what you must type in and *regular italic* type when they are not, for example

Enter **ch ma *machine\_name***, where *machine\_name* is the name of the call delivery machine you just created.

## Safety and Security Alert Labels

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This book uses the following symbols to call your attention to potential problems that could cause personal injury, damage to equipment, loss of data, service interruptions, or breaches of toll fraud security:

 **CAUTION:**

*Indicates the presence of a hazard that if not avoided can or will cause minor personal injury or property damage, including loss of data.*

 **WARNING:**

*Indicates the presence of a hazard that if not avoided can cause death or severe personal injury.*

 **DANGER:**

*Indicates the presence of a hazard that if not avoided will cause death or severe personal injury.*

 **SECURITY ALERT:**

*Indicates the presence of a toll fraud security hazard. Toll fraud is the unauthorized use of a telecommunications system by an unauthorized party.*

## **Related Resources**

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This section describes additional documentation and training available for you to learn more about installation of the INTUITY CONVERSANT product.

 **NOTE:**

The *INTUITY CONVERSANT System Version 6.0 System Description*, 585-310-241, contains a detailed description of all books included in V6.0 INTUITY CONVERSANT documentation library. Always refer to the appropriate book for specific information on planning, installing, administering, or maintaining an INTUITY CONVERSANT system.

## **Documentation**

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It is suggested that you obtain and use the following books in conjunction with this installation book:

- *INTUITY CONVERSANT System Version 7.0 Maintenance*, specific to your platform
- *INTUITY CONVERSANT System Version 6.0 System Alarms and Log Messages*, 585-310-182
- *BCS Products Security Handbook*, 555-025-600

See the inside front cover for information on how to order INTUITY CONVERSANT documentation.

## **Electronic Updates to This Book**

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The ACCESS Electronic News online bulletin board is available to provide you with additional information about the INTUITY CONVERSANT product, including updates and supplements to the information in this book. This free service is available 24 hours a day, 7 days a week. To register and receive a special offer on ACCESS Plus software, call 1-800-242-6005 and ask for Department 186.

## **Training**

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The following training class is recommended as a prerequisite to installing a INTUITY CONVERSANT system:

- Course No. B03620A, INTUITY CONVERSANT Installation and Maintenance (for domestic installations)
- Course No. GO3603A, CONVERSANT Installation and Maintenance (for international installations)

For more information on INTUITY CONVERSANT training, call the BCS Education and Training Center at one of the following numbers:

- Organizations within Lucent: (904) 636-3261
- Lucent Technologies customers and all others: (800) 255-8988

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Denver, Colorado 80234

You may also fax your comments to the attention of the Lucent INTUITY writing team at (303) 538-1741.

Please mention the name and order number of this book, *INTUITY CONVERSANT System Version 7.0 New System Installation*, 585-313-106.

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Lucent Technologies—formed as a result of AT&T's planned restructuring—designs, builds, and delivers a wide range of public and private networks, communications systems and software, consumer and business telephone systems, and microelectronic components. The world-renowned Bell Laboratories is the research and development arm for the company.



### Overview

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This chapter describes:

- Site preparation for the computer, including environmental, space, and power requirements
- Installation prerequisites; specifically, safety precautions, tools, test equipment, system information, return and repair procedures, and switch administration requirements
- Points of demarcation for installation and maintenance
- Your responsibility with regard to the security of the customer's system
- Technical assistance and other resources available to you during the installation
- A checklist of the required procedures, in sequence, to use when installing an assembled, loaded, and tested (ALT) system.

The installation procedures in this book assume that you know how to log on and off the system and how to move around using the INTUITY™ CONVERSANT® system screens. See the *INTUITY CONVERSANT System Version 7.0 Administration, 585-313-501*, for information on screen interface.

### Purpose

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The purpose of this chapter is to ensure that:

- The customer site meets the physical requirements for unit installation
- You are prepared with the tools and information you need to complete the INTUITY CONVERSANT system installation successfully

## Before You Arrive on Site

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Initial switch or PBX administration should be complete before you arrive on site unless otherwise specified by contract. Verify that the following has been completed before you begin work on the INTUITY CONVERSANT system.

- Switch administration
- Site preparations

## Switch Administration

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The switch or PBX must be administered to support the following situations:

- Testing each channel connected to the system before assigning the channel(s) to the INTUITY CONVERSANT system or another application
- Testing the INTUITY CONVERSANT system

## Site Preparation

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This section describes physical requirements for the installation site:

- Environmental considerations
- Installation area considerations
- Weight and space considerations
- Power requirements

## Environmental Considerations

Place the unit in an area where the environmental conditions shown in Table 1-1 are maintained.

**Table 1-1. Environmental Considerations**

Platform	Operating State		Nonoperating State	
	Temperature	Humidity	Temperature	Humidity
MAP/5P	+10 to +35°C (+50 to+95°F)	20 to 80%, noncondensing	-20 to +60°C (-4 to+140°F)	20 to 80%, noncondensing
MAP/40P	+10 to +35°C (+50 to+95°F)	20 to 80%, noncondensing	-20 to +60°C (-4 to+140°F)	20 to 80%, noncondensing
MAP/100	+10 to +38°C (+50 to+95°F)	20 to 80%, noncondensing	-40 to +60°C (-4 to+140°F)	5 to 95%, noncondensing
MAP/100C				

### Installation Area Considerations

Observe the following when determining where to place the computer:

- *Do not* install the unit in an area with high-power electrical equipment.
- *Do not* install the unit in the same area as copier machines because of the paper particles created by such equipment.
- Install the unit in an area that provides protection from excessive sunlight, heat, cold, chemicals, static electricity, magnetic fields, vibration, dust, and grime.
- Maintain an air-distribution system that provides adequately cooled, filtered, and humidity-controlled air.
- Provide surge protection and power backup in areas with volatile power (brown-outs or frequent power surges).
- Provide additional grounding if necessary in a multiple-system installation to facilitate an environment that is free of radio-frequency noise.

### Weight and Space Considerations

Table 1-2 lists the approximate weight, size, height, and depth for each platform. Note that the weight listed includes only the basic chassis.

**Table 1-2. Platform Weight and Space Considerations**

<b>Platform</b>	<b>Weight</b>	<b>Height</b>	<b>Width</b>	<b>Depth</b>
MAP/5P	13 kg (29 lbs)	41 cm (16 in)	28 cm (11 in) with stabilizing feet	46 cm (18 in)
MAP/40P	20 kg (45 lbs)	44.5 cm (17.5 in.)	33 cm (13 in.) with stabilizing feet	53.4 cm (21 in.)
MAP/100	(140 lbs)	(24 in.)	(19.5 in.)	(22 in.)
MAP/100C	(140 lbs)	(24 in.)	(22.6 in.)	46 cm (18 in.)

Table 1-3 lists the approximate weight, size, height, and depth for the monitor, keyboard and, if included with shipment, a printer.

**Table 1-3. Peripheral Weight and Space Considerations**

Peripheral	Weight	Height	Width	Depth
Monitor	6.7 kg (15 lbs)	34 cm (13.5 in.)	33 cm (13 in.)	37 cm (14.5 in.)
Keyboard	2.3 kg (5 lbs)	6.4 cm (2.5 in.)	48 cm (19 in.)	20.5 cm (8 in.)
Printer <sup>1</sup>	9 kg (20 lbs)	12.6 cm (5 in.)	40.3 cm (16 in.)	27.7 cm (11 in.)

1. A printer is not necessarily ordered and shipped for each system. The weight and space considerations listed are for those shipments that include a printer.

## Power Requirements

The computer powers the monitor through an interface cable. Table 1-4 lists the power requirements for the computer.

**Table 1-4. Power requirements for the Computer**

Attribute	MAP/5P	MAP/40P	MAP/100	MAP/100C
Volts AC (VAC)	100-220	115-230 Auto Sense	110-130 +/- 5%	110-130 +/- 5%
Volts DC (VDC)				-48
Hertz (Hz)	50-60	50-60	50-60	60
Phase	Single	Single	Single	Single
Amps (RMS)	5A	3A/1.5A	15AC	20AC 25DC
Nominal Current Draw			7 AC	7 (AC) 15 (DC)
Input cords	NEMA <sup>1</sup> 5-15P plug; 3 m (9 ft) long	NEMA 5-15P plug; 3 m (9 ft) long	NEMA 5-15P plug; 3 m (9 ft) long	NEMA 5-15P plug; 3 m (9 ft) long

*Continued on next page*

**Table 1-4. Power requirements for the Computer — Continued**

<b>Attribute</b>	<b>MAP/5P</b>	<b>MAP/40P</b>	<b>MAP/100</b>	<b>MAP/100C</b>
Unit input receptacles	IEC-320 inlet	IEC-320 inlet	IEC-320 inlet	N/A
Maximum Power Output	200W	350W	600W	600W
Heat Dissipation	700 BTU	1200 BTU	2500 BTU	2500 BTU

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1. National Electrical Manufacturer's Association.

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Table 1-5 lists the power requirements for the printer and monitor.

**Table 1-5. Power Requirements for the Printer and Monitor**

<b>Attribute</b>	<b>Printer</b>	<b>Monitor</b>
Volts AC (VAC)	115 VAC +/- 5%	110–240 VAC
Hertz (Hz)	50–60	50–87
Phase	Single	Single
Amps (RMS)	2 AC	1 AC
Input cords	NEMA <sup>1</sup> 5–15P plug; 2 m (6 ft) long	Included with monitor; 1 m (3 ft) long
Unit input receptacles	IEC-320 inlet	N/A

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1. National Electrical Manufacturer's Association.

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In addition to the above power requirements, you must also:

 **CAUTION:**

*Use only shielded cables and equipment in conjunction with the computer to maintain safe levels of electromagnetic compatibility.*

- Locate each unit and printer within 2 meters (6 feet) of its power receptacle.
- Keep the communication cables separate from the power cables.
- Install communication and power cables in accordance with National Electrical Codes (NEC).
- Use the AC power output receptacle on the back of the unit for a video monitor only. Never plug any other device into this receptacle.

## **Safety Precautions**

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There are safety areas that you must be aware of and take the necessary precautions. These areas are:

- Protecting circuit cards against electrostatic discharge (ESD) damage
- System grounding

## **Protecting Against Damage from ESD**

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 **CAUTION:**

*Read this section before unpacking the computer. You **must** observe proper grounding techniques to prevent the discharge of static electricity from your body into ESD-sensitive components.*

Circuit cards and packaging materials that contain ESD-sensitive components are usually marked with a yellow-and-black warning symbol (Figure 1-1).



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**Figure 1-1. ESD Warning Symbol**

Avoid damaging ESD-sensitive components by following these rules:

- Attach an ESD wrist strap to your bare wrist and the other end of the strap to a ground that terminates at the system ground, such as any unpainted metallic chassis surface. Handle ESD-sensitive circuit cards only after doing so.
- Handle a circuit card by the faceplate or side edges only.
- Keep circuit cards away from plastics and other synthetic materials such as polyester clothing.
- Do not pass circuit cards to another person unless that person is grounded at the same potential level.
- Hold devices such as a hard disk, floppy drive, or streaming tape in the same manner as a large circuit card. The ESD-sensitive area of these components is located on the bottom surface.

**⚠ CAUTION:**

*Ensure that your palm is not in contact with the non-component side of the board.*

---

**System Grounding Connections**

To maintain electromagnetic interference (EMI) protection, personal protection, and immunity from circuit noise, customer-premise-provided outlets must be grounded in accordance with NEC and applicable local codes.

**⚠ CAUTION:**

*Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. Use extreme care when you make power and ground connections.*

## **Regulatory Agency Guidelines**

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This section contains the information needed to ensure compliance with government regulatory agencies in the United States and Canada.

- Within the United States

If you are installing this system within the United States, follow the installation procedures in this book and the guidelines listed in "FCC Guidelines" below to ensure compliance with the current "Federal Communications Commission (FCC) rules regarding radio-frequency devices (FCC Rules, Part 15) and the connection of terminal equipment to the telephone network (FCC Rules, Part 68).

FCC/CSA Part agency compliance labels for the system card and individual network interface cards are located on the rear surface of the chassis or the individual circuit card.

- Within Canada

If you are installing this system in Canada, follow the installation procedures in this book and the guidelines listed in "Equipment Attachment Limitations for Canadian Customers" below to ensure compliance with the current Canadian Department of Communications protective, operational, and safety requirements for telecommunications networks.

### **FCC Guidelines**

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The guidelines in this section will help you to comply with FCC procedures as you connect to the public telephone network.

#### **Before You Connect to the Public Telephone Network**

Before you make any connections to the public telephone network, the local service provider has the right to and may request the following information:

- The telephone and circuit numbers of the lines to which the system will be connected
- The following FCC registration numbers
  - The FCC registration number is located on the faceplate of each Tip/Ring circuit card and is visible at the rear of the unit.
  - For the AYC10 Tip/Ring circuit card: AS5USA-20411-VM-E (This number is also located on the faceplate of the circuit card).
  - For the AYC21 Tip/Ring circuit card: AS5USA-24091-XD-E (This number is also located on the faceplate of the circuit card).

- For the AYC28 Tip/Ring circuit card: AS5USA-21762-VM-E (This number is also located on the faceplate of the circuit card).
- For the AYC5B Tip/Ring circuit card: AS5USA-18954-VM-E (This number is also located on the faceplate of the circuit card).
- The following ringer equivalence numbers (REN):
  - For the AYC10 Tip/Ring circuit card: 1.0B (This number is also located on the faceplate the circuit card).
  - For the AYC28 Tip/Ring circuit card: 0.7B (This number is also located on the faceplate the circuit card).
  - For the AYC5B Tip/Ring circuit card: 0.5B (This number is also located on the faceplate the circuit card).
- The following facility interface codes (FIC) for the AYC21 Tip/Ring circuit card:
  - 04DU9-BN
  - 04DU9-DN
  - 04DU9-1SN
- The following service order codes (SOC) for the AYC21 Tip/Ring circuit card:
  - 6-0P

### **Type of Telephone Lines Needed**

**⇒ NOTE:**

Metallic pair services for metallic channel ports may not be available at all locations.

- Use your application on standard-device telephone line circuits and standard T1 or E1 trunks.
- *Do not* connect to coin service (central office implemented systems) from the service provider.
- Note that connecting to party-line service is subject to state tariffs.

If you have any other questions about the telephone line(s), such as how many pieces of equipment you can connect to a line, contact the service provider.

## Telephone Service and Repair Problems

- If the service provider notes a problem with customer equipment, the provider may discontinue service to the customer temporarily, with or without prior notification. If advance notice is not feasible, the service provider must
  - Notify the customer as soon as possible.
  - Give the customer an opportunity to correct the problem.
  - Inform the customer of the right to file a complaint with the FCC.
- If any of the INTUITY CONVERSANT equipment is not operating properly, remove it immediately from the telephone lines. Malfunctioning equipment can harm the telephone network. Notify the service provider *immediately* if you are permanently or temporarily disconnecting the system from its present line or trunk circuits. (This applies to digital circuits ONLY.)

### **CAUTION:**

*If you disconnect the system from the telephone network on a continuing basis without advising the service provider, that company has the right to discontinue your service permanently. (This applies to digital circuits ONLY.)*

- It is a violation of FCC Rules, Part 68 for a customer to attempt repairs of any Tip/Ring (AYC10, AYC21, or AYC28) circuit card. Call one of the numbers listed in "Technical Assistance" below for authorized repairs.

## Equipment Attachment Limitations

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### **NOTE:**

This section applies to Canadian customers only.

The Canadian Department of Communications label identifies certified equipment. This certification means that the equipment meets certain telecommunications network protective, operational, and safety requirements. The Department does not guarantee the equipment will operate to the user's satisfaction.

Before installing the equipment, ensure that it is permissible to be connected to the facilities of the local service provider. The equipment must be installed using an acceptable method of connection. In some cases, the company's inside wiring associated with a single line individual service can be extended by means of a certified connector assembly (telephone extension cord). Be aware that compliance with the above conditions may not prevent degradation of service in some situations.

Repairs to certified equipment must be made by an authorized Canadian maintenance facility designated by the supplier. Any repairs or alterations made

by the user to this equipment, or equipment malfunctions, may give the service provider cause to request that the user disconnect the equipment.

For your own protection, ensure that the electrical ground connections of the power utility, telephone lines, and internal metallic water pipe system, if present, are connected together. This precaution may be particularly important in rural areas.

 **CAUTION:**

*Do not attempt to make such connections. Contact the appropriate electric inspection authority or electrician as appropriate.*

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop that is used by the device, to prevent overloading. The termination on a loop can consist of any combination of devices, and is subject to only one requirement: the total of the Load Numbers of all devices cannot exceed 100.

The LN for the AYC28 T/R circuit card is 9.

## **Points of Demarcation**

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A *demarcation point* defines the extent of Lucent Technologies' responsibilities for a product. Beyond this point, the customer is responsible for providing overall service.

When installing an INTUITY CONVERSANT system, you must be aware of the following demarcations:

- Non-Lucent Technologies switches or PBXs
- Local area network (LAN) connectivity
- INTUITY CONVERSANT Script Builder FAX Actions demarcation

### **Non-Lucent Technologies Switch or PBX Demarcation**

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Lucent Technologies service technicians dispatched for INTUITY CONVERSANT system installation are not responsible for making any connections directly to switches or PBXs not maintained by Lucent Technologies.

 **NOTE:**

Lucent Technologies recommends joint acceptance testing for systems integrated with non-Lucent Technologies switches and PBXs.

For additional information concerning the extent of the installation, refer to the contract between the customer and Lucent Technologies.

## **LAN Connectivity Demarcation**

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The demarcation point for the INTUITY CONVERSANT system is the point of connection into the LAN circuit card. The customer is responsible for:

- The LAN cable
- The connector at the end of the cable for connection to the INTUITY CONVERSANT system
- LAN administration not performed on the INTUITY CONVERSANT system
- Maintaining the administration of the INTUITY CONVERSANT system after cutover, unless otherwise specified by contract

Lucent Technologies service technicians dispatched for INTUITY CONVERSANT system installation are not responsible for troubleshooting the customer's LAN.

## **INTUITY Script Builder FAX Actions Demarcation**

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INTUITY Script Builder FAX Actions uses the fax circuit card. The point of demarcation for Script Builder Fax Actions is the same as the switch integration point of demarcation.

Lucent Technologies service technicians dispatched for INTUITY CONVERSANT system installation are not responsible for troubleshooting customer fax machines.

## **Maintaining System Security**

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During an installation, security of the customer's system is your responsibility. You must take the following precautions to protect password and system security:

- For password security - If you suspect that the security of any password has been compromised, notify your project manager or system administrator.
- For system security - Do not leave a logged-on terminal unattended. Always log off the system if you will be leaving it unattended, even for a short period of time.

## Getting Help

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Online system help screens (Table 1-6) and Lucent Technologies remote support centers (Table 1-7) are resources available for help during an installation.

**Table 1-6. Online System Help**

<b>To display screen</b>	<b>If valid entry</b>	<b>Otherwise</b>
Press <b>F2</b> (Choices) from the field for which you want the help.	The system displays a list of options from which you can choose.	The system displays general information about the field.

**Table 1-7. Remote Support Centers Information**

<b>You are Here</b>	<b>Integrated with any other Lucent or Non-Lucent switch</b>
Within the United States	1-800-242-2121 x 85474
Within Canada	1-800-242-1234
Any other country outside the United States	1-303-538-4666 or Call your local distributor or Check with your Project Manager or Systems Consultant

## Return and Repair

---

In case you need to return the unit to Lucent Technologies, save the following shipping and packing materials:



### CAUTION:

*Lucent Technologies does not accept liability for a damaged unit if you do not return it in the original packing materials and carton.*

- Shipping cartons (unit, keyboard and monitor) and boxes
- Antistatic bags
- Protective plastic wrap
- Foam inlays

Fill out the yellow BCS return and repair tag, one of the items in the plastic packet, repack and return to Lucent Technologies.



### NOTE:

If you ordered multiple units, saving one set of cartons and packing materials should be sufficient.

## Tools and Test Equipment

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Use the following recommended tools and test equipment for installing the computer:

- A medium-width flat-blade screwdriver.
- A No. 2 Phillips screwdriver.
- A small pair of needle-nose pliers.
- A small pair of wire cutters.
- A sharp, pointed instrument such as a ball-point pen.



### CAUTION:

*Do not use the point of a pencil. The graphite can damage a circuit card and cause problems such as electrical shorts.*

- A volt/ohm meter.
- A telephone connected through the switch.
- If the system includes INTUITY CONVERSANT Script Builder FAX Actions, you must have access to a customer fax machine for testing.

## Documentation

Your primary book is the *INTUITY CONVERSANT System, Version 7.0 New System Installation Manual*. Table 1-8 lists reference documents that are common to all platforms to assist you with the installation.

**Table 1-8. Common Reference Documents**

Number and Title	Used with	Comment
585-310-182, <i>INTUITY CONVERSANT System Version 6.0 System Alarms and Log Messages</i>	All platforms	Use this book to familiarize yourself with log entries and system messages and the actions that should be taken if the system messages alert you to problems, potential problems, or a change in the state of the system.
585-313-501, <i>INTUITY CONVERSANT System Version 7.0 Administration</i>	All platforms	Use this book along with the system installation book, if connecting to a digital network.

Also refer to the maintenance books that are specific to your platform to assist you with the installation.

## System Installation Checklist

The checklist (Table 1-9) provides a description of the required procedures numbered in the sequence in which you must complete them. The "Chapter" and "Section" columns refer you to the appropriate chapter number and section title of this book or to a switch integration book.

As you complete a procedure, make a check mark in the "✓" column.

**Table 1-9. MAP Hardware Installation Checklist- Preassembled System**

<b>Task</b>	<b>Task Description</b>	<b>Comments</b>	<b>Chapter</b>	<b>Section</b>	<b>✓</b>
1	Verify site environmental requirements.	Also performed by Project Manager.	1	"Environmental Considerations"	
2	Verify site installation requirements.	Also performed by Project Manager.	1	"Installation Area Considerations"	
3	Verify site space requirements.	Also performed by Project Manager.	1	"Weight and Space Considerations"	
4	Verify site power requirements.	Also performed by Project Manager.	1	"Power Requirements"	
5	Verify site is prewired for all pinout connections.	Required for telephone lines and switch integration.		Verify prewiring with system administrator.	
6	Review demarcation points.	Demarcation points are application dependent.	1	"Points of Demarcation"	
7	Review all safety warnings before getting started.		1	"System Grounding Connections"	
8	Observe electrostatic discharge guidelines.	Required for all circuit cards and peripheral disk drives.	1	"System Grounding Connections"	
9	Gather the required tools.		1	"Tools and Test Equipment"	

*Continued on next page*

**Table 1-9. MAP Hardware Installation Checklist- Preassembled System — Continued**

<b>Task</b>	<b>Task Description</b>	<b>Comments</b>	<b>Chapter</b>	<b>Section</b>	<b>✓</b>
10	Locate key components on the MAP.		2	“Key Components on the Front of the MAP/5P”, “Key Components on the Front of the MAP/40P”, “Key Components on the Front of the MAP/100C”, or “Key Components on the Front of the MAP/100”	
11	Assemble the platform.		2	“Assemble the MAP/5P”, “Assemble the MAP/40P”, “Assemble the MAP/100”, or “Assemble the MAP/100C”	
12	Make cable connections.	Switch, network, asynchronous connections are included. These MUST be made prior to powering up.	3	“Making Cable Connections and Power-Up the System”	
13	Connect the MAP to the power service and power up.		3	“Making Cable Connections and Power-Up the System”	
14	Verify the system setup screen is correct, if necessary.		4	“Complete System Installation”	
15	Administer the modem for remote administration.	Administer modem on systems using COM2 for remote administration.	4	“Connecting a Modem”	

*Continued on next page*

**Table 1-9. MAP Hardware Installation Checklist- Preassembled System — Continued**

<b>Task</b>	<b>Task Description</b>	<b>Comments</b>	<b>Chapter</b>	<b>Section</b>	<b>✓</b>
16	Administer modem(s) on the system.  <i>Do not use these procedures on the remote maintenance modem connected to COM2.</i>	Administer modem on systems <i>not</i> using COM2 port for remote administration.	4	"Connecting the 3820 and U.S. Robotics Modems"	
17	Administer the remote terminal.	Administer on systems using a remote terminal.	4	"Configuring the Modem"	
18	Administer the remote terminal on the INTUITY CONVERSANT system.	Administer on systems using a remote terminal.	4	"Configuring the Modem"	
19	Continue with the checklist if the system setup screen is correct.	If at this point the system does not seem to be working, verify hardware connections or clean equipment if necessary.	A	Appendix A, "Troubleshooting Procedures"	
20	View feature license values.	Applicable to all systems.	4	"Viewing Feature License Values"	
21	Verify system status.		4	"Viewing Feature License Values"	
22	Verify channel state.	Applicable to all systems.	4	"Setting Up the Feature Test Script Package"	
23	Assign service to channels for testing.	Applicable to all systems.	4	"Setting Up the Feature Test Script Package"	
24	Test each channel.	Applicable to all systems.	4	"Running the Feature Test Script Package"	

***Continued on next page***

**Table 1-9. MAP Hardware Installation Checklist- Preassembled System — Continued**

<b>Task</b>	<b>Task Description</b>	<b>Comments</b>	<b>Chapter</b>	<b>Section</b>	<b>✓</b>
25	Map services to channels for operation.	Applicable to all systems.	4	"Running the Feature Test Script Package"	
26	Administer and test alarm origination or configure the remote maintenance modem.		4	"Activating Alarm Origination"	
27	Back up the system.	Applicable to all systems.	4	"Backing Up the Intuity CONVERSANT System"	



## Overview

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This chapter describes:

- Shipment contents
- Where to locate key components
- The procedures to:
  - Assemble the MAP
  - Connect the monitor
  - Connect the keyboard
  - Connect a printer

## Purpose

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The purpose of this chapter is to:

- Provide descriptions and illustrations of key components for reference during the installation.
- Ensure proper connectivity to all peripherals.

## Shipment Contents

---

You should have received three boxes containing the computer, keyboard, and monitor.

 **CAUTION:**

*A boxed, fully-loaded computer weighs between 20 kg and 30 kg (45 to 64 lbs).*

Be sure that you have the following items packed in the box or boxes:

- A wrapped, protective plastic packet containing stabilizing feet (for MAP/5P and MAP/40P) and an instruction sheet for installing them.
- One 2- to 3-m (6- to 8-ft) power cord (depending on country).
  - A second power cord, if included, is used for the MAP/5P monitor.
- Installation and maintenance books (in a cardboard box).
- One plastic packet containing:
  - 1 blank cartridge tape
  - 1 diskette with the system configuration and software
  - 1 diagnostic diskette
  - 1 yellow BCS return repair tag
  - Factory information regarding the system

 **CAUTION:**

*Do not use the bezel cover as a grip area to move or lift the computer. Do not lift the MAP/100 by the side covers, lift it from the front and rear.*

## Assemble the MAP/5P

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The following sections and graphics contain the information needed to attach the stabilizing feet, locate key components, and provide proper clearing for the cooling system of the MAP/5P.

### Attaching the MAP/5P Stabilizing Feet

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The MAP/5P is a deskside unit in a mini-tower configuration. This unit sits either on your desktop or on the floor under your desk and requires that you position the stabilizing feet.

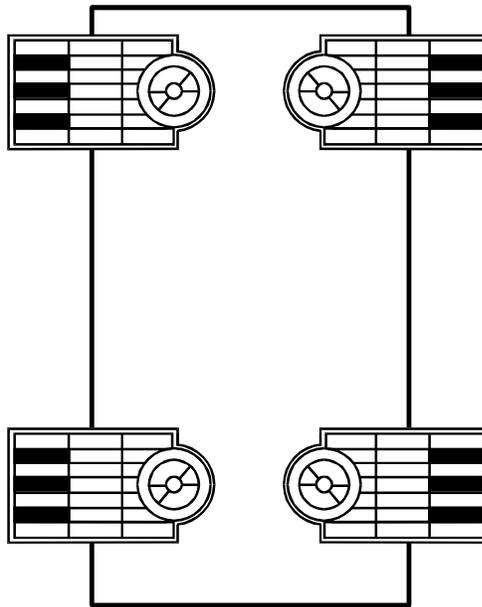
The MAP/5P includes four stabilizing feet attached to the bottom of the chassis. Position the stabilizing feet according to the following procedure:

1. Place the MAP/5P right side up on its stabilizing feet.

**⚠ CAUTION:**

*Do not use the dress cover as a grip area to move or lift the MAP/5P.*

2. Firmly grasp a corner of the chassis to stabilize the unit.
3. Turn the stabilizing feet out into position, until they click, as shown in Figure 2-1. Ensure that each foot is fully extended into position. See "Proper Clearance Around the MAP/5P" below for information about the proper placement of the MAP/5P.



sccvfeet CJL 012396

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**Figure 2-1. Positioning the MAP/5P Stabilizing Feet (Bottom View with Feet Extended)**

**Key Components on the Front of the MAP/5P**

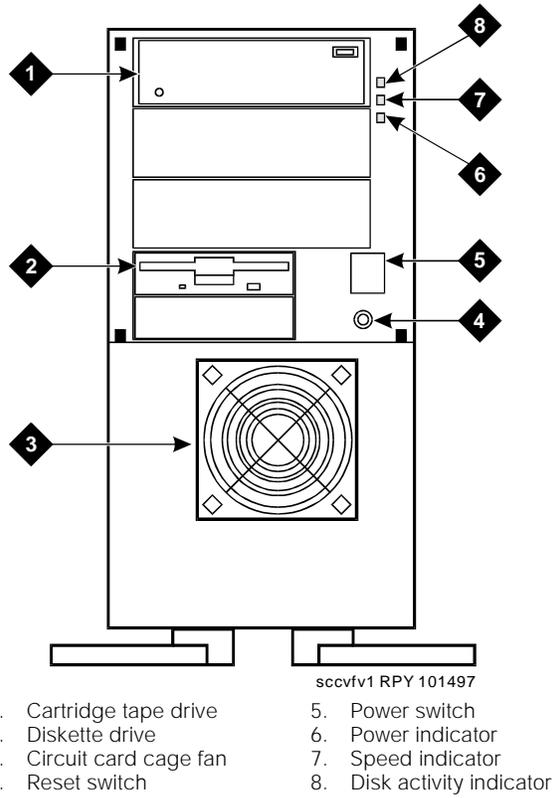
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Table 2-1 contains a brief description of each key component shown on the front of the MAP/5P.

**Table 2-1. Key Components on the Front of MAP/5P**

<b>Component</b>	<b>Description</b>
Cartridge Tape Drive	The cartridge tape drive is a peripheral device used to back up and restore files from a tape cartridge.
Diskette Drive	The diskette drive is a peripheral device used to provide storage and random access to the operating system, application software, and speech data.
Circuit Card Cage Fan	The circuit card cage fan maintains air flow inside the computer to prevent overheating.
Reset Switch	The reset switch is used to reset the computer.
Power Switch	The power switch is used to turn the computer on and off.
Power Indicator	The power indicator light is green when the power is on.
Speed Indicator	The speed indicator light is green when the power is on.
Disk Activity Indicator	The disk activity indicator light is green when the hard disk is active.

Figure 2-2 shows the front view of the MAP/5P. Use this figure to locate key components for the MAP/5P.



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**Figure 2-2. Front View of the MAP/5P with Dress Cover Removed**

## **Key Components on the Back of the MAP/5P**

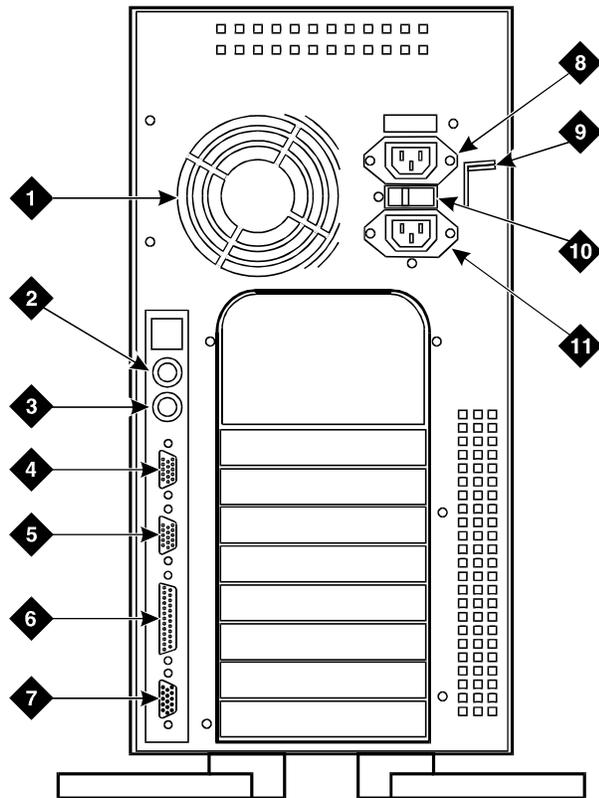
Table 2-2 contains a brief description of each key component shown on the back of the computer.

**Table 2-2. Key Components on Back of MAP/5P**

<b>Component</b>	<b>Description</b>	<b>Note</b>
Power supply fan exhaust	The power supply fan exhaust maintains air flow within the chassis.	
Keyboard connector	The keyboard connector connects the keyboard to the computer through a 6-pin female circular DIN plug.	Do not use the keyboard receptacle for any other purpose.
Mouse connector	The mouse connector provides a connection to a serial mouse, although the computer does not use a mouse.	Do not use the mouse receptacle for any other purpose.
COM1	COM1 provides RS-232 connectivity through a 9-pin male D subminiature plug.	
COM2	COM2 is reserved for Lucent Technologies remote maintenance.	
Parallel port	The parallel port communicates with the printer through a 25-pin female plug.	
Video connector	The video connector connects the computer to the monitor through a 15-pin female D subminiature plug.	
AC power supply outlet	The AC power supply outlet connects the computer to the monitor using a 2-m (6-ft.) power cord.	
Dress Cover Lock	The dress cover lock secures the dress cover.	
AC voltage selector switch	The AC selector switch slides right and left and allows you to select either 110 or 235V power source compatibility.	
AC power inlet receptacle	The AC power inlet receptacle connects the computer to the AC power source through a 3-prong, 5/10A, 110/230V power cord.	

Figure 2-3 shows the back view of the MAP/5P. Use this figure to locate key components on the back of the MAP/5P.

---



sccvm5pb C.JL 012197

- |                             |                                |
|-----------------------------|--------------------------------|
| 1. Power supply fan exhaust | 7. Video connector             |
| 2. Keyboard connector       | 8. AC power supply outlet      |
| 3. Mouse connector          | 9. Dress cover lock            |
| 4. COM1                     | 10. AC voltage selector switch |
| 5. COM2                     | 11. AC power inlet receptacle  |
| 6. Parallel port            |                                |

---

**Figure 2-3. Back View of the MAP/5P**

### **Locations of MAP/5P Peripheral Drive Devices**

---

The MAP/5P contains the following peripheral drive devices:

- Cartridge tape drive
- Diskette drive
- Hard disk drives

**⇒ NOTE:**

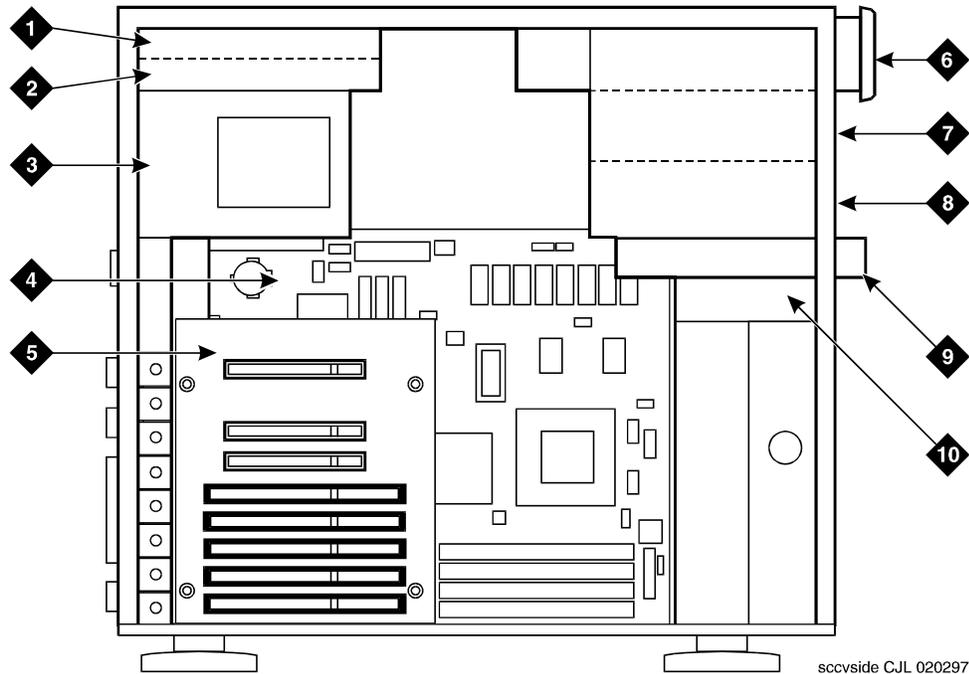
The specifics of these devices are subject to change.

Table 2-3 contains a brief description of the peripheral drive devices.

**Table 2-3. Locations of MAP/5P Peripheral Drive Devices**

<b>Device</b>	<b>Description</b>	<b>Note</b>
Cartridge Tape Drive	The cartridge tape drive is a SCSI component used for back-up and restore functions and to load the system.	
Diskette Drive	The diskette drive uses 3.5 inch, 1.44-Mbyte high-density diskettes. The diskette drive is used for system configuration and diagnostic testing.	
Hard Disk 0	Hard disk drive 0 is a 2-Gbyte drive that is present in all systems. Hard disk 0 stores the operating system, application software, and speech data.	Hard disk drive 0 is not accessible from the front of the MAP/5P. For more information on hard disk drives, see the maintenance book specific to your platform.
Hard Disk 1	Hard disk drive 1 may or may not be present in your system. If hard disk 1 is installed, it can be used for mirroring.	

Figure 2-4 is a side view of the MAP/5P peripheral drive device locations.



sccvside C.JL 020297

- |                         |                                 |
|-------------------------|---------------------------------|
| 1. Hard disk drive 0    | 6. Cartridge tape drive         |
| 2. Empty peripheral bay | 7. Empty peripheral bay         |
| 3. Power supply         | 8. Empty peripheral bay         |
| 4. Motherboard          | 9. Diskette drive               |
| 5. Riser card           | 10. Hard disk drive 1 (if used) |

**Figure 2-4. Side View of MAP/5P Including Locations of Peripheral Drive Devices**

### **Cooling System for MAP/5P**

Air must circulate inside and around the computer chassis to prevent components from overheating, which can cause system malfunctions.

Interior fans and proper clearance around the chassis are two ways to maintain proper temperatures within the computer.

#### **Interior Fans**

The interior fans help maintain air flow in the computer to prevent components from overheating, which can cause components to malfunction. Table 2-4 contains a description of each interior fan.

**Table 2-4. MAP/5P Interior Fans**

<b>Fan Name</b>	<b>Description</b>	<b>Note</b>
Circuit Card Cage Fan	Air flows through the circuit card cage fan and exits through vents in the back of the computer.	MAP/5P has 1 fan. It is located on the front of the MAP/5P under the diskette bays and behind the lower front dress cover. See Figure 2-2 for location.
Power Supply Fan	The power supply fan is located within the power supply. This fan exhausts air to the rear of the unit.	
CPU Fan	The CPU fan is located on top of the CPU.	

**Proper Clearance Around the MAP/5P**

You must also maintain clearance around the chassis so that air can circulate to prevent overheating. The final position of the computer must include a front-to-back clearance of at least 16 cm (6 in.) to provide for adequate air intake and exhaust.

The MAP/5P chassis has vents on both sides. If viewed from the front, the left vent is larger than the right vent. Wherever possible, position the MAP/5P with the left vent away from a wall or the side of a desk to allow proper air circulation. You must leave a minimum of 5 cm (2 in.) of space along both sides of the chassis.

Continue with the following procedures below:

1. "Connecting the Monitor"
2. "Connecting the Keyboard"
3. "Connecting the Printer"

## **Assemble the MAP/40P**

---

The following sections and graphics contain the information needed to attach the stabilizing feet, locate key components, and provide proper clearing for the cooling system of the MAP/40P.

This section describes how to perform the necessary requirements to install your system.

### **Attaching the MAP/40P Stabilizing Feet**

---

The MAP/40P is a desktop unit in a tower configuration. It sits vertically on a small support base and requires that you attach the stabilizing feet.

The manufacturer attaches four screws to the bottom of the unit to use with the stabilizing feet. See Figure 2-5 for a view of the stabilizing feet. Use a No. 2 Phillips screwdriver to attach the stabilizing feet according to the following procedure:

1. Remove the stabilizing feet from the plastic packet.
2. Remove the paper surrounding the stabilizing feet.
3. Place the unit bottom up.
4. Turn the stabilizing feet upside down with wings up.
5. Lower the stabilizing feet onto the mounting screws through the keyhole openings.
6. Rotate the stabilizing feet until they are perpendicular to the unit.

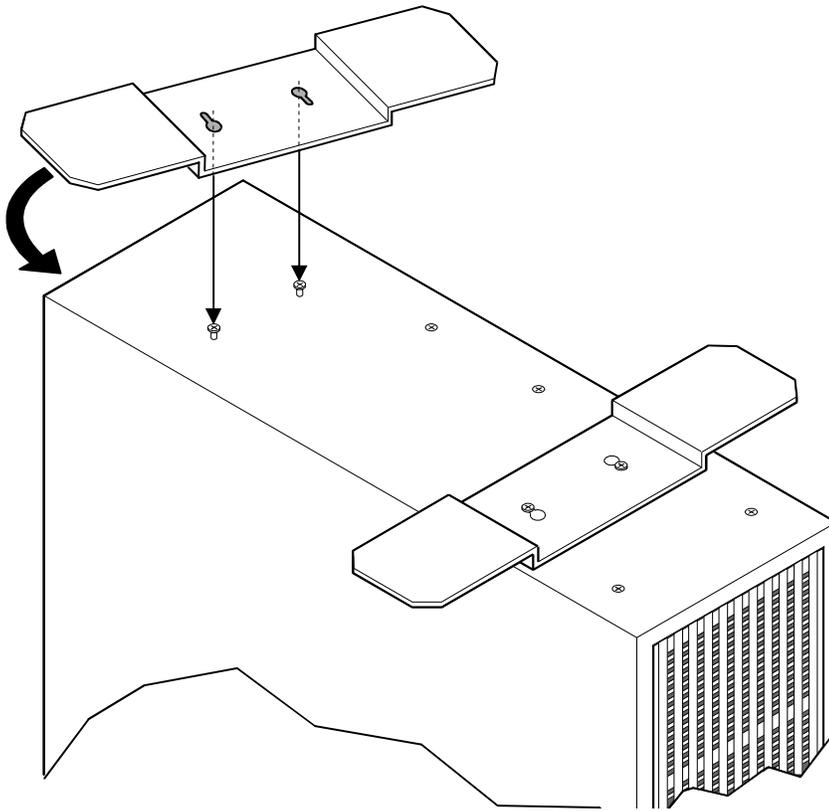
**⇒ NOTE:**

See the manufacturer's instruction sheet included in the plastic packet for more information.

7. Using a No. 2 Phillips head screwdriver, tighten the four mounting screws to secure the feet to the MAP/40P.
8. Grip opposite corners of the chassis and reset the MAP/40P in an upright position.

**⇒ NOTE:**

The final position of the MAP/40P must include a front-to-back clearance of at least 16 cm (6 in.) to provide adequate air intake and exhaust.



---

**Figure 2-5. Attaching the MAP/40P Stabilizing Feet**

**Key Components on the Front of the MAP/40P**

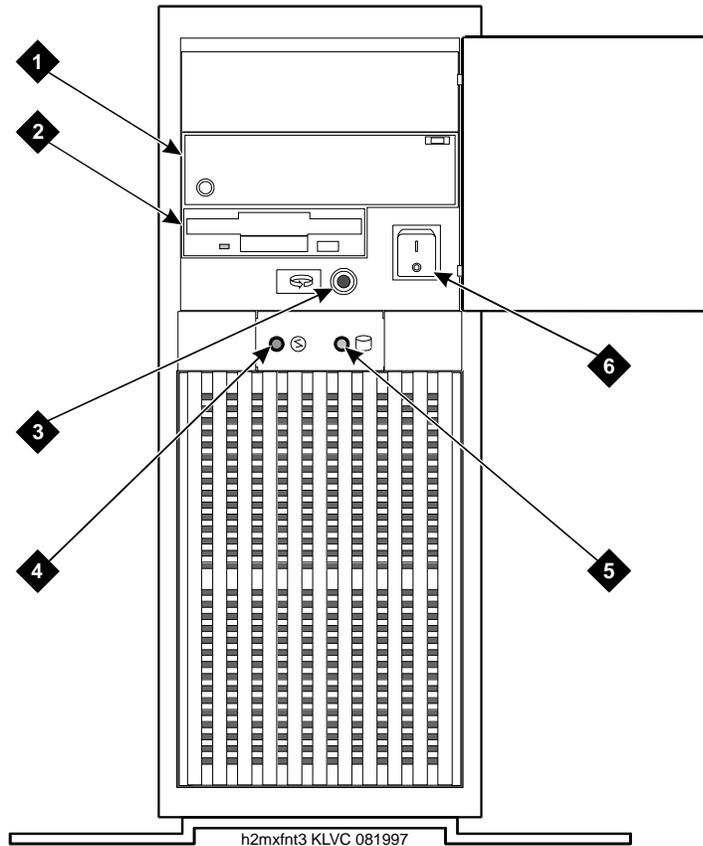
---

Table 2-5 contains a brief description of each key component accessible on the front of the chassis.

**Table 2-5. Key Components on the Front of MAP/40P**

<b>Component</b>	<b>Description</b>
Cartridge Tape Drive	The cartridge tape drive is a peripheral device used to back up and restore files from a tape cartridge.
Diskette Drive	The diskette drive is a peripheral device used to provide storage and random access to the operating system, application software, and speech data.
Power Indicator	The power indicator light is green when the power is on.
Disk Activity Indicator	The disk activity indicator light is yellow when the hard disk is active.
Reset Switch	The reset switch is used to reset the computer.
Power Switch	The power switch is used to turn the computer on and off.

Figure 2-6 shows the front view of the MAP/40P. Use this figure to locate key components for the MAP/40P.



- |                         |                            |
|-------------------------|----------------------------|
| 1. Cartridge tape drive | 4. Disk activity indicator |
| 2. Diskette drive       | 5. Reset switch            |
| 3. Power indicator      | 6. Power switch            |

---

**Figure 2-6. Front View of the MAP/40P**

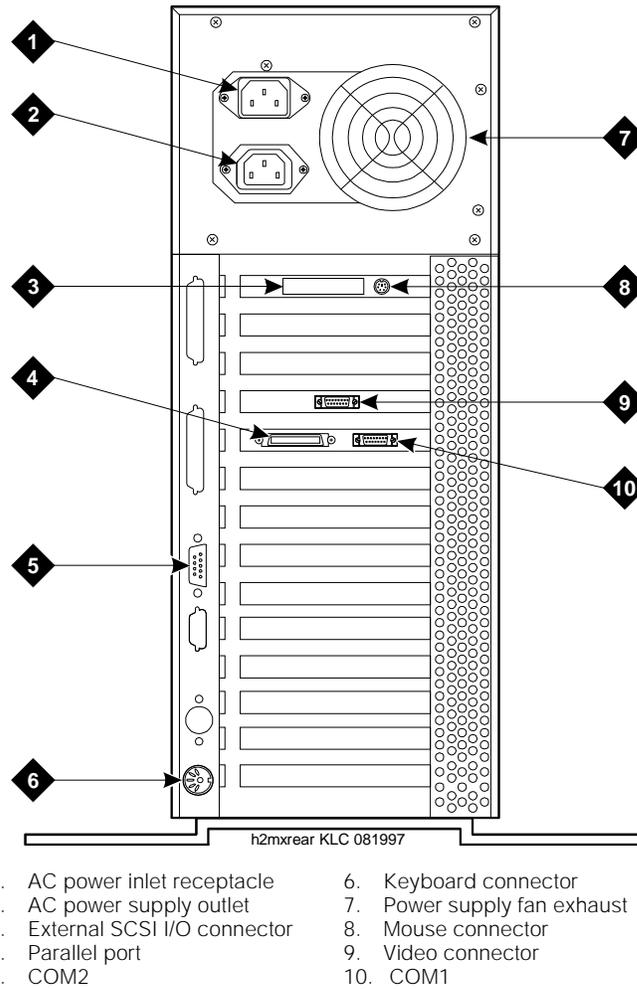
### **Key Components on the Back of the MAP/40P**

Table 2-6 contains a brief description of each key component accessible from the back of the computer.

**Table 2-6. Key Components on Back of MAP/40P**

<b>Component</b>	<b>Description</b>	<b>Note</b>
AC power inlet receptacle	The AC power inlet receptacle connects the computer to the AC power source through a 3-prong, 5/10A, 110/230V power cord.	
AC power supply outlet	The AC power supply outlet connects the computer to the monitor using a 2-m (6-ft.) power cord.	
External SCSI I/O Connector	The external SCSI I/O connector provides an external SCSI connector and an active termination for the SCSI bus. No terminating resistor is shown in Figure 2-7.	
Parallel port	The parallel port communicates with the printer through a 25-pin female plug.	
COM2	COM2 is reserved for Lucent Technologies remote maintenance.	
Keyboard connector	The keyboard connector connects the keyboard to the computer through a 6-pin female circular DIN plug.	Do not use the keyboard receptacle for any other purpose.
Power supply fan exhaust	The power supply fan exhaust maintains air flow within the chassis.	
Mouse connector	The mouse connector provides a connection to a serial mouse, although the computer does not use a mouse.	Do not use the mouse receptacle for any other purpose.
Video connector	The video connector connects the computer to the monitor through a 15-pin female D subminiature plug.	
COM1	COM1 provides RS-232 connectivity through a 9-pin male D subminiature plug.	

Figure 2-7 shows the back view of the MAP/40P. Use this figure to locate key components on the back of the MAP/40P.



**Figure 2-7. Back View of the MAP/40P**

## Locations of MAP/40P Peripheral Drive Devices

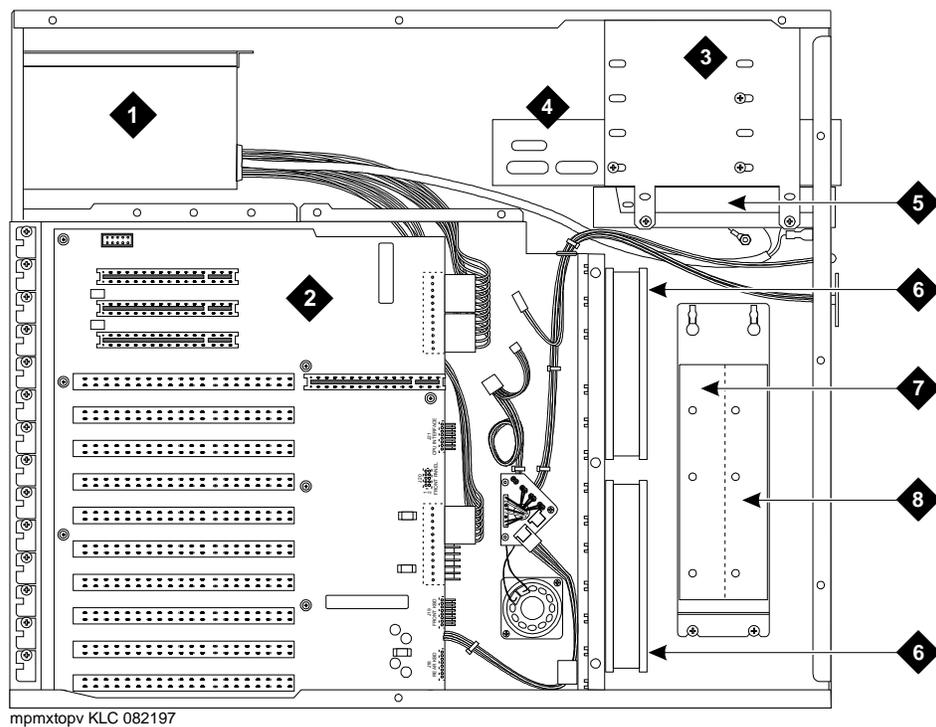
The MAP/40P contains the following peripheral drive devices:

- Cartridge tape drive
- Diskette drive
- Hard disk drives

**⇒ NOTE:**

The specifics of these devices are subject to change.

Figure 2-8 is a side view of the MAP/40P peripheral drive device locations.



- |                         |                                |
|-------------------------|--------------------------------|
| 1. Power supply         | 5. Diskette drive              |
| 2. Backplane            | 6. Circuit card cage fans      |
| 3. Empty peripheral bay | 7. Hard disk drive 0           |
| 4. Cartridge tape drive | 8. Hard disk drive 1 (if used) |

**Figure 2-8. Side View of MAP/40P Including Locations of Peripheral Drive Devices**

## **Cooling System for MAP/40P**

---

Air must circulate inside and around the computer chassis to prevent components from overheating, which can cause system malfunctions.

Interior fans and proper clearance around the chassis are two ways to maintain proper temperatures within the computer.

### **Interior Fans**

The interior fans help maintain air flow in the computer to prevent components from overheating, which can cause components to malfunction. Table 2-7 contains a description of each interior fan.

**Table 2-7. MAP/40P Interior Fans**

<b>Fan Name</b>	<b>Description</b>	<b>Note</b>
Circuit Card Cage Fan	Air flows through the circuit card cage fan and exits through vents in the back of the computer.	MAP/40P has 2 fans. See Figure 2-8 for location.
Power Supply Fan	The power supply fan is located within the power supply. This fan exhausts air to the rear of the unit.	

### **Proper Clearance Around the MAP/40P**

You must also maintain clearance around the chassis so that air can circulate to prevent overheating. The final position of the computer must include a front-to-back clearance of at least 16 cm (6 in.) to provide for adequate air intake and exhaust. You must leave a minimum of 5 cm (2 in.) of space along both sides of the chassis.

Continue with the following procedures below:

1. "Connecting the Monitor"
2. "Connecting the Keyboard"
3. "Connecting the Printer"

## Assemble the MAP/100

---

The following sections and graphics contain the information needed to activate caster locking mechanisms, install split ferrite core toroids, install the cable tie-down bracket, locate key components, and provide proper clearance for the cooling system of the MAP/100.

### Installing a Deskside MAP/100

---

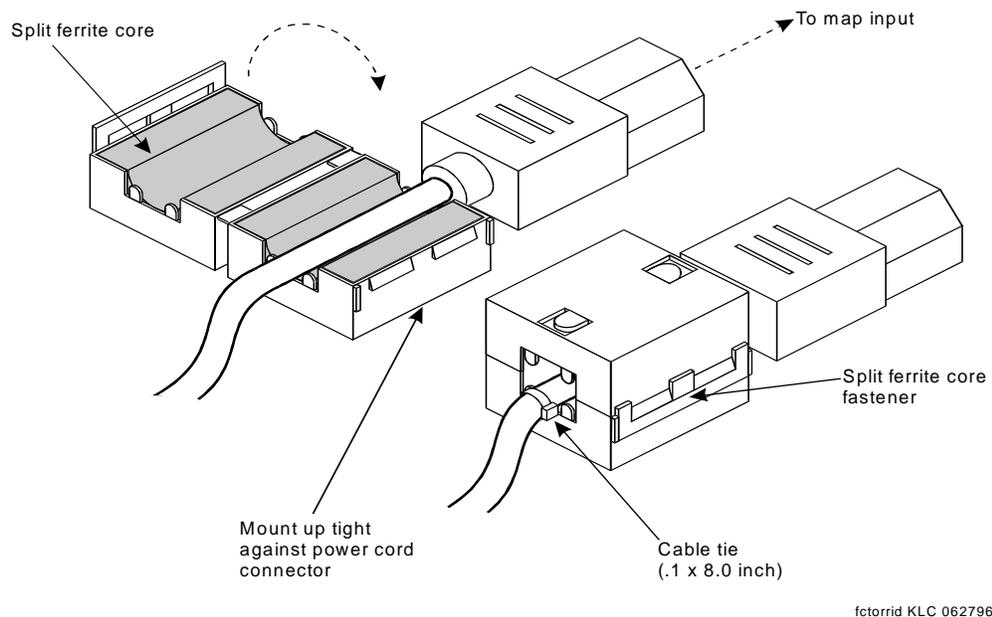
If ordered with the MAP/100, deskside kits are factory installed and no additional assembly is needed. If ordered as a field-installable item, follow the instructions provided in each kit.

Deskside units are equipped with four casters that allow you to roll the chassis around as required. Once you position it, activate the locking mechanisms located on each caster to secure the MAP/100 in place.

### Installing Split Ferrite Core Toroids

---

The split ferrite core toroid is placed on the MAP/100 power cable (Figure 2-9). If the MAP/100 monitor is plugged into the MAP/100 chassis, a split ferrite core toroid is also placed on the monitor power cord.



---

**Figure 2-9. Split Ferrite Core Toroid Installation**

**⇒ NOTE:**

If the MAP/100 monitor is plugged directly into a wall outlet, do not place a split ferrite core toroid on the power cord.

To install the split ferrite core toroids:

1. Open the split ferrite core toroid by gently pulling the fastener away from the body of the split ferrite core toroid (Figure 2-9).
2. Place the power cord in the groove inside a split ferrite core toroid (Figure 2-9).
3. Place the toroid against the female connector which connects to the 110 VAC power input on the back of the MAP/100.
4. Gently snap the split ferrite core toroid shut around the cable (Figure 2-9).
5. Attach a cable tie directly behind the split ferrite core toroid to secure it.
6. Cut and remove the excess cable tie.
7. Place the monitor power cord in the groove inside a split ferrite core toroid (Figure 2-9).
8. Place the toroid against the male connector which connects to the auxiliary monitor power input on the back of the MAP/100.
9. Gently snap the split ferrite core toroid shut around the cable (Figure 2-9).
10. Attach a cable tie directly behind the split ferrite core toroid to secure it.
11. Cut and remove the excess cable tie.

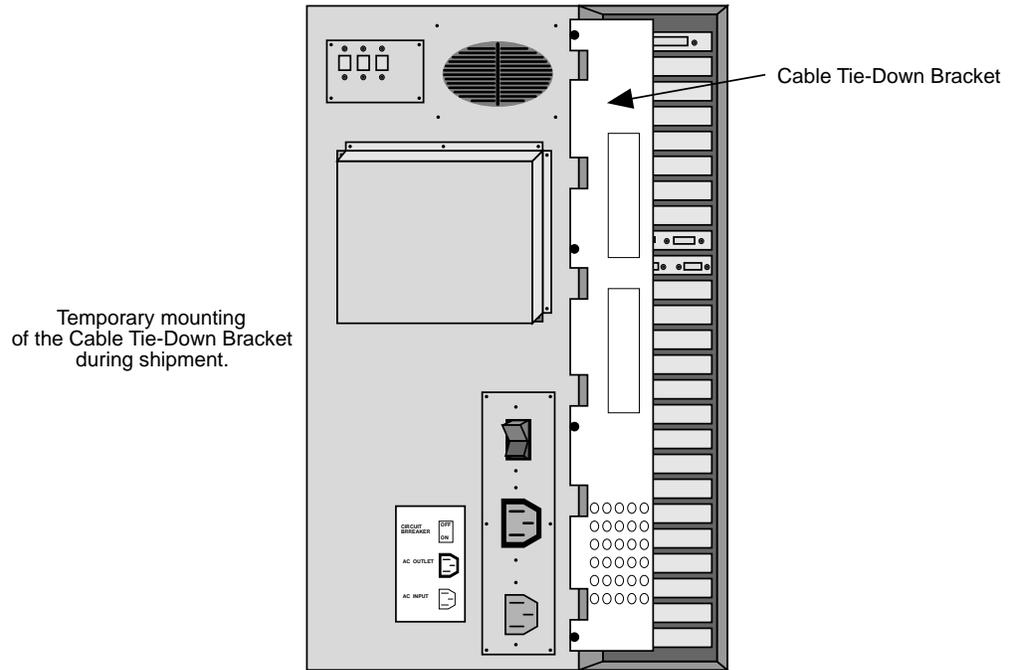
### **Installing the Cable Tie-Down Bracket**

Each MAP/100 includes a cable tie-down bracket. Units equipped with multiple Tip/Ring circuit cards and a Tip/Ring distribution panel are shipped with cabling attached to this bracket. This bracket must be permanently attached to the unit. If it is not, see Figure 2-10 for an example of the position of the bracket during shipping.

To install the cable tie-down bracket:

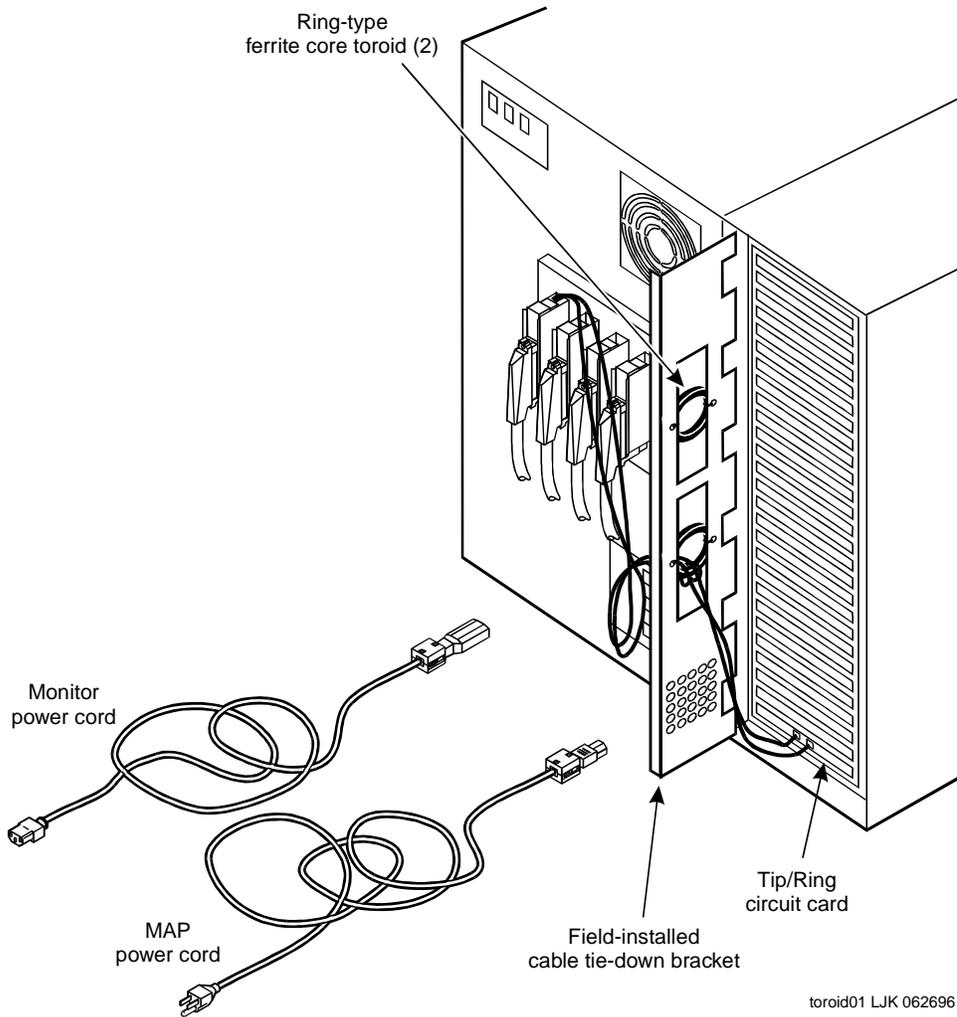
1. Loosen the four screws next to the 25-slot backplane (Figure 2-10).
2. Slide the bracket under the screw heads in the slots provided (Figure 2-11).
3. Tighten the screws.

MAP/100s, configured without the Tip/Ring distribution panel, ship with the cable tie-down bracket located on the bottom of the shipping carton. It is recommended that you install the bracket as described above and use it as a cable strain relief for all external I/O cabling.



---

**Figure 2-10. Cable Tie-Down Bracket Position During Shipment**



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**Figure 2-11. Cable Tie-Down Bracket Installation**

**Key Components on the Front of the MAP/100**

---

The following sections and graphics contain locations of key components for the MAP/100.

Figure 2-12 shows the front view of the MAP/100. Table 2-8 provides a description of the components on the front of the MAP/100.

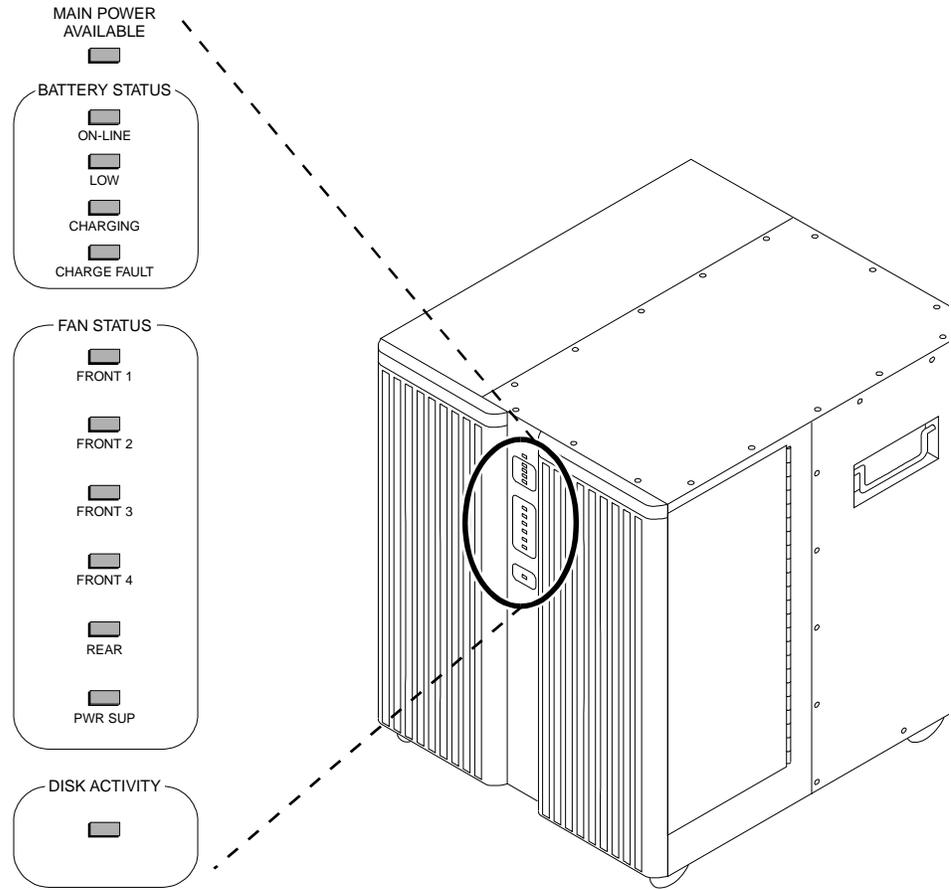


Figure 2-12. Front View of the MAP/100

**Table 2-8. Components on the Front of the MAP/100**

<b>Component</b>	<b>Location</b>	<b>Description</b>	<b>Function</b>
Front doors	One on each side	Hinged doors	Cover the peripheral bay (disk drives and cooling fans)
Temporary keyboard receptacle	Lower right side, behind door	5-pin circular DIN female	Connects the keyboard to the MAP/100
Temporary video receptacle <sup>1</sup>	Lower right side, behind door	15-pin high-density D subminiature female	Connects the monitor to the MAP/100
Power switch	Lower right side, behind door	Rocker switch	Turns the MAP/100 on and off
Reset button	Lower right side, behind door	Button	Resets the MAP/100
Main Power Available indicator	Center between doors	LED	Lights green when the power is on
Online Battery indicator	Center between doors	LED	Lights red when the unit is powered by battery
Low Battery indicator	Center between doors	LED	Lights yellow when the battery needs to be recharged
Charging Battery Indicator	Center between doors	LED	Lights yellow when the battery is being recharged
Fan Status indicators	Center between doors	Six LEDs; one for each fan	Light green when the corresponding fan is working normally
Disk Activity Indicator	Center between doors	LED	Lights green when the hard drive is activated

1. To use this receptacle, you must install the VGS Port jumper cable between the Video Controller circuit card and the video port labeled "VGS Video" on the back of the chassis.

### **Key Components on the Back of the MAP/100**

Figure 2-13 shows the back view of the MAP/100. Table 2-9 provides a description of the components on the back of the MAP/100.

**Table 2-9. Components on the Rear of the MAP/10**

<b>Component</b>	<b>Location</b>	<b>Description</b>	<b>Function</b>
Asynchronous port COM1	CPU circuit card faceplate: slot #16	9-pin male D subminiature	Communicates with external devices
Parallel port	CPU circuit card faceplate: left of COM1	25-pin female	Communicates with the printer
Video connector <sup>1</sup>	Video circuit card faceplate: slot #17	15-pin female D subminiature	Connects the MAP/100 to the monitor
Circuit breaker	Lower center	Rocker switch	Turns on/off incoming power to the MAP/100
AC power outlet connector	Lower center below circuit breaker	3-prong, 5-A, 110/220 V	Connects the MAP/100 to the monitor via a 6-ft power cord
AC power inlet receptacle	Lower center below AC power outlet	3-prong, 110/220 or 200/250 V	Connects the MAP/100 to the power source via a 9-ft power cord
Keyboard receptacle* <sup>2</sup>	Upper left corner	5-pin female circular DIN	Connects <i>one keyboard only</i> to the MAP/100
Asynchronous port COM2	Upper left corner next to keyboard inlet	9-pin male D subminiature DB-9	Communicates with external devices
VGA Video Connector	Upper left corner	15-pin male D subminiature	Connects to the Video Controller card via the VGA Port jumper cable to enable use of a temporary monitor

***Continued on next page***

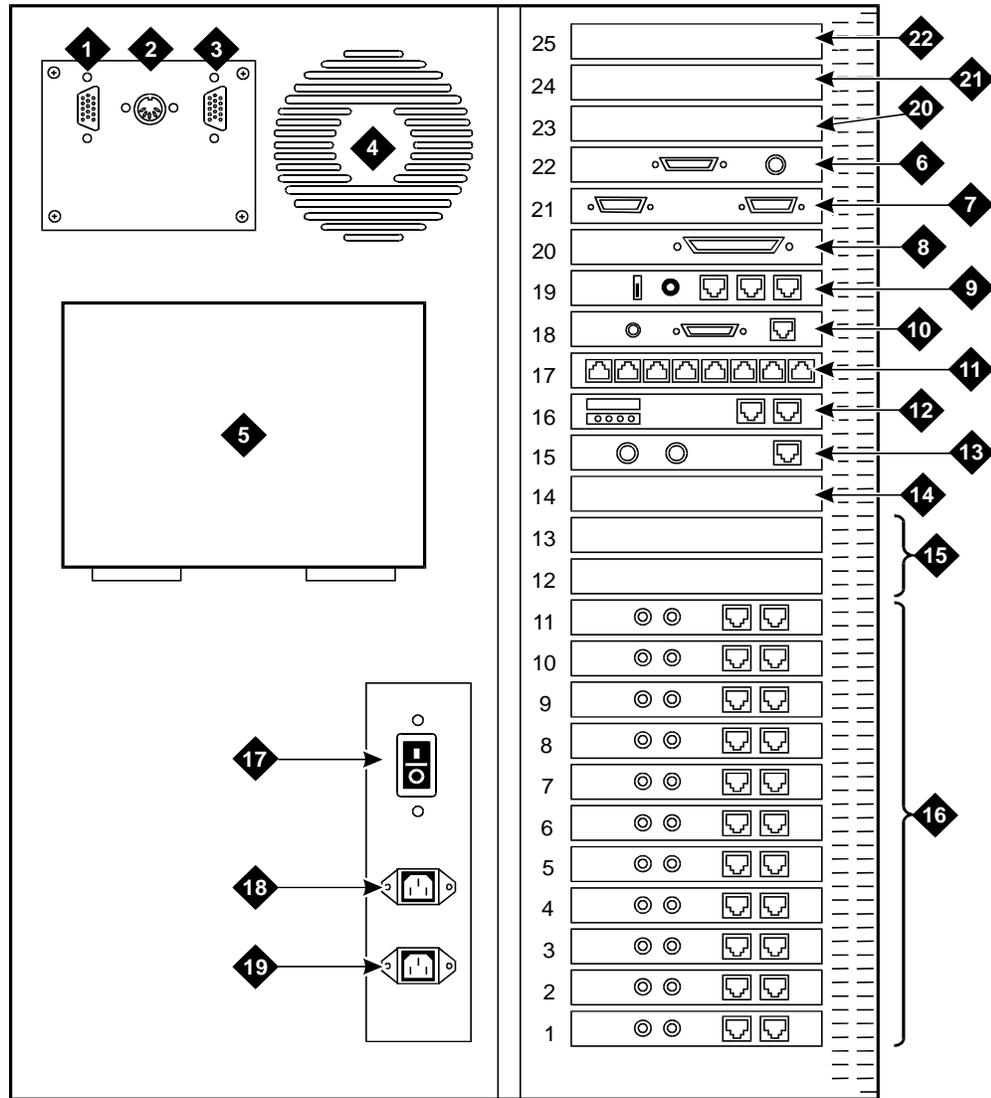
**Table 2-9. Components on the Rear of the MAP/10 — Continued**

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One or two Tip/Ring distribution panels (optional)	Center	Square panels screwed to the MAP/100	Allows up to 8 (one panel) or 12 (two panels) Tip/Ring cards to communicate with customer premise equipment
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1. Do not use the monitor or the keyboard receptacles for any other purpose than to connect the monitor and one keyboard, respectively.
  2. You can connect only one keyboard to the MAP/100.
-



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- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. COM2 port</li> <li>2. Keyboard port</li> <li>3. VGA video port</li> <li>4. Power supply exhaust vent</li> <li>5. Tip/Ring distribution panel</li> <li>6. External SCSI connector circuit card</li> <li>7. P5 120-MHz CPU circuit card</li> <li>8. Video controller circuit card</li> <li>9. Remote maintenance circuit card</li> <li>10. Ethernet LAN circuit card</li> <li>11. Multi-port serial circuit card</li> </ol> | <ol style="list-style-type: none"> <li>12. Fax circuit card</li> <li>13. E1/T1 (AYC21) circuit card</li> <li>14. SSP circuit card</li> <li>15. Signal processor circuit card</li> <li>16. IVC6 (AYC 10) Tip/Ring circuit card</li> <li>17. Power switch</li> <li>18. Accessory power outlet</li> <li>19. AC input outlet</li> <li>20. PCI slot 1</li> <li>21. PCI slot 2</li> <li>22. PCI slot 3</li> </ol> |
|---|---|

**Figure 2-13. Back View of the MAP/100**

## **MAP/100 Peripheral Drive Devices**

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Table 2-10 provides descriptions and functions of the various drives on the MAP/100. They are located in the peripheral bay behind the right front door (Figure 2-14).

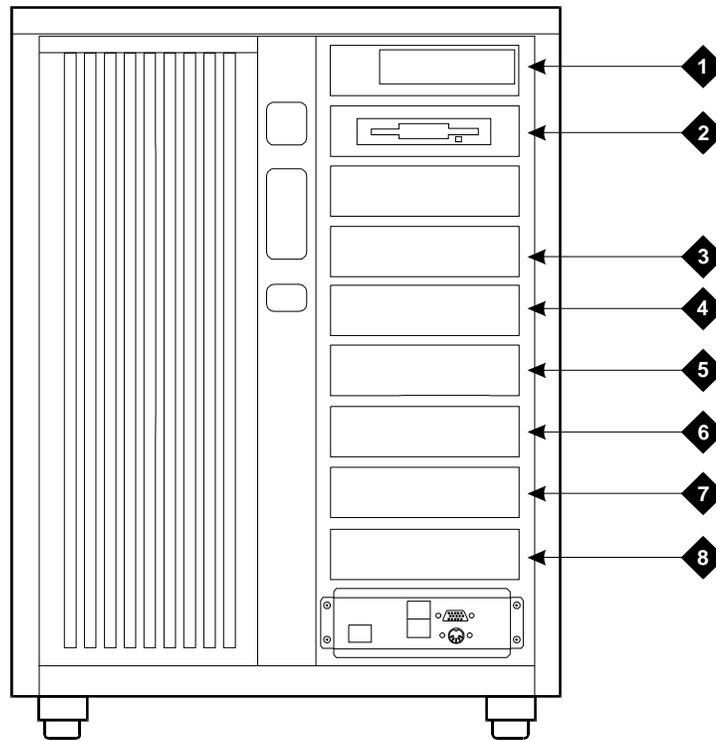
**Table 2-10. MAP/100 Peripheral Bay Drives**

<b>Drive<sup>1</sup></b>	<b>Description</b>	<b>Function</b>
Cartridge tape	SCSI 2.0-Gbyte	Backup and restore; loading the system
Floppy disk drive	3.5-inch, 1.44-Mbyte high density	System configuration; diagnostic testing
Hard disk	2.0-Gbyte SCSI	Storage for operating system, application software, and speech data
Hard disk(s) (optional)	2.0-Gbyte SCSI	Disk mirroring; storage

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1. These devices are subject to change.

---



m100drvi RPY 101497

1. Tape drive
2. Diskette/floppy drive
3. Drive bay position 6 (fourth hard disk drive, if present)
4. Drive bay position 5 (third hard disk drive, if present)
5. Drive bay position 4 (sixth hard disk drive, if present)
6. Drive bay position 3 (second hard disk drive, if present)
7. Drive bay position 2 (fifth hard disk drive, if present)
8. Drive bay position 1 (primary hard disk drive)

---

**Figure 2-14. Peripheral Drive Devices of the MAP/100**

## **Cooling System for MAP/100**

---

The cooling system for the MAP/100 includes six fans. Four are located in front of the circuit card cage area, behind the left front door. Another cooling fan (the chassis fan) is located in the center on the back of the chassis. The last fan is located inside the power supply.

The fans maintain air flow in the unit to prevent components from overheating, which can cause a component to malfunction. To prevent overheating, you must also maintain adequate clearance around the unit so that air can circulate.

Continue with the following procedures below:

1. "Connecting the Monitor"
2. "Connecting the Keyboard"
3. "Connecting the Printer"

## **Assemble the MAP/100C**

---

The MAP/100C is a system normally used for large business, central office-type environments. The following sections and graphics contain the information needed for the following:

- install the unit in a 5ESS switching equipment single bay frame
- install the unit in a common ESS switching equipment single bay frame
- install the unit in a commercial 24-inch panel rack
- locate key components
- provide proper clearance for the cooling system of the MAP/100.

## **Installing in a 5ESS Switching Equipment Single Bay Frame**

---

Use the following procedure to install the MAP/100C in a 5ESS Switching Equipment Single Bay Frame with mounting kit ED5D184:

### **⇒ NOTE:**

If you are installing only one unit in a frame, it is recommended that you install the single unit central to the frame for easier accessibility and better frame stability.

1. Locate the left and right mounting ear brackets (A10039 and A10038) and attach them to the side plate of the unit as shown in Figure 2-18.
2. Secure the left and right mounting ear brackets (A10039 and A10038) bracket with four #10 screws.

3. Install C-channel brackets on the 5ESS Switch frame and on the MAP/100C. There are two sets that accompany each unit. The slotted C-channel must be installed onto the frame (Figure 2-16).

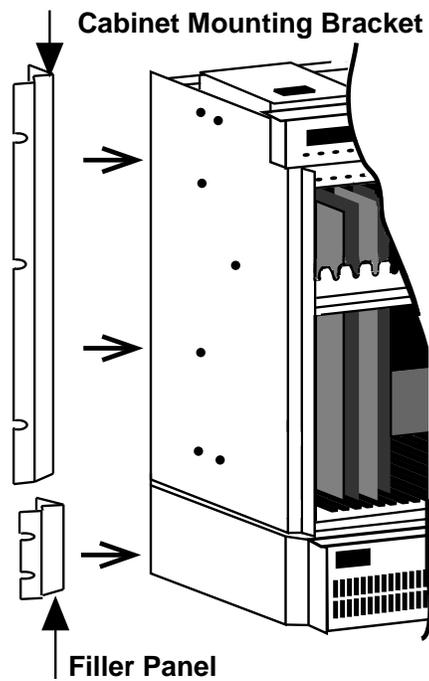
**⇒ NOTE:**

These guides aid you in installing in the unit without having to hold it up to secure it to the cabinet.

4. Position the unit by sliding the C-channel brackets located on each side of the unit inside the channel brackets located on each side of the frame.
5. Lift the unit with a mechanical lifting device using the four eye bolts located on the top of the MAP/100C and slide it onto the C-channel brackets in the cabinet so that the mounting ear brackets are against the cabinet uprights.
6. Secure the mounting ear brackets to the cabinet using three #12-24 screws for each bracket.
7. Attach the two cabinet frame dress filler panels (A10070 and A10071) to the frame under the mounting brackets (Figure 2-15).
8. Remove and discard the four eye bolts after the unit is secured to the frame.
9. Release the two latches on the front top corners of the unit and slide the unit out the front of the frame to the full extent of the slides.

**⇒ NOTE:**

The unit should lock in place.



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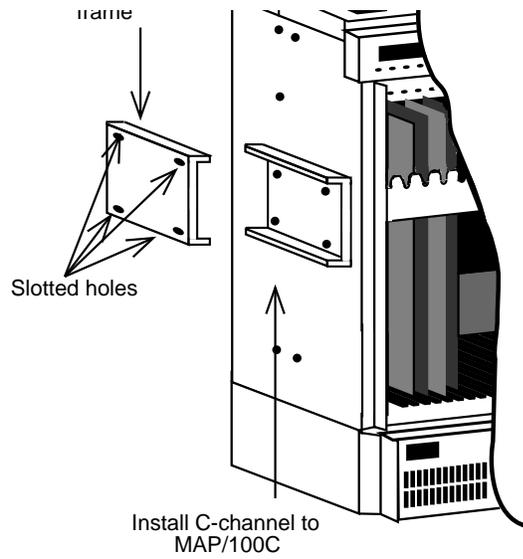
**Figure 2-15. Installing Mounting Brackets onto the MAP/100C**

10. Install the cable restraint bar on the rear of the unit, using two #10 screws in the bottommost mounting holes (Figure 2-17).
11. From the front of the unit, release the slide latching mechanism on the sides of the two top slides while simultaneously pushing in on the unit.
12. Secure the unit into its mounting position with the two latches at the front top corners of the unit.



**NOTE:**

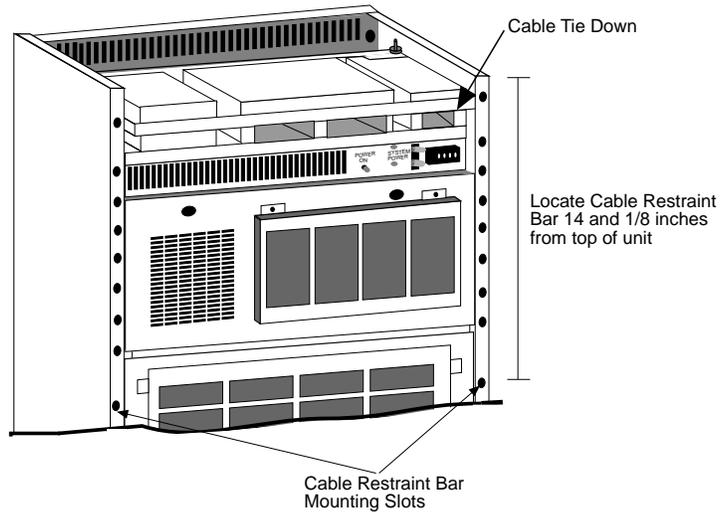
The 5ESS frame can hold one or two units, depending on the type of application (Figure 2-18).



---

**Figure 2-16. Installing C-Channel Brackets onto the Frame and the MAP/100C**

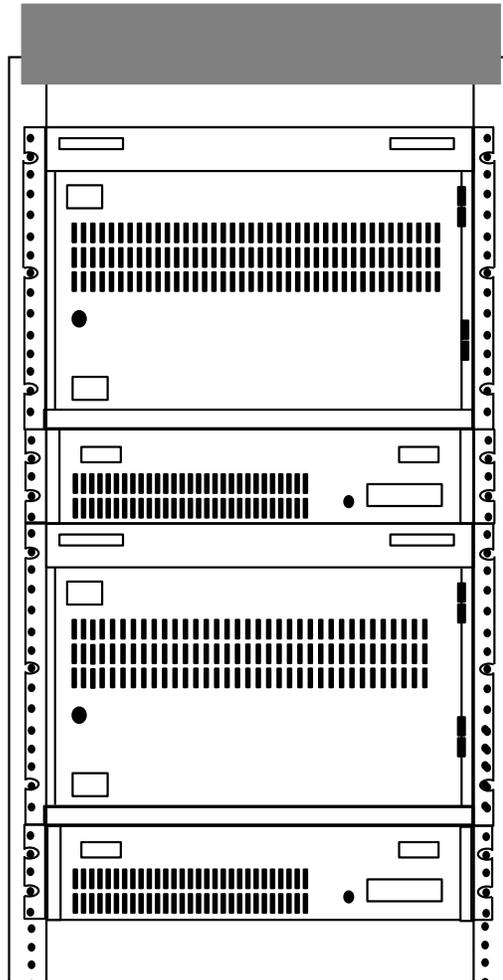
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**Figure 2-17. Installing the Cable Restraint Bar**

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**Figure 2-18. MAP/100C Units in a 5ESS Cabinet, Front View**

### **Installing in a Common ESS Switching Equipment Single Bay Frame**

---

Use the following procedure to install the MAP/100C in a Common ESS Switching Equipment Single Bay Frame with mounting kit ED5A001:

**⇒ NOTE:**

The Common ESS cabinet can hold one, two, or three MAP/100C (Figure 2-19). If you are installing only one MAP/100C, it is recommended that you install it in the center of the frame for easier access and better stability.

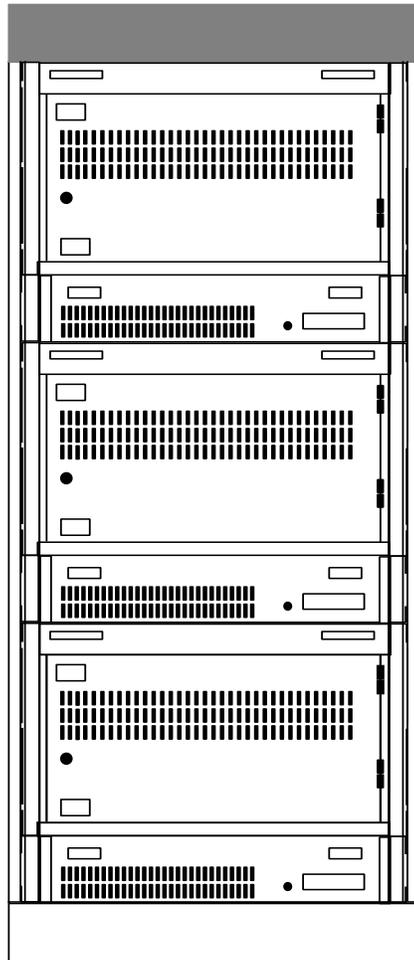
1. Locate and attach the two support brackets (A10040-B and A10041-B) to the frame (Figure 2-20) beginning with the lowest frame location.
2. Secure the two support brackets (A10040-B and A10041-B) with #12 screws.
3. Locate and attach the left and right mounting ear brackets (A10036-A and A10037-A) to the side plate of the unit (Figure 2-15).
4. Secure the left and right mounting ear brackets (A10036-A and A10037-A) with #10 screws.
5. Position the unit so that lower edge of the mounting ear brackets (A10036-A and A10037-A) rest on top of the support brackets.
6. Use the four eye bolts located on the top of the unit to lift the unit with a mechanical lifting device and fasten them to the frame using three #12-24 screws on each side of the unit.
7. Remove and discard the four eye bolts after the unit is secured to the frame.
8. Release the two latches on the front top corners of the unit and slide the unit out the front of the frame to the full extent of the slides.



**NOTE:**

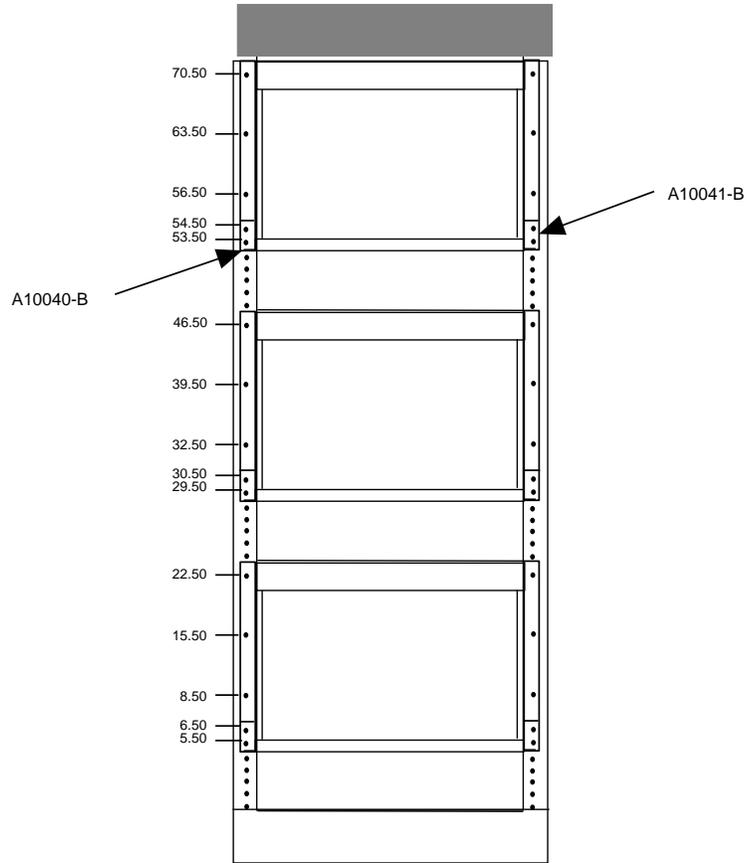
The unit should lock in place.

9. Install the cable restraint bar on the rear of the unit in the bottommost mounting holes (Figure 2-17).
10. Secure the cable restraint bar with two #10 screws.
11. From the front of the unit, release the slide latching mechanism on the sides of the two top slides while simultaneously pushing in on the unit.
12. Secure the unit into its mounting position with the two latches at the front top corners of the unit.



---

**Figure 2-19. Multiple MAP/100Cs in a Common ESS Open Frame, Front View**



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**Figure 2-20. Mounting Locations on the Common ESS Frame**

## **Installing the MAP/100C in a Commercial 24-Inch Panel Rack**

---

Use the following procedure to install the MAP/100C in a commercial 24-inch panel rack:

**⇒ NOTE:**

If you are installing only one unit in a frame, install the single unit central to the frame for easier access and frame stability.

1. Locate and attach the left and right support brackets (A20096 and A20097) using the hardware recommended by the rack manufacturer.

**⇒ NOTE:**

These support brackets are adjustable in length to accommodate 24-, 30-, and 36-in. depths.

2. Position the unit so that the main side plates of the unit rest on top of the support brackets mounted on the rack.
3. Lift the unit with a mechanical lifting device into the rack using the four eye bolts located on the top of the unit.
4. Slide the unit completely into the rack so that the front mounting ears rest against the vertical mounting uprights inside the rack.
5. Fasten the mounting to the rack using the hardware recommended by the manufacturer.
6. Locate and fasten the two cabinet frame dress filler plates to the rack uprights using the hardware recommended by the manufacturer.
7. Remove and discard the four eye bolts after the unit is secured to the rack.
8. Release the two latches on the front top corners of the unit and slide the unit out the front of the frame to the full extent of the slides.

**⇒ NOTE:**

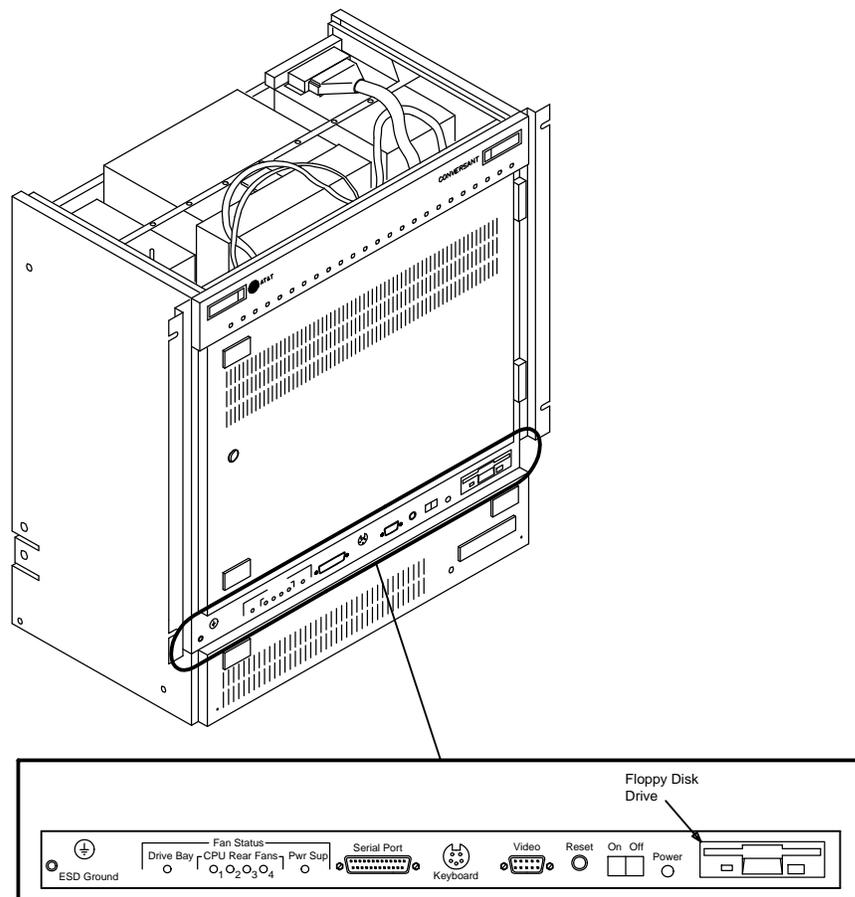
The unit should lock in place.

9. Install the cable restraint bar on the rear of the unit in the bottommost mounting holes (Figure 2-17).
10. Secure the cable restraint bar with two #10 screws.
11. From the front of the unit, release the slide latching mechanism on the sides of the two top slides while simultaneously pushing in on the unit.
12. Secure the unit into its mounting position with the two latches at the front top corners of the unit.

## **Key Components on the Front of the MAP/100C**

Use the following sections and diagrams to locate key components on the MAP/100C. For additional information describing the MAP/100C hardware, see the maintenance specific to your platform.

Figure 2-21 shows the front view of the MAP/100C. Table 2-11 provides a description of the components on the front of the MAP/100C.



**Figure 2-21. Front View of the MAP/100C**

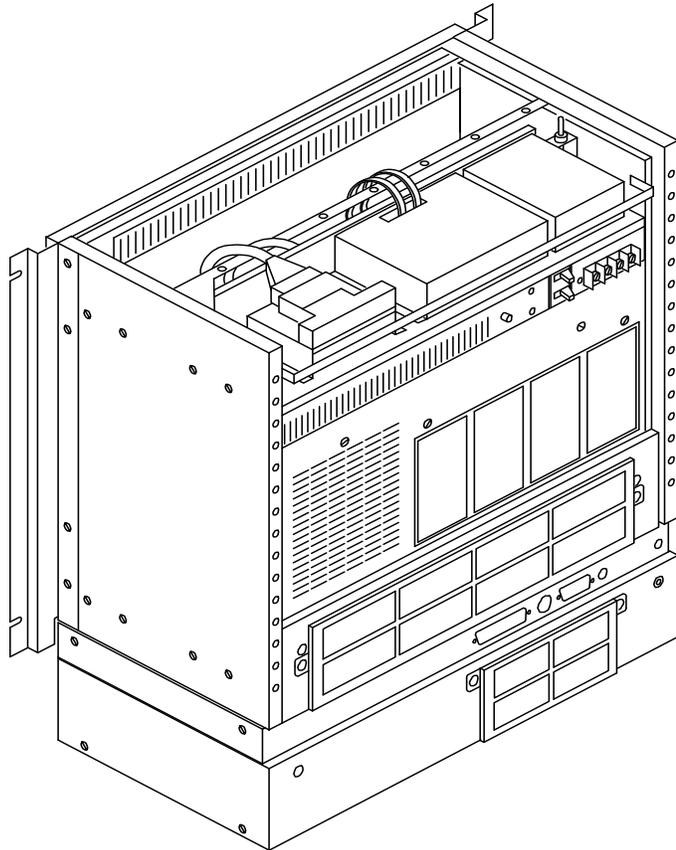
**Table 2-11. Components on the Front of the MAP/100C**

<b>Component</b>	<b>Location</b>	<b>Description</b>	<b>Function</b>
Front door	Upper middle section	Hinged on right; has latch fasteners	Covers the peripheral bay and card cage backplane
Keyboard receptacle	Lower center below front door	5-pin circular DIN female	Connects the keyboard to the MAP/100C
Video receptacle	Lower center below front door	15-pin high-density D subminiature female	Connects the monitor to the MAP/100C
Power switch	Lower right side below front door	Rocker switch	Turns the MAP/100C on and off
Reset button	Lower right side below front door	Recessed button	Resets the MAP/100C
Asynchronous port COM2	Lower center below front door	25-pin male D subminiature	Communicates with external devices
Power On indicator	Far lower right below front door	LED	Lights green when the power is on
Fan Status indicator (6)	Lower left below front door	LED	Lights green when the fan is working normally

### **Key Components on the Back of the MAP/100C**

Figure 2-22 shows the back view of the MAP/100C. Table 2-12 provides a description of the components on the back of the MAP/100C.

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**Figure 2-22. Back View of the MAP/100C**

**Table 2-12. Components on the Rear of the MAP/100C**

<b>Component</b>	<b>Location</b>	<b>Description</b>	<b>Function</b>
Fan panel access door	Lower center	Hinged on the bottom to swing downward	Covers the four rear cooling fans
Asynchronous port COM2	Lower center below the fan panel door	25-pin male D subminiature	Provides access to the CPU card
Keyboard receptacle	Lower center below the fan panel door to the right of COM2	5-pin circular DIN female	Connects a keyboard to the MAP/100C. You can connect only one keyboard at a time. Do not use for any other purpose.
Video connector	Lower right below the fan panel door to the right of the keyboard	15-pin female D subminiature	Connects the MAP/100C to a monitor. Do not use for any other purpose.
Reset button	Lower right below the fan panel door	Recessed button	Resets the MAP/100C
Circuit breakers	Upper right corner	Rocker switches	Turns incoming power to the MAP/100C on or off
Power On	Upper right corner next to the circuit breakers	LED	Lights green when the power is on
AC power inlet receptacle	Upper right corner, next to the circuit breakers (AC units)	Three-prong 110/220 V	Connects the MAP/100C to a power supply via a power cord
DC power terminal strip	Upper right corner, next to the circuit breakers (DC units)	Four screw lugs	Connects the MAP/100C to DC power via a -48 VDC dedicated line

## **MAP/100C Peripheral Drive Devices**

---

Table 2-13 provides descriptions and functions of the various drives on the MAP/100C. These devices are located in the peripheral bay behind the right front door.

**Table 2-13. MAP/100C Peripheral Bay Drives**

<b>Drive<sup>1</sup></b>	<b>Description</b>	<b>Function</b>
Cartridge tape	2.0-Gbyte SCSI	Backup and restore; loading the system
Floppy disk drive	3.5-inch, 1.44-Mbyte high density; located in control panel	System configuration; diagnostic testing
Hard disk	2.0-Gbyte SCSI	Storage for operating system, application software, and speech data
Hard disk(s) (optional)	2.0-Gbyte SCSI	Disk mirroring; storage

- 
1. These devices are subject to change. For the most current information on drives, call Access, the INTUITY CONVERSANT online bulletin board, at 1-800-242-6005
- 

## **Cooling System for MAP/100C**

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Seven cooling fans provide forced-air cooling for the MAP/100C. Two are located in the peripheral drive bay, and four are located in the rear. The seventh fan is located inside the power supply.

The fans maintain air flow in the unit to prevent components from overheating, which can cause a component to malfunction. To prevent overheating, you must also maintain adequate clearance around the unit so that air can circulate.

Continue with the following procedures below:

1. "Connecting the Monitor"
2. "Connecting the Keyboard"
3. "Connecting the Printer"

## **Connecting the Monitor**

---

This section describes how to make the connections between any platform and its monitor.

### **For the MAP/5P**

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The video cable connector and the power cable are required to connect the monitor to the MAP/5P. To connect the monitor cables, do the following:

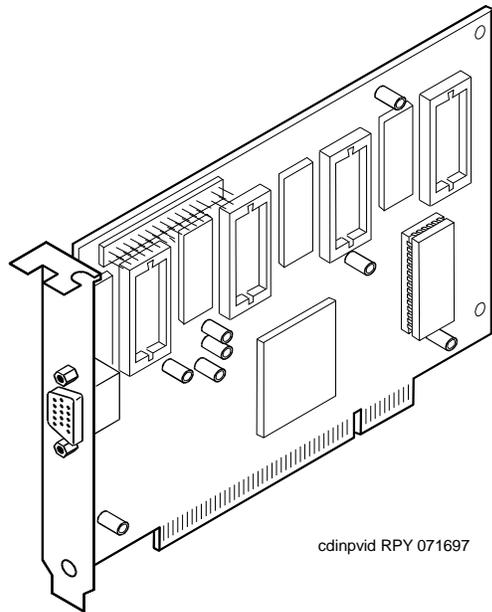
1. Plug the video cable connector from the monitor directly into the video connector located on the back of the MAP/5P. See Figure 2-3 for location of the video connector.
2. Tighten the thumb-screws on the video cable connector with your fingers or with a small flat-blade screwdriver.
3. Plug the female end of the power cable into the monitor.
4. Plug the male end of the power cable into a grounded outlet.

### **For the MAP/40P, MAP/100 and MAP/100C**

---

A power cable and a signal cable are required to connect the monitor to the MAP/40P, MAP/100, and MAP/100C.

Use the 15-pin, high-density D-subminiature female connector located on the video circuit card faceplate to connect to the monitor.



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**Figure 2-23. Video Circuit Card Cable Connector**

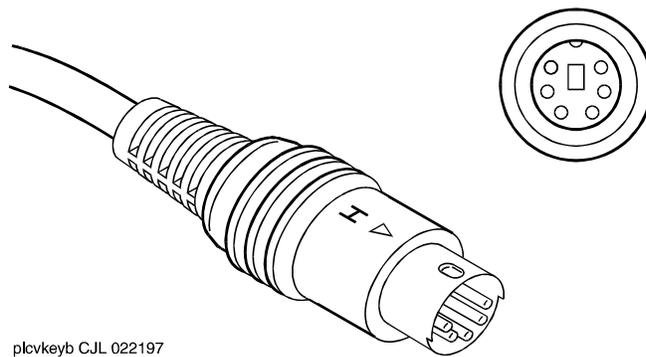
To connect the monitor cables, do the following:

1. Plug the video cable connector from the monitor directly into the video connector located on the faceplate of the video controller circuit card. See Figure 2-7 for MAP/40P video connector location.
2. Tighten the thumbscrews on the video cable connector with your fingers or with a small flat-blade screw driver.
3. Match the ends of the power cable to the monitor first and then to a grounded outlet.
4. Plug the female end of the cable into the monitor and the male end into the grounded outlet.

## Connecting the Keyboard

---

The following information is valid for all platforms (MAP/5P, MAP/40P, MAP/100, and MAP/100C). A 6-pin, female DIN receptacle is located in the rear of the computer. The male plug is provided with the keyboard. The connector assembly is keyed to provide proper alignment. Figure 2-24 shows the receptacle and plug.



---

**Figure 2-24. Circular DIN 6-Pin Connector for the Keyboard**

## Keyboard Pinouts

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Table 2-14 shows pinouts for the DIN receptacles for keyboard connection. These receptacles are on the front and rear of the computer.

**Table 2-14. Pinout Connections for the Keyboard**

---

Pin No.	Signal
1	Clock
1	Data
3	Reset
4	Ground
5	+5 Volts

---

## Connecting the Printer

---

A 25-pin D-subminiature female receptacle provides a parallel printer interface.

Lucent Technologies recommends and supports the Okidata 320 printer for connection to the system. Use the instructions supplied in the manufacturer's manual, *Users' Guide Okidata 320 Printer*, or the manual provided with your printer to unpack and install your printer. The following installation overview supplements the information provided in the printer guide.

1. Unpack your printer according to the steps provided in the printer guide.
2. Install the ribbon cassette and paper as shown in your printer guide.
3. Ensure that the ON-OFF switch of the printer is OFF.
4. Set the options as described in your printer guide.



**NOTE:**

The INTUITY™ CONVERSANT® system works with the default settings for the 320 printer.

5. Connect the AC power cable to your printer.
6. If your printer has a self-test feature, plug the AC power cable into a grounded wall outlet and initiate the self test by following the instructions in the printer guide. When the self-test is completed, turn the printer off and disconnect the power cable from the wall outlet.  
  
If your printer does not have a self-test feature, skip this step. Continue with Step 7.
7. Insert the male end of your cable into the 25-pin female parallel port connector.
8. Fasten the screws.
9. Insert the other end of your cable to the parallel port on your printer.
10. Depending on your type of printer connection, either tighten the thumb-screws or press the two wire-retaining clips together until you hear them click into the lock slots on either side of the plug.
11. Plug the AC power cable into a grounded wall outlet.

## Printer Pinouts

---

Table 2-15 shows pinouts for the 25-pin D-subminiature connector for printer connection.

**Table 2-15. Pinout Connections for a Printer**

Pin No.	Description	Pin No.	Description
1	- Strobe	10	- Acknowledge
2	+ Data Bit 0	11	+ Busy
3	+ Data Bit 1	12	+ Paper Feed
4	+ Data Bit 2	13	+ Select
5	+ Data Bit 3	14	- Auto Feed
6	+ Data Bit 4	15	- Error
7	+ Data Bit 5	16	- Init. Printer
8	+ Data Bit 6	17	- Select Printer
9	+ Data Bit 7	18	Ground

---

## Configuring a Local Parallel Printer

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Lucent Technologies supports the following two parallel printers for connection to the system:

- Okidata 320
- Okidata Laser

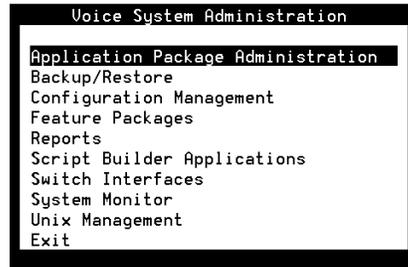
Contact your local Lucent Technologies representative if you want to connect a serial printer to the system.

## Configuring the Okidata 320 Printer

To configure the Okidata 320 printer, do the following:

1. Log in as root.
2. Enter **cvis\_menu**

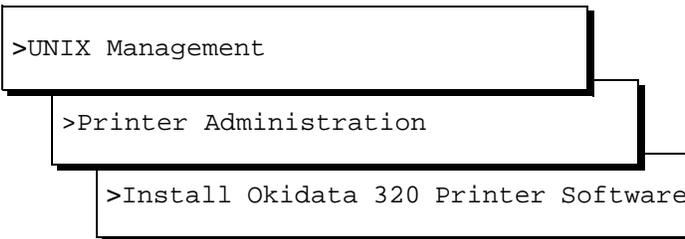
The system displays the Voice System Administration menu (Figure 2-25).



---

**Figure 2-25. Voice System Administration menu**

3. Select



4. Press **[ENTER]**.
5. Press **[F3]** (Save).
6. Press **[F6]** (Cancel) until you return to the Voice System Administration menu. (Figure 2-25).

### **Configuring the Okidata Laser Printer**

To configure the Okidata Laser printer, do the following:

1. Log in as root.
2. Enter **cvis\_menu**

The system displays the Voice System Administration menu (Figure 2-25).

3. Select

```
> Voice System Administration
  >UNIX Management
    >Printer Administration
      >Install Okidata Laser Printer Software
```

4. Press **ENTER**.
5. Press **F3** (Save).
6. Press **F6** (Cancel) until you return to the Voice System Administration menu. (Figure 2-25).

---

# Making Cable Connections and Power-Up the System

# 3

---

## Overview

The system supports circuit cards (Table 3-1) that provide various functions. These circuit cards include video controls, peripheral controls, communication controls, central processing unit (CPU), and Tip/Ring.

**Table 3-1. Number of Circuit Cards**

<b>Platform</b>	<b>Number of circuit cards supported</b>	<b>Location</b>
MAP/5P	Up to 7	Circuit card cage in the riser card and accessible from the back.
MAP/40P	Up to 12	Circuit card cage in backplane positions 1 through 12.
MAP/100	Up to 25	Circuit card cage in backplane slot positions 1 through 25.
MAP/100C	Up to 25	Circuit card cage in backplane slot positions 1 through 25.

Circuit cards are placed in the system in locations called *slots*. This chapter serves as an introduction to connecting cables to the faceplates of circuit cards that are installed in the system. It also includes general steps for making cable connections, but additional steps may be required for some cable connections.

See Appendix B, "Cable Connectivity", for more detailed information.

## **Purpose**

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The chapter provides the information to make cable connections and to power-up the system installation successfully.

## **Connecting the Tip/Ring Circuit Card**

---

The Tip/Ring circuit cards (Table 3-2) provide the channels used by the INTUITY™ CONVERSANT® system. There are six channels on each Tip/Ring circuit card.

**Table 3-2. Tip/Ring Circuit Cards Supported**

<b>Platform</b>	<b>Tip/Ring circuit cards supported</b>	<b>Number supported</b>
MAP/5P	<ul style="list-style-type: none"> <li>■ IVP6-IA (AYC26)</li> <li>■ IVC6 (AYC10)</li> <li>■ NGTR (AYC30)</li> </ul>	Up to four
MAP/40P	<ul style="list-style-type: none"> <li>■ IVP6-IA (AYC26)</li> <li>■ IVC6 (AYC10)</li> <li>■ NGTR (AYC30)</li> </ul>	Up to seven
MAP/100	<ul style="list-style-type: none"> <li>■ IVP6-IA (AYC26)</li> <li>■ IVC6 (AYC10)</li> <li>■ NGTR (AYC30)</li> </ul>	Up to seven
MAP/100C	<ul style="list-style-type: none"> <li>■ IVP6-IA (AYC26)</li> <li>■ IVC6 (AYC10)</li> <li>■ NGTR (AYC30)</li> </ul>	Up to seven

The Tip/Ring circuit cards use two 6-pin-conductor modular cords. These cords provide three lines for telephone hook-up. You can connect the Tip/Ring circuit card to telephone lines in one of three ways:

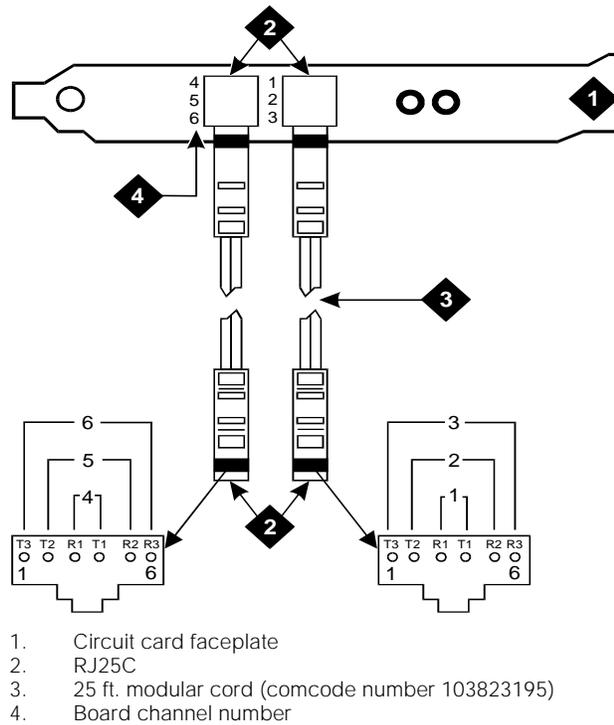
- Direct cable connection from the circuit card to the telephone line
- Cable connection from the circuit card through a line splitter and then to the telephone line
- Cable connection using a Tip/Ring distribution panel to the telephone line for use with the MAP/40P, MAP/100, and MAP/100C

### **Direct Cable Connection**

---

When you use a two-conductor modular cord to make a direct connection from either of the two Tip/Ring circuit card jacks to the telephone line, only line 1 or line 4 of the three telephone lines is connected.

Figure 3-1 shows a typical direct Tip/Ring line connection for the AYC10 (IVC6) Tip/Ring circuit card.

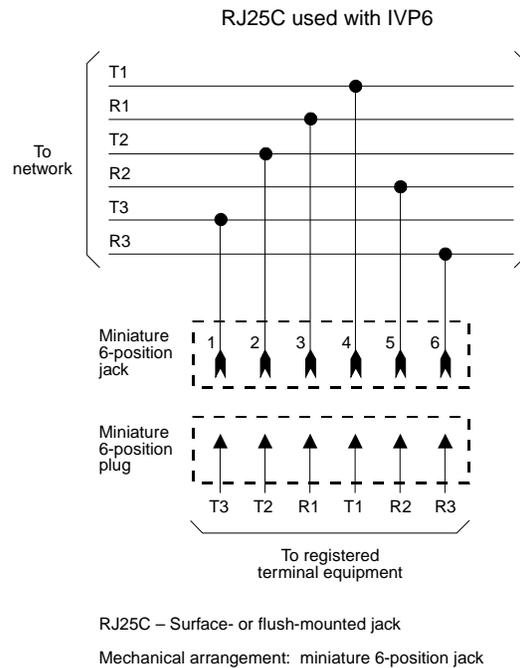


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**Figure 3-1. Direct Line Connection from AYC10 (IVC6) Tip/Ring Circuit Card**

## Pinouts for the Tip/Ring Circuit Card

Figure 3-2 shows typical Tip/Ring line connection for the IVC6 circuit card.



**Figure 3-2. Wiring and Pin Diagram for the IVC6 Tip/Ring Card**

## Cable Connection Using a Line Splitter

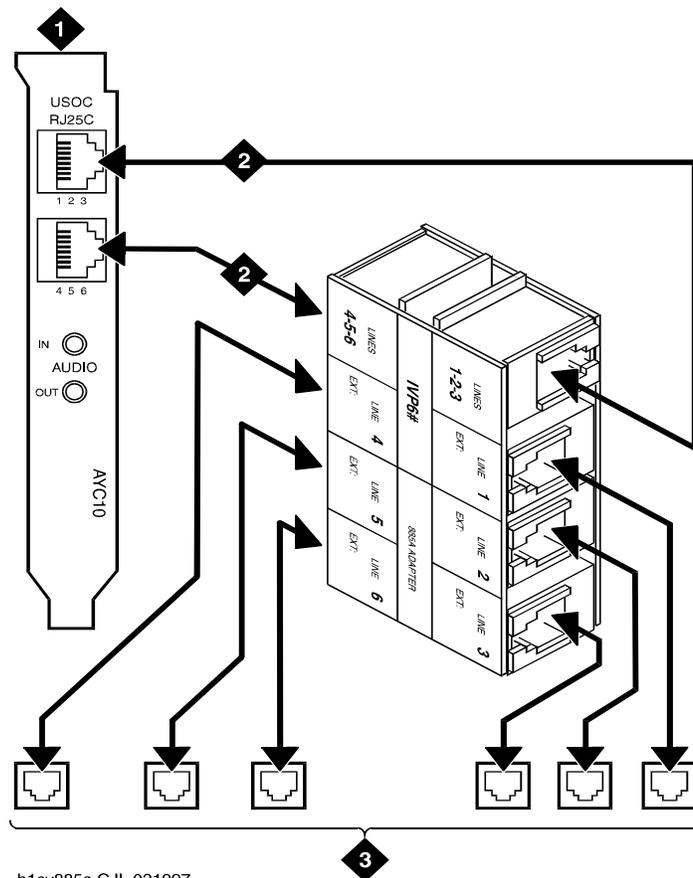
Adapters or line splitters enable you to use multiple channels in modular cords.

### 885A Adapter

Using the 885A adapter or line splitter (Figure 3-3) to connect the IVC6 Tip/Ring circuit card to the telephone line enables you to use all three channels in the 6-pin conductor modular cord.

**NOTE:**

Be sure to record the circuit card slot number and telephone extension numbers on the adapter.



h1cv885a C JL 031997

1. AYC10 faceplate
2. Interconnects RJ25C between AYC10 and 885A adapter
3. Connect to RJ11 on customer premise equipment

**Figure 3-3. How to Use the 885A Adapter with a Tip/Ring Circuit Card**

### 356B Adapter

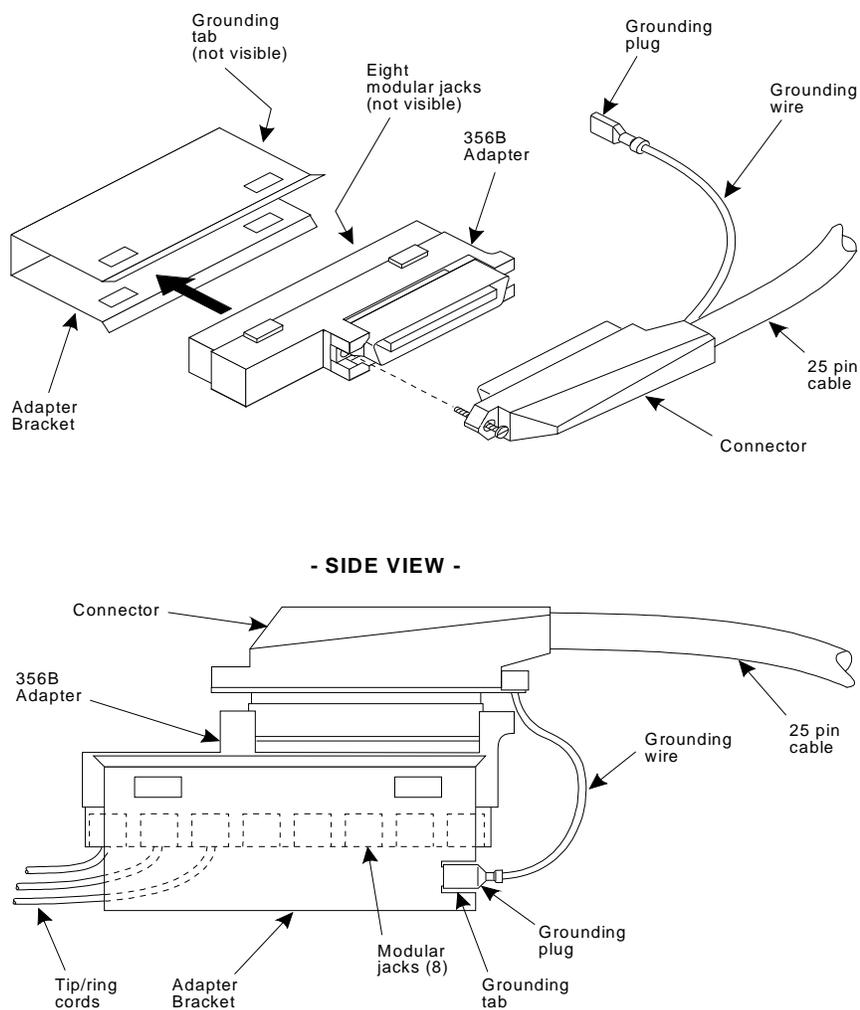
Using the 356B adapter or line splitter (Figure 3-4) to connect the IVC6 Tip/Ring circuit card to the telephone line enables you to use eight 6-pin conductor modular cords.

**NOTE:**

Be sure to record the circuit card slot number and telephone extension numbers on the adapter.

**NOTE:**

The 356B adapter is not used with the MAP/5P.



**Figure 3-4. How to Use the 356B Adapter with a Tip/Ring Circuit Card**

### **Cable Connection Using the Tip/Ring Distribution Panel**

The Tip/Ring distribution panel (Figure 3-5) is located on the back of the MAP/40P, MAP/100, and MAP/100C. This panel allows you to connect a maximum of 42 channels (up to seven Tip/Ring circuit cards).

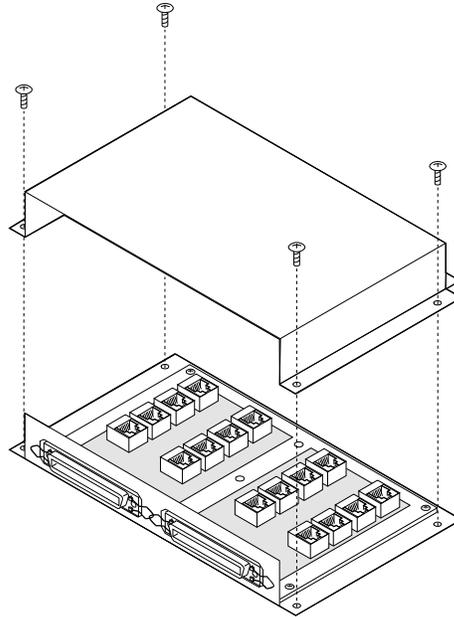
Table 3-3 provides the numbering scheme for connecting the short modular cords provided with the Tip/Ring cards to the panel. Use this information, the channel numbers on the Tip/Ring circuit cards, and the number of Tip/Ring

circuit cards in the system to connect the Tip/Ring circuit card modular jacks to the appropriate jacks on the Tip/Ring distribution panel.

**⇒ NOTE:**

The Tip/Ring distribution panel is not used with the MAP/5P.

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---

**Figure 3-5. Tip/Ring Distribution Panel**

To connect the panel:

1. Insert the modular cord into the appropriate jack.
2. Remove any slack in the cable on the back of the unit by dressing it so that it is stored in the area above the distribution panel.

**⇒ NOTE:**

Use cable ties, if necessary, to dress the cables neatly.

3. Make telephone line connections to the computer with the 25-foot 50-conductor shielded cable(s) equipped with USOC RJ21X connections.

**Table 3-3. Connections from the Tip/Ring Circuit Cards to the Tip/Ring Distribution Panel**

<b>Tip/Ring Circuit Card</b>	<b>Channel Numbers on the Tip/Ring Circuit Card</b>	<b>Jack Numbers on the Panel</b>
1st	1, 2, 3	J1
	4, 5, 6	J2
2nd	1, 2, 3	J3
	4, 5, 6	J4
3rd	1, 2, 3	J5
	4, 5, 6	J6
4th	1, 2, 3	J7
	4, 5, 6	J8
5th	1, 2, 3	J9
	4, 5, 6	J10
6th	1, 2, 3	J11
	4, 5, 6	J12
7th	1, 2, 3	J13
	4, 5, 6	J14
8th	1, 2, 3	J15
	4, 5, 6	J16

Table 3-4 shows the numbering scheme for connecting the short modular cords provided with the Tip/Ring cards to the Tip/Ring distribution panel.

**Table 3-4. Tip/Ring Consolidation Wiring and Pinouts**

Channel No.	From			To		50-Pin Connector	
	IVC6 Card No.	Jack No.	Pin No.	Jack No.	Pin No.	T or R	Pin No.
1	1	1	3	1	4	R1	1
	1	1	4	1	5	T1	26
2	1	1	2	1	3	T2	27
	1	1	5	1	6	R2	2
3	1	1	1	1	2	T3	28
	1	1	6	1	7	R3	3
4	1	2	3	2	4	R4	4
	1	2	4	2	5	T4	29
5	1	2	2	2	3	T5	30
	1	2	5	2	6	R5	5
6	1	2	1	2	2	T6	31
	1	2	6	2	7	R6	6
7	2	1	3	3	4	R7	7
	2	1	4	3	5	T7	32
8	2	1	2	3	3	T8	33
	2	1	5	3	6	R8	8
9	2	1	1	3	2	T9	34
	2	1	6	3	7	R9	9
10	2	2	3	4	4	R10	10
	2	2	4	4	5	T10	35
11	2	2	2	4	3	T11	36
	2	2	5	4	6	R11	11
12	2	2	1	4	2	T12	37
	2	2	6	4	7	R12	12

*Continued on next page*

**Table 3-4. Tip/Ring Consolidation Wiring and Pinouts — Continued**

Channel No.	From			To		50-Pin Connector	
	IVC6 Card No.	Jack No.	Pin No.	Jack No.	Pin No.	T or R	Pin No.
13	3	1	3	5	4	R13	13
	3	1	4	5	5	T13	38
14	3	1	2	5	3	T14	39
	3	1	5	5	6	R14	14
15	3	1	1	5	2	T15	40
	3	1	6	5	7	R15	15
16	3	2	3	6	4	R16	16
	3	2	4	6	5	T16	41
17	3	2	2	6	3	T17	42
	3	2	5	6	6	R17	17
18	3	2	1	6	2	T18	43
	3	2	6	6	7	R18	18
19	4	1	3	7	4	R19	19
	4	1	4	7	5	T19	44
20	4	1	2	7	3	T20	45
	4	1	5	7	6	R20	20
21	4	1	1	7	2	T21	46
	4	1	6	7	7	R21	21
22	4	2	3	8	4	R22	22
	4	2	4	8	5	T22	47
23	4	2	2	8	3	T23	48
	4	2	5	8	6	R23	23
24	4	2	1	8	2	T24	49
	4	2	6	8	7	R24	24
25	5	1	3	1	4	R25	1
	5	1	4	1	5	T25	26

*Continued on next page*

**Table 3-4. Tip/Ring Consolidation Wiring and Pinouts — Continued**

Channel No.	From			To		50-Pin Connector	
	IVC6 Card No.	Jack No.	Pin No.	Jack No.	Pin No.	T or R	Pin No.
26	5	1	2	1	3	T26	27
	5	1	5	1	6	R26	2
27	5	1	1	1	2	T27	28
	5	1	6	1	7	R27	3
28	5	2	3	2	4	R28	4
	5	2	4	2	5	T28	29
29	5	2	2	2	3	T29	30
	5	2	5	2	6	R29	5
30	5	2	1	2	2	T30	31
	5	2	6	2	7	R30	6
31	6	1	3	3	4	R31	7
	6	1	4	3	5	T31	32
32	6	1	2	3	3	T32	33
	6	1	5	3	6	R32	8
33	6	1	1	3	2	T33	34
	6	1	6	3	7	R33	9
34	6	2	3	4	4	R34	10
	6	2	4	4	5	T34	35
35	6	2	2	4	3	T35	36
	6	2	5	4	6	R35	11
36	6	2	1	4	2	T36	37
	6	2	6	4	7	R36	12
37	7	1	3	5	4	R37	13
	7	1	4	5	5	T37	38
38	7	1	2	5	3	T38	39
	7	1	5	5	6	R38	14

*Continued on next page*

**Table 3-4. Tip/Ring Consolidation Wiring and Pinouts — Continued**

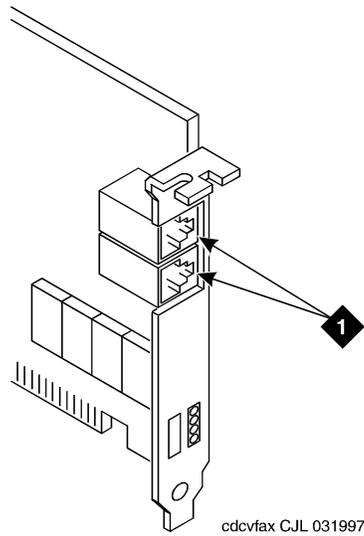
Channel No.	From			To		50-Pin Connector	
	IVC6 Card No.	Jack No.	Pin No.	Jack No.	Pin No.	T or R	Pin No.
39	7	1	1	5	2	T39	40
	7	1	6	5	7	R39	15
40	7	2	3	6	4	R40	16
	7	2	4	6	5	T40	41
41	7	2	2	6	3	T41	42
	7	2	5	6	6	R41	17
42	7	2	1	6	2	T42	43
	7	2	6	6	7	R42	18

## Connecting FAX Lines

The system, for all platforms, supports one fax circuit card. This fax circuit card provides four dedicated analog ports.

The fax circuit card includes two RJ-45 telephone jacks (Figure 3-6). The top jack accesses lines 0 and 1. The bottom jack accesses lines 2 and 3.

The cable splitters, which are included with the fax circuit card, connect the channels to single-pair wiring. To use only one or two lines of the circuit card, plug a single-pair RJ-11 cord into the top jack to access line 0. Plug a single-pair RJ-11 cord into the bottom jack to access line 2.



1. Modular jacks

**Figure 3-6. Fax Circuit Card Connector**

The pinouts for the top and bottom telephone jacks are identical and are configured as shown in Table 3-5.

**Table 3-5. Telephone Jack Pinouts on the FAX Circuit Card**

RJ-45 Pin	PJ1	PJ2
8	NC	NC
7	NC	NC
6	Ring 1	Ring 3
5	Ring 0	Ring 2
4	Tip 0	Tip 2
3	Tip 1	Tip 3
2	NC	NC
1	NC	NC

## Connecting Asynchronous Devices

---

There are two ways to connect the computer to a terminal, modem, or other DTE or DCE device via an asynchronous link:

- Using COM1.
- Using the additional asynchronous ports on the 8-port asynchronous circuit card.

### NOTE:

The computer provides two asynchronous ports, COM1 and COM2. However, COM2 is reserved for remote maintenance by Lucent Technologies personnel and is not available for asynchronous connections.

## Using COM1

---

A 9-pin D subminiature male connector is provided on the rear panel of the computer for COM1. This connector connects internally to the CPU. COM1 supports asynchronous host connections running at 300-19,200 baud. Networking modems typically use the 19,200 baud rate.

## COM1 Pinouts

Table 3-6 lists the pinouts for the COM1 asynchronous port on the rear of the computer.

**Table 3-6. . COM1 Pinouts**

---

Pin No.	Signal	Signal
1	Data Carrier Detect (DCD)	Input
2	Receive Data (RX)	Input
3	Transmit Data (TX)	Output
4	Data Terminal Ready (DTR)	Output
5	Signal Ground (GND)	Bidirectional
6	Data Set Ready (DSR)	Output
7	Request to Send (RTS)	Output
8	Clear to Send (CTS)	Input
9	Ring Indicator (RI)	Input

---

### **Using the 8-Port Asynchronous Circuit Card**

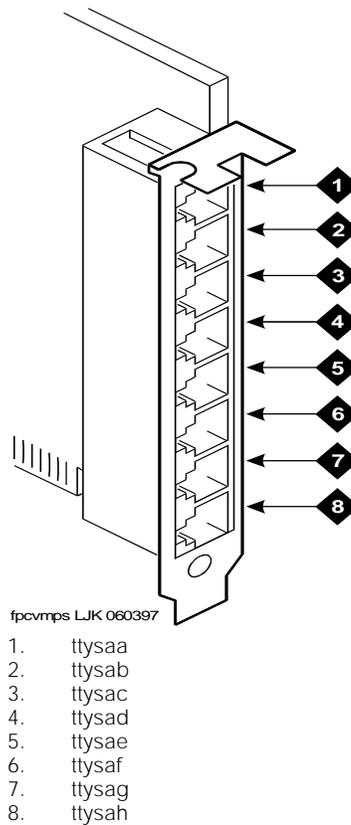
The optional 8-port asynchronous circuit card provides eight additional asynchronous ports for connecting to modems, terminals, or switch integration devices.

**⇒ NOTE:**

Each port has a maximum of 9600 Baud rate.

### **8-Port Asynchronous Circuit Card**

Figure 3-7 shows the 8-port asynchronous circuit card connector.



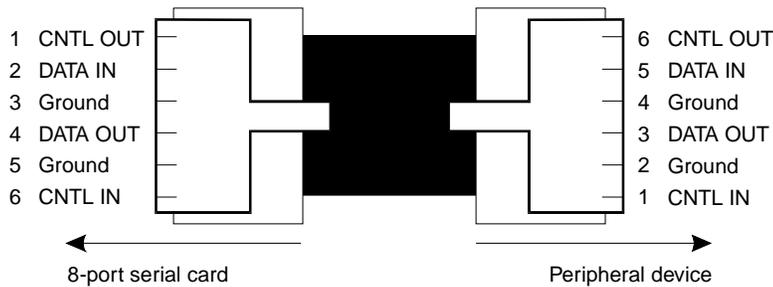
---

**Figure 3-7. 8-Port Asynchronous Circuit Card Connector**

Follow the instructions provided with the device(s) you are installing for connection and setup.

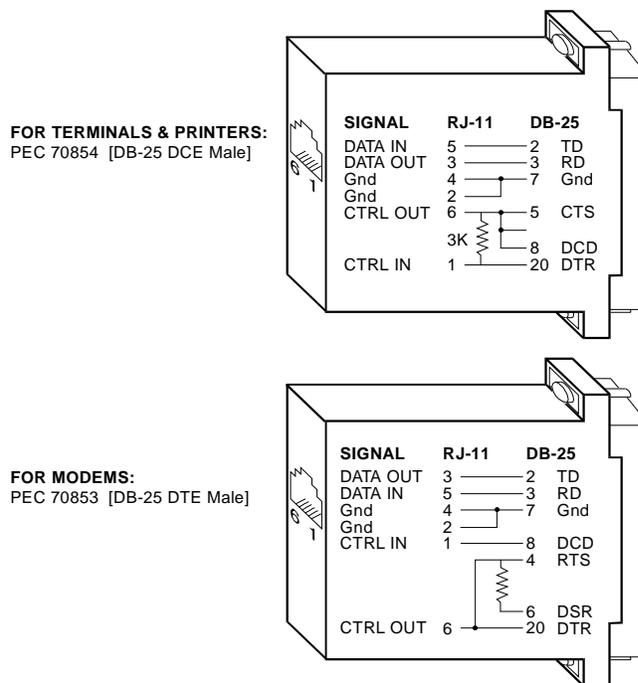
### 8-Port Asynchronous Circuit Card Pinouts

Figure 3-8 shows pinouts for the modular jacks on the 8-port asynchronous circuit card.



**Figure 3-8. Pinout Connections for Modular Jacks on the 8-Port Asynchronous Circuit Card**

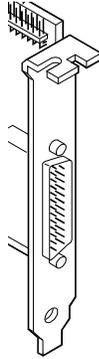
Figure 3-9 shows pinouts for the terminal/printer or modem adapters.



**Figure 3-9. Pinout Connections for DTE or DCE Devices**

### **Connecting the FIFO/SIB Synchronous Host**

The system supports one FIFO/SIB synchronous host circuit card on the MAP/5P and up to two FIFO/SIB synchronous host circuit cards on the MAP/40P, MAP/100 and MAP/100C. Figure 3-10 displays the FIFO/SIB synchronous host circuit card connector.



---

**Figure 3-10. FIFO/SIB Synchronous Host Circuit Card Connector**

### **Host Cable Specifications**

Data links between the platform and the host computer are made using a shielded RS-232 cable. This cable extends from the Synchronous Host circuit card port on the rear of the chassis and connects to host equipment.

**⇒ NOTE:**

All cables should be shielded. You should use limited-distance modems when data links exceed 100 ft.

## Connecting the LAN Circuit Card

---

The INTUITY CONVERSANT system supports PCI Ethernet LAN circuit cards. The type of cable you use to connect the Ethernet LAN circuit card to the customer's LAN depends on the connection already in use for the LAN. This cable connection can be one of three types:

- Thin Ethernet (BNC)
- Thick Ethernet (AUI)
- 8-pin modular connector (Tbase or twisted pair)

**⚠ CAUTION:**

*Do NOT cable the Ethernet LAN circuit card before you power up. Doing so can disturb the customer's existing LAN.*

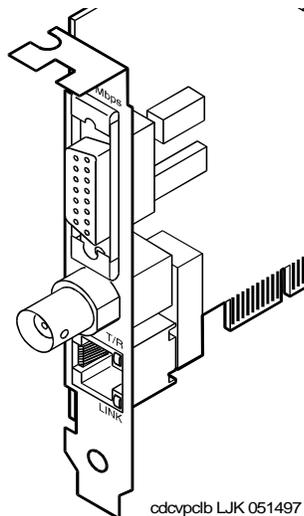
The system supports two versions of the PCI Ethernet LAN circuit card:

- SMC8432
- SMC9332

### SMC8432 Circuit Card

---

The SMC8432 Ethernet LAN circuit card is a 10-Mbps circuit card. Figure 3-11 shows the SMC8432 Ethernet LAN circuit card connector.



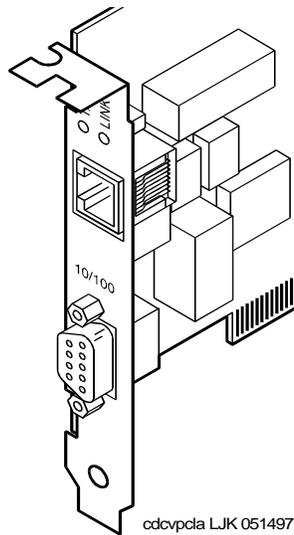
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**Figure 3-11. SMC8432 Ethernet LAN Circuit Card Connector**

### **SMC9332 Circuit Card**

---

The SMC9332 Ethernet LAN circuit card is a 10/100-Mbps circuit card. Figure 3-12 shows the SMC9332 Ethernet LAN circuit card connector.



---

**Figure 3-12. SMC9332 Ethernet LAN Circuit Card Connector**

## **Connecting Standard Circuit Cards**

---

**⚠ CAUTION:**

*Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground.*

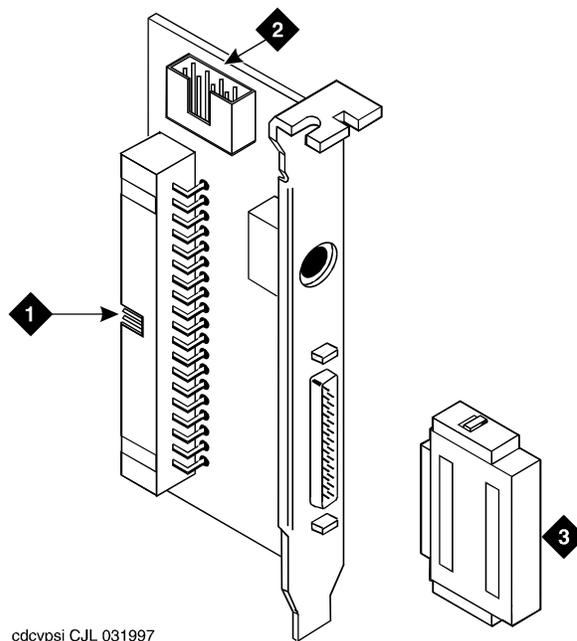
This section provides the cable connectivity information for the CPU circuit cards that are included with every system.

### **External SCSI Connector Circuit Card**

---

The external SCSI connector circuit card (Figure 3-13) provides an external SCSI connector and an active termination for the SCSI bus. There is only one external SCSI connector circuit card installed on the system. It resides in the faceplate.

---



cdcupsi CJL 031997

1. External SCSI interface connector
2. Mouse interface connector
3. External SCSI terminating resistor module

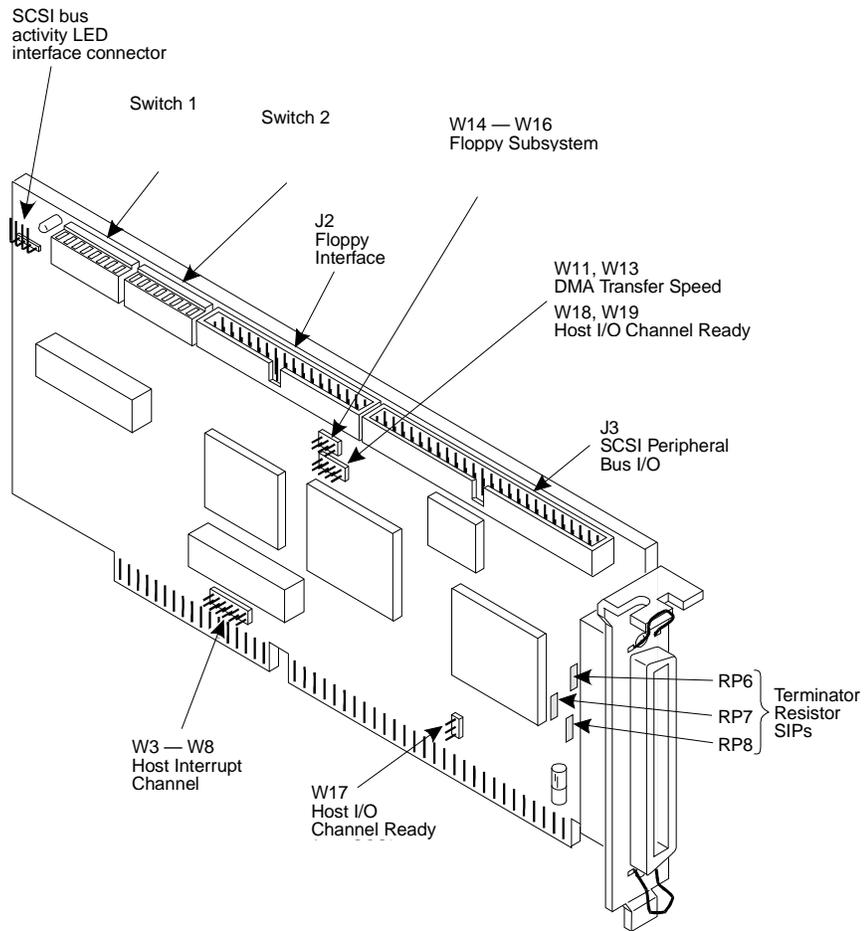
---

**Figure 3-13. External SCSI Connector Circuit Card and Terminating Resistor Module**

The terminating resistor module requires considerable force to insert. Insert it into the external SCSI adaptor before installing the adaptor. This allows you to examine and straighten the faceplate, if necessary, so that electromagnetic compatibility will be maintained (FCC Part 15). The terminating resistor must remain on the external SCSI connector circuit card whenever the system is in operation.

### SCSI Host Adapter Controller Card

If your system is a MAP/100C, it supports the 486 CPU circuit card. You must use the SCSI host adapter controller card (Figure 3-14).

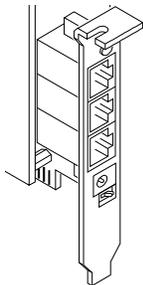


**Figure 3-14. SCSI Host Adapter Controller Card**

### **Remote Maintenance Circuit Card**

---

The remote maintenance circuit card enables remote diagnostics of basic system components (Figure 3-15). There is one remote maintenance circuit card installed on the system.



---

**Figure 3-15. Remote Maintenance Circuit Card Connector**

### **Digital Connections for MAP/40P, MAP/100, and MAP/100C**

---

A digital T1 (E&M) or E1 (CAS) circuit (trunk) allows the system to connect to digital network facilities such as a central office (CO) switch. Digital connections between a DEFINITY® switch and the system can be through PRI, T1 (E&M), E1 (CAS), line-side T1, or line-side E1.

E1 or LSE1 reduces the required hardware to only one E1 circuit card (and part of an SP or SSP circuit card). T1 or LST1 requires one T1 circuit card (and part of an SP or SSP circuit card) per 24 channels of digital service. Two T1 circuit cards and one SP circuit card provides 48 voice channels.

The AYC21 circuit card may be used for either E1 or T1 services. The AYC3B and AYC11 circuit cards on the MAP/100 and MAP/100C are used only for T1 services.

### **Central Office Connection—T1 Circuit Cards**

---

The system supports the AYC21 T1/E1 circuit cards. The MAP/100 and MAP/100C also support the AYC11 and AYC3B T1 circuit cards.

You can connect the E1/T1 or the T1 circuit card to the standard T1 carrier directly to a DS1 terminal block or through the following types of customer premise equipment:

- Channel service unit (CSU)
- Automatic call distributor (ACD)
- Private branch exchange (PBX)

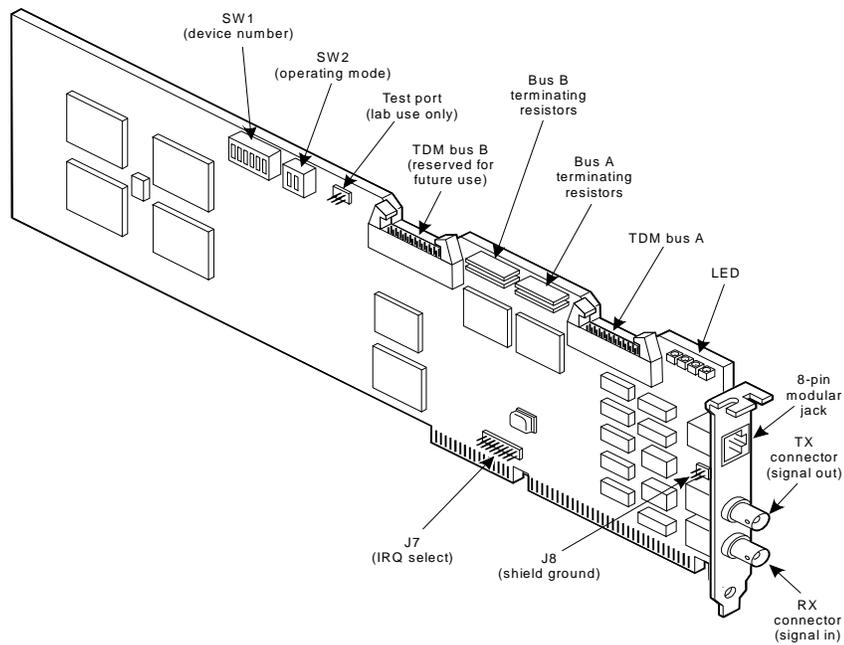
You *must* use a CSU if any of the following situations applies to your system setup:

- The system is more than 200 meters (655 ft.) from the signal source. The signal source may be a DSX or the last T1 repeater. In this case, the CSU regenerates the received signal and properly attenuates the transmitted signal to prevent crosstalk.
- The system is terminating the T1 trunk from outside the building. In this situation, the CSU provides the primary lightning and surge protection as required by FCC Part 68.
- The T1 loop is powered by either 110 VAC or +24 or -48 VDC sources.
- You want to use the remote loopback or extended super frame maintenance features. In this case, the CSU recognizes the in-band bit patterns that signal it to loop back the incoming signal or to perform other maintenance functions.

### **Connecting T1 Circuit Cards to a CSU**

On some types of CSUs, the connector on the T1 cable plugs into the AYC21, AYC3B, or AYC11 circuit card and the cable terminates at a 15-pin D subminiature connector to the CSU.

On other types, you must cut off the CSU connector and slide latch and strip and connect the wires. Figure 3-16 displays the AYC21 circuit card connection.



**Figure 3-16. AYC21 Circuit Card Connection**

The information below applies to cables used to connect to the AYC11 and AYC3B circuit cards on the MAP/100 and MAP/100C:

- Orange = our T1 = signals to the system and should connect to a CSU or Network "T"
- White/Orange = our R1 = signals to the system and should connect to a CSU or Network "R"
- Green = our T = signals from the system and should connect to a CSU or Network "T1"
- White/Green = our R= signals from the system and should connect to a CSU or Network "R1"

## Powering Up the System

Verify the intake voltage before you power up the system. Use the references in Table 3-7 to verify that the computer will accommodate the appropriate intake voltage:

**Table 3-7. Intake Voltages**

<b>Platform</b>	<b>International VAC/Hz</b>	<b>United States VAC/Hz</b>
MAP/5P	115/60 Check label (To change, use selector switch on rear of unit)	220/50 Check label (To change, use selector switch on rear of unit)
MAP/40P	115/60 Auto sense	230/50 Auto sense
MAP/100	115/60 Check label (To change, use selector switch on rear of unit)	220/50 Check label (To change, use selector switch on rear of unit)
MAP/100C	115/60 Check label (To change, use selector switch on rear of unit)	220/60 Check label (To change, use selector switch on rear of unit)

## Connecting the System to the AC Power Supply

Complete the following procedure to ensure that the system is connected properly to the power outlet and is receiving power.

**⇒ NOTE:**

You must provide a dedicated line for the chassis.

1. Plug one end of the power cord into the AC power supply input on the back panel of the unit.
2. Use a cable tie to attach the power cord to the grillwork at the rear of the computer.

**⇒ NOTE:**

Allow some slack in the power cord when using the cable tie.  
Do not stretch the power cord.

3. Plug the other end of the power cord into the designated power outlet.
4. Place the power switch for the monitor in the ON position.

5. Turn on the power switch on the front of the unit.
  - The green LED power indicator on the front of the unit comes on and resident diagnostics are initiated on the monitor.
  - A green or amber lamp on the front bottom, screen-base area of the monitor also comes on.



**NOTE:**

If the monitor lamp does not come on or if diagnostics do not initiate on the monitor screen, recheck the power connections. For more information on the power supply requirements, see "System Installation Checklist", and "Power Requirements" in Chapter 1, "Getting Started".

---

# Complete System Installation

# 4

---

## Overview

---

This chapter contains procedures for connecting peripherals and powering up. These procedures include:

- Register your system
- Connect a modem
- View controlled applications
- Verify INTUITY™ CONVERSANT® feature options
- Activate alarm origination
- Back up the system

## Purpose

---

The purpose of this chapter is to complete the system installation by providing procedures to ensure that:

- View controlled applications
- Verify feature options installed on the computer
- Ensure that the system is fully operational

## **Registering Your System**

---

Before you configure your modem, call your remote support center to register your system. When you call have the following information available:

- The serial number of your computer (from the chassis)
- Your order number information (from the factory work order)
- The telephone number you will use for your remote maintenance modem

## **Connecting a Modem**

---

A modem connects:

- To the 8-port asynchronous circuit card or COM1 to enable remote access
- To COM2 to enable remote login for Lucent Technologies' maintenance
- Between a remote terminal and the network at a remote site

The Paradyne 3820 and U.S. Robotics are the only modems supported for connection to the COM2 port. The COM2 port is reserved for Lucent Technologies' remote maintenance. The 7400A data module connects to COM1 or to any of the eight ports on the 8-port asynchronous circuit card.

## **Connecting the 3820 and U.S. Robotics Modems**

---

The Paradyne 3820 and the U.S. Robotics modems are the only modems supported for connection to COM2. COM2 is reserved for Lucent remote maintenance. Complete the procedures in this section to install the 3820 modem.

## **Connecting the 3820 Modem to the Platform**

To connect the 3820 modem to the hardware platform:

1. Connect a 9-to 25-pin adapter to the 9-pin COM2 port.
2. Use a 25-to 8-pin adapter to complete the connection between the 9-pin COM2 port and the 8-pin modular cable that comes with the 3820 modem. Connect the 9-to 25-pin adapter to the 25-8 pin adapter and then connect the 25-8 pin adapter to the 8-pin modular cable.
3. Plug the 8-pin modular cable into the 3820 modem.

Once connected, RTS, CTS, and LSD on the 3820 modem should be on.

### **⇒ NOTE:**

If you are using the modem for anything other than remote maintenance, use the RS-232 adapter marked as DTE and the six-pin cable to connect to the ports (ttysaa, etc.) on the Multi-port Serial circuit card and the 3820 modem.

## Connecting the U.S. Robotics Modem to the Platform

To connect the U.S. Robotics modem to the hardware platform:

1. Connect one end of a 9-to 25-pin cable to the 9-pin COM2 port on the chassis.
2. Connect the other end of the 9-to 25-pin cable to the U.S. Robotics modem.

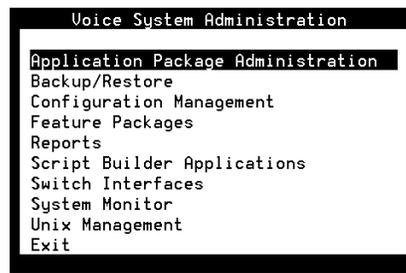
Once connected, AA, TR, and CS on the U.S. Robotics modem should be on.

## Configuring the Modem

---

To configure a modem, do the following:

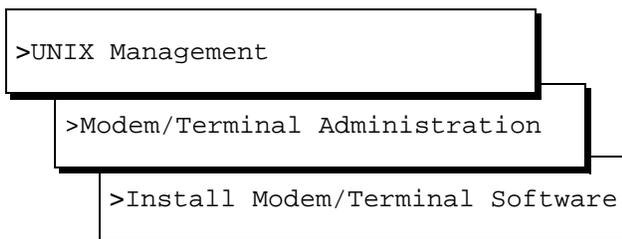
1. Log in as root.
2. Enter **cvvis\_menu**
3. The system displays the Voice System Administration menu (Figure 4-1).



---

**Figure 4-1. Voice System Administration menu**

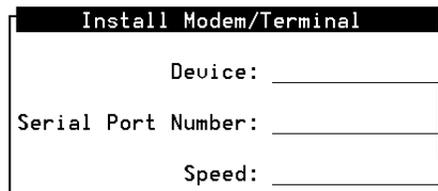
4. Select



5. Press **(ENTER)**.

The system displays the Install Modem/Terminal Window (Figure 4-2).

---



The screenshot shows a window titled "Install Modem/Terminal". Inside the window, there are three input fields: "Device:" followed by a blank line, "Serial Port Number:" followed by a blank line, and "Speed:" followed by a blank line. The window has a black title bar and a white background.

---

**Figure 4-2. Install Modem/Terminal Window**

6. Enter **modem** in the Device: field
7. Enter **/dev/tty00** in the Serial Port Number: field.
8. Enter **19200** in the Speed: field.
9. Press **(F3)** (Save).
10. Press **(F6)** (Cancel) until you return to the Voice System Administration menu. (Figure 4-1).

### **Configuring the 3820 Modem via Its Control Panel**

Use the procedures in the following sections to configure the 3820 modem via its control panel. Once configured, follow instructions to save the configuration so that if the modem loses power, you will not need to repeat these configuration steps.

The configuration process can be divided into the following procedures:

- Selecting the UNIX dial default factory configuration
- Setting the Async DTE rate to the required speed
- Setting the DTR action and the DSR control to standard RS-232
- Setting the error control mode to buffer mode

### Using the Diagnostic Control Panel on the 3820 Modem

The 3820 modem has a Diagnostic Control Panel (DCP) which is the user interface to the modem. Table 4-1 shows how to use the keys on the DCP.

**Table 4-1. Key Functions on the 3820 Modem Diagnostic Control Panel**

Key	Function
Up arrow	Moves up one level from the current display
Double up arrow	Returns the display to the top-level menu
Left Arrow	Moves the cursor or display to the left
Right Arrow	Moves the cursor or display to the right
F1, F2, F3	Selects items displayed directly above each key

### Selecting the UNIX Dial Default Factory Configuration

#### ⇒ NOTE:

Press  to scroll forward and  to scroll backward.

To select and save the "UNIX Dial" default factory setting to the "Active (Saved)" configuration area, complete the following procedure:

1. Turn the modem off and then back on.
2. Press  or  on the DCP to display `Configure`.
3. Press the function key below `Configure` to select the `Configure` branch of the menu.

The LCD displays the following message:

```
Ld EditArea frm.
```

4. Press  or  to display `Factory`.
5. Press  to display the factory preset configuration.

The LCD displays the following message:

```
LD Fact Preset:
```

6. Press  or  to display `Unix Dial`.
7. Press the function key below `Unix Dial` to select the "Unix Dial" default factory setting.

The LCD displays the following message:

```
Choose Function
Edit and Save.
```

8. Press **F3** (Save).  
The LCD displays the following message:  

```
Sav EditArea to
Active (Saved).
```
9. Press **F1** Active (Save) area.  
The LCD displays the following message:  

```
Command Complete.
```
10. Press **▲** to return to the top-level menu.

### **Setting the Async DTE Rate to the Required Speed on the 3820 Modem**

To set the Async DTE rate to the required speed, complete the following procedure:

1. Press **◀** or **▶** on the DCP to display `Configure`.
2. Press the function key below `Configure` to select the "Configure" branch of the menu.  
The LCD displays the following message:  

```
Ld EditArea frm.
```
3. Press **◀** or **▶** to display `Active (Saved)`.
4. Press **F1** to select the "Active (Saved)" configuration area.  
The LCD displays the following message:  

```
Choose Function
Edit and Save.
```
5. Press **F1** (Edit) to edit the "Active (Saved)" configuration area.  
LCD displays the following message:  

```
Edit StrapGroup
DTE Interface.
```
6. Press **F1** to edit the DTE Interface.  
The LCD displays the following message:  

```
Async/Sync Mode.
```
7. Press **F1** (Nxt) to display `Async DTE Rate`.
8. Press **◀** or **▶** until the desired speed comes into view.



**NOTE:**

The desired speed for networking is 19,200 baud. The desired speed for administration is 9600 baud.

The LCD displays the desired speed.

9. Press **F2** to set the Async DTE Rate, when the desired speed comes into view.
10. Continue with the next procedure, "Setting the DTR Action and DSR Control to Standard RS-232 on the 3820 Modem". *Do not* return to the top-level menu.

### **Setting the DTR Action and DSR Control to Standard RS-232 on the 3820 Modem**

To set the DTR action to standard RS-232 on the 3820 modem, begin Step 1 of this procedure directly from the ending step of the previous procedure.

1. Press **F1** (Nxt), more than once if necessary, to display `DTR Action`.
2. Press **◀** or **▶** to display `Stndrd_RS-23`.
3. Press **F2** to set the DTR Action.
4. Press **F1** (Nxt) to display `DSR Control`.
5. Press **◀** or **▶** to display `Stndrd_RS-232`.
6. Press **F2** to set the DSR control.
7. Press the single **▲**.

LCD displays the following message:

```
Edit StrapGroup
```

8. Press **◀** or **▶** to display `DTE Dialer`.
9. Press **F1** (Edit).

LCD displays the following message:

```
DTE Dialer Type
```

10. Press **F1** (Next) to display `AT Escape Char`.
11. Use **◀** or **▶** and **F2** (Select) to adjust the number to `128 ASCII`.
12. Press **▲**.

LCD displays the following message:

```
Edit StrapGroup
```

13. Press **◀** or **▶** to display `Dial Line`.
14. Press **F1** (Edit).

LCD displays the following message:

```
Dial Line Rate
```

15. Press **◀** or **▶** to display baud rates.

#### **⇒ NOTE:**

The recommended speed for remote administration is 9,600 baud.

16. Press **F2** (Select).  
The LCD displays the baud rate.
17. Press the single **▲**.  
The LCD displays the following message:  
`Edit StrapGroup`
18. Continue with the next procedure, "Setting the Error Control Mode to Buffer Mode on the 3820 Modem". Do *not* return to the top-level menu.

### **Setting the Error Control Mode to Buffer Mode on the 3820 Modem**

Use the procedure below to set the error control mode to buffer mode:

1. Press **◀** or **▶** to display `V42/MNP/Buffer`.
2. Press **F1** to edit V42/MNP/Buffer.  
The LCD displays the following message:  
`Err Control Mode`
3. Press **◀** or **▶** to display `BufferMode`.
4. Press **F2** (Select).
5. Press **F1** (Next) to display `Flw Cntl of DTE`.
6. Press **◀** or **▶** to display `CTS_to_DTE`.
7. Press **F2** (Select).
8. Press **▲**.  
LCD displays the following message:  
`Edit StrapGroup`
9. Press **▲**.  
LCD displays the following message:  
`Choose Function`  
`Edit and Save`
10. Press **F3** (Save).  
LCD displays the following message:  
`Sav EditArea to`  
`Active`
11. Press **F1**.  
LCD displays the following message:  
`Command Complete`
12. Press **▲** to return to the top-level menu.

### Configuring the 3820 Modem via a Terminal

Use the following procedure to configure the 3820 via a terminal rather than on the control panel of the modem.

1. Connect a terminal to the 3820 modem.
2. Refer to the documentation provided with the terminal and make sure that the terminal is acting as a DTE.
3. Set the terminal line to 8 bits, no parity, and 1 stop bit.
4. Set the baud rate of the terminal line to the required modem speed.

For example, for the 3820 modem attached to the remote maintenance port, set the terminal line to a baud rate of 9600.

5. Enter **AT** on the terminal.

Modem response:

OK

**⇒ NOTE:**

If the modem does not return OK, the modem is unable to accept AT commands from the terminal. Check the connection and the terminal setup.

6. Enter the following AT command:

**AT&T&F3L0&D2&S1\N0\Q3S41=<dial line rate>S2=128&W0**

where *<dial line rate>* is one of the following values:

3=9600

5=4800

6=2400

7=1200 (V.22)

8=1200 (212A)

20=19200

For example, to set the 3820 modem to user COM2, where the baud rate is 9600, enter **3** as the *<dial line rate>* as shown below:

**AT&T&F3L0&D2&S1\N0\Q3S41=3S2=128&W0**

Modem response:

OK

7. Disconnect the terminal.
8. Connect the modem to the communication port (COM port 1 or 2).  
The system activates the RTS, CTS, and LSD indicators.

## Configuring the U.S. Robotics Modem Through a Terminal

Use the following procedure to configure the U.S. Robotics through a terminal:

1. Connect a terminal to the U.S. Robotics modem.
2. Refer to the documentation provided with the terminal and make sure that the terminal is acting as a DTE.
3. Set the terminal line to 8 bits, no parity, and 1 stop bit.
4. Set the baud rate of the terminal line to the required modem speed.

For example, for the U.S. Robotics modem attached to the remote maintenance port, set the terminal line to a baud rate of 9600.

5. Enter **AT** on the terminal.

Modem response:

OK

### **NOTE:**

If the modem does not return OK, the modem is unable to accept AT commands from the terminal. Check the connection and the terminal setup.

6. Enter the following AT command:

**AT&F1&D2&B0&S1S0=1S2=128&W0**

Modem response:

OK

7. Disconnect the terminal.
8. Connect the modem to the communication port (COM port 1 or 2).  
The system activates the AA, TR, and CS indicators.

## Connecting the 7400A Data Module

---

You can use the 7400A data module for connections to a distant modem or terminal to establish a data call or for remote administration. If doing so, connect the 7400A data module to either COM1 or to any of the eight ports on the 8-port asynchronous circuit card.

### **Setting up a Terminal to Log In Remotely to the Lucent INTUITY System via a 7400A Data Module**

Use the documentation associated with your terminal and the following procedure:

1. Set the terminal line to 8 bits, no parity, and 1 stop bit.
2. Set the terminal line speed to the same as that of the modem to which the terminal is connected.

### **Setting Up the Hardware on the 7400A Data Module**

Configure the modem for DCE operation. See "DTE/DCE Hardware Set Up" in Chapter 2, "Installation," in the *Lucent 7400A Data Module User's Manual*, 555-020-706.

#### **⇒ NOTE:**

Make sure the EIA connector circuit card (located under the top panel of the 7400A data module) is set to DCE. If it is not, unplug the circuit card and turn it to the DCE setting.

### **Connecting the 7400A to COM1**

Use the following procedure to connect the 7400A data module to COM1. See Appendix B, "Cable Connectivity", for illustrations and additional information.

1. Attach a 9- to 25-pin adapter to COM1.
2. Attach an RS-232 cable to the adapter on COM1.
3. Attach the other end of the RS-232 cable to the 7400A data module.
4. Make the remaining connections.

### **Connecting the 7400A Data Module to the 8-Port Asynchronous Circuit Card**

Use the following procedure to connect the 7400A data module to the 8-port asynchronous circuit card. See Appendix B, "Cable Connectivity", for illustrations and additional information.

1. Attach the 4.2 meter (14 foot) modular cable (provided with the card) to the Multi-port serial circuit card.
2. Attach the other end of the 4.2 meter (14 foot) modular cable to a DTE adapter.
3. Connect the DTE adapter to the 7400A data module.
4. Make the remaining connections.

## Testing the Hardware Connections and Setup

To verify that you have the hardware connections and the setup completed correctly, perform the following test.

1. Power up the computer. See "Powering Up the System" in Chapter 3, "Making Cable Connections and Power-Up the System" for this procedure.
2. Plug an RS-232 mini-tester into the COM2 port.
3. If the connections and set up are correct, DTR, RTS, and TD on the tester will light.
4. If the test fails, recheck the connections and setup.

## Completing Setup on the 7400A Data Module

Set the options and interface baud rate on the 7400A data module. See Table 4-2 and "Using the Front Panel" in the *7400A Data Module User's Manual*, 555-020-706, for details.

In the set interface option menu, set the ANS ONLY? option to YES. Then select the other options as listed in Table 4-2.

**Table 4-2. 7400A Data Module Option Settings**

Option	Setting
Baud rate	1200 and 9600
ANS	AUTO
BRK DISK	LONG
CI	OFF
CH	OFF
CTS	ON
DCD	Normal
DSR	ON
DTR	50 Msec
DTR	FOLLOW
LL	OFF
REMLOOP	GRANT
RI	ON
RL	OFF

*Continued on next page*

**Table 4-2. 7400A Data Module Option Settings — Continued**

Option	Setting
SIGLS DISC	OFF
TM	OFF
DONE	YES

## Verifying Controlled Applications

Access to certain features is controlled by feature licensing limits. The voice system keeps track of the total number of licenses purchased and currently in use for an application.

**⇒ NOTE:**

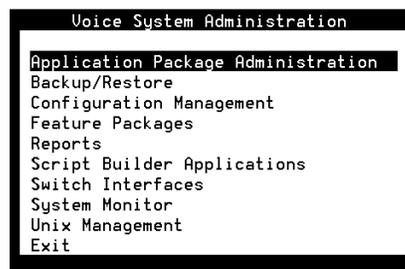
Contact your remote support center to modify license values.

## Viewing Feature License Values

To view all of the applications controlled by feature licensing:

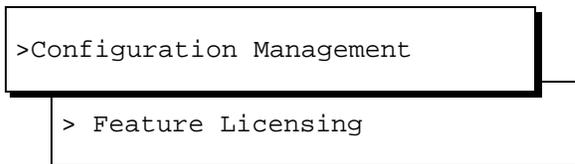
1. Log in as root.
2. Enter **cvis\_menu**

The system displays the Voice System Administration menu (Figure 4-3).



**Figure 4-3. Voice System Administration menu**

3. Select



4. Press **(ENTER)**.

The system displays the Display Feature Licensing screen (Figure 4-4).

---

Feature	Value
Text to Speech	0
Dial Pulse Recognition	10
FlexWord Recognition	0
WholeWord Recognition	10

**Figure 4-4. Display Feature Licensing Screen**

5. To update the list of features, press **(F8)** (Actions).

The system displays the Actions menu (Figure 4-5).



**Figure 4-5. Actions Menu**

6. Select



7. Press **(ENTER)**.

The system refreshes the Display Feature Licensing screen (Figure 4-4).

8. To print a copy of the Display Feature Licensing screen, press **F8** (Actions).

The system displays the Actions menu (Figure 4-5).

9. Select

```
>Print
```

10. Press **ENTER**.

The systems prints a copy of the Display Feature Licensing screen (Figure 4-4).

## **Feature Test Script Package**

---

Use the Feature Test Script package to verify the following features and capabilities of the voice system:

- Playback and coding
- Chantst
- Transfer test

This script works on Tip/Ring channels.

## **Feature Test Script Package Prerequisites**

---

The required voice system and PBX configurations for testing features are listed below. All lines from the PBX must be configured and operational before running the script to test features. Playback and coding, chantst, and transfer test require at least one Tip/Ring channel.

- Playback and coding
  - At least one Tip/Ring circuit card must be installed.
  - Tip/Ring lines must be in the INSERT state.
  - There must be room on the speech disk slice to store a 45-second phrase.
- Chantst
  - At least one Tip/Ring circuit card must be installed.
  - Tip/Ring lines must be in the INSERT state.
  - Circuit cards can only have terminating resistors at each end of the bus ribbon cable. All Tip/Ring cards that are not on the bus ribbon cable must not contain terminating resistors.

- Transfer test
  - At least one Tip/Ring circuit card must be installed.
  - Tip/Ring lines must be in the INSERV state.
  - Circuit cards can only have terminating resistors at each end of the bus ribbon cable. Any Tip/Ring cards that are not on the bus ribbon cable must not contain terminating resistors.
  - The lines coming from the switch or PBX must be configured for both incoming and outgoing calls.

### Setting Up the Feature Test Script Package

To set up the Feature Test Script package:

1. Start at the Voice System Administration menu (Figure 4-3) and select

```

>Configuration Management
> Voice Equipment
> Display Voice Equipment
    
```

The system displays the Display Voice Equipment screen (Figure 4-6).

Display Voice Equipment									
CD.PT	CHN	STATE	STATE-CHNG-TIME	SERVICE-NAME	PHONE	GROUP	OPTS	TYPE	
0.5	5	Inserv	Nov 26 13:57:11	*DNIS_SVC	4008	2	tdm	IUC6	
CARD 1		STATE: Inserv	CLASS: Analog(TR)	O.S.INDEX: 1					
		NAME: AVC10	OPTIONS: master2,tdm1,tt						
		FUNCTION: TipRing							
1.0	6	Inserv	Nov 26 13:57:11	*DNIS_SVC	4009	2	tdm	IUC6	
1.1	7	Inserv	Nov 26 13:57:11	*DNIS_SVC	4010	2	tdm	IUC6	
1.2	8	Inserv	Nov 26 13:57:11	*DNIS_SVC	4011	2	tdm	IUC6	
1.3	9	Inserv	Nov 26 13:57:11	*DNIS_SVC	4014	2	tdm	IUC6	

**Figure 4-6. Display Voice Equipment Screen**

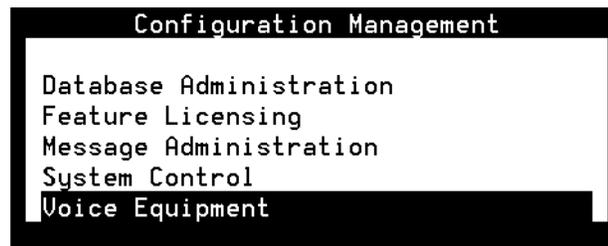
2. Press (F3) (Next Page) until you find a channel (in the CHN column) that has a state of INSERV.

3. Save the INSERTV channel number to enter in Step 6 of this procedure.

**⇒ NOTE:**

If no channels are in the INSERTV state, continue with "Changing the State of Voice Equipment" below.

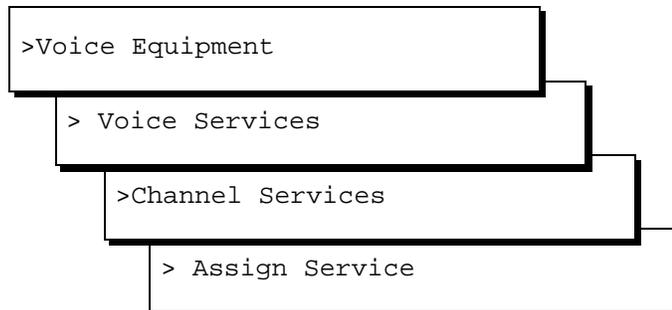
4. Press **Ⓢ** (Cancel) twice to return to the Configuration Management menu (Figure 4-7).



---

**Figure 4-7. Configuration Management Menu**

5. Select



The system displays the Assign Channel Service screen (Figure 4-8).



---

**Figure 4-8. Assign Channel Service Screen**

6. Enter the number of the INSERTV channel, from Step 3 in "Setting Up the Feature Test Script Package" in the `Channel Numbers:` field.
7. Press **▼** to move to the `Service Name:` field.
8. Enter **feature\_ts**
9. Press **F3** (Save).

The system displays a Command Output screen.

10. Press **F6** (Cancel) four times to return to the Configuration Management menu (Figure 4-7).
11. Select

```
>Voice Equipment
```

The system displays the Display Voice Equipment screen (Figure 4-6).

12. Check the channel you just assigned. Verify that `feature_tst` appears in the `SERVICE-NAME` column.

**⇒ NOTE:**

If `feature_tst` is not displayed, repeat Step 4 through Step 12.

13. Press **F6** (Cancel) to return to the Voice System Administration menu (Figure 4-3).
14. If you need to change the state of voice equipment, go to "Changing the State of Voice Equipment", otherwise, continue with "Running the Feature Test Script Package".

### **Running the Feature Test Script Package**

---

**⇒ NOTE:**

See "Feature Test Script Package Prerequisites" before using **feature\_tst**.

To run the Feature Test Script package:

1. Start at the Voice System Administration menu (Figure 4-3) and select

```
>System Monitor
```

The system displays the System Monitor-Voice Channels screen (Figure 4-9).

System Monitor - Voice Channels					
Channel	Calls Today	Voice Service	Service Status	Caller Input	Dialed Digits
0	0		*Manoos		
1	0		*0n Hook		
2	0		*0n Hook		
3	2		*0n Hook		
4	0		*0n Hook		
5	0		*0n Hook		
6	0		*0n Hook		
7	0		*0n Hook		
8	0		*0n Hook		
9	0		*0n Hook		
10	0		*0n Hook		
11	0		*0n Hook		

**Figure 4-9. System Monitor-Voice Channels Screen**

2. Dial the telephone number associated with the assigned channel.

**⇒ NOTE:**

The touch tones on the telephone are used to access **feature\_tst**.

The voice system plays the following:

"Follow all touchtone entries with pound. Continue testing.  
To quit the script, enter 0 pound."

The voice system then plays the list of features with the corresponding number to enter to test each feature.

3. Select a feature using the telephone's touch tone pad.
4. Press the number that corresponds to the feature you want to test and then press **#**.
5. Follow the prompts to complete the test for each selected feature.

### Changing the State of Voice Equipment

To change the state of voice equipment:

1. Start at the Voice System Administration menu (Figure 4-3) and select

>Configuration Management

> Voice Equipment

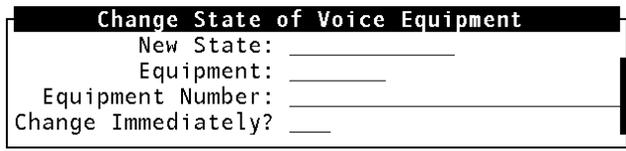
The system displays the Voice Equipment screen (Figure 4-6).

2. Press **F8** (Chg-Keys).

3. Press **F2** (Chgstate).

The system displays the Change State of Voice Equipment screen (Figure 4-10).

---



```
Change State of Voice Equipment
New State: _____
Equipment: _____
Equipment Number: _____
Change Immediately? _____
```

---

**Figure 4-10. Change State of Voice Equipment Screen**

4. Enter **i** in the `New State:` field.  
The system displays `inserv`.
5. Press **▼** to move to the `Equipment:` field.
6. Enter **ch**  
The system displays `channel`.
7. Press **▼** to move to the `Equipment Number:` field.
8. Enter the number of the channel that you want to change to `INSERV`.
9. Press **▼** to move to the `Change Immediately?` field.
10. Enter **y**  
The system displays `yes`.
11. Press **F3** (Save).  
The system displays a Command Output screen.
12. Continue with Step 3, in the procedure, "Setting Up the Feature Test Script Package".

## Activating Alarm Origination

---

Remote Alarming allows a technician in the remote maintenance center to receive notice that your voice system is experiencing difficulty. Alarms levels are categorized by their severity as Critical, Major and Minor. See *INTUITY CONVERSANT System Version 6.0 System Alarms and Log Messages*, 585-310-182, for information about remote alarming.

To activate alarm origination, do the following:

1. Check the tape drive for a tape. The light on the tape drive is on if it contains a tape.

**⚠ CAUTION:**

*Do not activate Alarm Origination unless the tape drive contains a back-up tape.*

If the tape drive does not contain a tape for the nightly backup, locate a tape and insert it into the tape drive.

2. Log in as root.
3. Enter **cvvis\_menu**

The system displays the Voice System Administration menu (Figure 4-3).

4. Select

```
> Configuration Management
> Remote Alarming Administration
```

The system displays the Alarm Management window (Figure 4-11).

---

Alarm Management	
Product ID	_____
Alarm Destination	_____
Alarm Origination	INACTIVE
Alarm Level	MINOR
Alarm Suppression	INACTIVE
Clear Alarm Notification	ACTIVE

---

**Figure 4-11. Alarm Management Window**

5. Enter the product ID number in the `Product ID:` field.



**CAUTION:**

*The product ID is always a 9-digit number beginning with the number 2. Do not continue without the correct product ID number.*

6. Move  $\blacktriangledown$  to the `Alarm Origination:` field.
7. Press  $\text{F2}$  (Choices).
8. Select

```
> Active
```

9. Verify that the entry in the `Alarm Suppression:` field is `inactive`.  
If it is not, move the cursor to the `Alarm Suppression:` field, press  $\text{F2}$  (Choices), and select `inactive` for the field.
10. Press  $\text{F3}$  (Save).  
The system displays the following message:  
`Alarm Form Update was successful`  
`Press (Enter) to continue.`
11. Press  $\text{ENTER}$ .
12. Continue with the next procedure, "Testing Alarm Origination", if you want to test the alarm origination or if a significant amount of time has lapsed since administering the Alarm Management window.  
Continue with the procedure, "Performing a Root Backup", if you do not want to test the alarm origination.

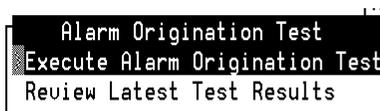
## **Testing Alarm Origination**

---

Use the following procedure to test remote alarm origination or if a significant amount of time has lapsed since administering the Alarm Management window.

1. Start at the Alarm Management window (Figure 4-11) and press  $\text{F8}$  (Chgkeys).
2. Press  $\text{F1}$  (Test-Alm).

The system displays the Alarm Origination Test menu (Figure 4-12).



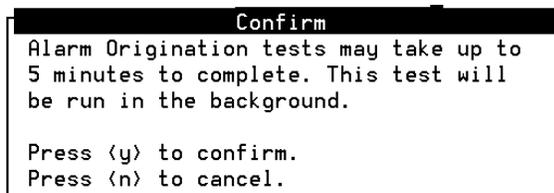
---

**Figure 4-12. Alarm Origination Test Menu**

3. Select

A screenshot of a terminal window showing the prompt ">" followed by the command "Execute Alarm Origination Test".

The system displays the Confirm window (Figure 4-13).



---

**Figure 4-13. Confirm Window**

4. Press **[Y]**.



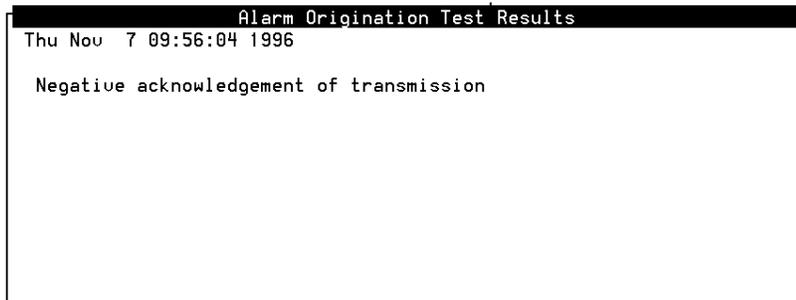
**NOTE:**

Wait approximately 1 minute for the system to process the command.

5. Select

A screenshot of a terminal window showing the prompt ">" followed by the command "Review Latest Test Results".

The system displays the Alarm Origination Test Results window (Figure 4-14).



---

**Figure 4-14. Alarm Origination Test Results Window**

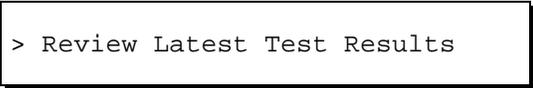
6. Verify that no entry on the screen corresponds with the time you sent the alarm.



**NOTE:**

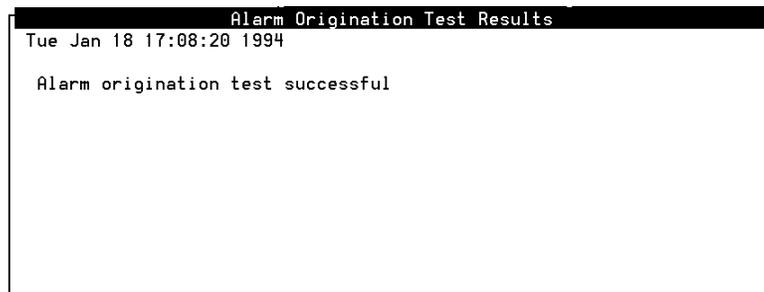
Wait approximately 4 minutes for the test to complete.

7. Press **F6** (Cancel).  
The system displays the Alarm Origination Test menu (Figure 4-12).
8. Select



The image shows a terminal window with a single menu option: "> Review Latest Test Results".

The system displays the Alarm Origination Test Results window (Figure 4-15).



---

**Figure 4-15. Alarm Origination Test Results Window**

9. Verify that the message on the screen reads:

Day Date Time

Alarm origination test successful.

10. If the test completed successfully, press **F6** (Cancel) until you reach the Voice System Administration menu (Figure 4-3) and continue with the next procedure on your checklist. Press **F6** (Cancel) to log out of the system.
11. If the test did *not* complete successfully, contact your remote support center.

## Backing Up the INTUITY CONVERSANT System

---

Lucent Technologies suggests performing a root or full backup to baseline your system.

### **NOTE:**

Use the backup mechanisms described here to back up and restore files on the same machine only.

There are two tools available for you to use to backup and restore your system:

- BRU (backup/restore utility)
- mkimage

## Backing Up the INTUITY CONVERSANT System Using BRU

---

The following section describes the procedure for backing up your INTUITY CONVERSANT system using the BRU.

### Types of BRU

- Root, or disk-level, backup - This is used to save the entire contents of a hard disk and is good to perform to baseline your new system after initial load.
- Full, or UNIX-level - This is a backup of all files and file systems.

### Performing a Root Backup

#### NOTE:

Verify that the INTUITY Backup/Restore Utility is loaded on the system before performing a disk backup.

Backup of the entire disk consists of two parts: copy disk to tape and checksum verification. Each part takes about 1 hour/Gbyte to complete.

To perform a root backup using the BRU tool, do the following:

1. Log in as root.
2. Enter **shutdown -g0 -y**  
The system shuts down.
3. Insert the BRU Disk Backup diskette labeled "QuickStart" into the diskette drive.
4. Press the reset button on the lower front of the peripheral bay.  
The system boots from the BRU diskette. After a few minutes the system displays the BRU Main menu (Figure 4-16).

```
QuickStart - System Recovery Tool
Copyright(c) 1997, Enhanced Software Technologies, Inc.

1. Select Recovery Archive Device.
2. Perform System Backup
3. Perform System Recover
4. Perform Archive Volume Verification
5. Recovery Help
9. Restart Native Operating System

Select Option >
```

**Figure 4-16. BRU Main Menu**

5. Enter **1**

The system displays the BRU Select Recovery Device Type menu (Figure 4-17).

Please select the type of Backup Device to use.

- 1. Wangtek 525 MB QIC Tape Drive
- 2. Tandberg 2.5 GB QIC Tape Drive
- Q. Quit

Select (1, 2, or Q)

**Figure 4-17. BRU Select Recovery Device Type Menu**

6. Enter the number corresponding to your systems tape drive.

The system displays the following message:

Checking Device.

The system displays the BRU Main menu (Figure 4-16).

7. Enter **2**

The system displays the following message:

Scanning system hardware for attached hard drives

I found X hard drives attached to this system:

1. First SCSI Hard Drive Size = xxxxxxxxxx      Select  
Hard Drive to Backup; Separate multiple entries with  
spaces [1]:

8. Enter the number of the hard disk drive to be backed up.

The system displays the following message:

Total backup size 2048 MBytes

Make sure that the prepared tape is unchanged  
Press [ENTER] to continue.

9. Press **[ENTER]**.

The system displays the following message:

Creating the recovery volume...

This operation can take from minutes to hours depending upon the speed of the tape drive being used.

For example:

Wangtek 525MB QIC drive - 12MB/min = 720MB/hr

Tanberg 2.5GB QIC drive - 17MB/min = 1GB/hr

Backing up X hard drive.

System backup operation completed successfully.

QuickStart will now verify the backup.

While EST recommends that you verify each backup, this is an optional process.

Enter **V** to verify or **S** to skip [V/S]:

 **CAUTION:**

*Entering **v** will cause the system to verify the tape using the backup floppy. This procedure will take approximately two hours. During this time the system will be out of service.*

10. Enter **s**

The system displays the following message:

Verification Skipped!

You may verify a QuickStart tape at any time by using option 4 from the main QS menu.

Press **[ENTER]** to return to the main menu.

11. Press **[ENTER]**.

The system displays the BRU Main menu screen (Figure 4-16).

12. Remove the "QuickStart" boot diskette from the diskette drive.
13. Enter **9**
14. The system reboots to the INTUITY CONVERSANT system.
15. Verify the root backup tape while the system is in operation. See "Verifying a Root Backup Tape" below for the procedure.

## Performing a Full Backup

You can perform this procedure while your system is up and running.

A full UNIX-level backup consists of two components:

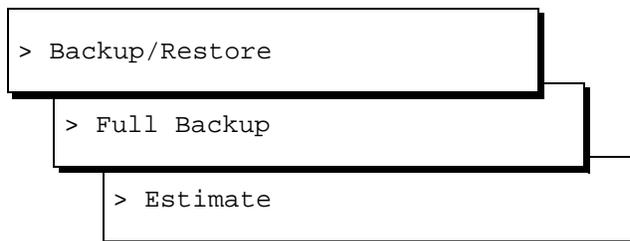
- Estimate - this determines how much has changed since the last backup.
- Backup - this is the actual backup performance.

### ⇒ NOTE:

The estimated time required to perform a full backup is 1 Gbyte/hour.

To perform a Full UNIX-level backup, do the following:

1. Starting at the Voice System Administration menu (Figure 4-3), select



The system displays a message similar to the following message:

```
Please be patient, depending on the size of the backup
this could take several minutes
```

```
Performing Full Backup estimate...
```

```
bru:1volume xxxxx files, xxxxxx archive blocks xxxxxx
Kbytes
```

```
Please press <ENTER> to return to menu.
```

2. Make sure you have enough backup tapes available to store the system data.
3. Label each cartridge tape with "Full UNIX Backup Tape X."
4. Press .

The system displays the Full Backup menu (Figure 4-18).



---

**Figure 4-18. Full Backup Menu**

5. Select

```
> Backup
```

The system displays the following message:

```
Please put a tape in the drive.
```

```
Press <Enter> to continue or q to quit.
```

6. Insert the first tape into the cartridge tape drive.

7. Press **ENTER**.

The system displays the following message:

```
The Full UNIX backup is now complete. Please remove the  
tape and label it as "Full UNIX Backup, created  
[today's date]"
```

8. Verify the backup tape. See "Verifying a Backup Tape" below for the procedure.

## Verifying a Backup Tape

A backup tape can be verified using the INTUITY CONVERSANT windows or the backup utility boot floppy.

### Using the INTUITY CONVERSANT Windows

Verify your backup tape using the BRU after the system is in operation. Perform the verification on the same INTUITY CONVERSANT system or another INTUITY CONVERSANT system that has the BRU loaded.

The BRU verifies:

- Full backup tapes
- Root backup tapes

**Verifying a Full Backup Tape.** To perform a verification, do the following:

1. Insert the backup tape into the tape drive.

2. Starting at the Voice System Administration menu (Figure 4-3), select

```
> Backup/Restore
> Verify Backup
> Differential/Full
```

The system displays the following message:

The Backup Tape Verification is now complete. Please remove the tape, check that the label reflects whether the tape contains root, full, or differential backup data, date and time it was created then store it.

**Verifying a Root Backup Tape.** To perform a verification, do the following:

1. Insert the backup tape into the tape drive.
2. Starting at the Voice System Administration menu (Figure 4-3), select

```
> Backup/Restore
> Verify Backup
> "QuickStart"
```

The system displays the following message:

The Backup Tape Verification is now complete. Please remove the tape, check that the label reflects whether the tape contains root, full, or differential backup data, date and time it was created then store it.

### **Backing Up the INTUITY CONVERSANT System Using mkimage**

---

The following section describes the procedure for backing up your INTUITY CONVERSANT system using the **mkimage** command.

**⇒ NOTE:**

All backups for a MAP/5P using the IDE hard disk drive must be performed using **mkimage**. At this time, you can not use the BRU tool for a MAP/5P that is using the IDE hard disk drive.

**⇒ NOTE:**

The backup mechanisms described here should be used for backing up and restoring files on the same machine only.

The **mkimage** command backs up all files and speech to cartridge tapes. Use the **mkimage** command after loading a new system.

See Appendix A, "Summary of Commands," in *INTUITY CONVERSANT Version 7.0 Administration*, 585-313-xxx, for additional information about the **mkimage** command.

### Performing a System Backup

To conduct a full system backup using **mkimage**, do the following:

1. Log in as root.
2. Stop the voice system. See "Stopping the Voice System" in Chapter 3, "Common System Procedures," in the maintenance book for your platform.
3. Enter **mkimage**

The system displays the following message:

```
The UNIX kernel will be rebuilt now. This will take some
time. Please wait.
```

```
WARNING: This process will put the system in single
user mode!!!
```

```
Do you wish to continue (y/n)?
```

4. Enter **y**

The system displays the following message:

```
The system will now be put in single user mode. Re-login
after the prompt and re-execute this command to
continue the mkimage process.
```

```
Console Login:
```

5. Continue with the next procedure, "Backing up the Root File System."

### Backing up the Root File System

To back up the root file system, do the following:

1. Log in as root.
2. Enter **mkimage**

The system displays the following message:

```
Checking the system run level: Please wait
```

```
The system is in single user mode: Continuing
```

The following are approximate tape counts required for this backup for various tape drive sizes

150 Mbyte drive:	X tape(s)
320 Mbyte drive:	X tape(s)
525 Mbyte drive:	X tape(s)
1.2 Gbyte drive:	X tape(s)
2.0 Gbyte drive:	X tape(s)

Be sure to number the cartridge tapes consecutively in the order they will be inserted.

Label the tapes 'CONVERSANT Image Tape x' where x indicates the insertion sequence. Also include the current date.

Note: Very large files, such as database files, take several minutes to backup. During this time you will not see any progress reported to the console. If the tape drive is running and the system disk light is flashing, the operation is in progress.

Please insert the first tape now. Press 'ENTER' to start image tape creation.

3. Label the appropriate number of cartridge tapes.

Label the tapes *CONVERSANT Image Tape x*, where x indicates the insertion sequence. Include the current date on the label.

4. Insert the cartridge tape labeled "CONVERSANT Image Tape 1" into the cartridge tape drive.
5. Press .

The system takes approximately 30 minutes to load the information onto one cartridge tape.

If your system backup requires more than one cartridge tape, the system displays the following message:

```
End of medium on output
Change to part 2 and press RETURN key. (q)
```

If your backup requires more than one tape, complete Steps a through d:

- a. Remove the cartridge tape labeled "CONVERSANT Image Tape 1" from the cartridge tape drive.
- b. Insert the cartridge tape labeled "CONVERSANT Image Tape 2" into the cartridge tape drive.
- c. Press .
- d. Repeat Steps a through c for all necessary cartridge tapes.

If your backup does not require more than one tape, continue with Step 6.

6. When the system displays the following message, remove the last cartridge tape from the cartridge tape drive.

The image tapes will be verified now.

Make sure the tapes are inserted in the order they are made.

Press 'Enter' to start verification.

7. Press `(ENTER)`.

The system displays the following message:

Please insert the first tape now. Press 'Enter' to continue.

8. Insert the cartridge tape labeled "CONVERSANT Image Tape 1" into the cartridge tape drive.

9. Press `(ENTER)`.

The system takes as long to verify a cartridge tape as it did to create it.

The system will prompt for additional tapes if necessary.

10. If your system has speech files located on a second disk, perform the next procedure, "Backing up the Speech Files."

If your system has only one disk, or is mirrored, continue with the procedure, "Verifying the Back Up."

### **Backing up the Speech Files**

If your system contains speech files on Hard Disk Drive 2, the system displays the following message:

The following are approximate tape counts required for this backup for various tape drive sizes

150 Mbyte drive:	X tape(s)
320 Mbyte drive:	X tape(s)
525 Mbyte drive:	X tape(s)
1.2 Gbyte drive:	X tape(s)
2.0 Gbyte drive:	X tape(s)

Be sure to number the cartridge tapes consecutively in the order they will be inserted.

Label the tapes 'CONVERSANT Speech Tape x' where x indicates the insertion sequence. Also include the current date.

Note: Very large files, such as database files, take several minutes to backup. During this time you will not see any progress reported to the console. If the tape drive is running and the system disk light is flashing, the operation is in progress.

Please insert the first tape now. Press 'ENTER' to start image tape creation.

To back up the speech files, using the **mkimage** command, do the following:

1. Label the appropriate number of cartridge tapes.

Label the tapes 'CONVERSANT Speech Tape x' where x indicates the insertion sequence. Also include the current date on the label.

2. Insert the cartridge tape labeled "CONVERSANT Speech Tape 1" into the cartridge tape drive.

3. Press `[ENTER]`.

The system takes approximately 30 minutes to load the information onto one cartridge tape.

If your system backup requires more than one cartridge tape, the system displays the following message:

```
End of medium on output
Change to part 2 and press RETURN key. (q)
```

If your backup requires more than one tape, complete Steps a through d:

- a. Remove the cartridge tape labeled "CONVERSANT Speech Tape 1" from the cartridge tape drive.
- b. Insert the cartridge tape labeled "CONVERSANT Speech Tape 2" into the cartridge tape drive.
- c. Press `[ENTER]`.
- d. Repeat Steps a through c for all necessary cartridge tapes.

If your backup does not require more than one tape, continue with Step 4.

4. When the system displays the following message, remove the last cartridge tape from the cartridge tape drive.

```
The speech tapes will be verified now.
Make sure the tapes are inserted in the order they are
made.
```

```
Press 'Enter' to start verification.
```

5. Press `[ENTER]`.

The system displays the following message:

```
Please insert the first tape now. Press 'Enter' to
continue.
```

6. Insert the cartridge tape labeled "CONVERSANT Speech Tape 1" into the cartridge tape drive.

7. Press `(ENTER)`.

The system takes as long to verify a cartridge tape as it did to create it.

The system will prompt for additional tapes if necessary.

8. Continue with the procedure, "Verifying the Back Up."

### Verifying the Back Up

When the system is done verifying a cartridge tape it automatically reboots, returns to multi-user format, and displays the console login. To verify the back up, do the following:

1. Log in as root.
2. Enter **`vi /SaveVsData/mkimage.log`**

If the system displays the following message, the mkimage back up was successful.

```
Creation and verification of the CONVERSANT Image Tape
is complete.
```

If the system does not display this message, the mkimage back up was not successful. Repeat the procedure.

### Performing Other Backups

---

See the *Novell UnixWare Backup and Restore Services* book, which is part of the *UnixWare Documentation Set*, 585-350-908, for information on:

- Establishing an automatic backup using **`bkreg`**
- Backing up the UnixWare system
- Performing a UnixWare incremental backup
- Copying files using **`cpio`**
- Backing up applications other than Script Builder applications
- Backing up a database

See *INTUITY CONVERSANT V6.0 Application Development with Script Builder*, 585-310-760, for information on backing up Script Builder applications

See *INTUITY CONVERSANT System V7.0 Speech Development, Processing, and Recognition*, 585-313-201, for information on backing up speech files using **`spsav`**



---

# Troubleshooting Procedures



---

## Overview

This chapter describes some basic troubleshooting procedures for the most common system problems.

The following assumptions are made in this chapter:

- You have checked the Message Log for any relevant messages. See Chapter 1, "Getting Started" in *INTUITY™ CONVERSANT® Version 6.0 Alarms and Log Messages*, 585-310-182.
- The resolutions in the second column of the tables are intended to provide a starting point to isolate a problem and may not be exhaustive.
- The procedures in the second column assume general editing knowledge and script familiarity, as most of the commands and procedures are performed from the command line.
- You have already performed a visual inspection of the system.

---

## Purpose

The purpose of this chapter is to provide the on-site technician or system administrator with repair procedures for the most common system procedures.

## **Repairing Power-Up Troubles**

---

Power-up troubles are experienced when you are first turning the system on. Table A-1 lists the indications related to power-up troubles.

**Table A-1. Repairing Power-Up Troubles**

<b>Indication</b>	<b>Corrective Action</b>
The system will not power up.	<ol style="list-style-type: none"> <li>1. Verify that the power toggle switch on the front is in the ON position.</li> <li>2. Verify all external system connections (power cords and monitor cables) are correct (for example, the blue cable connects to the 3270 circuit card and not to the system parallel port).</li> <li>3. Verify all external system connections are secure.</li> </ol>
<p>During startup, the system displays the following message:</p> <p>"Shared memory is marked as invalid. cvis_menu exiting."</p>	<ol style="list-style-type: none"> <li>1. Stop the voice system. See "Stopping the Voice System" in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> <li>2. Start the voice system. See "Starting the Voice System" in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> <li>3. Enter <b>cvis_mainmenu</b></li> <li>4. If the problem persists:               <ol style="list-style-type: none"> <li>a. Stop the voice system. See "Stopping the Voice System" in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> <li>b. Enter <b>cp /gendb/shmem/devtbl /gendb/shmem/devtbl.old</b></li> <li>c. Enter <b>rm /gendb/shmem/devtbl</b></li> <li>d. Start the voice system. See Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> </ol> </li> </ol>

*Continued on next page*

**Table A-1. Repairing Power-Up Troubles — Continued**

<b>Indication</b>	<b>Corrective Action</b>
<p>The <b>start_vs</b> command takes a long time to initialize on a system with many analog lines.</p>	<ol style="list-style-type: none"> <li data-bbox="683 390 1419 516">1. Starting at the Switch Administration screen, set Dial-Tone Training to "No." See Chapter 5, "Switch Interface Administration," of <i>INTUITY CONVERSANT System Version 7.0 Administration</i>, 585-313-501.</li> </ol> <p data-bbox="683 548 837 583"><b>⇒ NOTE:</b></p> <p data-bbox="753 583 1398 678">If dial-tone training is "no," you should specify that the dial-tone frequency to be used with a particular switch (350 and 440 is the default for DEFINITY®).</p> <ol style="list-style-type: none"> <li data-bbox="683 709 1419 772">2. Verify that the transfers being performed in the application are still functioning properly.</li> </ol>

## Repairing Boot-Up Troubles

Boot-up troubles are experienced when the system crashes and reboots itself or when you reboot the system. Table A-2 lists the indications and possible repair procedures related to boot-up troubles.

**Table A-2. Repairing Boot-Up Troubles**

Indication	Corrective Action
<p>Circuit cards are not recognized during boot up.</p>	<ol style="list-style-type: none"> <li>1. Enter <b>pkginfo</b></li> <li>2. Make sure the driver software is installed (Tip/Ring, or T1).</li> <li>3. Check the circuit cards. See "Circuit Card Diagnostics" in Chapter 2, "Diagnostics," in your platform system maintenance book.</li> <li>4. Make sure that the circuit cards have the proper switch settings and correct placement of terminating resistors if attached to the TDM bus cable.</li> </ol>
<p>When the system boots, it displays messages in the message log report or on the console similar to the following message:</p> <pre>Unable to attach shared memory, Bad DEVTBL, and/or VROP respawning too rapidly.</pre>	<ol style="list-style-type: none"> <li>1. Stop the voice system. See Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> <li>2. Enter <b>cp /gendb/shmem/devtbl /gendb/shmem/ devtbl.old</b></li> <li>3. Enter <b>rm /gendb/shmem/devtbl</b></li> <li>4. Start the voice system. See "Starting the Voice System" in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> </ol>

*Continued on next page*

**Table A-2. Repairing Boot-Up Troubles — Continued**

Indication	Corrective Action
<p>The system displays the following message:</p> <p>Non-system disk or disk error. Replace and hit any key to continue.</p>	<ol style="list-style-type: none"> <li>1. Check the diskette drive and confirm that it is empty.</li> <li>2. Check the cartridge tape drive and confirm that it is empty.</li> <li>3. Check the power connections.</li> <li>4. Reboot the system. See "Rebooting the UNIX System" in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> </ol>
<p>The system passes run level four then reboots continuously (rolling reboot).</p>	<ol style="list-style-type: none"> <li>1. Power off the platform immediately after the system reboots.</li> <li>2. Remove one optional circuit card (for example, SP, T1, Tip/Ring).</li> <li>3. Reboot the system. See "Rebooting the UNIX System," in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> <li>4. Repeat Steps 1–3 until the system reboots properly.</li> <li>5. Replace the circuit cards.</li> </ol>
<p>The system exhibits rolling reboot when static kernel size exceeds 8-Mbyte.</p>	<ol style="list-style-type: none"> <li>1. Reboot the system. See "Rebooting the UNIX System," in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> <li>2. While rebooting the system, hold down the <b>ENTER</b> key when the system displays the UnixWare graphics.</li> <li>3. When the system prompts you for a previously saved kernel, enter <b>unix.old</b> or enter the name of a kernel that you saved manually at a previous time.  This file is created automatically each time the kernel is rebuilt.</li> <li>4. To prevent this problem from occurring again, remove those packages that affect the size of the static kernel from your configuration permanently. The UnixWare limitation of the size of the static kernel is maximum of 8Mbyte.</li> </ol>

*Continued on next page*

**Table A-2. Repairing Boot-Up Troubles — *Continued***

<b>Indication</b>	<b>Corrective Action</b>
<p>A file system check shows a file system with 0 files, 0 blocks, or 0 free.</p>	<ol style="list-style-type: none"> <li>1. Verify the disk partition was adequate. See "Initializing the Hard Disk Drives" in Chapter 9, "Installing Base System Software," in your platform system maintenance book.</li> <li>2. Restore the system software from the mkimage backup tape. See "Performing a System Restoration" in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> </ol> <p>If no backup is available, reload the system software. See "Chapter 9, "Installing Base System Software," Chapter 10, "Installing the INTUITY CONVERSANT System Software," and Chapter 11, "Installing the Optional Feature Software," in your platform system maintenance book.</p>
<p>The system hangs after a reboot and the screen is blank.</p>	<ol style="list-style-type: none"> <li>1. Check the diskette drive and confirm that it is empty.</li> <li>2. Check the power connections.</li> <li>3. Check the power supply by watching for hard disk access with the disk access light.</li> <li>4. Reboot the system. See "Rebooting the UNIX System," in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> </ol>

## **Repairing System Installation/ Upgrade/Set-Up Troubles**

---

These troubles are experienced during initial installation of the voice system, while upgrading either hardware or software, or when adding additional hardware or software. Table A-3 lists the indications and possible repair procedures related to these troubles.

**Table A-3. Repairing System Installation/Upgrade/Set-Up Troubles**

Indication	Corrective Action
The system cannot initialize the IPCI circuit card.	<ol style="list-style-type: none"> <li>1. Check for possible conflict with memory and I/O addresses or interrupt conflicts.</li> <li>2. Log in as <b>root</b></li> <li>3. Enter <b>crash</b></li> <li>4. Enter <b>strstat</b></li> </ol> <p>The system displays a message similar to the message shown in Figure A-1.</p> <ol style="list-style-type: none"> <li>a. Increase the values to slightly higher than what is listed under the <b>CONFIG</b> column.</li> <li>b. If there is anything other than 0's in the <b>FAIL</b> column, use the <b>/etc/conf/bin/idtune</b> command to increase the tunable parameter. The parameters to tune are <b>NSTREAM</b>, <b>NQUEUE</b> (should be 4 X <b>NSTREAM</b>), <b>NBLK4</b>, <b>NBLK16</b>, <b>NBLK64</b>, <b>NBLK128</b>, <b>NBLK256</b>, <b>NBLK512</b>, <b>NBLK1024</b>, <b>NBLK2048</b>, and <b>NBLK4096</b>.</li> <li>c. After you have changed the tunable parameters, use the <b>/etc/conf/bin/idbuild</b> command to rebuild the UNIX kernel.</li> </ol> <ol style="list-style-type: none"> <li>5. Reboot the system. See "Rebooting the UNIX System," in Chapter 3, "Common System Procedures," in your platform system maintenance book.</li> </ol>

```

> strstat
ITEM          CONFIG  ALLOC  FREE   TOTAL  MAX   FAIL
streams       106    106    0      592   109   0
queues        522    522    0      1926  530   0
message blocks 75     57    18     24269 77    0
data blocks   68     57    11     18271 68    0
link blocks   16     16    0       16    16    0
stream events  6      4     2       6     6     0

Count of scheduled queues:  0
  
```

**Figure A-1. strstat Sample Output**



---

## **Cable Connectivity**

# **B**

---

### **Overview**

---

This appendix details external connectivity and cabling from the computer platform to switches, networks, terminals and distant modems.

Table B-4 and Table B-5 at the end of this appendix list cable ordering numbers and lengths if you need to order cables.

### **Purpose**

---

This appendix provides procedures and illustrations for connections to the switch, network, or terminals to help you make the connections made at those devices.

## Slot Assignments

Circuit cards are placed in the computer in locations called *slots*. Slots are accessible from the back of the computer. Table B-1 shows how the slots are numbered for each platform.

**Table B-1. Slot Numbering**

Platform	ISA Numbering	PCI Numbering
MAP/5P	ISA 2 through ISA 6	PCI 1 through PCI 3
MAP/40P	ISA 1 through ISA 10	PCI 1 through PCI 3
MAP/100	1 through 25	PCI 1 through PCI 3 (These are slots 23 through 25, respectively, if equipped with ISA and PCI backplanes.)
MAP/100C	1 through 25	PCI 1 through PCI 3 (These are slots 23 through 25, respectively, if equipped with ISA and PCI backplanes.)

The following sections detail the fixed and variable slot assignments for circuit cards installed in the computer.

### Fixed Slot Assignment for MAP/5P

The external SCSI connector circuit card slot assignment (PCI slot 1) is fixed in the MAP/5P.

### Variable Slot Assignments for MAP/5P

The following circuit cards have variable slot assignments in the MAP/5P:

- Tip/Ring circuit cards
- FAX circuit card
- Remote maintenance circuit card

#### **NOTE:**

These assignments are limited to the number of available slots on the MAP/5P backplane. The SCSI controller circuit card must be installed in the MAP/5P as specified in "Fixed Slot Assignment for MAP/5P" above.

The following rules apply to the placement of optional circuit cards in the MAP/5P:

- A maximum of four analog circuit cards is supported on the MAP/5P.
- All Tip/Ring circuit cards must be of the same type. For example, the AYC10 circuit card must *not* be included in systems which include an AYC30 (NGTR) Tip/Ring circuit card or an AYC26 Tip/Ring circuit card.
- The AYC10 (IVC6) Tip/Ring circuit cards are assigned slots sequentially, starting with slot 1.
- One fax circuit card is supported per system.
- One remote maintenance circuit card is supported per system.

### **Fixed Slot Assignments for MAP/40P**

Table B-2 identifies the slot assignments in the MAP/40P that are not variable in their arrangement.

**Table B-2. Fixed Slot Locations of MAP/40P**

<b>Slot Number</b>	<b>Circuit Card</b>	<b>Required?</b>
PCI slot 1	Video Controller	Yes
ISA slot 10	P5 120-MHz CPU with on-board PCI SCSI	Yes

**⇒ NOTE:**

The external SCSI connector is required and must be installed next to PCI slot 3, I/O position 14. However, this connector does not require a connection to the backplane.

### **Variable Slot Assignments for MAP/40P**

The following circuit cards have variable slot assignments in the MAP/40P:

- Tip/Ring circuit cards
- T1/E1 circuit cards
- LAN circuit card
  - ISA LANs use ISA slots 1-9
  - PCI LANs use PCI slots 2-3

- 8-port asynchronous circuit card
- SSP circuit card

**⇒ NOTE:**

These assignments depend on how many cards have been installed. These rules presume that the required circuit cards are placed in the MAP/40P as specified in “Fixed Slot Assignments for MAP/40P” above.

The following rules apply to the placement of optional cards in the MAP/40P.

- A maximum of seven Tip/Ring circuit cards is supported.
- All other circuit cards are supported as one per system.
- For each SSP circuit card installed, you give up capacity for one Tip/Ring circuit card.
- Tip/Ring circuit cards are assigned slots sequentially, starting with slot 1. Tip/Ring circuit cards must be placed in contiguous slots.
- Install the SSP circuit card, if provided, in the slot that is one slot higher than the highest-numbered Tip/Ring circuit card.
- If the system uses an SSP circuit card, install a TDM bus cable to connect all Tip/Ring circuit cards with the SSP circuit card. Install terminating resistors to the circuit cards on each end of the TDM bus cable. Remove the terminating resistors from all other circuit cards.

### **Fixed Slot Assignments for MAP/100 and MAP/100C**

---

The following sections detail the fixed assignments for circuit cards installed in the MAP/100 and the MAP/100C.

Table B-3 lists slot assignments which are fixed and are not variable in their arrangement. The slot assignments apply to both required and optional circuit cards.

**Table B-3. MAP/100 and MAP/100C Fixed Slot Assignments**

<b>PCI Backplane Slot Number</b>	<b>ISA Backplane Slot Number</b>	<b>Circuit Card</b>	<b>Required?</b>
1-15	1-15	Tip/Ring	No
16,17,or 18	18	Ethernet LAN	No
18	19	Remote Maintenance	No
19	18	Video controller	Yes
21	16	P5 120/CPU	Yes
22	17	External SCSI Connector/Terminator	Yes
23-25	23-25	Vacant	-

### **Variable Slot Assignments for MAP/100 and MAP/100C**

The following rules apply to the placement of optional boards in the MAP/100 and the MAP/100C:

- A maximum of twelve Tip/Ring circuit cards is supported.
- All other circuit cards are supported as one per system.
- Tip/Ring circuit cards are assigned slots sequentially, starting with slot 1.

## **Overview of INTUITY CONVERSANT Serial Port Connections**

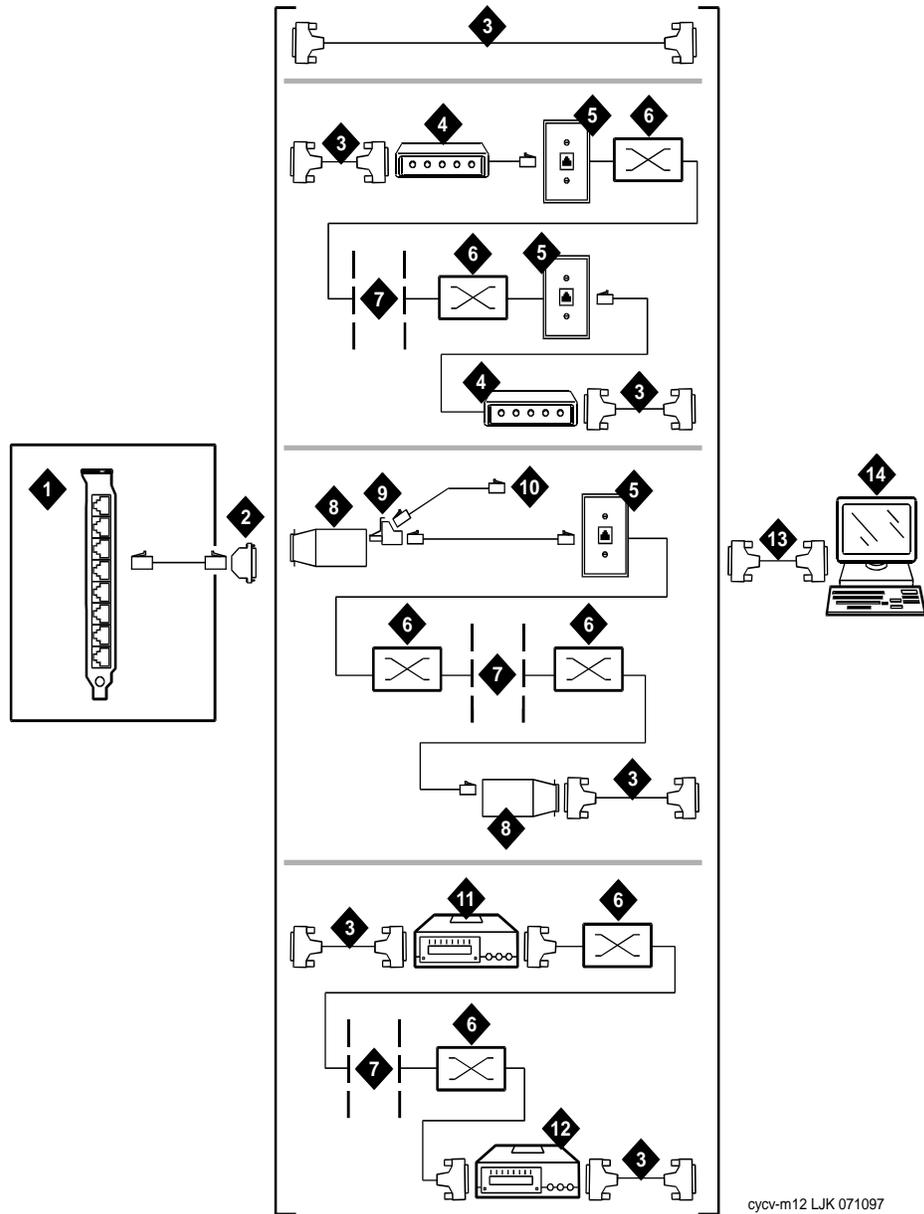
---

Serial port connections (Figure B-1) from the system to terminals, distant modems, or other customer equipment can be made either from COM1 (Serial Port 1) on the back of the computer or from the 8-port asynchronous circuit card.

If there is only one serial connection to be made, use COM1. If more than one serial connection is to be made, use the 8-port asynchronous circuit card first (up to eight connections) and then use COM1.

**⇒ NOTE:**

COM2 is reserved for remote maintenance on systems using alarm origination.



- |                                      |                               |
|--------------------------------------|-------------------------------|
| 1. 8-Port Asynchronous Circuit Card  | 8. ADU                        |
| 2. 25-pin modular adapter            | 9. 400B2 adapter              |
| 3. RS-232 cable                      | 10. To adjunct power 1151A    |
| 4. Modem                             | 11. 7400A data module         |
| 5. House Wiring                      | 12. 7400B distant data module |
| 6. Cross connect field               | 13. Null modem cable          |
| 7. Public Switched Telephone Network | 14. Terminal                  |

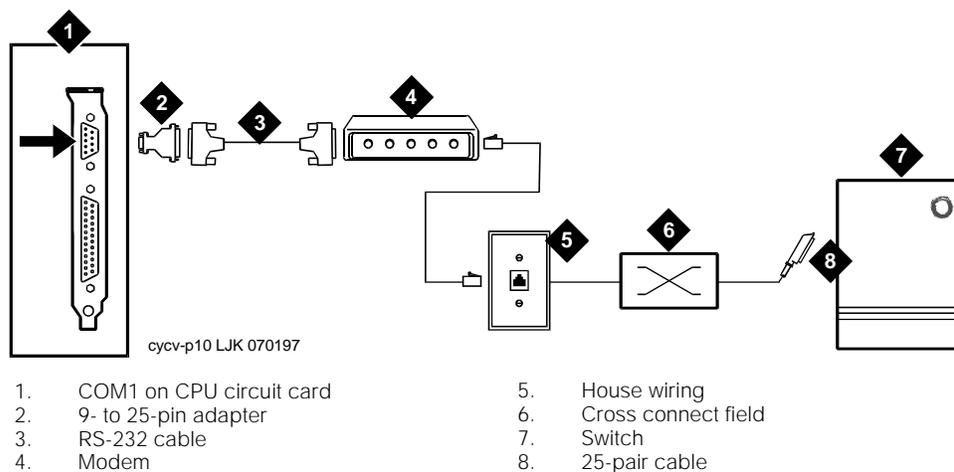
**Figure B-1. Overview of Lucent INTUITY Serial Port Connections**

## Connecting Lucent INTUITY COM1 to Customer Premise Equipment Through a Modem

---

Use the following procedure and Figure B-2 to make these connections.

1. Attach one end of an RS-232 cable to a 9- to 25-pin adapter.
2. Connect the other end of the 9- to 25-pin adapter to COM1 on the CPU circuit card on the back of the computer.
3. Attach the other end of the RS-232 cable to a modem.
4. Connect the modem to the house wiring.
5. Insure the house wiring is connected to the cross connect field.
6. Connect one end of a 25-pair cable to the house wiring
7. Connect the other end of the 25-pair cable to the switch.



---

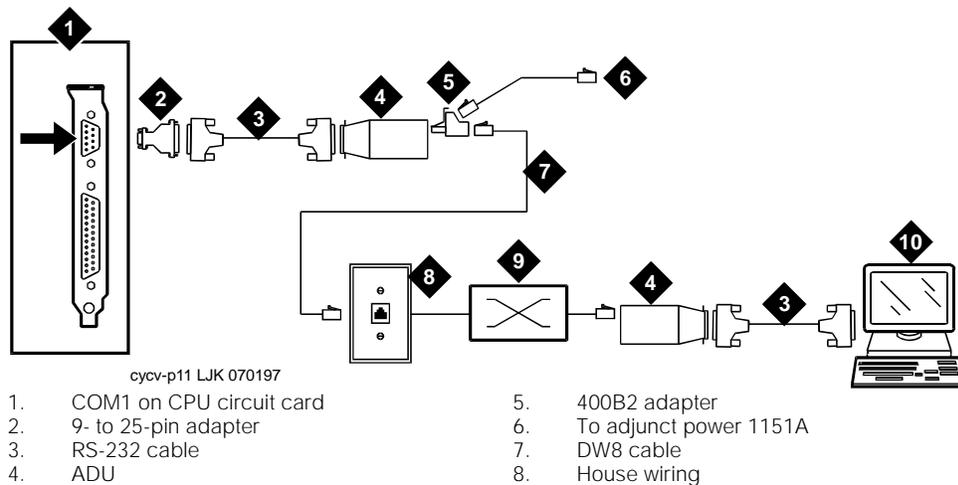
**Figure B-2. Connecting Lucent INTUITY COM1 to Customer Premise Equipment Through a Modem**

## Connecting Lucent INTUITY COM1 to a 715 Terminal DCE Port Through ADUs

---

Use the following procedure and Figure B-3 to make these connections.

1. Attach one end of an RS-232 cable to a 9- to 25-pin adapter.
2. Connect the other end of the 9- to 25-pin adapter to COM1 on the CPU circuit card on the back of the computer.
3. Attach the other end of the RS-232 cable to the ADU.
4. On the other end of the ADU, attach a 400B2 adapter.
5. Attach one end of a DW8 cable to one input of the 400B2 adapter. The other input goes to adjunct power 1151A.
6. Connect the other end of the DW8 cable to the house wiring.
7. At the other end of the house wiring, attach another ADU.
8. At the other end of that ADU, attach an RS-232 cable.
9. Attach the other end of this RS-232 cable to the 715 DCE terminal or other DCE device.

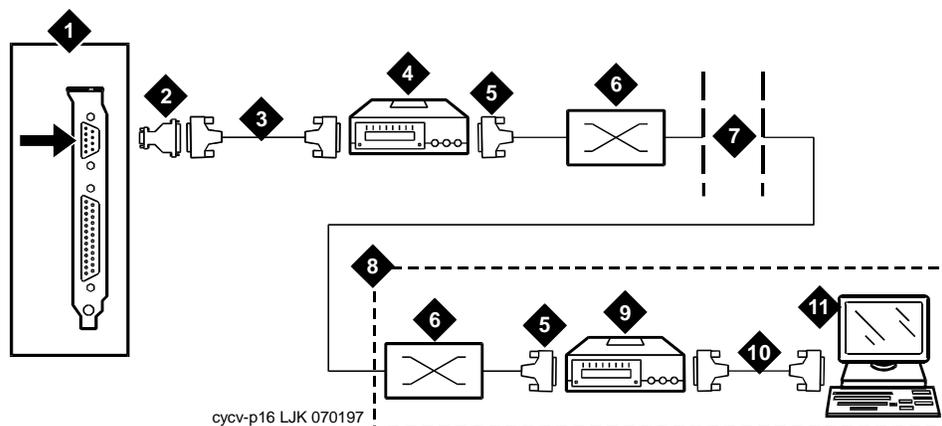


**Figure B-3. Connecting Lucent INTUITY COM1 to a 715 Terminal DCE Port Through ADUs**

## Connecting Lucent INTUITY COM1 to a Distant Data Module Through a 7400A Data Module

Use the following procedure and Figure B-4 to make these connections.

1. Attach an RS-232 cable to one end of a 9- to 25-pin adapter.
2. Connect the other end of the 9- to 25-pin adapter to COM1 on the CPU circuit card on the back of the computer.
3. Attach the other end of the RS-232 cable to a 7400A data module.
4. Attach one end of a 25-pin cable to the 7400A data module.
5. Attach the other end of the 25-pin cable to the cross connect field.
6. At the remote location, connect one end of a 25-pin cable to the cross connect field.
7. Connect the other end of the 25-pin cable to a 7400B distant data module.
8. Connect one end of an RS-232 cable to the 7400B distant data module.
9. Connect the other end of the RS-232 cable to the 715 terminal.



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- |                             |                                      |
|-----------------------------|--------------------------------------|
| 1. COM1 on CPU circuit card | 7. Public Switched Telephone Network |
| 2. 9- to 25-pin adapter     | 8. Remote location                   |
| 3. RS-232 cable             | 9. 7400B distant data module         |
| 4. 7400A data module        | 10. RS-232 cable                     |
| 5. 25-pin cable             | 11. 715 Terminal                     |
| 6. Customer wall field      |                                      |

**Figure B-4. Connecting Lucent INTUITY COM1 to a Distant Data Module Through a 7400A Data Module**

## Connecting Lucent INTUITY COM1 to a 615 Terminal or Other DTE Device Through a Null Modem

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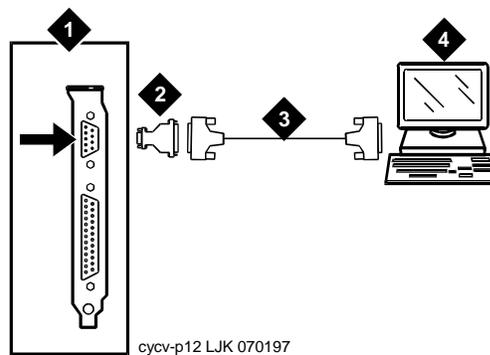
Use the following procedure and Figure B-5 to make these connections.

1. Attach a NULL modem cable to one end of a 9- to 25-pin adapter.
2. Connect the other end of the 9- to 25-pin adapter to COM1 on the CPU circuit card on the back of the computer.
3. Attach the other end of the NULL modem cable to the 615 terminal.



**NOTE:**

The NULL modem must be provided locally. If needed, you can purchase it from Lucent Technologies.



1. COM1 on CPU circuit card
2. 9- to 25-pin adapter
3. Null modem cable
4. 615 terminal

---

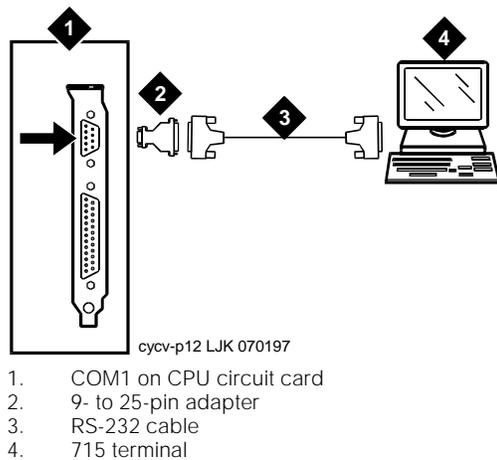
**Figure B-5. Connecting Lucent INTUITY COM1 to a 615 Terminal Through a Null Modem**

## Making a Direct Connection from Lucent INTUITY COM1 to a 715 Terminal or Other DCE Device

---

Use the following procedure and Figure B-6 to make these connections.

1. Attach an RS-232 cable to one end of a 9- to 25-pin adapter.
2. Connect the other end of the 9- to 25-pin adapter to COM1 on the CPU circuit card on the back of the computer.
3. Attach the other end of the RS-232 cable to the 715 terminal or other DCE device.



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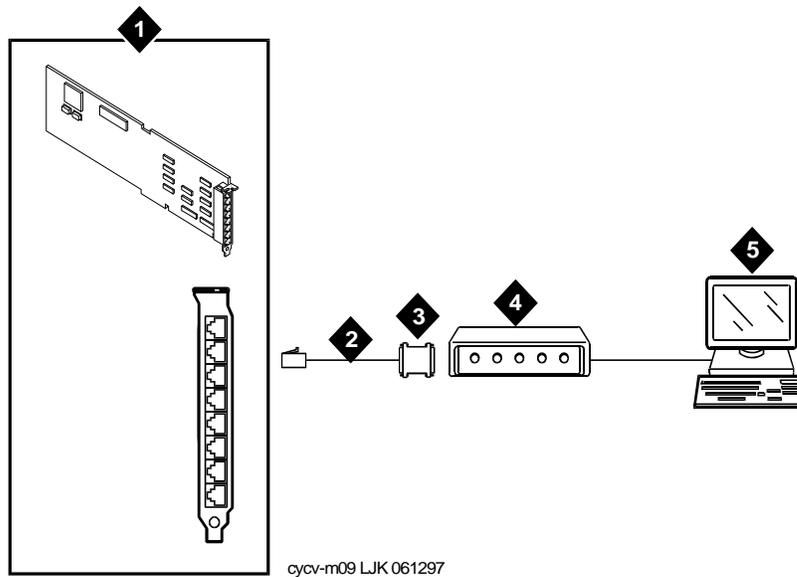
**Figure B-6. Making a Direct Connection from Lucent INTUITY COM1 to a 715 Terminal or Other DCE Device**

## Connecting the 8-Port Asynchronous Circuit Card to Customer Premise Equipment Through a Modem

---

Use the following procedure and Figure B-7 to make these connections.

1. Attach the 4.3-meter (14-foot) modular cable (provided with the card) to the 8-port asynchronous circuit card.
2. Attach the other end of the 4.3-meter (14-foot) modular cable (provided with the 8-port asynchronous circuit card) to the DTE adapter.
3. Connect the DTE adapter to the DCE modem.
4. Connect the DCE modem to customer premise equipment.



1. 8-Port Asynchronous Circuit Card
2. 4.3-m (14-ft) modular cable
3. DTE adapter
4. DCE modem
5. Customer premise equipment

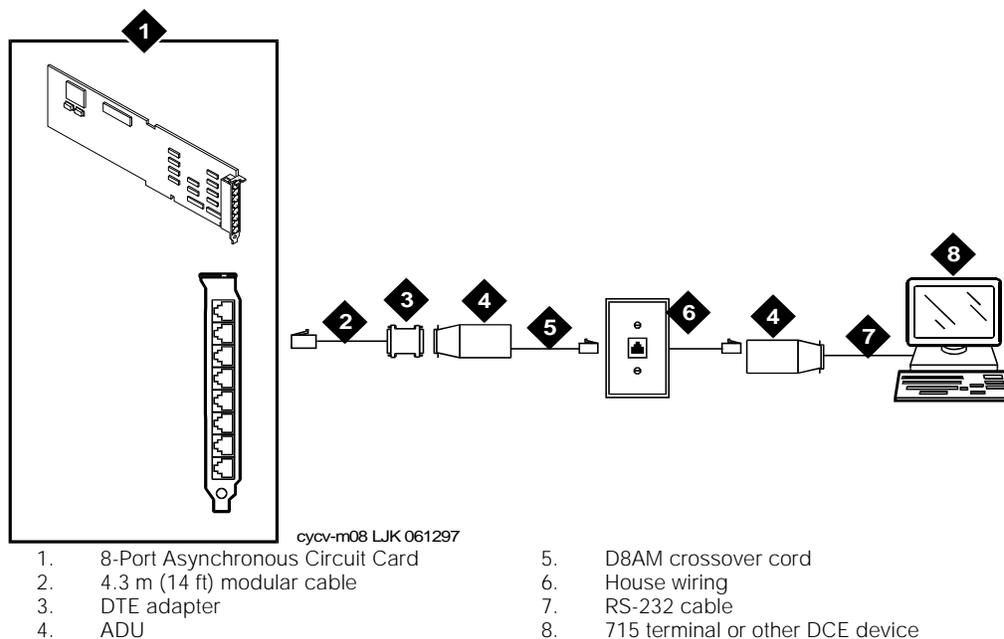
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**Figure B-7. Connecting the 8-Port Asynchronous Circuit Card to Customer Premise Equipment Through a Modem**

## Connecting the 8-Port Asynchronous Circuit Card to a Terminal Through ADUs

Use the following procedure and Figure B-8 to make these cable connections.

1. Attach the 4.3-meter (14-foot) modular cable (provided with the card) to the 8-port asynchronous circuit card.
2. Connect the other end of the 4.3-meter (14-foot) modular cable (provided with the 8-port asynchronous circuit card) to the DTE adapter.
3. Connect the DTE adapter to the ADU.
4. Connect the ADU to one end of a D8AM crossover cord.
5. Attach the other end of the D8AM crossover cord to the house wiring.
6. Connect another ADU to the other end of the house wiring.
7. Attach an RS-232 cable to the other end of this ADU.
8. Connect the other end of the RS-232 cable to the 715 terminal or other DCE device.



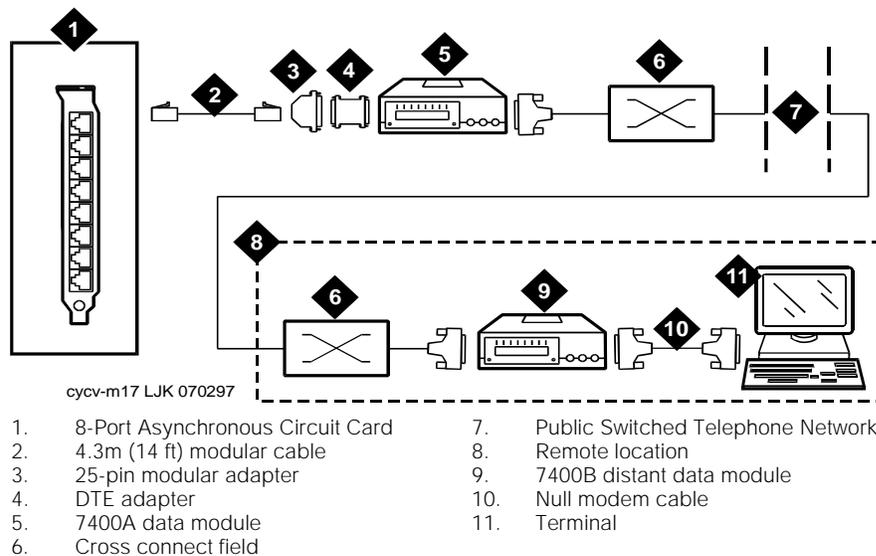
**Figure B-8. Connecting the 8-Port Asynchronous Circuit Card to a Terminal Through ADUs**

## Connecting the 8-Port Asynchronous Circuit Card to a Distant Data Module Through a 7400A Data Module

---

Use the following procedure and Figure B-9 to make these cable connections.

1. Attach the 4.3-meter (14-foot) modular cable (provided with the card) to the 8-port asynchronous circuit card.
2. Attach the other end of the 4.3-meter (14-foot) modular cable (provided with the 8-port asynchronous circuit card) to the DTE adapter using a 25-pin modular adapter.
3. Connect the DTE adapter to the 7400A data module.
4. Connect the 7400A data module to the cross connect field.
5. At the remote location, connect the 7400B distant data module to the cross connect field.
6. Connect the 7400B distant data module to the terminal using a NULLL modem cable.



**Figure B-9. Connecting the 8-Port Asynchronous Circuit Card to a Distant Data Module Through a 7400A Data Module**

## Making a Direct Connection from the 8-Port Asynchronous Circuit Card to a 615 Terminal or Other DTE Devices

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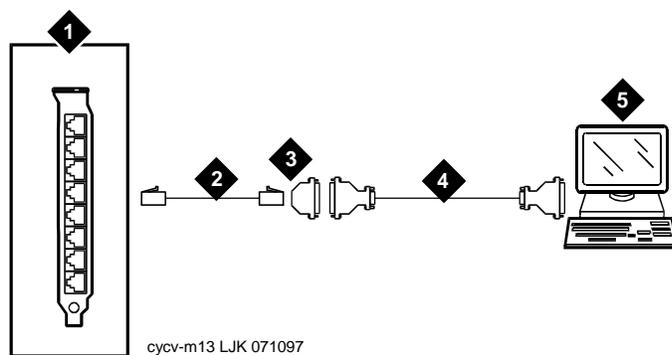
Use the following procedure and Figure B-10 to make these cable connections.

1. Attach the 4.3-meter (14-foot) modular cable (provided with the card) to the 8-port asynchronous circuit card.
2. Attach the other end of the 4.3-meter (14-foot) modular cable (provided with the 8-port asynchronous circuit card) to the DTE adapter.
3. Connect the DTE adapter to the NULL modem cable.

**⇒ NOTE:**

The NULL modem must be provided locally. If needed, it can be purchased from Lucent Technologies.

4. Connect the other end of the NULL modem cable to a 615 terminal or other DTE device.



1. 8-Port Asynchronous Circuit Card
2. 4.3 m (14 ft) modular cable
3. DTE adapter
4. Null modem cable
5. 615 terminal or other DTE device

---

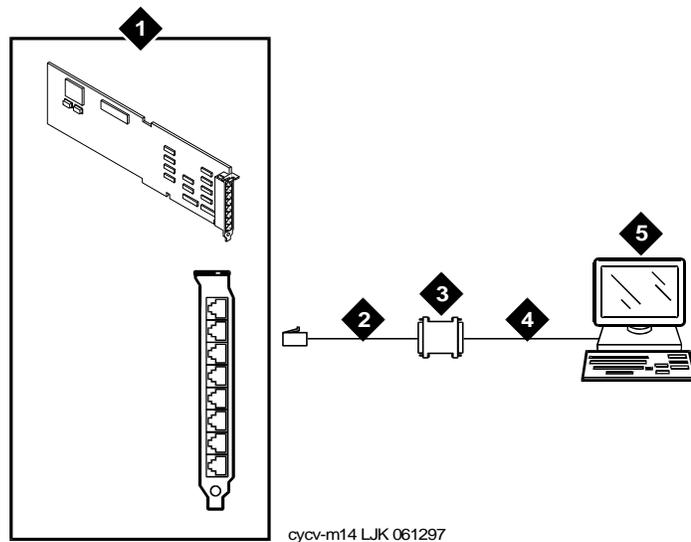
**Figure B-10. Making a Direct Connection from 8-Port Asynchronous Circuit Card to 615 Terminal or other DTE Devices**

## Making a Direct Connection from the 8-Port Asynchronous Circuit Card to 715 Terminal or Other DCE Devices

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Use the following procedure and Figure B-11 to make these cable connections.

1. Attach the 4.3-meter (14-foot) modular cable (provided with the card) to the 8-port asynchronous circuit card.
2. Attach the other end of the 4.3-meter (14-foot) modular cable (provided with the 8-port asynchronous circuit card) to the DTE adapter.
3. Connect an RS-232 cable to the other end of the DTE adapter.
4. Connect the other end of the RS-232 cable to the 715 terminal DCE port or other DCE devices.



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1. 8-Port Asynchronous Circuit Card
2. 4.3 m (14 ft) modular cable
3. DTE adapter
4. RS-232 cable
5. 715 terminal or other DCE device

---

**Figure B-11. Making a Direct Connection from 8-Port Asynchronous Circuit Card to a Terminal or other DCE Devices**

## **Cable and Adapter Ordering Numbers**

Table B-4 list cables, adapters, and ordering numbers for the Tip/Ring (voice) connections.



**NOTE:**

The AYC29 circuit card is used for Australian installations.

**Table B-4. Cable Types and Lengths for Tip/Ring – (Voice) Connections**

<b>Type</b>	<b>Length (feet/meter)</b>	<b>ED Number</b>
G37A, F-to-M	15/4.6	ED5P208-30
G37B, F-to-M	20/6.1	ED5P208-30
G37C, F-to-M	25/7.6	ED5P208-30
G37D, F-to-M	30/9.1	ED5P208-30
G37E, F-to-M	35/10.7	ED5P208-30
G37F, F-to-M	40/ 2.2	ED5P208-30
G37G, F-to-M	45/13.7	ED5P208-30
G37H, F-to-M	50/ 5.2	ED5P208-30
G37J, F-to-M	55/ 6.8	ED5P208-30
G37K, F-to-M	60/18.3	ED5P208-30
G37L, F-to-M	65/19.8	ED5P208-30
G37M, F-to-M	70/21.3	ED5P208-30
G37N F-to-M	75/22.9	ED5P208-30
G37P, F-to-M	80/24.4	ED5P208-30
G37Q, F-to-M	85/25.9	ED5P208-30
G37R, F-to-M	90/27.4	ED5P208-30
G37S, F-to-M	95/29	ED5P208-30
G37T, F-to-M	100/30.5	ED5P208-30
G37U, F-to-M	125/38.1	ED5P208-30
G37V, F-to-M	150/45.7	ED5P208-30
G37W, F-to-M	175/53.3	ED5P208-30
G37X, F-to-M	200/61	ED5P208-30
G37Y,F-to-M	300/91.4	ED5P208-30

*Continued on next page*

**Table B-4. Cable Types and Lengths for Tip/Ring – (Voice) Connections — Continued**

G36A, F-to-F	15/4.6	ED5P208-30
G36B, F-to-F	20/6.1	ED5P208-30
G36C, F-to-F	25/7.6	ED5P208-30
G36D, F-to-F	30/9.1	ED5P208-30
G36E, F-to-F	35/10.7	ED5P208-30
G36F F-to-F	40/12.2	ED5P208-30
G36G, F-to-F	45/13.7	ED5P208-30
G36H, F-to-F	50/15.2	ED5P208-30
G36J, F-to-F	55/16.8	ED5P208-30
G36K, F-to-F	60/18.3	ED5P208-30
G36L, F-to-F	65/19.8	ED5P208-30
G36M, F-to-F	70/21.3	ED5P208-30
G36N, F-to-F	75/22.9	ED5P208-30
G36P, F-to-F	80/24.4	ED5P208-30
G36Q, F-to-F	85/25.9	ED5P208-30
G36R, F-to-F	90/27.4	ED5P208-30
G36S, F-to-F	95/29	ED5P208-30
G36T, F-to-F	100/30.5	ED5P208-30
G36U, F-to-F	125/38.1	ED5P208-30
G36V, F-to-F	150/45.7	ED5P208-30
G36W F-to-F	175/53.3	ED5P208-30
G36X, F-to-F	200/61	ED5P208-30
G36Y, F-to-F	300/91.4	ED5P208-30

Table B-5 list cables, adapters, and ordering numbers for the serial connection (8-port asynchronous circuit card).

**Table B-5. Cables (Length), Adapters, Comcodes – Serial Configurations**

<b>Cable/Adapter</b>	<b>Length feet/meters</b>	<b>Comcode</b>
Modular cord with 10 wires and terminated with RJ45 connectors	10/3	846362705
	25/7.6	846362713
	50/15.2	846362721
Modular cord with 8 wires	7/2.1	403600968
	14/4.3	403600976
	25/7.6	403600984
	50/15.2	403600992
Null modem cable 25-pin, male to male	7/2.1	524565959
	14/4.3	524565967
	25/7.6	524565975
	50/15.2	524565975
Null modem cable, 25-pin, male to female	6/1.8	524163417
Modem extension cable 25-pin, male to male M25A	7/2.1	524161742
	14/4.3	524161759
	25/7.6	524161767
	50/15.2	524161775
Modem extension cable 25-pin, male to female M25B	7/2.1	524080652
	12/3.7	524080660
	25/7.6	524080678
	50/15.2	524080686
Parallel printer cable, 25-pin male to 36-pin male	7/ 2.1	524305000
Terminal/Printer 10-pin, modular to 25-pin male	Adapter	846362739
Modem 10-pin modular to 25-pin male	Adapter	846362754
Modem 10-pin modular to 25-pin female	Adapter	846362762
Terminal/printer 8-pin modular to 25-pin male	Adapter	403602717
Modem 8-pin modular to 25-pin male	Adapter	403417538

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# Glossary

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## Numerics

**23B+D**

23 bearer (communication) and 1 data (signaling) channel on a T1 PRI circuit card.

**30B+D**

30 bearer (communication) and 1 data (signaling) channel (plus framing channel 0) on an E1 PRI circuit card.

**3270 interface**

A link between one or more INTUITY™ CONVERSANT® machines and a host mainframe. In INTUITY CONVERSANT system documentation, the 3270 interface specifically means the link between one or more system machines and an IBM host mainframe.

**47B+D**

47 bearer (communication) and 1 data (signaling) channel on two T1 PRI circuit cards.

**4ESS®**

A large Lucent central office switch used to route calls through the telephone network.

---

## A

**AC**

alternating current

**ACD**

automatic call distributor

**AD**

application dispatch

**AD-API**

application dispatch application programming interface

**adaptive differential pulse code modulation**

A means of encoding analog voice signals into digital signals by adaptively predicting future encoded voice signals. This adaptive modulation method reduces the number of bits required to encode voice. See also "pulse code modulation."

**adjunct products**

Products (for example, the Adjunct/Switch Application Interface) that the INTUITY system administers via cut-through access to the inherent management capabilities of the product itself; this is in opposition to the ability of the INTUITY CONVERSANT system to administer the switch directly.

**Adjunct/Switch Application Interface**

An optional feature package that provides an Integrated Services Digital Network-based interface between Lucent Technologies PBXs and adjunct processors.

**ADPCM**

adaptive differential pulse code modulation

**ADU**

asynchronous data unit

**advanced speech recognition**

A speech recognition ability that allows the system to understand WholeWord and FlexWord® inputs from callers.

**affiliate**

A business organization that Lucent controls or with which Lucent is in partnership.

**AGL**

application generation language

**alarm relay unit**

A unit used in central office telecommunication arrangements that transmits warning indicators from telephone communications equipment (such as an INTUITY CONVERSANT system) to audio.

**ALERT**

System alerter process

**alerter**

A system process that responds to patterns of events logged by the "logdaemon" process.

**American Standard Code for Information Interchange**

A standard code for data representation that represents alphanumeric characters as binary numbers. The code includes 128 upper- and lowercase letters, numerals, and special characters. Each alphanumeric and special character has an ASCII code (binary) equivalent that is 1 byte long.

**analog**

An analog signal, such as voice or music, that varies in a continuous manner. An analog signal may be contrasted with a digital signal, which represents only discrete states.

**ANI**

automatic number identification

**announcement**

A message the system plays to the caller to provide information. The caller is not asked to give a response. Compare to "prompt."

**API**

Application programming interface

**application**

The automated transaction (interactions) among the caller, the voice response system, and any databases or host computers required for your business. See also "application script."

**application administration**

The component of the INTUITY CONVERSANT system that provides access to the applications currently available on your system and helps you to manage and administer them.

**application installation**

A two-step process in which the INTUITY CONVERSANT system invokes the TSM script assembler for the specific application name and moves files to the appropriate directories.

**application script**

The computer program that controls the application (the transaction between the caller and the system). The INTUITY CONVERSANT system provides several methods for creating application scripts, including Graphical Designer, Script Builder, Transaction Assembler Script (TAS) language, and the Intuity Response Application Programming Interface (IRAPI).

**application verification**

A process in which the INTUITY CONVERSANT system verifies that all the components needed by an application are complete.

**ASCII**

American Standard Code for Information Interchange

**ASI**

analog switch integration

**ASR**

advanced speech recognition

**asynchronous communication**

A method of data transmission in which bits or characters are sent at irregular intervals and spaced by start and stop bits rather than by time. Compare to "synchronous communication."

**asynchronous data unit**

An electronic communications device that allows computer systems to communicate over asynchronous lines more than 50 feet (15 m) in length.

**automatic call distributor**

That part of a telephone system that recognizes and answers incoming calls and completes these calls based on a set of instructions contained in a database. The ACD can send the call to an operator or group of operators as soon as the operator has completed a previous call or after the system has played a message to the caller.

**automatic number identification**

A method of identifying the calling party by automatically receiving a string of digits that identifies the calling station of a particular customer.

**AYC2C**

The signal processor (SP) circuit card.

**AYC3B**

A T1 (digital) circuit card.

**AYC5B**

The IVP6 Tip/Ring (analog) circuit card.

**AYC6B**

The IVP4 Tip/Ring (analog) circuit card.

**AYC7**

The companion (CMP) circuit card.

**AYC9**

The Text-to-Speech circuit card.

**AYC10**

The IVC6 Tip/Ring (analog) circuit card.

**AYC11**

A T1 (digital) circuit card.

**AYC16**

The IVP6-IU Tip/Ring (analog) circuit card.

**AYC21**

The E1/T1 (digital) circuit card.

**AYC26**

The IVP6-IA Tip/Ring (analog) circuit card.

**AYC27**

The IVP6-ID Tip/Ring (analog) circuit card.

**AYC28**

The IVP6 Tip/Ring (analog) circuit card.

**AYC30**

The NGTR (analog) circuit card.

**AYC43**

The speech and signal processor (SSP) circuit card.

---

## B

**back up**

The preservation of the information in a file in a different location, so that the data is not lost in the event of hardware or system failure.

**backing up an application**

Using a utility that makes an archive copy of a completed application or an interim copy of an application in progress. The back-up copy can be restored to the system if the on-line version is damaged, or if you make revisions and want to go back to the previous version.

**barge-in**

A capability provided by WholeWord speech recognition and Dial Pulse Recognition (DPR) that allows callers to speak or enter their responses during the prompt and have those responses recognized (similar to the Speak with Interrupt capability). See also "echo cancellation."

**batch file**

A file containing one or more lines, each of which is a command executable by the UNIX shell.

**BB**

bulletin board

**binary synchronous communications**

A character-oriented synchronous link protocol.

**blind transfer protocol**

A protocol in which a call is completed as soon as the extension is dialed, without having to wait to see if the telephone is busy or if the caller answered.

**bps**

bits per second

**BRDG**

call bridging process

**bridging**

The process of connecting one telephone network connection to another over the INTUITY CONVERSANT system TDM bus. Bridging decreases the processing load on the system since an active bridge does not require speech processing, database access, host activity, etc., for the transaction.

**BSC**

binary synchronous communications

**bundle**

In the context of the Enhanced File Transfer package, this term is used to denote a single file, a group of files (package), or a combination of both.

**byte**

A unit of storage in the computer. On many systems, a byte is 8 bits (binary digits), which is the equivalent of one character of text.

---

## C

**call classification analysis**

A process that enables application designers to use information available within the system to classify the disposition of originated and transferred calls. Intelligent CCA is provided with the system. Full CCA is an optional feature package.

**call data event**

A parameter that specifies a list of variables that are appended to a call data record at the end of each call.

**call data handler process**

A software process that accumulates generic call statistics and application events.

**called party number**

The number dialed by the person making a telephone call. Telephone switching equipment can use this number to selectively route an incoming call to a particular department or agent.

**caller**

The party who calls for a service, gets connected to the INTUITY CONVERSANT system, and interacts with it. As the INTUITY CONVERSANT system can also make outbound calls for service, the caller can also be the person who responds to those outbound calls.

**call progress tones**

Standard telephony sounds that indicate the status of the call. These sounds include busy, fast busy, ringback, reorder, etc.

**card cage**

An area within a INTUITY CONVERSANT system platform that contains and secures all of the standard and optional circuit cards used in the system.

**cartridge tape drive**

A high-capacity data storage/retrieval device that can be used to transfer large amounts of information onto high-density magnetic cartridge tape based on a predetermined format. This tape can be removed from the system and stored as a backup, or used on another system.

**CAS**

channel associated signalling

**caution**

An admonishment or advisory statement used in INTUITY CONVERSANT system documentation to alert the user to the possibility of a service interruption or a loss of data.

**CCA**

call classification analysis

**CDH**

call data handler process

**CELP**

code excited linear prediction

**central office**

An office or location in which large telecommunication devices such as telephone switches and network access facilities are maintained. These locations follow strict installation and operation requirements.

**central processing unit**

See "processor."

**CGEN**

Voice system general message class

**channel**

See "port."

**channel associated signaling**

A type of signaling that can be used on E1 circuit cards. It occurs on channel 16.

**CICS**

Customer Information Control System

**circuit card upgrade**

A new circuit card that replaces an existing card in the platform. Usually the replacement is an updated version of the original circuit card to replace technology made obsolete by industry trends or a new system release.

**cluster controller**

A bisynchronous interface that provides a means of handling remote communication processing.

**CMS**

Call Management System

**CO**

central office

**code excited linear prediction**

A means of encoding analog voice signals into digital signals that provides excellent quality with use of minimum disk space.

**command**

An instruction or request the user issues to the system software to make the system perform a particular function. An entire command consists of the command name and options.

**configuration**

The arrangement of the software and hardware of a computer system or network. The INTUITY CONVERSANT system configuration includes either a standard or custom processor, peripheral equipment (for example, printers and modems), and software applications. Configuration also refers to the way the switch network is set up; that is, the types of products that are in the network and how those products communicate.

**configuration management**

The component of the system that allows you to manage the current configuration of voice channels, host sessions, and database connections, assign scripts to run on specific voice channels or host sessions, assign functionality to SSP and E1/T1 circuit cards, and perform various maintenance functions.

**connect and disconnect (C and D) tones**

DTMF tones that inform the system when the attendant has been connected (C) and when the caller has been disconnected (D).

**connected digits**

A sequence of digits that the system can process as a group, rather than requiring the caller to enter the digits one at a time.

**Converse Data Return (conv\_data)**

A Script Builder action that supports the DEFINITY<sup>®</sup> call vectoring (routing) feature by enabling the switch to retain control of vector processing in the system environment. It supports the DEFINITY "converse" vector command to establish a two-way routing mechanism between the switch and the system to facilitate data passing and return.

**controller circuit card**

A circuit card used on a computer system that controls its basic functionality and makes the system operational. These circuit cards are used to control magnetic peripherals, video monitors, and basic system communications.

**copying an application**

A utility in which information from a source application is directed into the destination application.

**coresidency**

The ability of two products or services to operate and interact with each other on a single hardware platform. An example of this is the use of an INTUITY CONVERSANT system along with a package from a different vendor on the same system platform.

**CPE**

customer provided equipment or customer premise equipment

**CPN**

called party number

**CPT**

call progress tones

**CPU**

central processing unit

**crash**

An interactive utility for examining the operating system core and for determining if system parameters are being exceeded.

**CSU**

channel service unit

**custom speech**

Unique words or phrases to be used in INTUITY CONVERSANT system voice prompts that Lucent Technologies custom records on a per-customer basis.

**custom vocabulary**

A specialized package of unique words or phrases created on a per-customer basis and used by WholeWord or FlexWord speech recognition.

**Customer Information Control System**

Part of the operating system that manages resources for running applications (for example, IND\$FILE). Note that TSO and CMS provide analogous functionality in other host environments.

**CVS**

converse vector step

## D

### **danger**

An admonishment or advisory statement used in INTUITY CONVERSANT system documentation to alert the user to the possibility of personal injury or death.

### **data interface process**

A software process that communicates with Script Builder applications.

### **database**

A structured set of files, records, or tables.

### **database field**

A field used to extract values from a local database and form the structure upon which a database is built.

### **database record**

The information in a database for a person, product, event, etc. The database record is made up of individual fields for each information item.

### **database table**

A structure, made up of columns and rows, that holds information in a database. Database tables provide a means of storing information that changes too often to "hard-code," or store permanently, in the transaction outline.

### **dB**

decibel

### **DB**

database

### **DBC**

database checking process

### **DBMS**

database management system

### **DC**

direct current

### **DCE**

data communications equipment

### **DCP**

digital communications protocol

### **debug**

The process of locating and correcting errors in computer programs; also referred to as "troubleshooting."

### **default**

The way a computer performs a task in the absence of other instructions.

### **default owner**

The owner of a channel when no process takes ownership of that channel. The default owner holds all idle, in-service channels. In terms of the IRAPI, this is typically the Application Dispatch process.

**diagnose**

The process of performing diagnostics on a bus or on Tip/Ring, E1/T1, or SSP circuit cards.

**dial ahead**

The ability to collect and process touch-tone inputs in sequence, even when they are received before the prompts.

**dial pulse recognition**

A method of recognizing caller pulse inputs from a rotary telephone.

**dialed number identification service**

A service that allows incoming calls to contain information about the telephone number for which it is destined.

**dial through**

A capability provided by touch-tone and dial pulse recognition that allows callers to enter their responses during the prompt and have those responses recognized (similar to the Speak with Interrupt capability). See also "bargue-in" and "echo cancellation".

**dictionary**

A reference book containing an alphabetical list of words, with information given for each word including meaning, pronunciation, and etymology.

**DIMM**

dual in-line memory module

**DIO**

disk input and output process

**DIP**

data interface process

**directory**

A type of file used to group and organize other files or directories.

**display errdata**

A command that displays system errors sent to the logger.

**DMA**

direct memory address

**DNIS**

dialed number identification service

**DPR**

dial pulse recognition

**DSP**

digital signal processor

**DTE**

data terminal equipment

**DTMF**

dual tone multi-frequency

**DTR**

data terminal ready

**dual 3270 links**

A feature that provides an additional physical unit (PU) for a cost-effective means of connecting to two host computers. The customer can connect a system to two separate FEPs or to a single FEP shared by one or more host computers. Each link supports a maximum of 32 LUs.

**dual tone multi-frequency**

A touch-tone sound that is an audio signal including two different frequencies. *DTMF feedback* is the process of the "switch" providing this information to the system. *DTMF muting* is the process of ignoring these tones (which might be simulated by human speech) when they are not needed for the application.

**dump space**

An area of the disk that is fixed in size and should equal the amount of RAM on the system. The operating system "dumps" an image of core memory when the system crashes. The dump can be fetched after rebooting to help in analyzing the cause of the crash.

---

## E

**E&M**

Ear and Mouth

**E1 / T1**

Digital telephony interfaces, commonly called *trunks*. E1 is an international standard at 2.048 Mbps. T1 is a North American standard at 1.544 Mbps.

**Ear and Mouth**

A common T1 trunking protocol for connection between two "switches."

**EBCDIC**

Extended Binary Coded Decimal Interexchange Code

**echo cancellation**

The process of making the channel quiet enough so that the system can hear and recognize WholeWord and dial pulse inputs during the prompt. See also "barge-in."

**ECS**

Enterprise Communications Server

**editor system**

A system that allows speech phrases to be displayed and edited by a user. See "Graphical Speech Editor."

**EFT**

Enhanced File Transfer

**EIA**

Electronic Industries Association

**EISA**

Extended Industry Standard Architecture

**EMI**

electromagnetic interference

**Enhanced Basic Speech**

Pre-recorded speech available from Lucent Technologies in several languages. Sometimes called "standard speech."

**Enhanced File Transfer**

A feature that allows the transferring of files automatically between the INTUITY CONVERSANT system and a synchronous host processor on a designated logical unit.

**Enhanced Serial Data Interface**

A software- and hardware-controlled method used to store data on magnetic peripherals.

**Enterprise Communications Server**

The telephony equipment that connects your business to the telephone network. Sometimes called a "switch."

**error message**

A message on the screen indicating that something is wrong with a possible suggestion of how to correct it.

**ESD**

electrostatic discharge

**ESDI**

Enhanced Serial Data Interface

**ESS**

electronic switching system

**EST**

Enhanced Software Technologies, Inc.

**ET**

error tracker

**Ethernet**

A name for a local area network that uses 10BASE5 or 10BASE2 coaxial cable and InterLAN signaling techniques.

**event**

The notification given to an application when some condition occurs that is generally not encountered in normal operation.

**EXTA**

external alarms feature message class

**external actions**

Specific predefined system tasks that Graphical Designer or Script Builder can call or *invoke* to interact with other products or services. When an external action is invoked, the systems displays a form that provides choices in each field for the application developer to select. Examples are Call\_Bridge, Make\_Call, SP\_Allocate, SR\_Prompt, etc.

**external functions**

Specific predefined (or customer-created) system tasks that can Graphical Designer or Script Builder can call or *invoke* to interact with other products or services. The function allows the application developer to enter the argument(s) for the function to act on (they are not provided in a choices list). Examples are concat, getarg, length, substring, etc.

## **F**

### **FAX Actions**

An optional feature package that allows the system to send fax messages.

### **FCC**

Federal Communications Commission

### **FDD**

floppy disk drive

### **feature**

A function or capability of a product or an application within the INTUITY CONVERSANT system.

### **feature package**

An optional package that may contain both hardware and software resources to provide additional functionality to a standard system.

### **feature\_tst script package**

A standard INTUITY CONVERSANT system software program that allows a user to perform self-tests of critical hardware and software functionality.

### **FEP**

front end processor

### **FFE**

Form Filler Plus feature message class

### **field**

See "database field."

### **FIFO**

first-in-first-out processing order

### **file**

A collection of data treated as a basic unit of storage.

### **file transfer**

An option that allows you to transfer files interactively or directly to and from UNIX using the file transfer system (FTS).

### **filename**

Alphabetic characters used to identify a particular file.

### **FlexWord™ speech recognition**

A type of speech recognition based on subword technology that recognizes phonemes or parts of words in a specific language. See also "subword technology."

### **foos**

facility out-of-service state

### **Form Filler Plus**

An optional feature package that provides the capability for application scripts to record a caller's responses to prompts for later transcription and review.

### **FTS**

file transfer process message class

**Full CCA**

A feature package that augments the types of call dispositions that Intelligent CCA can provide.

**function key**

A key, labeled F1 through F8, on your keyboard to which the INTUITY CONVERSANT system software gives special properties for manipulating the user interface.

---

**G**

**GEN**

PRISM logger and alerter general message class

**grammar**

The inputs that a recognizer can match (identify) from a caller.

**Graphical Speech Editor**

A window-driven, X Windows/Motif based, graphical user interface (GUI) that can be accessed to perform different functions associated with the creation and editing of speech files for applications.

**Graphical Designer**

An optional software package that provides a graphical interface to assist in development of voice response applications on the INTUITY CONVERSANT system (see also "Script Builder").

**GSE**

Graphical Speech Editor

**GUI**

graphical user interface

---

**H**

**hard disk drive**

A high-capacity data storage/retrieval device that is located inside a computer platform. A hard disk drive stores data on nonremovable high-density magnetic media based on a predetermined format for retrieval by the system at a later date.

**hardware**

The physical components of a computer system. The central processing unit, disks, tape, and floppy drives, etc., are all hardware.

**Hardware Resource Allocator**

A software program that resolves or blocks the allocation of CPU and memory resources for controlling and optional circuit cards.

**hardware upgrade**

Replacement of one or more fundamental platform hardware components (for example, the CPU or hard disk drive), while the existing platform and other existing optional circuit cards remain.

**HDD**

hard disk drive

**High Level Language Applications Programming Interface**

An application programming interface that allows a user to write custom applications that can communicate with a host computer via an API.

**HLLAPI**

High Level Language Applications Programming Interface

**HOST**

host interface process message class

**host computer**

A computer linked to a network to provide a range of services, such as database access and computation. The host computer operates in a time-sharing manner with other computers linked to it via the network.

**hwoos**

hardware out-of-service state

**Hz**

Hertz

---

**I**

**IBM**

International Business Machines

**iCk or ICK**

The system integrity checking process.

**ID**

identification

**IDE**

integrated disk electronics

**idle channel**

A channel that either has no owner or is owned by its default owner and is onhook.

**IE**

information element

**IND\$FILE**

The standard SNA file transfer utility that runs as an application under CICS, TSO, and CMS. IND\$FILE is independent of link-level protocols such as BISYNC and SDLC.

**independent software vendor**

A company that has an agreement with Lucent Technologies to develop software to work with the INTUITY CONVERSANT system to provide additional features required by customers.

**indexed table**

A table that, unlike a nonindexed table, can be searched via a field name that has been indexed.

**industry standard architecture**

A PC bus standard that allows processors and other circuit cards to communicate with each other.

**INIT**

voice system initialization message class

**initialize**

To start up the system for the first time.

**inserv**

in-service state

**Integrated Services Digital Network**

A network that provides end-to-end digital connectivity to support a wide range of voice and data services.

**Integrated Voice Processing (IVP) circuit card**

The IVP4 or IVP6 circuit card that provides Tip/Ring connections. The NGTR (AYC30) card also provides the same functions.

**intelligent CCA**

Monitoring the line after dialing is complete to determine whether a busy, reorder (fast busy), or other failure has been encountered. It also recognizes when the extension is answered or if the extension is not answered after a specified number of rings. The monitoring capabilities are dependent on the network interface circuit card and protocol used

**interface**

The access point of a system. With respect to the INTUITY CONVERSANT system, the interface is designed to provide you with easy access to the software capabilities.

**interrupt**

The termination of voice and/or telephony functions when some condition occurs.

**INTUITY Response Application Programming Interface**

A library of commands that provide a standard development interface for voice-telephony applications.

**IPC**

interprocess communication

**IPC**

intelligent ports card (IPC-900)

**IPCI**

integrated personal computer interface

**IRAPI**

Intuity Response Application Programming Interface

**IRQ**

interrupt request

**ISA**

industry standard architecture

**ISDN**

Integrated Services Digital Network

**ISV**

independent software vendor

**ITAC**

International Technical Assistance Center

**IVC6 circuit card (AYC10)**

A Tip/Ring (analog) circuit card with six channels.

**IVP4 circuit card (AYC6 or AYC6B)**

A Tip/Ring (analog) card with four channels.

**IVP6 circuit card (AYC5, AYC5B, or AYC28)**

A Tip/Ring (analog) card with six channels.

---

**K**

**Kbps**

kilobytes per second

**Kbyte**

kilobyte

**keyboard mapping**

In emulation mode, this feature enables the keyboard to send 3270 keyboard codes to the host according to a configuration table set up during installation.

**keyword spotting**

A capability provided by WholeWord speech recognition that allows the system to recognize a single word in the middle of an entire phrase spoken by a caller in response to a prompt.

---

**L**

**LAN**

local area network

**LDB**

local database

**LED**

light-emitting diode

**library states**

The state information about channel activities maintained by the IRAPI.

**LIFO**

last-in-first-out processing order

**line side E1**

A digital method of interfacing an INTUITY CONVERSANT system to a PBX or "switch" using E1-related hardware and software.

**line side T1**

A digital method of interfacing an INTUITY CONVERSANT system to a PBX or "switch" using T1-related hardware and software.

**listfile**

An ASCII catalog that lists the contents of one or more talkfiles. Each application script is typically associated with a separate listfile. The listfile maps speech phrase strings used by application scripts into speech phrase numbers.

**local area network**

A data communications network in a limited geographical area. The LAN provides communications between computers and peripherals.

**local database**

A database residing on the INTUITY CONVERSANT system.

**LOG**

INTUITY CONVERSANT system logger process message class

**logical unit**

A type of SNA Network Addressable Unit.

**logdaemon**

A UNIX system information and error logging process.

**logger**

See "logdaemon."

**logging on/off**

Entering or exiting the INTUITY CONVERSANT system software.

**LSE1**

line side E1

**LST1**

line side T1

**LU**

logical unit

---

## M

**magnetic peripherals**

Data storage devices that use magnetic media to store information. Such devices include hard disk drives, floppy disk drives, and cartridge tape drives.

**main screen**

The INTUITY CONVERSANT system screen from which you are able to enter either the System Administration or Voice System Administration menu.

**maintenance process**

A software process that runs temporary diagnostics and maintains the state of circuit cards and channels.

**manoos**

manually out-of-service state

**MAP/100**

multi application platform 100

**MAP/100C**

multi application platform 100C

**MAP/40**

multi application platform 40

**MAP/5P**

multi application platform 5P

**masked event**

An event that an application can ignore (that is, the application can request not to be informed of the event).

**master**

A circuit card that provides clock information to the TDM bus.

**Mbps**

megabits per second

**MByte**

megabyte

**megabyte**

A unit of memory equal to 1,048,576 bytes (1024 x 1024). It is often rounded to one million.

**menu**

Options presented to a user on a computer screen or with voice prompts.

**MF**

multifrequency

**MHz**

megahertz

**Microsoft**

A manufacturer of software products, primarily for IBM-compatible computers.

**mirroring**

A method of data backup that allows all of the data transactions to the primary hard disk drive to be copied and maintained on a second identical drive in near real time. If the primary disk drive crashes or becomes disabled, all of the data stored on it (up to 1.2 billion bytes of information) is accessible on the second mirrored disk drive.

**ms**

millisecond

**msec**

millisecond

**MS-DOS**

A personal computer disk operating system developed by the Microsoft Corporation.

**MTC**

maintenance process

**multifrequency**

Dual tone digit signalling (similar to DTMF), used for trunk addressing between network switches or by network operators.

**multithreaded application**

A single process/application that controls several channels. Each thread of the application is managed explicitly. Typically this means state information for each thread is maintained and the state of the application on each channel is tracked.

---

## N

**NCP**

Network Control Program

**NEBS**

Network Equipment Building Standards

**NEMA**

National Electrical Manufacturers Association

**netoos**

network out-of-service state

**NetView**

An optional feature package that transmits high-priority (major or critical) messages to the host as operator-generated alerts (OGAs) over the 3270 host link. The NetView Alarm feature package does not require a dedicated LU.

**next generation Tip/Ring (AYC30) circuit card**

An analog circuit card with six channels.

**NFAS**

non-facility associated signalling

**NFS**

network file sharing

**NGTR**

next generation Tip/Ring (AYC30) circuit card

**NM-API**

Network Management - Application Programming Interface

**NMVT**

network management vector transport

**nonex**

nonexistent state

**nonindexed table**

A table that can be searched only in a sequential manner and not via a field name.

**nonmasked event**

An event that must be sent to the application. Generally, an event is nonmaskable if the application would likely encounter state transition errors by trying to it.

**NRZ**

non return to zero

**NRZI**

non return to zero inverted

**null value**

An entry containing no value. A field containing a null value is normally displayed as blank and is different from a field containing a value of zero.

---

## O

**obsolete hardware**

Hardware that is no longer supported on the INTUITY CONVERSANT system.

**OEM**

original equipment manufacturer

**OGA**

operator-generated alert

**on-line help**

Messages or information that appear on the user's screen when a "function key" (F1 through F8) is pressed.

**operator-generated alert**

A system-monitoring message that is transmitted from the INTUITY CONVERSANT system or other computer system to an IBM host computer and is classified as critical or major.

**option**

An argument used in a command line to modify program output by modifying the execution of a command. When you do not specify any options, the command executes according to its default options.

**ORACLE**

A company that produces relational database management software. It is also used as a generic term that identifies a database residing on a local or remote system that is created and maintained using an ORACLE RDBMS product.

---

## P

**P&C**

Prompt and Collect Script Builder action step

**PBX**

private branch exchange

**PC**

personal computer

**PCB**

printed circuit board

**PCI**

peripheral component interconnect

**PCM**

pulse code modulation

**PEC**

price element code

**peripheral (device)**

Equipment such as printers or terminals that is in addition to the basic processor.

**peripheral component interconnect**

A newer, higher speed PC bus that is gradually displacing ISA for many components.

**permanent process**

A process that starts and initializes itself before it is needed by a caller.

**phoneme**

A single basic sound of a particular spoken language. For example, the English language contains 40 phonemes that represent all basic sounds used with the language. The English word "one" can be represented with three phonemes, "w" - "uh" - "n." Phonemes vary between languages because of guttural and nasal inflections and syllable constructs.

**phrase filtering (screening)**

The rejection of unrecognized speech. The WholeWord and FlexWord speech recognition packages can be programmed to reprompt the caller if the INTUITY CONVERSANT system does not recognize a spoken response.

**phrase tag**

A string of up to 50 characters that identifies the contents of a speech phrase used by an application script.

**platform migration**

See "platform upgrade."

**platform upgrade**

The process of replacing the existing platform with a new platform.

**pluggable**

A term usually used with speech technologies, in particular standard speech, to indicate that a basic algorithmic technique has been implemented to accept one or more sets of parameters that tailors the algorithm to perform in one or more languages.

**poll**

A message sent from a central controller to an individual station on a multipoint network inviting that station to send if it has any traffic.

**polling**

A network arrangement whereby a central computer asks each remote location whether it wants to send information. This arrangement enables each user or remote data terminal to transmit and receive information on shared facilities.

**port**

A connection or link between two devices that allows information to travel to a desired location. See "telephone network connection."

**PRI**

Primary Rate Interface

**Primary Rate Interface**

An ISDN term for connections over E1 or T1 facilities that are usually treated as trunks.

**private branch exchange**

A private switching system, either manual or automatic, usually serving an organization, such as a business or government agency, and usually located on the customer's premises.

**processor**

In INTUITY CONVERSANT system documentation, the computer on which UnixWare and INTUITY CONVERSANT system software runs. In general, the part of the computer system that processes the data. Also known as the "central processing unit."

**prompt**

A message played to a caller that gives the caller a choice of selections in a menu and asks for a response. Compare to "announcement."

**prompt and collect (P and C)**

A message played to a caller that gives the caller a choice of selections in a menu and asks for a response. The responses is collected and the script progresses based on the caller's response.

**pseudo driver**

A driver that does not control any hardware.

**PS&BM**

power supply and battery module

**PSTN**

public switch telephone network

**pulse code modulation**

A digital modulation method of encoding voice signals into digital signals. See also "adaptive differential pulse code modulation."

---

## R

**RAM**

random access memory

**RDMBS**

ORACLE relational database management system

**RECOG**

speech recognition feature message class

**recognition type**

The type of input the recognizer can understand. Available types include touch-tone, dial pulse, and Advanced Speech Recognition (ASR), which includes WholeWord and FlexWord speech recognition.

**recognizer**

The part of the system that compares caller input to a grammar in order to correctly match (identify) the caller input.

**record**

See "database record."

**recovery**

The process of using copies of the INTUITY CONVERSANT system software to reconstruct files that have been lost or damaged. See also "restore."

**remote database**

Information stored on a system other than the INTUITY CONVERSANT system that can be accessed by the INTUITY CONVERSANT system.

**remote maintenance circuit card**

An INTUITY CONVERSANT system circuit card, available with a built-in modem, that allows remote personnel (for example, field support) to access all INTUITY CONVERSANT system machines. This card is standard equipment on all new MAP/100, MAP/40, and MAP/5P purchases.

**REN**

ringer equivalence number

**reports administration**

The component of INTUITY CONVERSANT system that provides access to system reports, including call classification, call data detail, call data summary, message log, and traffic reports.

**restore**

The process of recovering lost or damaged files by retrieving them from available back-up tapes or from another disk device. See also "recovery."

**restore application**

A utility that replaces a damaged application or restores an older version of an application.

**reuse**

The concept of using a component from a source system in a target system after a software upgrade or platform migration.

**RFS**

remote file sharing

**RM**

resource manager

**RMB**

remote maintenance circuit card

**roll back**

To cancel changes to a database since the point at which changes were last committed.

**rollback segment**

A portion of the database that records actions that should be undone under certain circumstances. Rollback segments are used to provide transaction rollback, read consistency, and recovery.

**RTS**

request to send

---

## S

**SBC**

sub-band coding

**screen pop**

A method of delivering a screen of information to a telephone operator at the same time a telephone call is delivered. This is accomplished by a complex chain of tasks that include identifying the calling party number, using that information to access a local or remote ORACLE database, and pulling a "form" full of information from the database using an ORACLE database utility package.

**script**

The set of instructions for the INTUITY CONVERSANT system to follow during a transaction.

**Script Builder**

An optional software package that provides a menu-oriented interface designed to assist in the development of custom voice response applications on the INTUITY CONVERSANT system.

**SCSI**

small computer system interface

**SDLC**

synchronous data link control

**SDN**

software defined network

**shared database table**

A database table that is used in more than one application.

**shared speech**

Speech that is a part of more than one application.

**shared speech pools**

A parameter that allows the user of a voice application to share speech components with other applications.

**SID**

station identification

**signal processor circuit card (AYC2, AYC2B, AYC2C, or AYC9d)**

A speech processing circuit card that is an older, lower-capacity version of the speech and signal processor (SSP) circuit card (AYC43).

**SIMMs**

single inline memory modules

**single inline memory modules**

A method of containing random access memory (RAM) chips on narrow circuit card strips that attach directly to sockets on the CPU circuit card. Multiple SIMMs are sometimes installed on a single CPU circuit card.

**single-threaded application**

An application that runs on a single voice channel.

**slave**

A circuit card that depends on the TDM bus for clock information.

**SLIP**

serial line interface protocol

**small computer system interface**

A disk drive control technology in which a single SCSI adapter circuit card plugged into a PC slot is capable of controlling as many as seven different hard disks, optical disks, tape drives, etc.

**SNA**

systems network architecture

**SNMP**

simple network management protocol

**software**

The set or sets of programs that instruct the computer hardware to perform a task or series of tasks — for example, UnixWare software and the INTUITY CONVERSANT system software.

**software upgrade**

The installation of a new version of software in which the existing platform and circuit cards are retained.

**source system**

The system from which you are upgrading (that is, your system as it exists *before* you upgrade).

**speech and signal processor circuit card (AYC43)**

The high-performance signal processing circuit card introduced in V6.0 capable of simultaneous support for various speech technologies.

**speech energy**

The amount of energy in an audio signal. Literally translated, it is the output level of the sound in every phonetic utterance.

**speech envelope**

The linear representation of voltage on a line. It reflects the sound wave amplitude at different intervals of time. This envelope can be plotted on a graph to represent the oscillation of an audio signal between the positive and negative extremes.

**speech file**

A file containing an encoded speech phrase.

**speech filesystem**

A collection of several talkfiles. The filesystem is organized into 16-Kbyte blocks for efficient management and retrieval of talkfiles.

**speech modeling**

The process of creating WholeWord speech recognition algorithms by collecting thousands of different speech samples of a single word and comparing them all to obtain a statistical average of the word. This average is then used by a WholeWord speech recognition program to recognize a single spoken word.

**speech space**

An area that contains all digitized speech used for playback in the applications loaded on the system.

**speech phrase**

A continuous speech segment encoded into a digital string.

**speech recognition**

The ability of the system to understand input from callers.

**SPIP**

signal processor interface process

**SPPLIB**

speech processing library

**SQL**

structured query language

**SR**

speech recognition

### **SSP**

speech and signal processor circuit card (AYC43)

### **standard speech**

The speech package available in several languages containing simple words and phrases produced by Lucent Technologies for use with the INTUITY CONVERSANT system. This package includes digits, numbers, days of the week, and months, each spoken with initial, medial, and falling inflection. The speech is in digitized files stored on the hard disk to be used in voice prompts and messages to the caller. This feature is also called Enhanced Basic Speech.

### **standard vocabulary**

A standard package of simple word speech models provided by Lucent Technologies and used for WholeWord speech recognition. These phrases include the digits "zero" through "nine," "yes," "no," and "oh," or the equivalent words in a specific local language.

### **string**

A contiguous sequence of characters treated as a unit. Strings are normally bounded by white spaces, tabs, or a character designated as a separator. A string value is a specified group of characters symbolized by a variable.

### **structured query language**

A standard data programming language used with data storage and data query applications.

### **subword technology**

A method of speech recognition used in FlexWord recognition that recognizes phonemes or parts of words. Compare to "WholeWord speech recognition."

### **switch**

A software and hardware device that controls and directs voice and data traffic. A customer-based switch is known as a "private branch exchange."

### **switch hook**

The device at the top of most telephones that is depressed when the handset is resting in the cradle (in other words, is *on hook*). The device is raised when the handset is picked up (in other words, when the telephone is *off hook*).

### **switch hook flash**

A signaling technique in which the signal is originated by momentarily depressing the "switch hook."

### **switch interface administration**

The component of the INTUITY CONVERSANT system that enables you to define the interaction between the INTUITY CONVERSANT system and switches by allowing you to establish and modify switch interface parameters and protocol options for both analog and digital interfaces.

### **switch network**

Two or more interconnected telephone switching systems.

### **synchronous communication**

A method of data transmission in which bits or characters are sent at regular time intervals, rather than being spaced by start and stop bits. Compare to "asynchronous communication."

### **SYS**

UNIX system calls message class

### **sysgen**

system generation

**System 75**

An advanced digital switch supporting up to 800 lines that provides voice and data communications for its users.

**System 85**

An advanced digital switch supporting up to 3000 lines that provides voice and data communications for its users.

**system administrator**

The person assigned the responsibility of monitoring all INTUITY CONVERSANT system software processing, performing daily system operations and preventive maintenance, and troubleshooting errors as required.

**system architecture**

The manner in which the INTUITY CONVERSANT system software is structured.

**system message**

An event or alarm generated by either the INTUITY CONVERSANT system or end-user process.

**system monitor**

A component of the INTUITY CONVERSANT system that tests to verify that each incoming telephone line and its associated Tip/Ring or T1 circuit card is functional. Through the "System Monitor" component, you are able to see displays of the Voice Channel and Host Session Monitors.

---

## T

**T1**

A digital transmission link with a capacity of 1.544 Mbps.

**table**

See "database table."

**talkfile**

An ASCII file that contains the speech phrase tags and phrase tag numbers for all the phrases of a specific application. The speech phrases are organized and stored in groups. Each talkfile can contain up to 65,535 phrases, and the speech filesystem can contain multiple talkfiles.

**talkoff**

The process of a caller interrupting a prompt, so the prompt message stops playing.

**target system**

The system to which you are upgrading (that is, your system as you expect it to exist *after* you upgrade).

**TAS**

transaction assembler script

**TCC**

Technology Control Center

**TCP/IP**

transmission control protocol/internet protocol

**TDM**

time division multiplexing

**TE**

terminal emulator

**telephone network connection**

The point at which a telephone network connection terminates on an INTUITY CONVERSANT system. Supported telephone connections are Tip/Ring, T1, and E1.

**terminal emulator**

Software that allows a PC or UNIX process to look like a specific type of terminal. In particular, it allows the INTUITY CONVERSANT system to temporarily transform itself into a "look alike" of an IBM 3270 terminal. In addition to providing full 3270 functionality, the terminal emulator enables you to transfer files to and from UNIX.

**Text-to-Speech**

An optional feature that allows an application to play US English speech directly from ASCII text by converting that text to synthesized speech. The text can be used for prompts or for text retrieved from a database or host, and can be spoken in an application with prerecorded speech. Text-to-Speech application development is supported through Graphical Designer and Script Builder.

**ThickNet**

A 10-mm (10BASE5) coaxial cable used to provide interLAN communications.

**ThinNet**

A 5-mm (10BASE2) coaxial cable used to provide interLAN communications.

**time-division multiplex**

A method of serving a number of simultaneous channels over a common transmission path by assigning the transmission path sequentially to the channels, with each assignment being for a discrete time interval.

**Tip/Ring**

Analog telecommunications using four-wire media.

**token ring**

A ring type of local area network that allows any station in the network to communicate with any other station.

**trace**

A command that can be used to monitor the execution of a script.

**traffic**

The flow of information or messages through a communications network for voice, data, or audio services.

**transaction**

The interactions (exchanges) between the caller and the voice response system. A transaction can involve one or more telephone network connections and voice responses from the INTUITY CONVERSANT system. It can also involve one or more of the system optional features, such as speech recognition, 3270 host interface, FAX Actions, etc.

**transaction assembler script**

The computer program code that controls the application operating on the voice response system. The code can be produced from Graphical Designer, Script Builder, or by writing directly in TAS code.

**transaction state machine process**

A multi-channel IRAPI application that runs applications controlled by TAS script code.

**transient process**

A process that is created dynamically only when needed.

**TRIP**

Tip/Ring interface process

**troubleshooting**

The process of locating and correcting errors in computer programs. This process is also referred to as debugging.

**TSO**

Technical Services Organization

**TSO**

time share operation

**TSM**

transaction state machine process

**TTS**

Text-to-Speech

**TWIP**

T1 interface process

---

## U

**UK**

United Kingdom

**US**

United States of America

**UNIX Operating System**

A multiuser, multitasking computer operating system originally developed by Lucent Technologies.

**UNIX shell**

The command language that provides a user interface to the UNIX operating system.

**upgrade scenario**

The particular combination of current hardware, software, application and target hardware, software, applications, etc.

**usability**

A measurement of how easy an application is for callers to use. The measurement is made by making observations and by asking questions. An application should have high usability to be successful.

**USOC**

universal service ordering code

**UVL**

unified voice library

## V

### **VDC**

video display controller

### **vi editor**

A screen editor used to create and change electronic files.

### **virtual channel**

A channel that is not associated with an interface to the telephone network (Tip/Ring, T1, LSE1/LST1, or PRI). Virtual channels are intended to run "data-only" applications which do not interact with callers but may interact with DIPs. Voice or network functions (for example, coding or playing speech, call answer, origination, or transfer) will not work on a virtual channel. Virtual channel applications can be initiated only by a "virtual seizure" request to TSM from a DIP.

### **vocabulary**

A collection of words that the INTUITY CONVERSANT system is able to recognize using either WholeWord or FlexWord speech recognition.

### **vocabulary activation**

The set of active vocabularies that define the words and wordlists known to the FlexWord recognizer.

### **vocabulary loading**

The process of copying the vocabulary from the system where it was developed and adding it to the target system.

### **voice channel**

A channel that is associated with an interface to the telephone network (Tip/Ring, T1, E1, LSE1/LST1, or PRI). Any INTUITY CONVERSANT system application can run on a voice channel. Voice channel applications can be initiated by being assigned to particular voice channels or dialed numbers to handle incoming calls or by a "soft seizure" request to TSM from a DIP or the **soft\_szr** command.

### **voice processing co-marketer**

A company licensed to purchase voice processing equipment, such as the INTUITY CONVERSANT system, to market and sell based on their own marketing strategies.

### **voice response output process**

A software process that transfers digitized speech between system hardware (for example, Tip/Ring and SSP circuit cards) and data storage devices (for example, hard disk, etc.)

### **voice response unit**

A computer connected to a telephone network that can play messages to callers, recognize caller inputs, access and update a databases, and transfer and monitor calls.

### **voice system administration**

The means by which you are able to administer both voice- and nonvoice-related aspects of the system.

### **VPC**

voice processing co-marketer

### **VROP**

voice response output process

**VRU**

voice response unit

---

**W**

**warning**

An admonishment or advisory statement used in INTUITY CONVERSANT system documentation to alert the user to the possibility of equipment damage.

**WholeWord speech recognition**

An optional feature, available in several languages, based on whole-word technology that can recognize the numbers one through zero, "yes", and "no" (the key words). This feature is reliable, regardless of the individual speaker. This feature can identify the key words when spoken in phrases with other words. A string of key words, called *connected digits*, can be recognized. During the prompt announcement, the caller can speak or use touch tones (or dial pulses, if available). See also "whole-word technology."

**whole-word technology**

The ability to recognize an entire word, rather than just the phoneme or a part of a word. Compare to "subword technology."

**wink signal**

An interruption of current to a busy lamp indicating that there is a line on hold.

**word**

A unique utterance understood by the recognizer.

**wordlist**

A set of words that are available for FlexWord recognition by an application during a Prompt & Collect action step.

**word spotting**

The ability to search through extraneous speech during a recognition.



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