

Lucent Technologies
Bell Labs Innovations



INTUITY™ CONVERSANT® System

Version 6.0

MAP/5P New System Installation

585-310-191
Comcode 108037748
Issue 2.0
June 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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Whether or not immediate support is required, all toll fraud incidents involving Lucent products or services should be reported to Lucent Corporate Security at 1 800 821-8235. In addition to recording the incident, Lucent Corporate Security is available for consultation on security issues, investigation support, referral to law enforcement agencies, and educational programs.

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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
- A reorder tone is received

Canadian Department of Communications (DOC)

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Trademarks

See the section titled "About This Book."

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Lucent Technologies provides a limited warranty on this product. Refer to the "Limited Use Software License Agreement" card provided with your package.

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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 the Product Documentation, Lucent Technologies, Columbus, OH.



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About This Book

Purpose

This book, *INTUITY™ CONVERSANT® System Version 6.0 MAP/5P New System Installation*, 585-310-191, contains instructions for installing an INTUITY CONVERSANT system that has been assembled, loaded, and tested (ALT) at the Lucent Technologies factory. This book includes procedures for unpacking, setup, configuration, initial administration, acceptance testing, and cut to service. These procedures apply to the MAP/5P platform and the INTUITY CONVERSANT system and most of its optional features, including networking and integration with the DEFINITY G1, G2, and G3 series of switches.

Intended Audiences

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

- Field support
- Helpline personnel
- Sales support
- Design support
- ALT factory personnel
- Provisioning project managers

Lucent Technologies assumes that the primary users of this book have completed the INTUITY CONVERSANT hardware installation training course (see ["Related Resources"](#)).

Release History

This is the second release of this book.

Trademarks

Lucent Technologies has made every effort to supply trademark information about company names, products, and services mentioned in the INTUITY CONVERSANT documentation library. Trademarks indicated below were derived from various sources.

- 5ESS, AUDIX, CONVERSANT, DEFINITY, and Voice Power are registered trademarks and INTUITY and FlexWord are trademarks of Lucent Technologies.
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- CLEO and LINKix are trademarks of CLEO Communications.
- Hayes and Smartmodem are trademarks of Hayes Microcomputer Products, Inc.
- Ethernet is a trademark of Xerox Corporation.
- VERITAS is a trademark of the Veritas Software Corporation.
- Netscape Navigator is a trademark of Netscape Communications Corporation.
- 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.

For Complete Installation Instructions

Read [Chapter 1, "Getting Started"](#), before you begin. Chapter 1 provides information on prerequisites, including site preparation and the tools you need to complete the installation successfully. If you need help logging in and navigating through the system screens and windows, review [Appendix B, "Accessing Windows and Screens"](#). From there, read and use each chapter in the order presented. This will take you step by step through the procedures you must perform to install a factory ALT Lucent INTUITY system.

NOTE:

If you are installing a non-ALT system, see Appendix C, "Building a System", in *INTUITY CONVERSANT System Version 6.0 MAP/5P Maintenance*, 585-310-192, for instructions.

For a Quick Reference

If you want a quick reference, [Appendix A, "System Installation Checklist"](#), contains a checklist of procedure titles. These titles are listed in the order in which you must perform them. The checklist also includes references to where you can 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 B, "Troubleshooting Procedures"](#), to look for help.

For Connectivity and Pinout Information

For supplemental pinout and connectivity information, see [Appendix C, "Pinouts"](#), and [Appendix D, "Cable Connectivity"](#), respectively.

To Locate Specific Topics

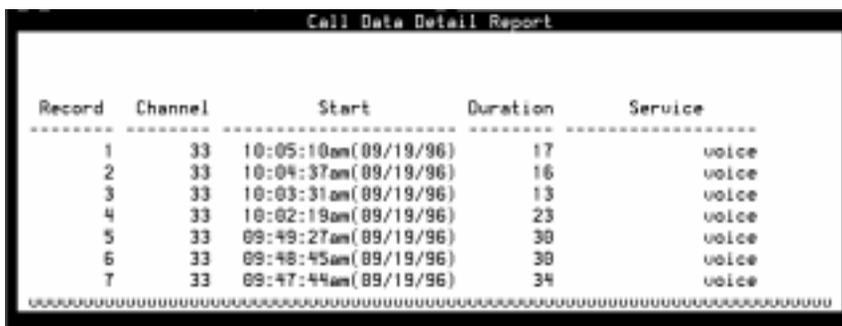
This book includes an alphabetical index at the end for quick access to specific topics.

Conventions Used in This Book

This section describes the conventions used in this book.

Terminology

- 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, a screen, or a 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



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

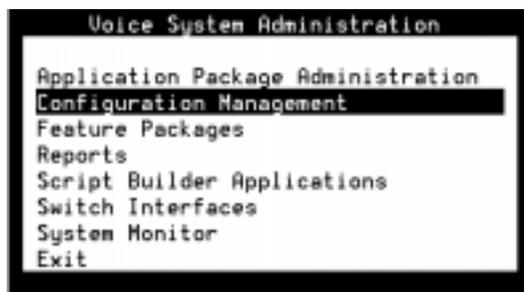


Figure 5. Example of an INTUITY CONVERSANT Menu

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 square 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

- 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 access the Voice System Administration Menu and select the Customer/Service Administration menu. From the Customer/Service Administration menu, you 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

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

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, as in the following 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

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

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

Documentation

 **NOTE:**

Always refer to the appropriate book for specific information on planning, installing, administering, or maintaining an INTUITY CONVERSANT system.

Lucent Technologies suggests that you obtain and use the following books in conjunction with this installation book:

- *INTUITY CONVERSANT System Version 6.0 MAP/5P Maintenance*, 585-310-192
- *BCS Products Security Handbook*, 555-025-600

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

Training

Lucent Technologies recommends the following training class as a prerequisite to installing an INTUITY CONVERSANT system:

- Course No. B03620A, INTUITY CONVERSANT Installation and Maintenance (for domestic installations)
- Course No. GO3603A, CONVERSANT Installation and Maintenance (for global 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 customers and all others within the US: (800) 255-8988
- Lucent customers and all others outside the US should contact their remote support center for more information on training.

How to Comment on This Book

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If the reader comment card has been removed, send your comments to:

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Denver, Colorado 80234-2703 US

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 6.0 MAP/5P New System Installation*, 585-310-191.

Disclaimer

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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.

Getting Started

1

Overview

This chapter describes:

- Site preparation, including environmental, weight, and space considerations, and power requirements for the MAP/5P
- Installation prerequisites; specifically, tools, test equipment, system information, documentation, 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 installation



NOTE:

The information in this book assumes that you are installing an assembled, loaded, and tested (ALT) INTUITY™ CONVERSANT® system. If this is not the case, see Appendix C, "How to Build a System," in *INTUITY CONVERSANT System Version 6.0 MAP/5P Maintenance*, 585-310-192, for additional instructions.

Purpose

The purpose of this chapter is to ensure that:

- The customer site meets the physical requirements for installation of the MAP/5P
- You are prepared with the tools and information you need to complete the INTUITY CONVERSANT system installation successfully

Site Preparation

This section describes physical requirements for the installation site, which include:

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

Environmental Considerations

Place the MAP/5P in an area where the environmental conditions shown in [Table 1-1](#) are maintained.

Table 1-1. Environmental Considerations

Operating State	Temperature	Humidity
Operating	+10 to +35°C (+50 to +95°F)	20 to 80%, noncondensing
Nonoperating (when the MAP/5P is being shipped or stored)	-20 to +60°C (-4 to +140°F)	20 to 80%, noncondensing

Installation Area Considerations

Observe the following when determining where to place the MAP/5P:

- *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.



NOTE:

The maximum heat output of a MAP/5P is approximately 700 BTU.

- 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, and depth of the primary MAP/5P hardware components. The weight of the MAP/5P listed includes only the basic chassis.

Table 1-2. Weight and Space Considerations

Equipment	Weight	Height	Width	Depth
MAP/5P	13 kg (29 lbs)	41 cm (16 in.) with stabilizing feet	28 cm (11 in.) with stabilizing feet	46 cm (18 in.)
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.)

Power Requirements

The MAP/5P powers the monitor through an interface cable. A receptacle is provided on the rear of the unit to supply power for the monitor.

The maximum power dissipation of a MAP/5P is 200 W.

[Table 1-3](#) lists the power requirements for the MAP/5P and monitor.

Table 1-3. Power Requirements for MAP/5P and Monitor

Attribute	MAP/5P	Monitor
Volts AC (VAC)	110 domestic or 220 global	110–240
Hertz (Hz)	60	50–87
Phase	Single	Single
Amps (RMS)	5A maximum	1
Input cords	NEMA ¹ 5–15P plug; 2 m (6 ft) long	Included with monitor; 1 m (3 ft) long
Unit input receptacles	IEC-320 inlet	N/A

1.National Electrical Manufacturer's Association

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

- Locate each unit 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.

 **CAUTION:**

Use only shielded cables and equipment in conjunction with the MAP/5P to maintain safe levels of electromagnetic compatibility.

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.

WARNING:

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. See ["Protecting Against Damage from Electrostatic Discharge"](#) in [Chapter 2, "Unpacking the MAP/5P and Installing Nonassembled Hardware"](#).

CAUTION:

Use extreme care when you make power and ground connections.

Installation Prerequisites

This section:

- Lists the tools, test equipment, system information, and documentation you must have to install and test the MAP/5P
- Describes the switch administration that must be done before you arrive on site

Tools

The following tools are recommended for installing the MAP/5P:

- 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

NOTE:

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

Test Equipment

Lucent Technologies recommends that you use the following test equipment when installing a MAP/5P:

- A volt/ohm meter
- Two telephones connected through the switch. These must be of the same type as the majority of telephones the customer will be using on the system. If the message waiting indicator (MWI) for the INTUITY CONVERSANT system is a lamp, the test telephones must be equipped with a lamp. If the MWI is a stutter tone, the telephones must be able to give the stutter notification.

The two test telephones must be placed so that you can easily see the monitor while you are using them.

- If the system includes INTUITY CONVERSANT Script Builder FAX Actions, you must have access to a customer fax machine for testing.

System Information

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.

Switch Administration

Before you begin the installation, 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
- Performing cut-to-service procedures that provide the users with an active coverage path

Before you arrive on site, all of the initial switch or PBX administration should be complete unless otherwise specified by contract. Verify that this initial administration has been completed before you begin work on the INTUITY CONVERSANT system.

Documentation

Use the following documentation during installation of a MAP/5P INTUITY CONVERSANT system:

- *INTUITY™ CONVERSANT® System Version 6.0 MAP/5P New System Installation, 585-310-191*

Use this book to familiarize yourself with installation prerequisites and to perform hardware installation, initial administration, and acceptance testing.

- *INTUITY™ CONVERSANT® System Version 6.0 MAP/5P Maintenance, 585-310-192*

Use this book for troubleshooting, alarm retirement, or to correct errors in the factory assembly process.

Regulatory Agency Guidelines

Follow the installation procedures in this book to ensure compliance with the current 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 compliance label(s) for the MAP/5P system and individual network interface cards are located on the chassis or individual circuit card.

FCC Guidelines

The guidelines in this section will help you to comply with 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, give the local service provider the following information:

- The telephone and circuit numbers of the lines to which the system will be connected
- The FCC registration number of the MAP/5P, located on the faceplate of each Tip/Ring circuit card and visible at the rear of the unit
- The ringer equivalence number (REN) of the PC/PBX circuit card and the Tip/Ring circuit card, located on the faceplate of each circuit card and visible at the rear of the unit

Type of Telephone Lines Needed

Use your application on standard-device telephone line circuits and standard trunks.

Do not connect to telephone-company-provided coin service (central office implemented systems).

Connecting to party-line service is subject to state tariffs.

If you have any 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 company may:

- Discontinue service to the customer temporarily
- Notify the customer prior to disconnecting service

If advance notice is not feasible, the company may:

- Discontinue service to the customer temporarily
- 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

Remote Support Center

Your project manager or systems consultant is responsible for providing you with the telephone number of your remote support center.

Equipment Attachment Limitations



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 telecommunications company. 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 telecommunications company 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 may 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.

 **NOTE:**

The LN for the AYC28 Tip/Ring circuit card is 9.

Points of Demarcation

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

Lucent Technologies service technicians dispatched for INTUITY CONVERSANT system installation are not responsible for making any connections directly to a non-Lucent Technologies switch or PBX.



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

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

INTUITY Script Builder FAX Actions uses the Brooktrout 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

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

Password Security

If you suspect that the security of any password has been compromised, notify your project manager or system administrator.

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 with the Installation

The following resources are available for help during an installation:

- System help screens
- Remote support center

System Help Screens

Online help is available for the INTUITY CONVERSANT system and administration screens. To display help screens or command choices, press **(CHOICES)** (F2) from the field for which you want the help. If valid entries can be specified, the system displays a list of options from which you can choose. Otherwise, it displays general information about the field.

Remote Support Center

The remote support center is available for help with your system installation. Your project manager or systems consultant is responsible for providing you with the telephone number of your remote support center.

Unpacking the MAP/5P and Installing Nonassembled Hardware

2

Overview

This chapter describes:

- How to unpack and set up the MAP/5P
- How to save packing materials
- How to position the stabilizing feet
- Where to locate key components of the MAP/5P

Purpose

The purpose of this chapter is to:

- Facilitate unpacking and set up of the MAP/5P
- Provide descriptions and graphics of key components of the MAP/5P for reference during the installation

Protecting Against Damage from Electrostatic Discharge

CAUTION:

*Read this section before unpacking the MAP/5P. 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 2-1](#)).



Figure 2-1. ESD Warning Symbol

To avoid damaging ESD-sensitive components, follow these rules:

- Handle ESD-sensitive circuit cards only after attaching a wrist strap to the bare wrist. Attach the other end of the wrist strap to a ground that terminates at the system ground, such as any unpainted metallic chassis surface.
- Handle a circuit card by the faceplate or side edges only ([Figure 2-2](#) and [Figure 2-3](#)).

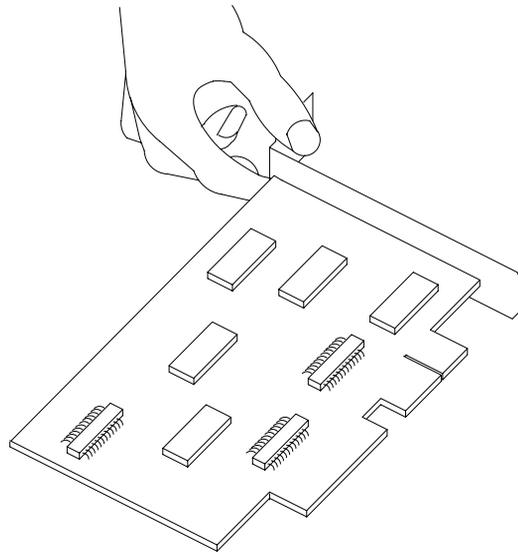


Figure 2-2. How to Hold a Small Circuit Card

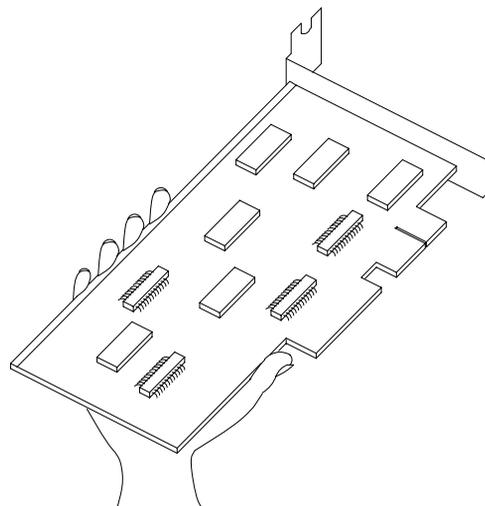


Figure 2-3. How to Hold a Large Circuit Card



CAUTION:

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

- Keep circuit cards away from plastics and other synthetic materials such as polyester clothing.
- Do not hand circuit cards to another person unless that person is grounded at the same potential level.
- Hold devices such as a hard disk drive, diskette drive, or cartridge tape drive in the same manner as a large circuit card. The ESD-sensitive area of these components is located on the bottom surface.

Unpacking the Unit

The MAP/5P and the monitor, if ordered, are shipped in individual cartons. The base of the MAP/5P carton is surrounded by a wooden pallet ([Figure 2-4](#)).



CAUTION:

A boxed, fully-loaded MAP/5P weighs approximately 30 kg (64 lbs). Use proper lifting procedures when moving the MAP/5P carton.

To unpack the unit, complete the procedures for:

- Opening the carton
- Removing and unpacking the keyboard box
- Removing Lucent documentation
- Removing and unpacking the MAP/5P box

Opening the Carton

To open the carton:

1. Set up a work area that includes a work table at least 1- by 1.5-m (3- by 5-ft).
2. Cut the plastic binding straps and lift off the top of the box. See "[Saving Packing Materials](#)" below.

Removing and Unpacking the Keyboard Box

To unpack the keyboard box:

1. Lift the keyboard box out of the carton. See [Figure 2-4](#) for the location of the keyboard box inside the larger carton.
2. Remove all items contained in the carton and set them aside. See "[Saving Packing Materials](#)" below.

Removing Lucent Documentation

The Lucent maintenance and installation books for the MAP/5P are located in the carton near the keyboard box. Remove the books and set them aside.

Removing and Unpacking the MAP/5P Box

To remove and unpack the MAP/5P box, remove the MAP/5P box from the carton and complete the procedures for:

- Removing and unpacking the accessories box
- Removing the MAP/5P from its box

NOTE:

The accessories box is inside the larger MAP/5P box ([Figure 2-4](#)).

Removing and Unpacking the Accessories Box

To remove and unpack the accessories box:

1. Open the top of the MAP/5P box.
2. Remove the accessories box from the top of the MAP/5P box.

The accessories box contains:

- Two 1.8-m (6-ft) power cords

NOTE:

One of the power cords is used with the MAP/5P and the other is used with the monitor.

- One plastic packet containing:
 - 1 blank cartridge tape
 - 1 diskette with the system configuration and software
 - 1 diagnostic diskette
 - Factory information regarding the system
 - 1 yellow BCS return repair tag

NOTE:

If you must return a MAP/5P to the manufacturer, complete the yellow BCS return repair tag and attach it to the unit.

3. Remove all items contained in the box and set them aside. See "[Saving Packing Materials](#)" below.

Removing the MAP/5P From the Box

To remove the MAP/5P from the box, complete the following procedure:

1. Place both of your hands on the sides of the chassis.



CAUTION:

An antistatic bag covers the chassis and makes the MAP/5P slippery to handle.



CAUTION:

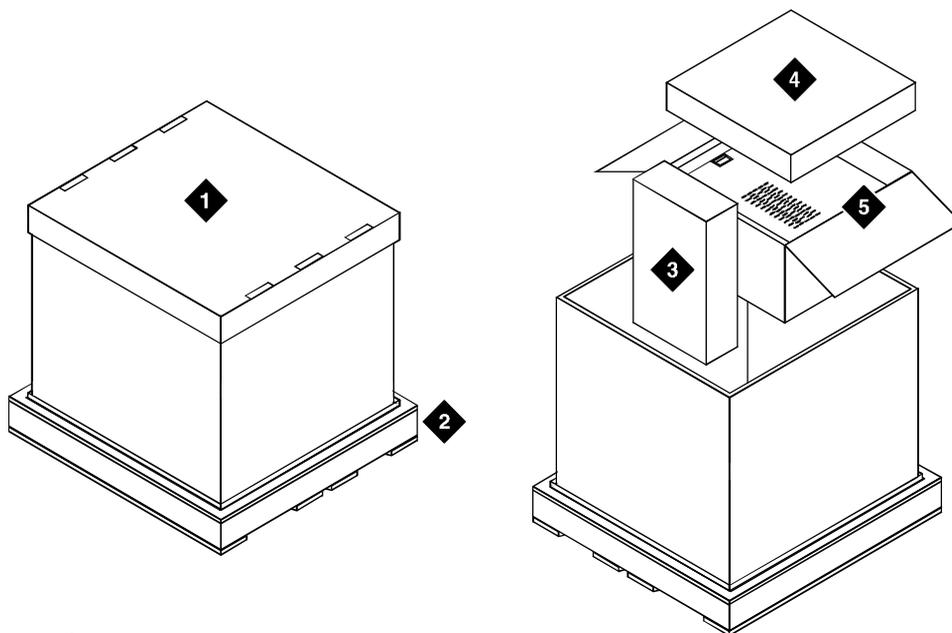
Do not use the dress cover or top door as a grip area to move or lift the MAP/5P.

2. Lift the MAP/5P out of the box and place it on the work table. See ["Saving Packing Materials"](#) below.



NOTE:

This box also contains factory information regarding the MAP/5P.



evinpck C JL 030397

1. Carton top
2. Pallet
3. Keyboard box
4. Accessories box
5. MAP/5P box

Figure 2-4. Unpacking the MAP/5P

Unpacking the Monitor

The monitor, if ordered, is in a separate carton. This carton contains a:

- Plastic packet containing factory information regarding the monitor
- Yellow BCS return tag



NOTE:

If you must return a monitor to the manufacturer, complete the yellow BCS return tag and attach it to the unit.

Remove all items contained in the carton and set them aside. See ["Saving Packing Materials"](#) below.

Saving Packing Materials

In case you need to return any MAP/5P components to the manufacturer, save the following shipping and packing materials:

- Shipping cartons (MAP/5P and monitor) and boxes
- Antistatic bags
- Bubble wrap
- Foam inlays



NOTE:

If you ordered multiple MAP/5P units, saving one set of cartons and packing materials should be sufficient.



CAUTION:

Lucent Technologies does not accept liability for a damaged unit if you do not return it in the original packing materials and carton. The carton has been designed to prevent damage and ensure product warranty.

System Arrangement

The MAP/5P is a desktide unit in a mini-tower configuration ([Figure 2-5](#)). It sits vertically on four stabilizing feet which you adjust as described in "[Positioning the Stabilizing Feet](#)" below. This unit sits either on your desktop, as shown in [Figure 2-5](#), or on the floor under your desk.

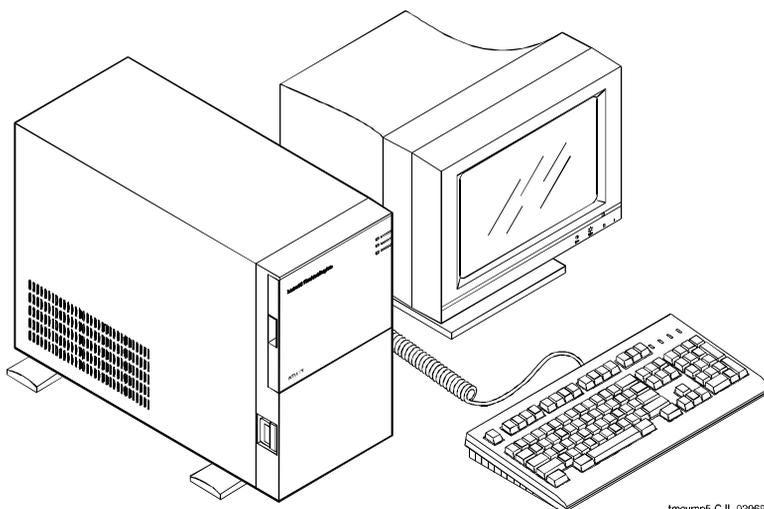


Figure 2-5. MAP/5P Deskside Unit

Positioning 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:

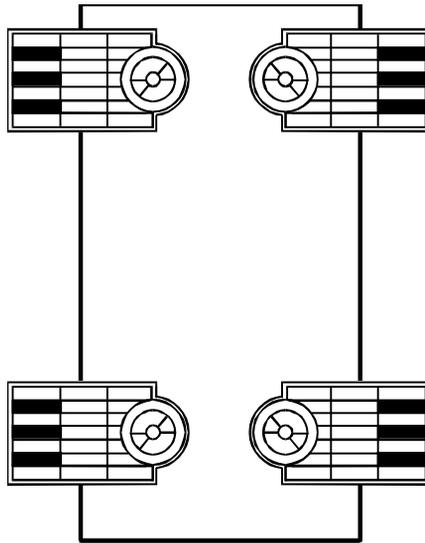
1. Place the MAP/5P right side up on its stabilizing feet.



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 2-6](#). Ensure that each foot is fully extended into position. See ["Proper Clearance Around the Chassis"](#) below for information about the proper placement of the MAP/5P.



sccvfeet C.JL 012396

Figure 2-6. Positioning the Stabilizing Feet (Bottom View with Feet Extended)

Locating Key Components on the MAP/5P

Use the following sections and graphics to locate key components on the MAP/5P.

Four views of the MAP/5P are included:

- Chassis front with the top door closed
- Chassis front with the dress cover removed
- Chassis back
- Locations of the peripheral drive devices

Chassis Front with Top Door Closed

[Figure 2-7](#) shows the front view of the MAP/5P with the top door closed.

Three LEDs are visible when the top door is closed:

- Disk activity indicator
- Speed indicator
- Power indicator

Disk Activity Indicator

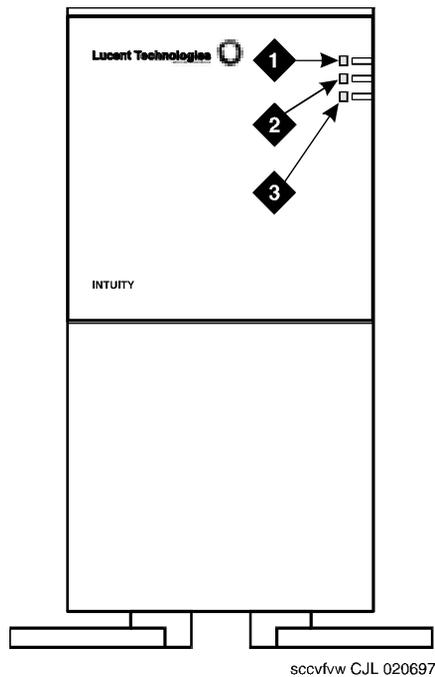
The disk activity indicator light is green when the hard disk is active.

Speed Indicator

The speed indicator light is green when the power is on.

Power Indicator

The power indicator light is green when the power is on.



1. Disk activity indicator
2. Speed indicator
3. Power indicator

Figure 2-7. Front View of the MAP/5P with Top Door Closed

Chassis Front with Dress Cover Removed

Five key components of the MAP/5P are accessible with the dress cover removed:

- Cartridge tape drive
- Diskette drive
- Circuit card cage fan
- Power switch
- Reset switch

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 MAP/5P to prevent overheating.

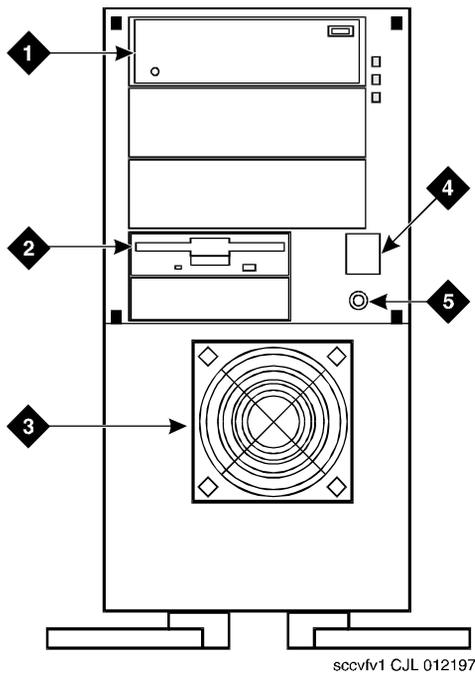
Power Switch

The power switch turns the MAP/5P on and off.

Reset Switch

The reset switch resets the MAP/5P.

[Figure 2-8](#) shows the front view of the MAP/5P with the dress cover removed.



1. Cartridge tape drive
2. Diskette drive
3. Circuit card cage fan
4. Power switch
5. Reset switch

Figure 2-8. Front View of the MAP/5P with Dress Cover Removed

Chassis Back

Eleven key components are accessible from the back of the MAP/5P chassis:

- Power supply fan intake
- Keyboard connector
- Mouse connector
- COM1
- COM2
- Parallel port
- Video connector
- AC power supply outlet
- Dress cover lock
- AC voltage selector switch
- AC power inlet receptacle

Power Supply Fan Intake

The power supply fan intake maintains air flow within the chassis.

Keyboard Connector

The keyboard connector connects the keyboard to the MAP/5P through a 6-pin female circular DIN plug.



NOTE:

Do not use the keyboard receptacle for any other purpose than to connect the keyboard.

Mouse Connector

The mouse connector provides a connection to a serial mouse, although the MAP/5P does not use a mouse.



NOTE:

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 remote maintenance.

Parallel Port

The parallel port communicates with the printer through a 25-pin female plug.

Video Connector

The video connector connects the MAP/5P to the monitor through a 15-pin female D subminiature plug.

AC Power Supply Outlet

The AC power supply outlet connects the MAP/5P to the monitor using a 2-m (6-ft) monitor power cord.

Dress Cover Lock

The dress cover lock secures the dress cover.

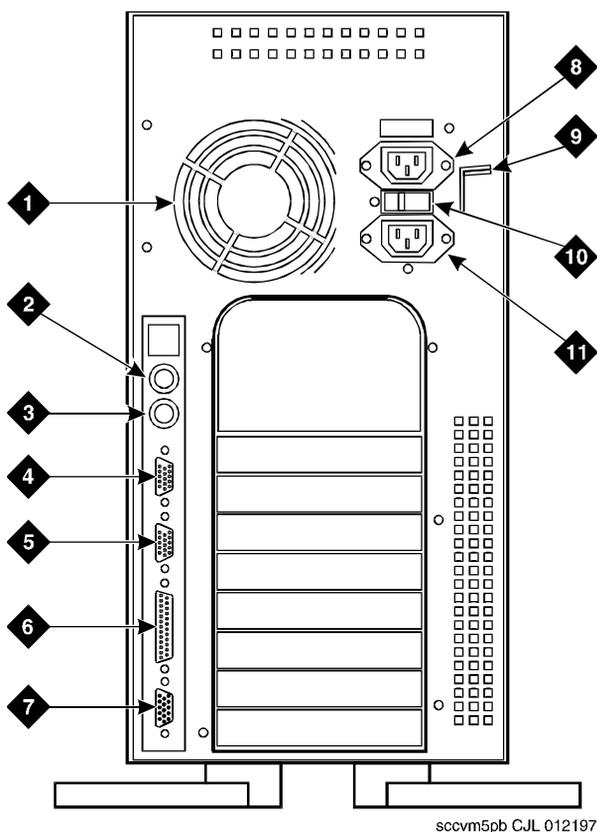
AC Voltage Selector Switch

The AC selector switch slides right and left and allows you to select either 110 or 230V power source compatibility.

AC Power Inlet Receptacle

The AC power inlet receptacle connects the MAP/5P to the AC power source through a 3-prong, 5/10A, 110/230V power cord.

[Figure 2-9](#) shows the back view of the MAP/5P.



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

Figure 2-9. Back View of the MAP/5P

Locations of 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.

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 Drives

The following 2-Gbyte SCSI hard disk drives are available in the MAP/5P:

- Hard disk 0
- Hard disk 1

Hard Disk 0

Hard disk drive 0 is present in all systems. This hard disk is located in the top of the back of the chassis. Hard disk 0 stores the operating system, application software, and speech data.



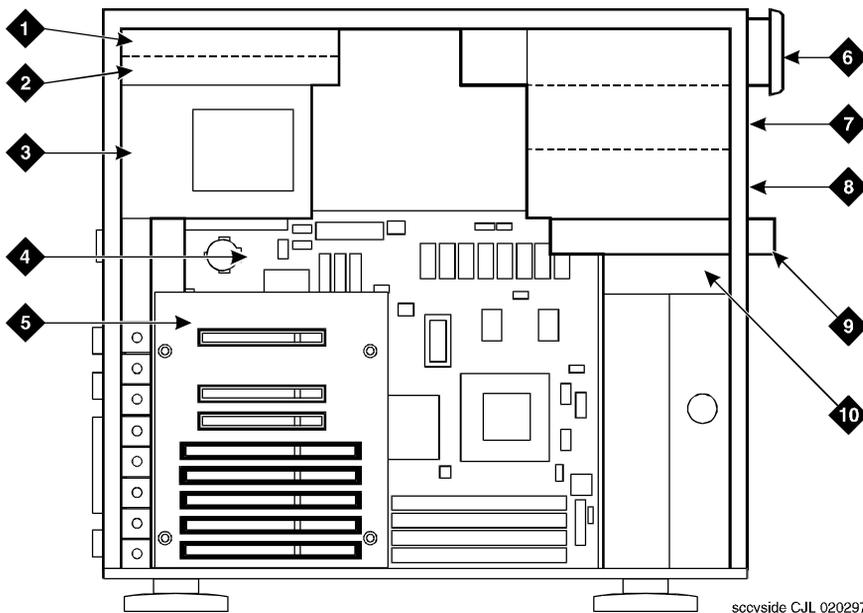
NOTE:

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 2-10](#) includes a side view of the MAP/5P peripheral drive device locations.



- | | |
|-------------------------|---------------------------------|
| 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 2-10. Side View of MAP/5P Including Locations of Peripheral Drive Devices

Chassis Cooling System

Air must circulate inside and around the MAP/5P chassis to prevent components from overheating, which can cause system malfunctions.

There are two ways to maintain proper temperatures within the MAP/5P:

- Interior fans
- Proper clearance around the chassis

Interior Fans

The fans in the MAP/5P help maintain air flow in the unit to prevent components from overheating, which can cause components to malfunction.

The cooling system for the MAP/5P includes three fans:

- Circuit card cage fan
- Power supply fan
- CPU fan

Circuit Card Cage Fan

The circuit card cage fan is located on the front of the MAP/5P under the diskette bays and behind the lower front dress cover. Air flows through the circuit card cage fan and exits through vents in the back of the MAP/5P.

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 Chassis

You must also maintain clearance around the chassis so that air can circulate to prevent overheating. The final position of the MAP/5P 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. In all configurations, you must leave a minimum of 5 cm (2 in.) of space along both sides of the chassis.

Making Cable Connections

3

Overview

The MAP/5P supports up to seven circuit cards that provide various functions for the system. These circuit cards include Tip/Ring circuit cards, peripheral controls, and communication controls.

Circuit cards are placed in the MAP/5P in locations called *slots*. The MAP/5P slots are located in the circuit card cage in the riser card and are accessible from the back of the MAP/5P.

This chapter serves as an introduction to connecting cables to the faceplates of circuit cards that are installed in the MAP/5P. This chapter also includes general steps for making cable connections, but additional steps may be required for some cable connections.

See [Appendix D, "Cable Connectivity"](#), for detailed information.

Purpose

This chapter provides the information required to make cable connections and to complete the system installation successfully.

WARNING:

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.

Connecting the Tip/Ring Circuit Card

The Tip/Ring circuit cards provide the channels used by the INTUITY™ CONVERSANT® system. There are six channels on each Tip/Ring circuit card. The MAP/5P supports up to four Tip/Ring circuit cards.

The system supports the following Tip/Ring circuit cards:

- AYC10 (IVC6)
- AYC30 (NGTR)
- AYC26 (Australia IVP6)

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 two 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

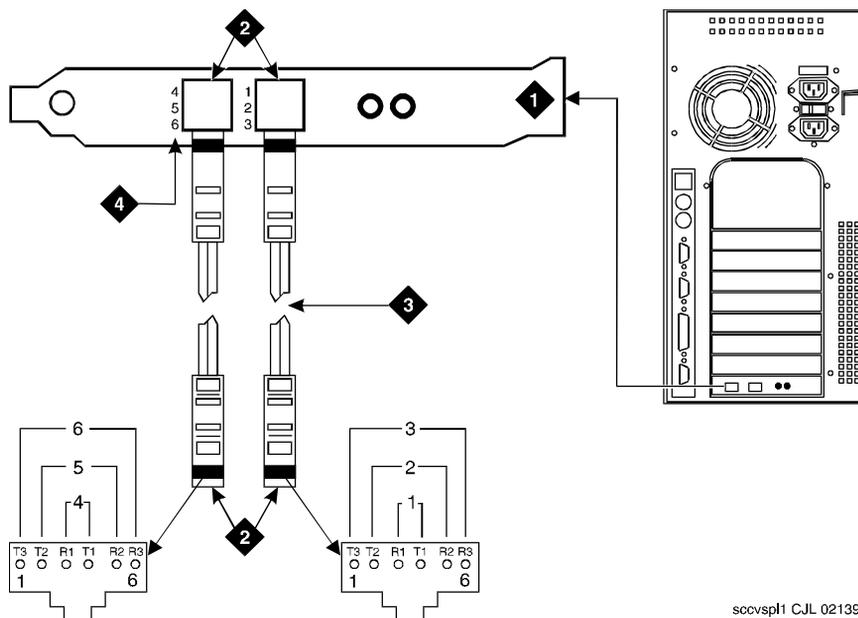
Direct Cable Connection

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. See [Appendix C, "Pinouts"](#), if you need pinout information.

3 Making Cable Connections

Connecting the Tip/Ring Circuit Card



sccv spl1 C.J.L 021397

1. Circuit card faceplate
2. RJ25C
3. 25 ft. modular cord (comcode number 103823195)
4. Board channel number

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

Cable Connection Using a Line Splitter

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

885A Adapter

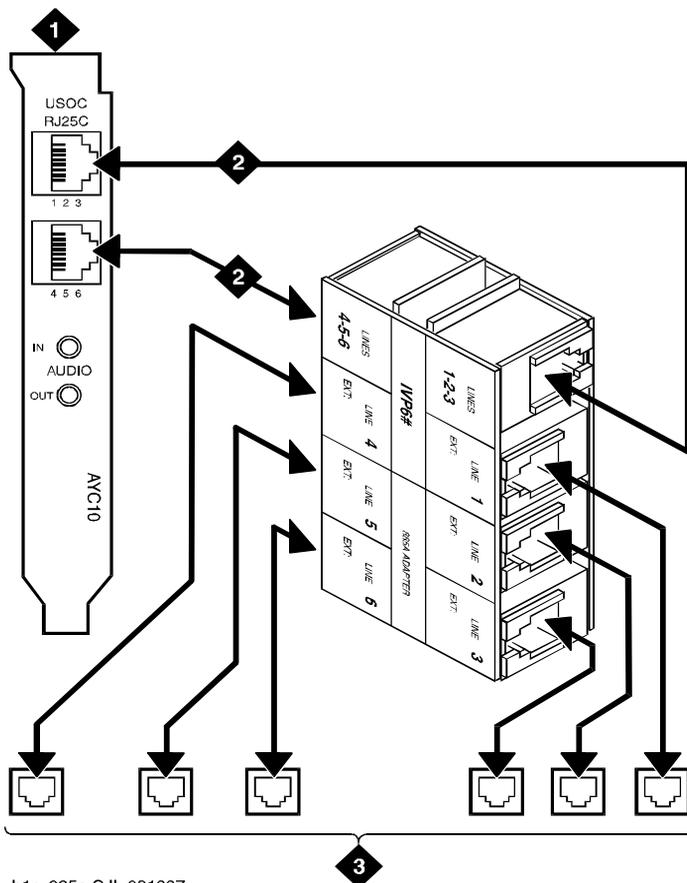
Using the 885A adapter or line splitter (Figure 3-2) to connect the IVC6 Tip/Ring circuit card to the telephone line enables you to use all three channels in the 6-pin conductor modular cord.

NOTE:

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

3 Making Cable Connections

Connecting the Tip/Ring Circuit Card



h1cv885a CJL 031997

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

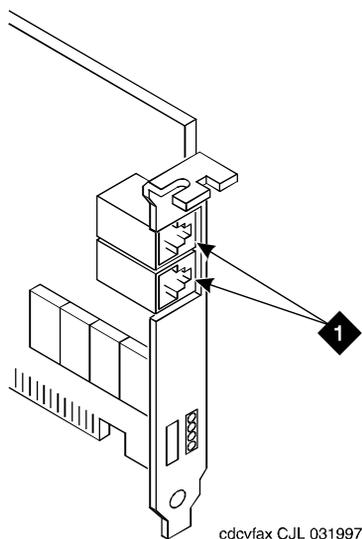
Figure 3-2. How to Use the 885A Adapter with a Tip/Ring Circuit Card

Connecting FAX Lines

The MAP/5P supports one Brooktrout TR114+14L fax circuit card. This fax circuit card provides four dedicated analog ports.

The fax circuit card includes two RJ-45 telephone jacks ([Figure 3-3](#)). 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.



odcvfax C.JL 031997

1. Modular jacks

Figure 3-3. Fax Circuit Card Faceplate

The pinouts for the top and bottom telephone jacks are identical and are configured as shown in [Table 3-1](#).

Table 3-1. 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

COM1, an asynchronous port on the back of the MAP/5P, connects the MAP/5P to a terminal, modem, or other DTE or DCE device.

⇒ NOTE:

The MAP/5P 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 MAP/5P for COM1. See [Appendix C, "Pinouts"](#), if you need pinout information for the COM1 connector.

Connecting Standard Circuit Cards

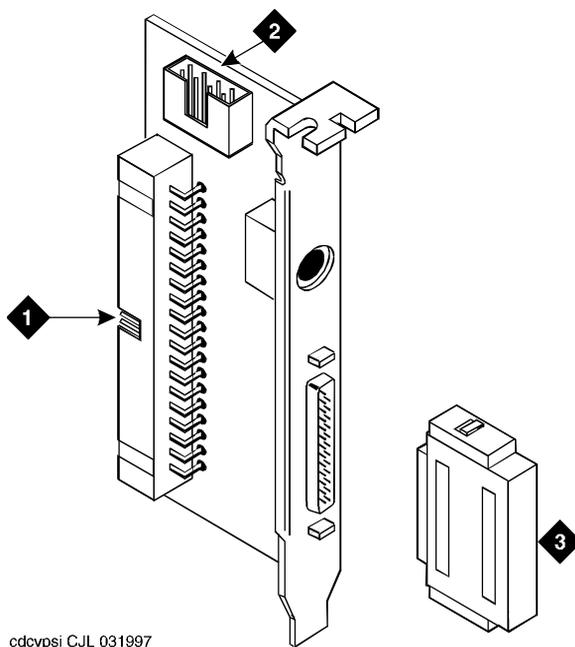
WARNING:

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 for the CPU circuit cards that are included with every MAP/5P.

External SCSI Connector Circuit Card

The external SCSI connector circuit card ([Figure 3-4](#)) 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.



cdcvpsi C.J.L. 031997

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

Figure 3-4. External SCSI Connector Circuit Card and Terminating Resistor Module

Once you install the external SCSI connector circuit card, you can attach the terminating resistor. The terminating resistor must remain on the external SCSI connector circuit card whenever the MAP/5P is in operation.

Remote Maintenance Circuit Card

The remote maintenance circuit card ([Figure 3-5](#)) provides remote diagnostics of basic MAP/5P components. There is one remote maintenance circuit card installed on the system.

Figure 3-5. Remote Maintenance Circuit Card Faceplate

Connecting Peripherals and Powering Up

4

Overview

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

- Connecting the monitor
- Connecting the keyboard
- Connecting a printer
- Registering a modem
- Connecting a modem
- Powering up the system

Purpose

The purpose of this chapter is to ensure proper connectivity of the MAP/5P to all peripherals.

Connecting the Monitor

This section describes how to make the connections between the MAP/5P and a monitor.

Required Cabling for Monitor

Two cables connect the monitor to the MAP/5P:

- Video cable connector
- Power cable

Video Cable Connector

The video cable connector has a video input connector at one end. The other end of the cable is permanently attached to the monitor.

Power Cable

The power cable has a male plug at one end and a female plug at the other end.

Connecting Monitor Cables

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 2-9](#) for the 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.

Connecting the Keyboard

A 6-pin, female DIN receptacle is located in the back of the MAP/5P. The mating male plug is provided with the keyboard. Both of the connector assemblies are keyed to provide proper alignment. See [Figure 2-9](#) for the location of the keyboard connector.

NOTE:

Do not use the keyboard receptacle for any other purpose than to connect the keyboard. Do not plug the keyboard into the mouse connector.

[Figure 4-1](#) shows the receptacle and plug. See [Chapter C, "Pinouts"](#), if you need pinout information.

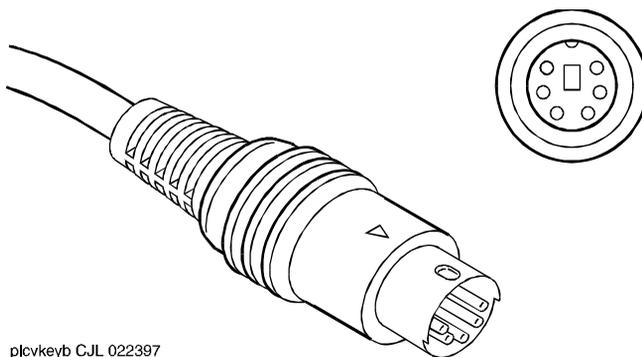


Figure 4-1. Circular DIN 6-Pin Connector for the Keyboard

Connecting the Printer

A 25-pin D-subminiature female receptacle, located on the back of the MAP/5P, provides a parallel printer interface.

Use the instructions supplied in the manufacturer's manual, *Users' Guide 570 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. See [Appendix C, "Pinouts"](#), if you need pinout information.

To connect the printer, do the following:

1. Unpack your printer according to the steps provided in your printer guide.
2. Install the ribbon cassette and paper as shown in your printer guide.
3. Set the ON-OFF switch of the printer to OFF.
4. Set the options as described in your printer guide.
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 Step [6](#). Continue with Step [7](#).

7. Insert the male end of the cable into the 25-pin female parallel port connector on the back of the MAP/5P. See [Figure 2-9](#) for the location of the parallel port on the MAP/5P.
8. Tighten the thumb-screws with your fingers or with a small flat-blade screwdriver.
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.

Configuring a Local Parallel Printer

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 **cvvis_mainmenu**

The system displays the INTUITY™ CONVERSANT® V6.0 menu ([Figure 4-2](#)).

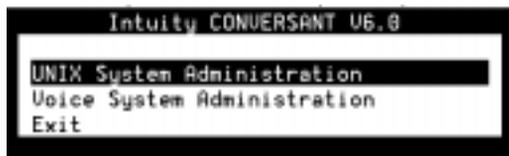


Figure 4-2. INTUITY CONVERSANT V6.0 Menu

3. Select

```
> UNIX System Administration
  >UNIX Management
    >Printer Administration
      >Install Okidata 320 Printer Software
```

4. Press **(ENTER)**.
5. Press **(F3)** (SAVE).
6. Press **(F6)** (CANCEL) until you return to the INTUITY CONVERSANT V6.0 menu. ([Figure 4-2](#)).

Configuring the Okidata Laser Printer

To configure the Okidata Laser printer, do the following:

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

The system displays the INTUITY™ CONVERSANT® V6.0 menu ([Figure 4-2](#)).

3. Select

```
> UNIX 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 INTUITY CONVERSANT V6.0 menu. ([Figure 4-2](#)).

Registering Your Modem

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

- The serial number of your MAP/5P (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

Use a modem to connect:

- To COM1 on the back of the MAP/5P to enable remote access (see [Figure 2-9](#) for the location of COM1).
- Between a remote terminal and the network at a remote site.
- To COM2 to enable remote login for Lucent maintenance (see [Figure 2-9](#) for the location of COM2).

The Paradyne 3820 is the only modem supported for connection to the COM2 port. The following sections outline how to connect and set-up a 3820 modem.

NOTE:

COM2 is reserved for remote maintenance by Lucent Technologies personnel and is not available for asynchronous connections.

Connecting the 3820 Modem to the Platform

To connect the 3820 modem to the hardware platform, do the following:

1. Connect a 9- to 25-pin adapter to the 9-pin COM2 port on the back of the MAP/5P.
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- to 8-pin adapter and then connect the 25- to 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.

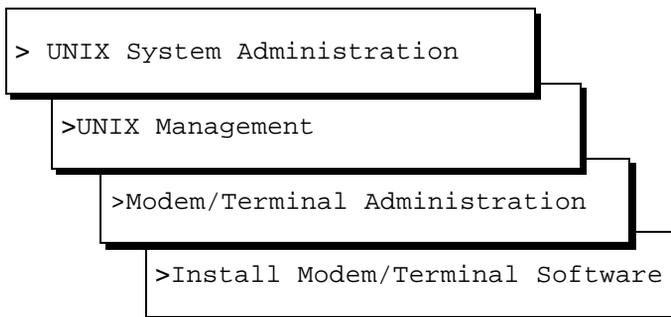
Configuring the 3820 Modem

To set up a modem, do the following:

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

The system displays the INTUITY CONVERSANT V6.0 main menu ([Figure 4-2](#)).

3. Select



4. Press **(ENTER)**.
5. The system displays the Install Modem/Terminal Window ([Figure 4-3](#)).

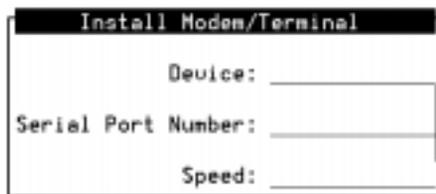


Figure 4-3. Install Modem/Terminal Window

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 INTUITY CONVERSANT V6.0 menu. ([Figure 4-2](#)).

Powering Up the System

Before you power up the system, verify that the MAP/5P is set to accommodate the appropriate intake voltage.

Verifying the Intake Voltage

The MAP/5P operates on either international (115 VAC) or domestic (220 VAC) power. Lucent Technologies labels the platform to indicate which intake voltage the MAP/5P is set to accommodate. Check this label. If you must change the intake voltage or verify the setting, use the dual-position selector switch on the back of the MAP/5P. This switch is located in the upper right corner between the AC power supply outlet and the AC power inlet receptacle.

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 MAP/5P.

1. Plug one end of the power cord into the AC power supply outlet on the back of the MAP/5P. See [Figure 2-9](#) for the location of the AC power supply outlet.
2. Use a cable tie to attach the power cord to the dress cover lock on the back of the MAP/5P. See [Figure 2-9](#) for the location of the dress cover lock.

 **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. See [Figure 2-8](#) for the location of the power switch.

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.

6. If the monitor lamp does not come on or if diagnostics do not initiate on the monitor screen, recheck the power connections.

 **NOTE:**

If the MAP/5P power indicator LED or the monitor lamp does not light, recheck the system power connections and requirements. For more information on the power supply requirements, see [Appendix A, "System Installation Checklist"](#), and ["Power Requirements"](#) in [Chapter 1, "Getting Started"](#).

Verifying System Status

5

Overview

This chapter describes how to:

- View controlled applications
- Verify INTUITY™ CONVERSANT® feature options
- Activate alarm origination
- Back up the system

Purpose

The purpose of this chapter is to provide procedures to:

- View controlled applications
- Verify feature options installed on the MAP/5P
- Ensure that the system is fully operational

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 5-1](#)).

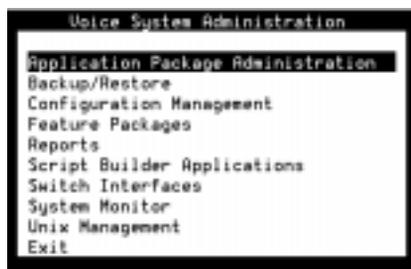


Figure 5-1. Voice System Administration Menu

3. Select

```
>Configuration Management
```

```
> Feature Licensing
```

4. Press **(ENTER)**.

The system displays the Display Feature Licensing screen ([Figure 5-2](#)).



Feature	Value
Text to Speech	8
Dial Pulse Recognition	18
FlexWord Recognition	8
WholeWord Recognition	18

Figure 5-2. Display Feature Licensing Screen

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

The system displays the Actions menu ([Figure 5-3](#)).



Figure 5-3. Actions Menu

6. Select



```
>Update
```

7. Press **(ENTER)**.

The system refreshes the Display Feature Licensing screen ([Figure 5-2](#)).

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

The system displays the Actions Menu ([Figure 5-3](#)).

9. Select

```
>Print
```

10. Press **(ENTER)**.

The systems prints a copy of the Display Feature Licensing screen ([Figure 5-2](#)).

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.

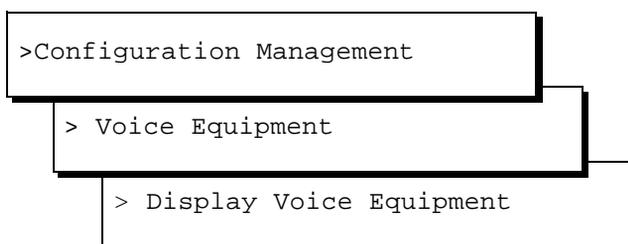
- Playback and coding
 - At least one Tip/Ring circuit card must be installed.
 - Tip/Ring lines must be in the INSERV state.
 - There must be room on the speech disk slice to store a 45-second phrase.
- Chantst
 - At least one Tip/Ring circuit card must be installed.
 - Tip/Ring lines must be in the INSERV 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 5-1](#)) and select



The system displays the Display Voice Equipment screen ([Figure 5-4](#)).

CD	PT	CHN	STATE	STATE-CHNG-TIME	SERVICE-NAME	PHONE	GROUP	OPTS	TYPE
0	5	5	Inserv	Nou 26 13:57:11	*DNIS_SUC	4008	2	tdm	IUC6
CARD 1 STATE: Inserv CLASS: Analog(TR) 0.S.INDEX: 1									
NAME: RVC10 OPTIONS: master2.tdm,tt									
FUNCTION: TipRing									
1	0	6	Inserv	Nou 26 13:57:11	*DNIS_SUC	4009	2	tdm	IUC6
1	1	7	Inserv	Nou 26 13:57:11	*DNIS_SUC	4010	2	tdm	IUC6
1	2	8	Inserv	Nou 26 13:57:11	*DNIS_SUC	4011	2	tdm	IUC6
1	3	9	Inserv	Nou 26 13:57:11	*DNIS_SUC	4014	2	tdm	IUC6

Figure 5-4. 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 INSERV channel number to enter in [Step 6](#) of this procedure.

⇒ NOTE:

If no channels are in the INSERV state, continue with [“Changing the State of Voice Equipment”](#) below.

4. Press **F6** (CANCEL) twice to return to the Configuration Management menu ([Figure 5-5](#)).

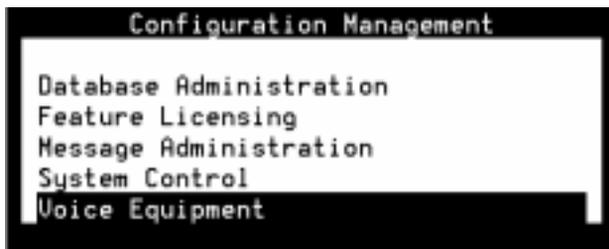
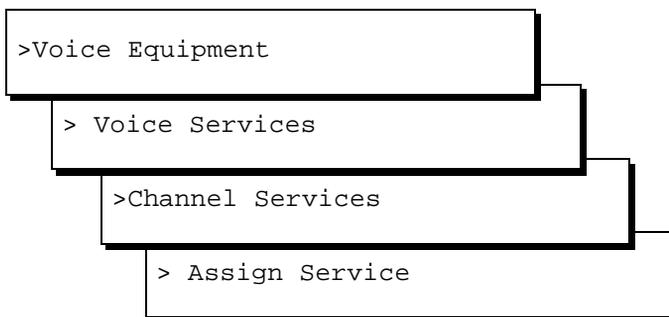


Figure 5-5. Configuration Management Menu

5. Select



The system displays the Assign Channel Service screen ([Figure 5-6](#)).



Figure 5-6. 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 5-5](#)).
11. Select

```
>Voice Equipment
```

The system displays the Display Voice Equipment screen ([Figure 5-4](#)).

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 5-1](#)).
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 5-1](#)) and select

```
>System Monitor
```

The system displays the System Monitor-Voice Channels screen ([Figure 5-7](#)).

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

Figure 5-7. 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 5-1](#)) and select

>Configuration Management

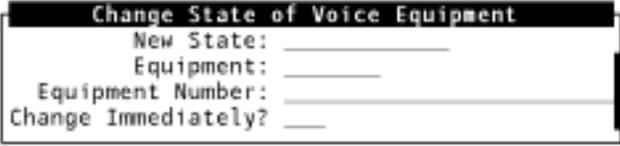
> Voice Equipment

The system displays the Voice Equipment screen ([Figure 5-4](#)).

2. Press **F8** (CHG-KEYS).

3. Press **F2** (CHGSTATE).

The system displays the Change State of Voice Equipment screen ([Figure 5-8](#)).



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

Figure 5-8. 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 Technical Support Organization (TSO) 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. Clear all alarms. See Chapter 1, "Getting Started," in *INTUITY CONVERSANT System Version 6.0 System Alarms and Log Messages*, 585-310-182, for details on clearing alarms.
2. 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.

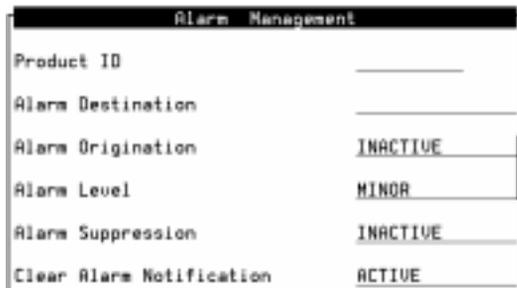
3. Log in as root.
4. Enter **cvis_menu**

The system displays the Voice System Administration menu ([Figure 5-1](#)).

5. Select

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

The system displays the Alarm Management window ([Figure 5-9](#)).



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

Figure 5-9. Alarm Management Window

6. 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.

7. Move (▼) to the Alarm Origination: field.
8. Press (F2) (CHOICES).
9. Select



```
> Active
```

10. Verify that the entry in the Alarm Suppression: field is inactive. If it is not, move the cursor to the Alarm Suppression: field, press (F2) (CHOICES), and select inactive for the field.
11. Press (F3) (SAVE).

The system displays the following message:

Alarm Form Update was successful

Press (Enter) to continue.

12. Press (ENTER).
13. 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 5-9](#)) and press **F8** (CHGKEYS).
2. Press **F1** (TEST-ALM).

The system displays the Alarm Origination Test menu ([Figure 5-10](#)).

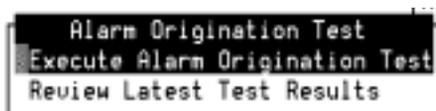
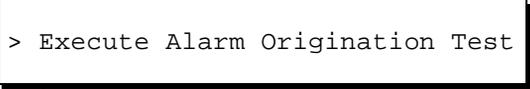


Figure 5-10. Alarm Origination Test Menu

3. Select



A screenshot of a terminal window showing a prompt ">" followed by the text "Execute Alarm Origination Test". The text is enclosed in a rectangular box.

The system displays the Confirm window ([Figure 5-11](#)).

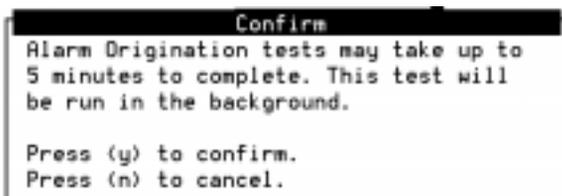


Figure 5-11. Confirm Window

4. Press **Y**.



NOTE:

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

5. Select

```
> Review Latest Test Results
```

The system displays the Alarm Origination Test Results window ([Figure 5-12](#)).



Figure 5-12. 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 5-10](#)).

8. Select

```
> Review Latest Test Results
```

The system displays the Alarm Origination Test Results window ([Figure 5-13](#)).

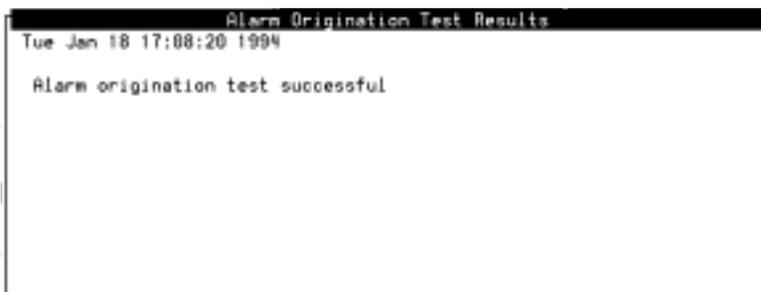


Figure 5-13. Alarm Origination Test Results Window

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 5-1](#)) 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 MAP/100 peripheral bay.

The system boots from the BRU diskette. After a few minutes the system displays the BRU Main Menu ([Figure 5-14](#)).

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 5-14. BRU Main Menu

5. Enter **1**

The system displays the BRU Select Recovery Device Type Menu Screen ([Figure 5-15](#)).

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 5-15. BRU Select Recovery Device Type Menu Screen

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 Screen ([Figure 5-14](#)).

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 5-14](#)).

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:

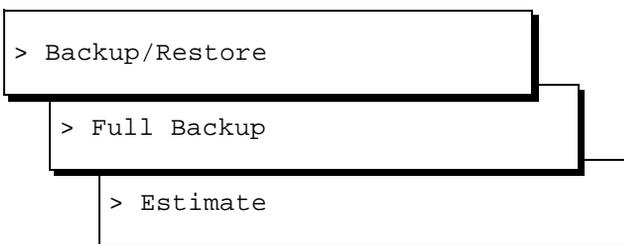
- Estimate - this determines how much has changed since the last backup.
- Backup - this is the actual backup performance.

⇒ 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 5-1](#)), 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:lvolume xxxxxx 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 5-16](#)).



Figure 5-16. 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 5-1](#)), 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 5-1](#)), 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:

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® V6.0 Administration*, 585-310-591, 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 *INTUITY CONVERSANT System Version 6.0 MAP/5P Maintenance*, 585-310-192.

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 **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 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 **(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 [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

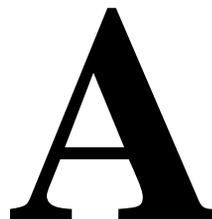
See the *Novell UnixWare Backup and Restore Services* book, which is part of the *UnixWare Documentation Set*, 585-350-908, for information on:

- 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 V6.0 Speech Development, Processing, and Recognition*, 585-310-762, for information on backing up speech files using **spsav**

System Installation Checklist



Overview

The checklist provides a description of the required procedures, in sequence, to use when installing an assembled, loaded, and tested (ALT) system. The "Chapter" and "Section" columns refer you to the appropriate document or chapter number and section title of the book that applies to the procedure and installation you are completing. Use the books listed on the next page to support the checklist.

Purpose

Using this checklist ensures that you complete the required procedures in the proper sequence.

Books to Use with the Checklists

Use the following books to install a Lucent Technologies' INTUITY™ CONVERSANT® system MAP/5P:

- *INTUITY™ CONVERSANT® System Version 6.0 MAP/5P New System Installation*, 585-310-191

This is the primary reference book for installing an ALT system.

- *INTUITY CONVERSANT System Version 6.0 MAP/5P Maintenance*, 585-310-192

You will also need one of the following switch integration documents:

- *INTUITY Integration with System 75 and DEFINITY® Communications System Generic 1 and Generic 3*, 585-310-214.

Use this book along with the system installation book, if integrating with System 75 and DEFINITY G1 and G3.

- *INTUITY Integration with System 85 and DEFINITY Communications System Generic 2*, 585-310-215

Use this book along with the system installation book, if integrating with System 85 and DEFINITY G2.

If you are installing networking, you will also need:

- *INTUITY CONVERSANT System Version 6.0 Administration*, 585-310-591

Use this book along with the system installation book, if connecting to a digital network.

NOTE:

If you need to install a feature to an ALT system, contact your project manager to verify the requirement and contact your remote support center.

System Installation Checklist

The checklist ([Table A-1](#)) 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 A-1. MAP/5P Hardware Installation Checklist —
 Preassembled System**

Task	Task Description	Comments	Chapter	Section	✓
1	Verify site environmental requirements.		1	“Environmental Considerations”	
2	Verify site installation requirements.		1	“Installation Area Considerations”	
3	Verify site space requirements.		1	“Weight and Space Considerations”	
4	Verify site power requirements.		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 A-1. MAP/5P Hardware Installation Checklist —
 Preassembled System — Continued**

Task	Task Description	Comments	Chapter	Section	✓
10	Unpack the MAP/5P.	Open as instructed to facilitate reuse of packing materials.	2	"Unpacking the Unit"	
11	Locate key components on the MAP.		2	"Chassis Front with Dress Cover Removed" and "Chassis Back"	
12	Make cable connections.	Switch, network, and asynchronous connections are included. These MUST be made prior to powering up.	3	"Making Cable Connections"	
13	Connect the MAP/5P to the power service and power up.		4	"Connecting Peripherals and Powering Up"	
14	Verify the system setup screen is correct, if necessary.		4		
15	Administer the modem for remote administration.	Administer modem on systems using COM2 for remote administration.	4	"Configuring the 3820 Modem"	
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 Modem to the Platform"	
17	Administer the remote terminal.	Administer on systems using a remote terminal.	4	"Configuring the 3820 Modem"	

Continued on next page

**Table A-1. MAP/5P Hardware Installation Checklist —
 Preassembled System — Continued**

Task	Task Description	Comments	Chapter	Section	✓
18	Administer the remote terminal on the INTUITY CONVERSANT system.	Administer on systems using a remote terminal.	4	"Configuring the 3820 Modem"	
19	Administer the printer on the system.	Administer on systems using a printer.	4	"Configuring a Local Parallel Printer"	
20	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.	B	Appendix B, "Troubleshooting Procedures"	
21	View feature license values.	Applicable to all systems.	5	"Viewing Feature License Values"	
24	Verify system status.		5	"Viewing Feature License Values"	
25	Map channels to switch extensions.	Applicable to all systems.	5	"Setting Up the Feature Test Script Package"	
26	Verify channel state.	Applicable to all systems.	5	"Setting Up the Feature Test Script Package"	
27	Assign service to channels for testing.	Applicable to all systems.	5	"Setting Up the Feature Test Script Package"	
28	Test each channel.	Applicable to all systems.	5	"Running the Feature Test Script Package"	

Continued on next page

**Table A-1. MAP/5P Hardware Installation Checklist —
 Preassembled System — Continued**

Task	Task Description	Comments	Chapter	Section	✓
29	Map services to channels for operation.	Applicable to all systems.	5	"Running the Feature Test Script Package"	
30	Administer and test alarm origination or configure the remote maintenance modem.		5	"Activating Alarm Origination"	
31	Back up the system.	Applicable to all systems.	5	"Backing up the INTUITY CONVERSANT System"	

Troubleshooting Procedures

B

Overview

This appendix describes some basic troubleshooting procedures for the most common system problems.

Purpose

The purpose of this appendix is to provide the on-site technician or system administrator with repair procedures for the most common system procedures.

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 System Alarms and Log Messages*, 585-310-182 for the procedure.
- The corrective action columns of the tables are intended to provide a starting point to isolate a problem and may not be exhaustive.
- The corrective procedures 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.

Repairing Power-Up Troubles

Power-up troubles are those that occur when you first turn the system on. [Table B-1](#) lists the indications related to power-up troubles.

Table B-1. Repairing Power-Up Troubles

Indication	Corrective Action
<p>The system will not power up.</p>	<ol style="list-style-type: none"> 1. Verify that the power toggle switch on the front is in the ON position. 2. Verify all external system connections (power cords and monitor cables) are correct. 3. Verify all external system connections are secure.
<p>During startup, the system displays the following message:</p> <pre>"Shared memory is marked as invalid. cvis_menu exiting."</pre>	<ol style="list-style-type: none"> 1. Stop the voice system. See "Stopping the Voice System" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform. 2. Start the voice system. See "Starting the Voice System" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform. 3. Enter cvis_mainmenu 4. If the problem persists: <ol style="list-style-type: none"> a. Stop the voice system. See "Stopping the Voice System" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform. b. Enter cp /gendb/shmem/devtbl gendb/shmem/devtbl.old c. Enter rm /gendb/shmem/devtbl d. Start the voice system. See Chapter 3, "Common System Procedures," in the maintenance book specific to your platform.
<p>The start_vs command takes a long time to initialize on a system with many analog lines.</p>	<ol style="list-style-type: none"> 1. Starting at the Switch Administration screen, set Dial-Tone Training to "No." See Chapter 5, "Switch Interface Administration," in <i>INTUITY CONVERSANT System Version 6.0 Administration</i>, 585-310-591. <p>⇒ NOTE:</p> <p>If dial-tone training is "no," you should specify the dial-tone frequency to be used with your switch (350 and 440 is the default for DEFINITY).</p> <ol style="list-style-type: none"> 2. Verify that the transfers being performed in the application are still functioning properly.

Repairing Boot-Up Troubles

Boot-up troubles are those that occur when the system crashes and reboots itself or when you reboot the system. [Table B-2](#) lists the indications and possible repair procedures related to boot-up troubles.

Table B-2. Repairing Boot-Up Troubles

Indication	Corrective Action
<p>Circuit cards are not recognized during boot up.</p>	<ol style="list-style-type: none"> 1. Enter pkginfo 2. Make sure the driver software is installed (Tip/Ring or T/1). 3. Check the circuit cards. See "Circuit Card Diagnostics" in Chapter 2, "Diagnostics," in the maintenance book specific to your platform. 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.
<p>When the system boots, it displays messages in the message log report or on the console similar to the following:</p> <p>Unable to attach shared memory, Bad DEVTBL, and/or VROP respawning too rapidly.</p>	<ol style="list-style-type: none"> 1. Stop the voice system. See Chapter 3, "Common System Procedures," in the maintenance book specific to your platform. 2. Enter cp /gendb/shmem/devtbl /gendb/shmem/devtbl.old 3. Enter rm /gendb/shmem/devtbl 4. Start the voice system. See "Starting the Voice System" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform.
<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"> 1. Check the diskette drive and confirm that it is empty. 2. Check the cartridge tape drive and confirm that it is empty. 3. Check the power connections. 4. Reboot the system. See "Rebooting the UNIX System" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform.

Continued on next page

Table B-2. Repairing Boot-Up Troubles — Continued

Indication	Corrective Action
<p>The system passes run level four then reboots continuously (rolling reboot).</p>	<ol style="list-style-type: none"> 1. Power off the platform immediately after the system reboots. 2. Remove one optional circuit card. 3. Reboot the system. See "Rebooting the UNIX System" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform. 4. Repeat Steps 1–3 until the system reboots properly. 5. Replace the circuit cards.
<p>The system exhibits rolling reboot when static kernel size exceeds 8 Mbyte.</p>	<ol style="list-style-type: none"> 1. Reboot the system. See "Rebooting the UNIX System" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform. 2. While rebooting the system, hold down the (ENTER) key when the system displays the UnixWare graphics. 3. When the system prompts you for a previously saved kernel, enter unix.old 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. 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 a maximum of 8 Mbyte.

Continued on next page

Table B-2. Repairing Boot-Up Troubles — Continued

Indication	Corrective Action
<p>A file system check shows a file system with 0 files, 0 blocks, or 0 free.</p>	<ol style="list-style-type: none"> 1. Verify the disk partition was adequate. See "Initializing the Hard Disk Drives" in Chapter 9, "Installing Base System Software," in the maintenance book specific to your platform. 2. Restore the system software from the mkimage backup tape. See "Performing a System Restoration" in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform. <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 the maintenance book specific to your platform.</p>
<p>The system hangs after a reboot and the screen is blank.</p>	<ol style="list-style-type: none"> 1. Check the diskette drive and confirm that it is empty. 2. Check the power connections. 3. Check the power supply by watching for hard disk access with the disk access light. 4. Reboot the system. See "Rebooting the UNIX System," in Chapter 3, "Common System Procedures," in the maintenance book specific to your platform.

Pinouts

C

Overview

This appendix provides the pinout information for:

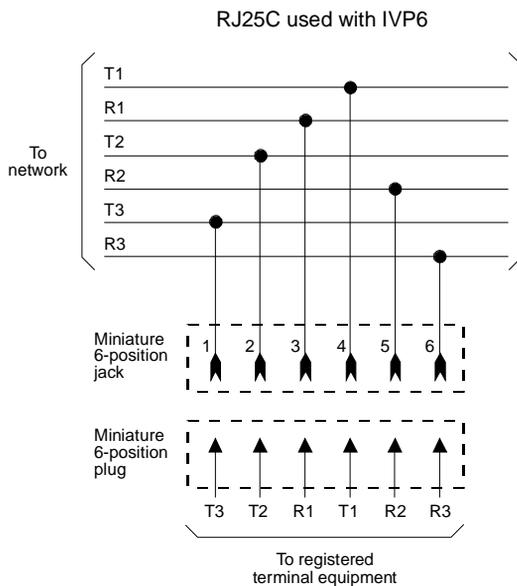
- Tip/Ring circuit cards
- Asynchronous connections

Purpose

The purpose of this appendix is to provide the pinout information to ensure proper connectivity and complete the system installation successfully.

Pinouts for the Tip/Ring Circuit Card

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



RJ25C – Surface- or flush-mounted jack

Mechanical arrangement: miniature 6-position jack

Figure C-1. Wiring and Pin Diagram for the AYC10 (IVC6) Circuit Card

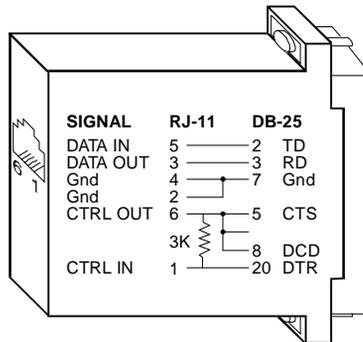
Pinouts for Asynchronous Connections

[Table C-1](#) lists the pinouts for the COM1 asynchronous port on the rear of the MAP/5P. [Figure C-2](#) shows pinouts for the terminal/printer or modem adapters.

Table C-1. 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

FOR TERMINALS & PRINTERS:
 PEC 70854 [DB-25 DCE Male]



FOR MODEMS:
 PEC 70853 [DB-25 DTE Male]

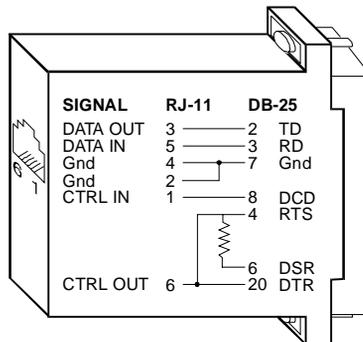


Figure C-2. Pinout Connections for DTE or DCE Devices

Cable Connectivity

D

Overview

This appendix details external connectivity and cabling from the MAP/5P platform to the following:

- Lucent Technologies switches:
 - DEFINITY® G1, G3 and System 75 R1V3
 - DEFINITY G2 and System 85 R2V4
- Networks
- Terminals and distant modems

This appendix also provides 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 MAP/5P in locations called *slots*. Slots are numbered PCI 1 through PCI 3 and ISA 2 through ISA 6 from the top of the MAP/5P to the bottom of the circuit card cage. Slots are accessible from the back of the MAP/5P.

The following sections detail the fixed and variable assignments for circuit cards installed in the MAP/5P.

Fixed Slot Assignment

The external SCSI connector circuit card slot assignment (PCI slot 1) is fixed in the MAP/5.

Variable Slot Assignments

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”](#) 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.

Overview of Serial Port Connections

Serial port connections from the INTUITY™ CONVERSANT® system to terminals, distant modems, or other customer equipment can be made from COM1 on the back of the MAP/5P.

See [Figure D-1](#) for an overview of serial port connections.

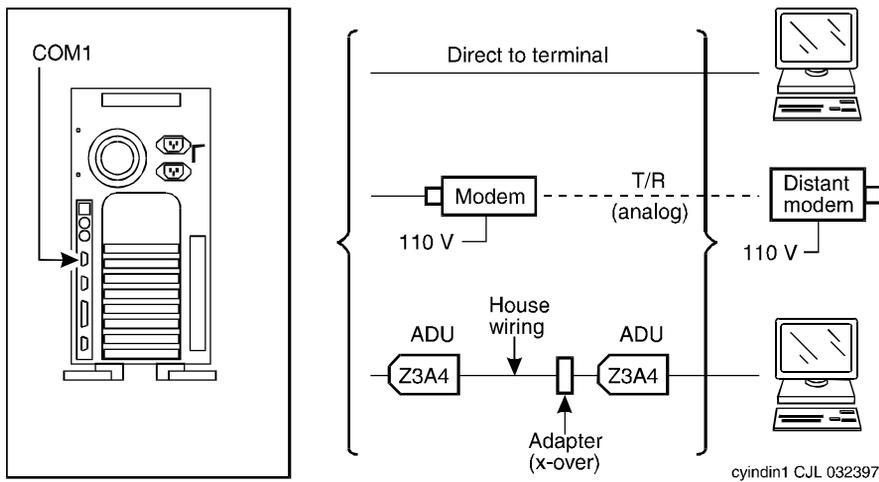


Figure D-1. Overview of Serial Port Connections

Connecting COM1 to Customer Equipment Through a Modem

Use the following procedure and [Figure D-2](#) to make these connections.

1. Attach an RS-232 cable to COM1 on the back of the MAP/5P.
2. Attach the other end of the RS-232 cable to a modem.
3. Make cable connections between the modem and the customer equipment.

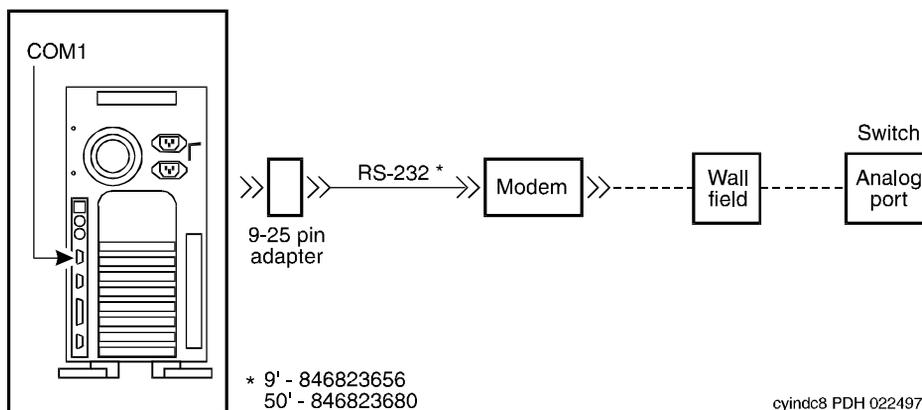
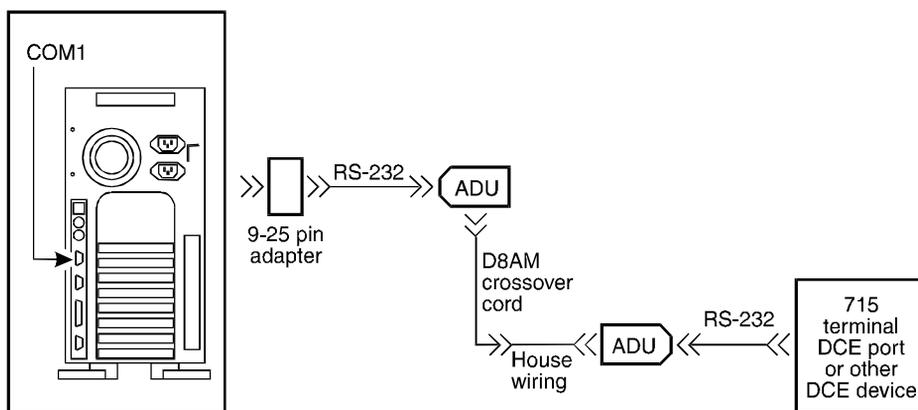


Figure D-2. Connecting COM1 to Customer Equipment Through a Modem

Connecting COM1 to a 715 Terminal DCE Port Through ADUs

Use the following procedure and [Figure D-3](#) to make these connections.

1. Attach an RS-232 cable to COM1 on the back of the MAP/5P.
2. Attach the other end of the RS-232 cable to the ADU.
3. On the other end of the ADU, attach a D8AM crossover cord.
4. Connect the D8AM crossover cord to customer premises wiring.
5. At the other end of the customer premises wiring, attach the customer wiring to another ADU.
6. At the other end of that ADU, attach an RS-232 cable.
7. Attach the other end of this RS-232 cable to the 715 DCE port or other DCE device.



Note: Add null modem at end of RS-232 if connecting to a 615 terminal or other DTE devices.

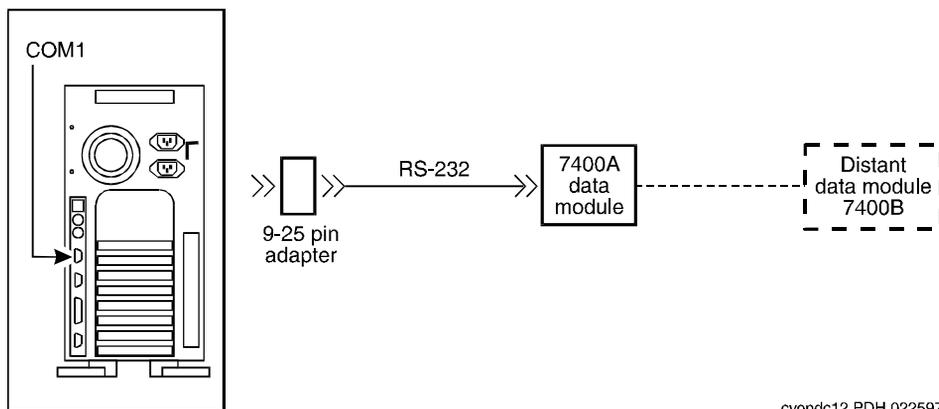
cyindc9 PDH 022497

Figure D-3. Connecting COM1 to a 715 Terminal DCE Port Through ADUs

Connecting COM1 to a Distant Data Module Through a 7400A Data Module

Use the following procedure and [Figure D-4](#) to make these connections.

1. Attach an RS-232 cable to COM1 on the back of the MAP/5P.
2. Attach the other end of the RS-232 cable to a 7400A data module.
3. Cable between the 7400A data module and the distant 7400B data module.



cyondc12 PDH 022597

Figure D-4. Connecting COM1 to a Distant Data Module Through a 7400A Data Module

Connecting COM1 to a 615 Terminal or Other DTE Device Through a Null Modem

Use the following procedure and [Figure D-5](#) to make these connections.

1. Attach an RS-232 cable to COM1 on the back of the MAP/5P.
2. Attach the other end of the RS-232 cable to the NULL modem.

⇒ NOTE:

The NULL modem must be provided locally.

3. On the other end of the NULL modem, attach another RS-232 cable.
4. Attach the other end of this RS-232 cable to the 615 terminal or other DTE device.

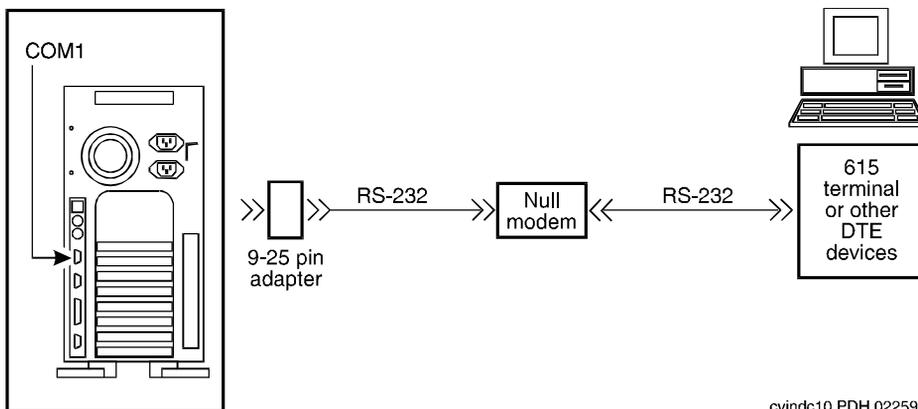
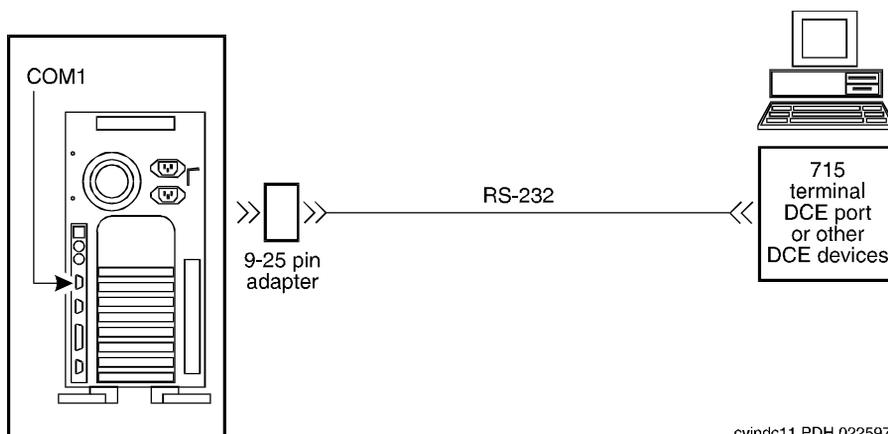


Figure D-5. Connecting COM1 to a 615 Terminal Through a Null Modem

Making a Direct Connection from COM1 to a 715 Terminal or Other DCE Device

Use the following procedure and [Figure D-6](#) to make these connections.

1. Attach an RS-232 cable to COM1 on the back of the MAP/5P platform.
2. Attach the other end of the RS-232 cable to the 715 terminal DCE port or other DCE device.



cyindc11 PDH 022597

Figure D-6. Making a Direct Connection from COM1 to a 715 Terminal or Other DCE Device

Cable and Adapter Ordering Numbers

[Figure D-1](#) lists cables, adapters, and ordering numbers for Tip/Ring circuit card connections. [Figure D-2](#) lists cables, adapters, and comcodes for serial configurations.

Table D-1. Interface Cable Types and Lengths for Tip/Ring Circuit Card Connections

Type	Length (m/ft)	ED Number
G37A, F-to-M	4.6/15	ED5P208-30
G37B, F-to-M	6.1/20	ED5P208-30
G37C, F-to-M	7.6/25	ED5P208-30
G37D, F-to-M	9.1/30	ED5P208-30
G37E, F-to-M	10.7/35	ED5P208-30
G37F, F-to-M	2.2/40	ED5P208-30
G37G, F-to-M	13.7/45	ED5P208-30
G37H, F-to-M	5.2/50	ED5P208-30
G37J, F-to-M	6.8/55	ED5P208-30
G37K, F-to-M	18.3/60	ED5P208-30
G37L, F-to-M	19.8/65	ED5P208-30
G37M, F-to-M	2.1/70	ED5P208-30
G37N, F-to-M	22.9/75	ED5P208-30
G37P, F-to-M	24.4/80	ED5P208-30
G37Q, F-to-M	25.9/85	ED5P208-30
G37R, F-to-M	27.4/90	ED5P208-30
G37S, F-to-M	29/95	ED5P208-30
G37T, F-to-M	30.5/100	ED5P208-30
G37U, F-to-M	38.1/125	ED5P208-30
G37V, F-to-M	45.7/150	ED5P208-30
G37W, F-to-M	53.3/175	ED5P208-30
G37X, F-to-M	61/200	ED5P208-30
G37Y, F-to-M	91.4/300	ED5P208-30

Continued on next page

Table D-1. Interface Cable Types and Lengths for Tip/Ring Circuit Card Connections — Continued

Type	Length (m/ft)	ED Number
G36A, F-to-F	4.6/15	ED5P208-30
G36B, F-to-F	6.1/20	ED5P208-30
G36C, F-to-F	7.6/25	ED5P208-30
G36D, F-to-F	9.1/30	ED5P208-30
G36E, F-to-F	10.7/35	ED5P208-30
G36F, F-to-F	12.2/40	ED5P208-30
G36G, F-to-F	13.7/45	ED5P208-30
G36H, F-to-F	15.2/50	ED5P208-30
G36J, F-to-F	16.8/55	ED5P208-30
G36K, F-to-F	18.3/60	ED5P208-30
G36L, F-to-F	19.8/65	ED5P208-30
G36M, F-to-F	21.3/70	ED5P208-30
G36N, F-to-F	22.9/75	ED5P208-30
G36P, F-to-F	24.4/80	ED5P208-30
G36Q, F-to-F	25.9/85	ED5P208-30
G36R, F-to-F	27.4/90	ED5P208-30
G36S, F-to-F	29/95	ED5P208-30
G36T, F-to-F	30.5/100	ED5P208-30
G36U, F-to-F	38.1/125	ED5P208-30
G36V, F-to-F	45.7/150	ED5P208-30
G36W F-to-F	53.3/175	ED5P208-30
G36X, F-to-F	61/200	ED5P208-30
G36Y, F-to-F	91.4/300	ED5P208-30

Table D-2. Cables, Adapters, Comcodes for Serial Configurations

Cable/Adapter	Length (m/ft)	Comcode
Modular cord (10 wires and terminated with RJ45 connectors)	3/10	846362705
	7.6/25	846362713
	15.2/50	846362721
Modular cord (8 wires)	2.1/7	403600968
	4.3/14	403600976
	7.6/25	403600984
	15.2/50	403600992
Null modem cable (25-pin, male to male)	2.1/7	524565959
	4.3/14	524565967
	7.6/25	524565975
	15.2/50	524565975
Null modem cable (25-pin, male to female)	1.8/6	524163417
Modem extension cable (25-pin, male to male) M25A	2.1/7	524161742
	4.3/14	524161759
	7.6/25	524161767
	15.2/50	524161775
Modem extension cable (25-pin, male to female) M25B	2.1/7	524080652
	3.7/12	524080660
	7.6/25	524080678
	15.2/50	524080686
Parallel printer cable (25-pin male to 36-pin male)	2.1/7	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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