



# **CONVERSANT<sup>®</sup> System**

Version 8.0

MAP/40P Maintenance

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- Safety of Information Technology Equipment, CAN/CSA-C22.2 No. 60950-00 / UL 60950, 3rd Edition
- Safety Requirements for Customer Equipment, ACA Technical Standard (TS) 001 - 1997

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**Part 15: Class A Statement.**

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

**Part 68: Network Registration Number.**

This equipment is registered with the FCC in accordance with Part 68 of the FCC Rules. It is identified by FCC registration numbers printed on the faceplates of the AYC/10 and AYC/21 cards.

**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

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This product complies with and conforms to the following international EMC standards and all relevant national deviations:

- Limits and Methods of Measurement of Radio Interference of Information Technology Equipment, CISPR 22:1997 and EN55022:1998.
- Information Technology Equipment - Immunity Characteristics - Limits and Methods of Measurement, CISPR 24:1997 and EN55024:1998, including:
  - ~ Electrostatic Discharge (ESD) IEC 61000-4-2
  - ~ Radiated Immunity IEC 61000-4-3
  - ~ Electrical Fast Transient IEC 61000-4-4
  - ~ Lightning Effects IEC 61000-4-5
  - ~ Conducted Immunity IEC 61000-4-6
  - ~ Mains Frequency Magnetic Field IEC 61000-4-8
  - ~ Voltage Dips and Variations IEC 61000-4-11
  - ~ Powerline Harmonics IEC 61000-3-2
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# About This Book

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## Overview

This book contains information for troubleshooting and diagnosing problems associated with the CONVERSANT MAP/40P and hardware. It also includes component replacement procedures as well as installation procedures for base system software, CONVERSANT system software, and optional feature software. Appendices contain a system configuration description, a list of component ordering numbers, a checklist for building a system, and checklists for disaster recovery.

**Note:** To repair or alter the configuration of your system, you must have the information that is contained in this book.

## Intended Audience

This book is intended primarily for the on-site service technician and system administrators. Secondary audiences include the following:

- Field support — Technical Service Organization (TSO)
- Avaya Helpline personnel

We assume that the primary users of this book have completed the MAP/40P hardware installation training course (see Training on page xxiii).

## How to Use This Book

This book is designed to help you maintain your CONVERSANT system. It should be used as a quick-reference to obtain specific information you may need on a particular topic.

### How This Book Is Organized

This book contains the following sections:

- Chapter 1, Getting Inside the Computer — Describes how to access the internal components of the MAP/40P and describes proper electrostatic discharge protection procedures, power removal and restoration procedures, and computer chassis access procedures.
- Chapter 2, Installing or Replacing Circuit Cards — Provides the procedures to install circuit cards and set the resource options correctly.
- Chapter 3, Replacing the Hard Disk Drive — Provides the procedures to identify a failed hard disk drive, hardware procedures to replace the drive, and software procedures to initialize the drive.

- Chapter 4, Replacing Other Components — Provides the procedures to replace internal components of the MAP/40P, including the backplane, cables, cartridge tape drive, circuit card cage fans, diskette drive, filter, memory modules, power supplies, and terminator SIPs.
- Chapter 5, Installing the Tip/Ring Distribution Hardware — Describes the two types of tip/ring distribution hardware and provides the installation procedures for them.
- Chapter 6, Installing Base System Software — Provides the installation procedures for the UnixWare operating system software.
- Chapter 7, Installing the CONVERSANT System Software — Provides the installation procedures for the CONVERSANT system software.
- Chapter 8, Installing the Optional Feature Software — Provides the procedures to install all the software not included on the application software cartridge tape.
- Appendix A, System Configuration — Describes placement of components in the MAP/40P and operation of the Hardware Resource Allocator.
- Appendix B, Component Ordering Numbers — Lists the ordering numbers for MAP/40P components.
- Appendix C, How to Build a System Using This Book — Provides a checklist detailing the sequence of operations for building an Intuity CONVERSANT MAP/40P platform.
- Appendix D, Disaster Recovery Checklists — Includes checklists for various disaster recovery scenarios.
- Glossary — Defines the terms, abbreviations, and acronyms used in system documentation.
- Index — Alphabetically lists the principal subjects covered in the book.

## Conventions Used in This Book

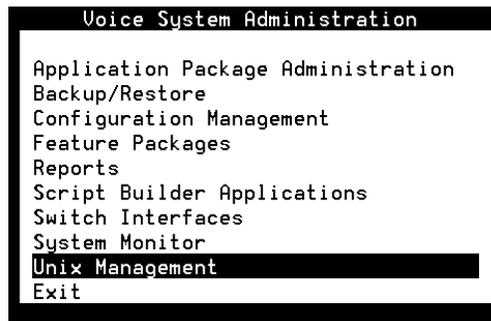
Understanding the typography and other conventions used in this book is necessary to interpret the information.

### 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 the **ENTER** key on the keyboard. 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 system displays menus, screens, and windows. Menus (Figure 1) present options from which you can choose to view another menu, or a screen or window. Screens and windows both show and request system information (Figure 2 through Figure 5 on page xx).

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

**Figure 1. Example of a CONVERSANT Menu**



**Figure 2. Example of a CONVERSANT Window Showing Information**

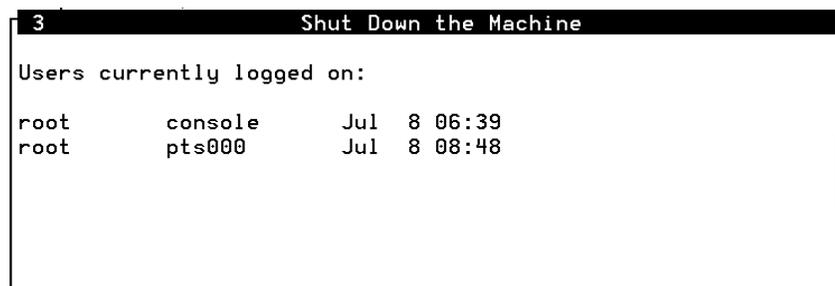


Figure 3. Example of CONVERSANT Window Requesting Information



Figure 4. Example of a CONVERSANT Screen Showing Information

```

UnixWare Installation           Primary Hard Disk Partitioning

In order to install CONVERSANT, you should reserve a UNIX
system partition (a portion of your hard disk's space)
containing 100% of the space on your primary hard disk. 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 partitions(s).

The UNIX system partition that you intend to use on the
primary hard disk must be at least 4200 MBs and labeled
"ACTIVE."

Press 'ENTER' to continue

```

Figure 5. Example of a CONVERSANT Screen Requesting Information

```

UNIX System Installation           Set Slice Sizes

Please select whether you would like the recommended slice sizes
or would like to customize the slice sizes.

Your choices are:
1. Recommended Slice Sizes
2. Customize Slice Sizes

```

### Keyboard and Telephone Keypad Representations

- Keys that you press on your terminal or PC are represented as small capitalized **BOLD** text. 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 in small capitalized **BOLD** text. For example, an instruction to press and hold the Alt key 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 small capitalized **BOLD** text 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 appear in small capitalized **BOLD** text. For example, an instruction to press the first key on your telephone keypad is shown as:

Press **1** to record a message.

### Cross References and Hypertext

Blue underlined type indicates a cross reference or hypertext link that takes you to another location in the document when you click on it with your mouse.

### Screen Displays

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

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

~ Enter **y** in the `Message Transfer?` field.

~ The system displays the following message:

```
Installation in progress.
```

- 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:

```
> Reports
```

```
> Message Log Report
```

In this example, you would access the Voice System Administration menu and select the Reports menu. From the Reports menu, you would then select the Message Log Report option.

### Other Typography

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

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

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 in *blue italic type* when they are referred to, for example:

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

- Command options are shown inside square brackets, for example:

Enter **connect *switchname* [-d] [-b | -w]**

**Cross References and Hypertext**

Blue, underlined type indicates a cross reference or hypertext link that will take you to another location in the document when you click on it.

## Safety and Security Alert Labels

**⚠ 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.

## Getting Help

The CONVERSANT system provides online help to assist you during installation, administration, and application development tasks.

To use the online help:

- Press **F1** (Help) when you are in a menu or window.

The first time you press **F1**, the system displays information about the currently active window or menu.

- ~ When you are in a window, the help explains the purpose of the window and describes its fields.
- ~ When you are in a menu, the help explains how to use menus.

If you press **F1** again, the system displays a General Help screen that explains how to use the online help.

- Press **F2** (Choices) when you are in a field.

The system displays valid field choices either in a pop-up window or on the status line directly above the function keys.

- Press **F6** (Cancel) to exit the online help.

---

## Technical Assistance

**Web Site** The following customer support web site contains resources where you can find solutions for technical problems:

<http://support.Avaya.com>

**Contact Numbers** Technical assistance on the CONVERSANT product is available through the following telephone contacts:

- In the United States, call 1-800-242-2121.
- In Canada, call one of the following numbers, depending on your location:
  - ~ 1-800-363-1882 for assistance in Quebec and eastern Canada
  - ~ 1-800-387-4268 for assistance in Ontario and western Canada
- In any other country, call your local distributor or check with your project manager or systems consultant.

## Related Resources

Additional documentation and training material is available for you to learn more about the CONVERSANT product.

**Training** To obtain training on the CONVERSANT product, contact the BCS Education and Training Center at one of the following numbers:

- Organizations within Avaya (904) 636-3261
- Avaya customers and all others (800) 255-8988

You can also view information on CONVERSANT training at the training web site:

<http://learning2.avaya.com>

The courses listed below are recommended. Other courses are available.

- For technicians doing repairs on CONVERSANT systems:
  - ~ BTE501W, CONVERSANT Administration for Technicians
  - ~ BTE502H, CONVERSANT Installation and Maintenance Voice
- For technicians and administrators:
  - ~ BTC344M, CONVERSANT Administration Overview (CD-ROM)
- For application developers:

**Note:** Courses listed below are instructor-led unless otherwise specified.

- ~ BTC128H, Introduction to Script Builder
- ~ BTC166H, Introduction to Voice@Work
- ~ BTC204H, Intermediate Voice@Work
- ~ BTC204W, Intermediate Voice@Work, interactive distance learning, using Bit-Room technology
- ~ BTC301H, Advanced CONVERSANT Programming

**Documentation** This document is designed to supplement other documents in the V8.0 system set. Always refer to the appropriate document for specific information on planning, installing, operating, administering, or maintaining the system.

Appendix A, Documentation Guide, in the *CONVERSANT Version 8.0 System Description*, 585-313-219, describes in detail all books included in the CONVERSANT documentation library.

It is suggested that you also obtain and use the following book for information on security and toll fraud issues:

- *BCS Products Security Handbook*, 555-025-600

See also the following Web sites for additional information on:

- UnixWare 7.1 documentation: <http://www.sco.com/documentation/>
- Updates to CONVERSANT documentation:  
<http://support.avaya.com/elmodocs2/conversant/index.jhtml>

#### **Obtaining Printed Versions of the Documentation**

See Ordering Information on page viii of Copyright and Legal Notices for information on how to purchase CONVERSANT documentation in printed form. You can also print documentation locally from the CD-ROM (see Printing the Documentation on page xxv).

## Using the CD-ROM Documentation

Avaya ships the documentation in electronic form. Using the Adobe Acrobat Reader application, you can read these documents on a Windows PC, on a Sun Solaris workstation, or on an HP-UX workstation. Acrobat Reader displays high-quality, print-like graphics on both UNIX and Windows platforms. It provides scrolling, zoom, and extensive search capabilities, along with online help. A copy of Acrobat Reader is included with the documents.

**Note:** When viewing documents online, it is recommended that you use a separate platform and not the CONVERSANT system.

**Setting the Default Magnification** You can set your default magnification by selecting **File | Preferences | General**. We recommend the **Fit Page** option.

**Adjusting the Window Size** On HP and Sun workstations, you can control the size of the reader window by using the **-geometry** argument. For example, the command string **acroread -geometry 900x900 mainmenu.pdf** opens the main menu with a window size of 900 pixels square.

**Hiding and Displaying Bookmarks** By default, the document appears with bookmarks displayed on the left side of the screen. The bookmarks serve as a hypertext table of contents for the chapter you are viewing. You can control the appearance of bookmarks by selecting **View | Page Only** or **View | Bookmarks and Page**.

- Using the Button Bar** The button bar can take you to the book's Index, table of contents, main menu, and glossary. It also lets you update your documents. Click the corresponding button to jump to the section you want to read.
- Using Hypertext Links** Hypertext links appear in blue underlined text. These links are shortcuts to other sections or books.
- Navigating with Double Arrow Keys** The double right and double left arrows (◀◀ and ▶▶) at the top of the Acrobat Reader window are the go-back and go-forward functions. The go-back button takes you to the last page you visited prior to the current page. Typically, you use ◀◀ to jump back to the main text from a cross reference or illustration.
- Searching for Topics** Acrobat has a sophisticated search capability. From the main menu, select **Tools | Search**. Then select **Master Index**.
- Displaying Figures** If lines in figures appear broken or absent, increase the magnification. You might also want to print a paper copy of the figure for better resolution.
- Printing the Documentation** **Note:** For information on purchasing printed copies of the documents, see Obtaining Printed Versions of the Documentation on page xxiv.
- If you want to read the documentation on paper rather than on a computer monitor, you can print all or portions of the online screens.

#### Printing an Entire Document

To print an entire document:

- 1 From the documentation main menu screen, select one of the print-optimized documents. Print-optimized documents print two screens to a side, both sides of the sheet on 8.5x11-inch or A4 paper.
- 2 Select **File | Print**.
- 3 Enter the page range you want to print, or select **All**. Note that the print page range is different from the page numbers on the documents (they print two to a page).
- 4 When the document is finished printing, close the file. Do not leave this file open while viewing the electronic documents.

#### Printing Part of a Document

To print a single page or a short section, you can print directly from the online version of the document.

To print a page or a short section:

- 1 Select **File | Print**.
- 2 Enter the page range you want to print, or select **Current**.

The document prints, one screen per side, two sides per sheet.

## How to Comment on This Book

While we have tried to make this document fit your needs, we are interested in your suggestions for improving it and urge you to send your comments to us.

### Comment Form

A comment form, available in paper and electronic versions, is available via the documentation CD-ROM. To use the comment form:

- 1 Select **Comments** from the Main Menu of the CD-ROM.
- 2 Follow the instructions provided on the CD-ROM to do one of the following:
  - ~ Print the paper version of the form, complete it, and either fax or mail it to us.
  - ~ Access a Avaya website where you can enter your comments electronically.

# 1 Getting Inside the Computer

## Overview

This chapter provides the correct procedures for accessing the internal components of the MAP/40P.

Topics covered include:

- Protecting Against Damage from Electrostatic Discharge on page 1
- Power removal and restoration procedures
  - ~ Removing Power from the MAP/40P on page 3
  - ~ Restoring Power to the MAP/40P on page 5
- Computer chassis access procedures
  - ~ Removing the Dress Cover on page 4
  - ~ Replacing the Dress Cover on page 5

## Protecting Against Damage from Electrostatic Discharge

### CAUTION:

Read this section before unpacking the MAP/40P. 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 6).

**Figure 6. 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.

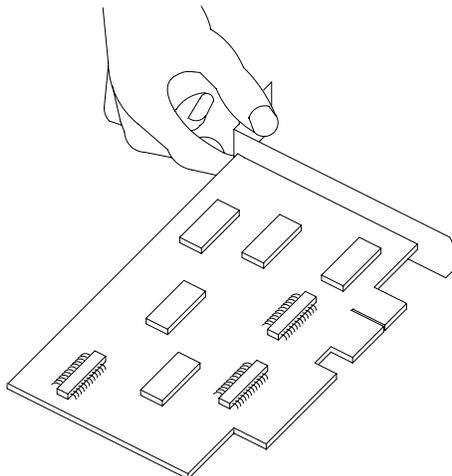
- Handle a circuit card by the faceplate or side edges only (Figure 7 and Figure 8).

**⚠ 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, floppy drive, or streaming tape in the same manner as a large circuit card. The ESD-sensitive area of these components is located on the bottom surface (Figure 9 on page 3).

**Figure 7. How to Hold a Small Circuit Card**



**Figure 8. How to Hold a Large Circuit Card**

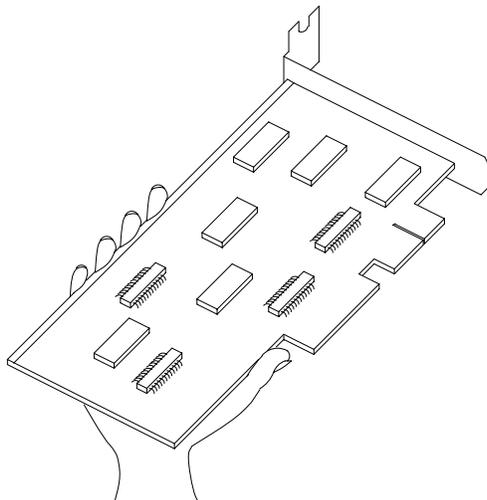
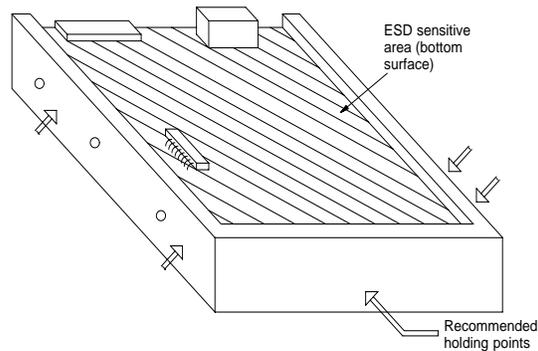


Figure 9. ESD-Sensitive Area of an Electronic Component

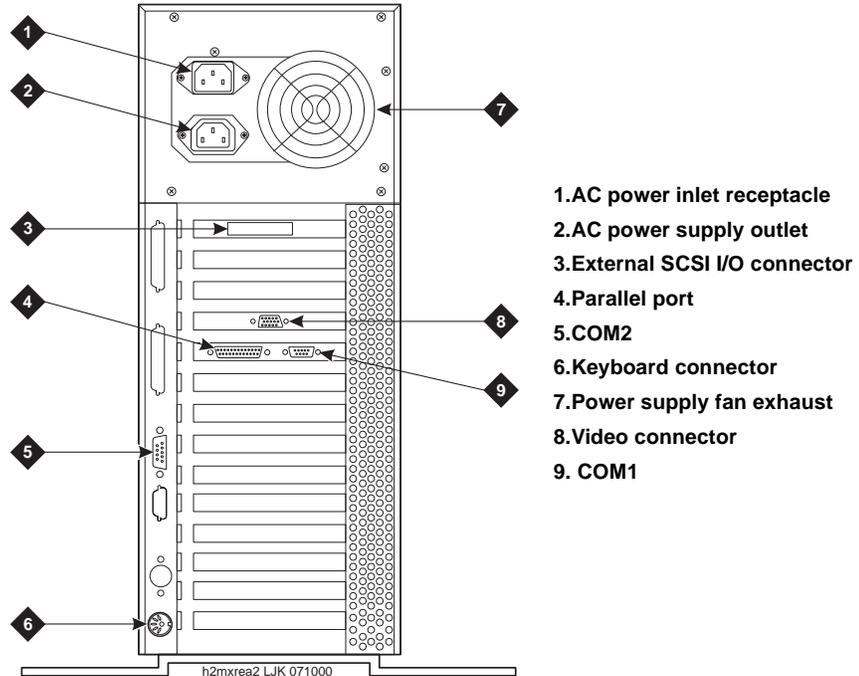


## Removing Power from the MAP/40P

The MAP/40P requires a dedicated circuit with a dedicated circuit breaker. The power cord connects to the rear of the MAP/40P at the point labeled AC input receptacle (Figure 10).

Before you begin any work in the MAP/40P you must disconnect the incoming power. Follow the procedure below to remove power from the MAP/40P.

Figure 10. Back View of the MAP/40P



- 1 Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.”
- 2 Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Turn off the monitor’s power switch.  
The green or amber lamp on the front bottom of the monitor should be off.
- 4 Turn off the power switch on the front of the MAP/40P.  
The green lamp, labeled POWER ON, on the front of the unit should be off.
- 5 Unplug the MAP/40P from the power outlet.
- 6 Remove the MAP/40P power cord from the AC input receptacle on the rear of the MAP/40P (Figure 10 on page 3).
- 7 Observe the correct lock-out/tag-out precautions for isolating power as outlined in the Avaya lock-out/tag-out procedure.

## Removing the Dress Cover

The dress cover provides protection for the internal components of the MAP/40P. You must remove the dress cover to access these components.



### **WARNING:**

**Shut power off before removing the dress cover or access panel of the MAP/40P. See Removing Power from the MAP/40P on page 3.**

- 1 Ensure that the MAP/40P tower configuration is in an upright position on the support base.
- 2 Remove the six screws located along the bottom of the MAP/40P, one located midway up the left side toward the front, and one in the middle of the rear of the chassis.

**Note:** You will need a No. 2 Phillips screwdriver.

There are three screws on each side of the MAP/40P.

- 3 Remove the screw holding the dress cover to the rear of the MAP/40P.
- 4 Remove the front bezel by pulling it forward.
- 5 At the rear of the MAP/40P, pry both sides of the dress cover away from the unit.
- 6 Slide the dress cover up to remove it from the MAP/40P.

## Replacing the Dress Cover

- 1 Place the MAP/40P in the upright position.
- 2 Slide the dress cover over the unit.
- 3 Replace and tighten the eight dress cover retaining screws.

## Restoring Power to the MAP/40P

The MAP/40P requires a dedicated power line. The power cord connects to the rear of the MAP/40P at the point labeled Input Receptacle (Figure 10 on page 3).

Follow the procedure below to restore power to the MAP/40P.

- 1 Place the MAP/40P power cord in the AC input receptacle on the rear of the unit (Figure 10 on page 3).
- 2 Plug the MAP/40P power cord into the designated power outlet.
- 3 Turn on the power switch on the front of the MAP/40P.

The green lamp, labeled POWER ON, on the front of the unit should be lit.

- 4 Turn on the monitor's power switch.

The green or amber lamp on the front bottom of the monitor should be lit.



# 2 Installing or Replacing Circuit Cards

---

## Overview

The purpose of this chapter is to ensure that:

- Circuit cards are installed correctly
- Resource options are set correctly

Topics covered include:

- Configuring circuit cards in the MAP/40P
- Types of circuit cards
- General steps for circuit card installation
- Specific procedures for installation of standard and optional MAP/40P circuit cards
- Settings for resource options

## General Procedures

The general procedures include:

- Removing a Circuit Card on page 7
- Installing a Circuit Card on page 9

## Removing a Circuit Card

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See *Protecting Against Damage from Electrostatic Discharge* on page 1, in Chapter 1, *Getting Inside the Computer* for detailed electrostatic discharge precautions.

To remove a circuit card.

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.

**Note:** If the circuit card being replaced is defective, note all symptoms of failure and include this information with the circuit card when it is returned.

- 2 If the system is in service, complete the following Steps a, b, and c:
    - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
    - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
    - c Shut down the Intuity CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - 3 Remove power from the MAP/40P. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
  - 4 Remove the dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
  - 5 Locate the card to be replaced within the card cage. Disconnect any attached cables. Note the connectivity of each cable.
  - 6 If there are ribbon cables attached to other cards which would impede the removal of the card, disconnect them and place them to the side. Note the connectivity of each cable.
  - 7 Remove the retaining screw from the circuit card faceplate and save it.
  - 8 Remove the circuit card from the backplane slot by gently pulling at the top corners of the circuit card.
- Note:** The backplane connector slots are labeled 1 through 20. Make sure to install the replacement card in the same backplane slot.
- 9 Remove the circuit card from the MAP/40P chassis.

**▲ CAUTION:**

Hold the circuit card carefully by the edges and place it on a grounded mat. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, “Getting Inside the Computer,” for detailed electrostatic discharge precautions.

## Installing a Circuit Card

### ▲ CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See *Protecting Against Damage from Electrostatic Discharge* on page 1 in Chapter 1, *Getting Inside the Computer* for detailed electrostatic discharge precautions.

To install a circuit card:

- 1 Remove the new circuit card from its ESD-protective wrapping.

**Note:** Keep the package and all ESD-protective wrapping. If you must return a card for repair, re-use of the replacement unit packaging is necessary to meet the manufacturer's warranty.

- 2 Verify the circuit card switch and jumper settings. Ensure that the address switches and jumpers are set to match those on the old card.

**Note:** See the specific instructions, listed later in this chapter, for each type of circuit card being installed then continue with Step 3.

- 3 Holding the circuit card by its upper corners, slide the card into the backplane connector slot position from which you removed the damaged card.
- 4 Apply even pressure to both corners of the circuit card until it is locked into the backplane.
- 5 Secure the circuit card faceplate into position by replacing the retaining screw.
- 6 Return all cables on the new card. Make sure these cables are attached to their proper terminations.
- 7 Return all cables removed from other cards. Make sure these cables are attached to their proper terminations.
- 8 Replace the side dress cover. See *Replacing the Dress Cover* on page 5 in Chapter 1, *Getting Inside the Computer*.
- 9 Apply power to the unit. See *Restoring Power to the MAP/40P* on page 5, in Chapter 1, *Getting Inside the Computer*.
- 10 Reboot the CONVERSANT system. See "Reboot the System," in "Common System Procedures," in the *CONVERSANT System Reference*, 585-313-215.

## Settings for Optional Circuit Cards

### ▲ CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1, in Chapter 1, Getting Inside the Computer for detailed electrostatic discharge precautions.

This section provides the following information on the optional feature circuit cards:

- Switch and jumper settings
- Other installation requirements that are specific to the particular circuit card you are installing

In general, circuit cards are not preset at the factory. You must set the switches and jumpers (resource options) *before* you install the cards. When you set the switches according to the instructions in this book, remember that OFF is equivalent to open and ON is equivalent to closed.

### Tip/Ring Circuit Cards

The tip/ring circuit cards provide the channels which are used by the CONVERSANT system. The MAP/40P accommodates eleven tip/ring circuit cards. The tip/ring circuit card can be any of the following types:

- AYC29 (IVP6-IA)
- AYC10 (IVC6)
- AYC30 (NGTR)

The following section covers the resource option settings for each type of tip/ring card. Many of the figures referenced illustrate settings for more than one type of tip/ring card.

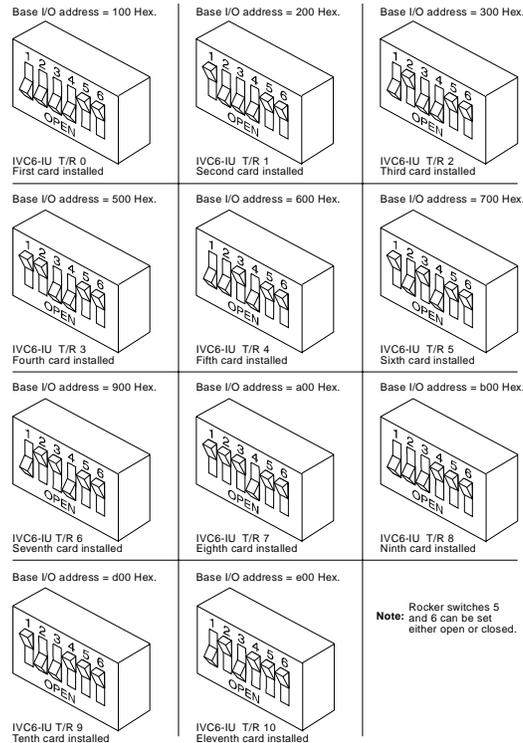
The six switches on Switch Bank A adjust the termination impedance that each tip/ring interface presents to the network. This adjustment is sometimes necessary to ensure an adequate impedance match between the network and the telephone hybrid on the tip/ring card.

Switches 1 through 6 on Switch Bank A correspond to channels 0 to 5, respectively, on each tip/ring card.

In general, you should leave all switches on Switch Bank A in the factory default “OPEN” position. If the system shows problems such as not recognizing touchtones, touchtone simulation by outgoing speech (speech abruptly stops during playback), or unreliable detection of touch tones during playback (playback does not stop when a touch tone is entered), moving the switch that corresponds to the channel exhibiting the conditions to the “CLOSED” position may solve the problem.

Each tip/ring card in the system must have a unique address. To set these addresses, set Switch Bank B as shown in Figure 11 on page 11, where “T/R 0” denotes the first tip/ring circuit card you are installing, “T/R 1” denotes the second card, and so on.

**Figure 11. Settings for Switches on the IVP6-IA (AYC29), and IVC6 (AYC10) Tip/Ring Circuit Cards T/R-0 through T/R-7**



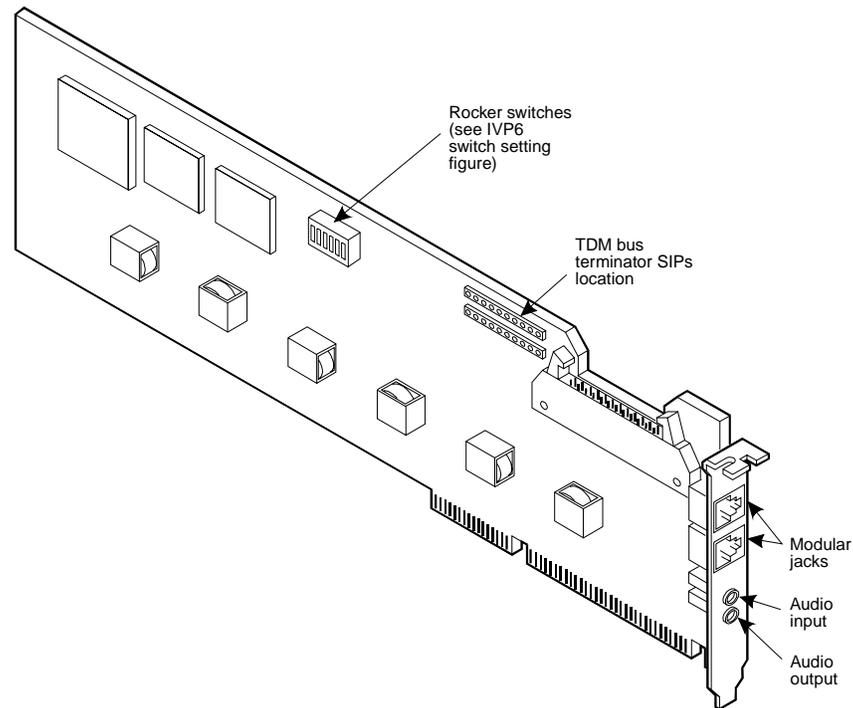
### IVP6-IA (AYC29) Circuit Card

The IVP6-IA (AYC29) circuit card (Figure 12 on page 12) provides six channels.

**Note:** This circuit card contains switches that you must set before you install the circuit card in the MAP/40P.

Each tip/ring card in the system must have a unique address. To set these addresses, the switches must be configured properly. Figure 11 shows the switch settings for the IVP6-IA (AYC29) circuit card.

Figure 12. Layout of the IVP6 (AYC29) Tip/Ring Circuit Card

**IVC6 (AYC10) Circuit Card**

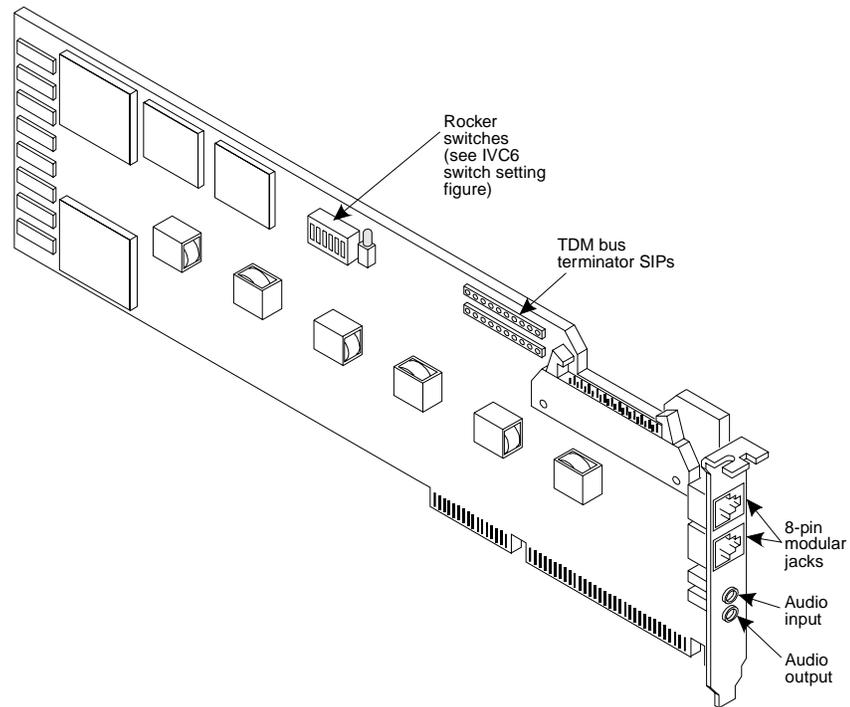
The IVC6 (AYC10) circuit card (Figure 13 on page 13) provides six channels.

**Note:** This circuit card contains switches that you must set before you install the circuit card in the MAP/40P.

Each tip/ring card in the system must have a unique address. To set these addresses, the switches must be configured properly. Figure 11 on page 11 shows the switch settings for the IVC6 (AYC10) circuit card.

**Note:** TDM bus terminators SIPs must be aligned properly when they are inserted. See Figure 73 on page 113.

Figure 13. (AYC10) Tip/Ring Circuit Card

**NGTR (AYC30) Circuit Card**

The NGTR (AYC30) circuit card (Figure 14 on page 14) provides six channels. It is traditionally used in countries other than the U.S.

**Note:** This circuit card contains switches that you must set before you install the circuit card in the MAP/40P.

Each tip/ring circuit card in the system must have a unique address. To set these addresses, the switch must be configured properly. Figure 15 on page 14 shows the switch settings for the NGTR (AYC30) circuit card.

Figure 14. NGTR (AYC30)

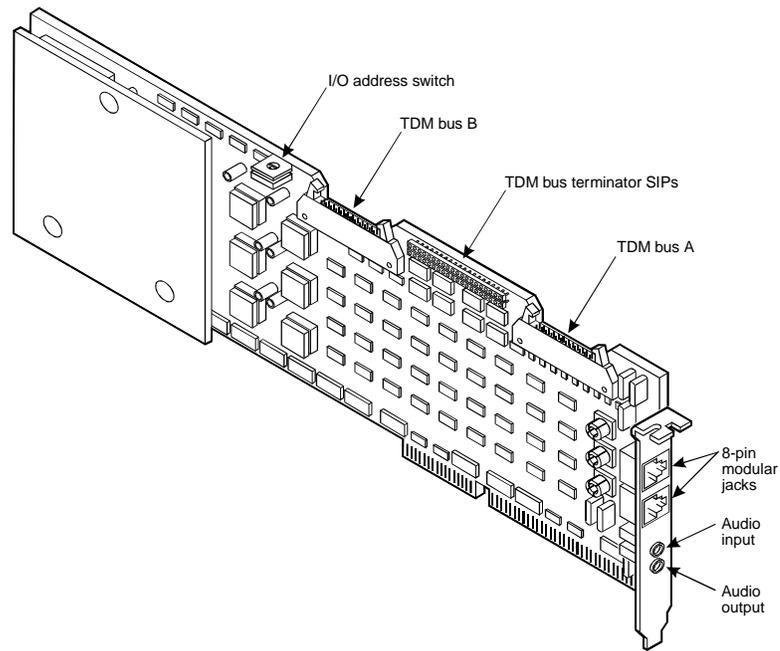
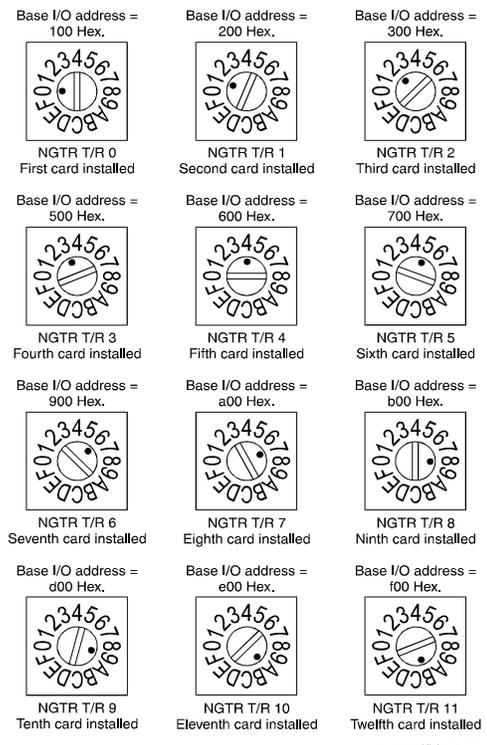


Figure 15. NGTR (AYC30) Tip/Ring Circuit Card Switch Settings



swcvng3 KLC 091796

**Installing the Tip/Ring Circuit Card Driver**

**Note:** If the tip/ring circuit cards are not recognized when the voice system is started or if other problems are noticed with the tip/ring circuit card driver, it may be necessary to remove and reinstall the tip/ring circuit card driver.

Occasionally dynamically loadable drivers fail to load into the UnixWare kernel properly.

To install the tip/ring circuit card driver:

- 1 Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 2 Run the Hardware Resource Allocator to determine the configuration and placement of the tip/ring circuit cards to be installed. See Adding Hardware to an Existing Configuration on page 198 in Appendix A, System Configuration.
- 3 If you are not already logged in as root, do so now.

**4 Enter `pkgadd -d diskette1`**

The system displays the following message:

```
Insert diskette into Floppy Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 5 Insert the diskette labeled “Tip/Ring Board Driver 1 of 1” into the diskette drive.

**6 Press `ENTER`.**

The system displays the following message:

```
Installation in progress -- do not remove the diskette.
```

The following packages are available:

1. `tipring` INTUITY Tip/Ring Board Driver  
(i486)

```
Select package(s) you wish to process (or 'all' to process  
all packages). (default: all) [?,??,q]:
```

**7 Press `ENTER`.**

The system displays the following message:

```
PROCESSING:  
Set: INTUITY Tip/Ring Board Driver (tipring) from <diskette1>  
  
INTUITY Tip/Ring Board Driver  
(i486)  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Please enter the IRQ:
```

- 8 Enter the IRQ provided by the Hardware Resource Allocator.

The system displays several status messages and then the following message:

```
Installation of INTUITY Tip/Ring Board Driver (tipring) was
successful.
```

```
Insert diskette into Floppy Drive 1.
```

```
Type [go] when ready,
  or [q] to quit: (default: go)
```

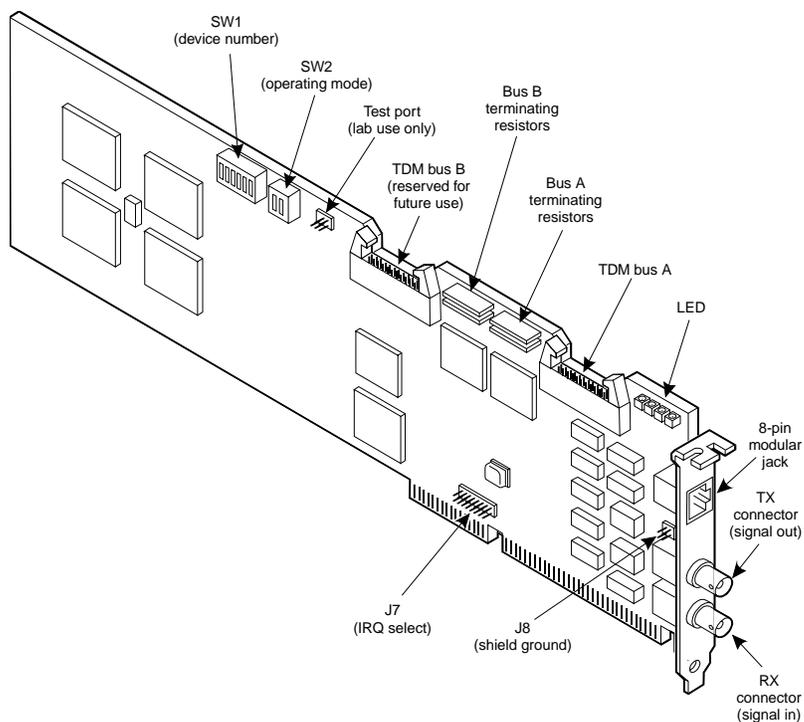
- 9 Enter **q**

- 10 Remove the diskette labeled “Tip/Ring Board Driver 1 of 1” from the diskette drive.

## E1/T1 Circuit Card

**Note:** The E1/T1 circuit card (Figure 16) contains switches and jumpers that you must set before you install the circuit card in the MAP/40P.

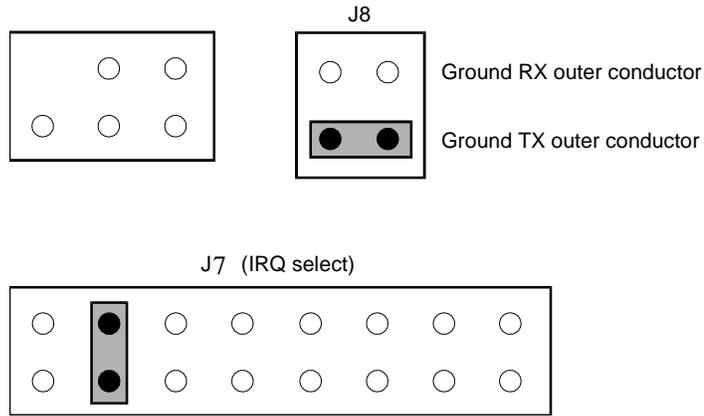
**Figure 16. E1/T1 (AYC21) Circuit Card**



**Jumper Settings**

Figure 17 shows the location and correct setting of the E1/T1 circuit card jumpers.

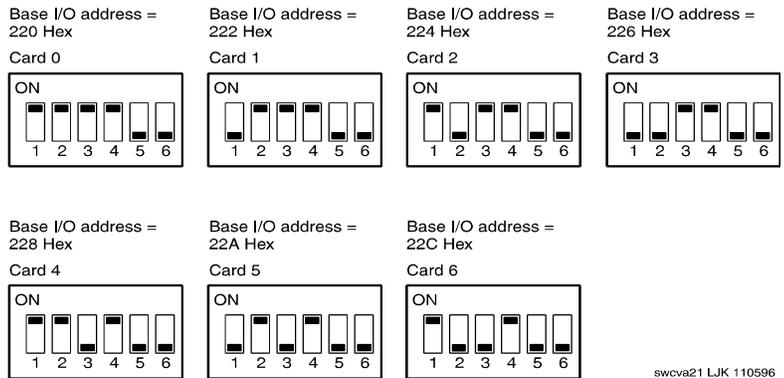
**Figure 17. AYC21 Jumper Settings**



**Switch Settings**

There are two sets of switches on the E1/T1 circuit card. Figure 18, Figure 19, and Figure 20 on page 18 show the correct switch settings.

**Figure 18. AYC21 Device Number Switch 1 Settings**



**Figure 19. AYC21 Operating Mode Switch Settings for E1 Operation**

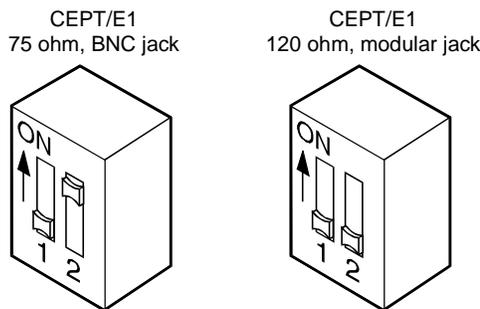
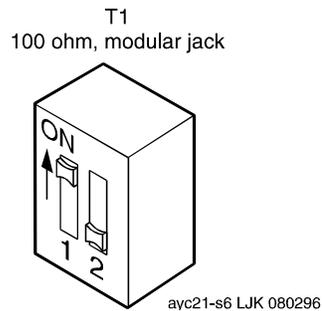


Figure 20. AYC21 Operating Mode Switch Settings for T1 Operation



### Installing the E1/T1 Circuit Card Driver

**Note:** If the E1/T1 circuit cards are not recognized when the voice system is started or if other problems are noticed with the E1/T1 circuit card driver, it may be necessary to remove and reinstall the E1/T1 circuit card driver.

Occasionally dynamically loadable drivers fail to load into the UnixWare kernel properly.

To install the E1/T1 circuit card driver:

- 1 If you are not already logged in as **root**, do so now.
- 2 Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

**3** Enter **pkgadd -d diskette1**

The system displays the following message:

```
Insert diskette into Floppy Drive 1.
Type [go] when ready,
  or [q] to quit: (default: go)
```

- 4 Insert the diskette labeled “T1/E1 Board Driver 1 of 3” into the diskette drive.

**5** Press **ENTER**.

The system displays the following message:

```
Installation in progress -- do not remove the diskette.
```

```
The following packages are available:
```

```
1. tldriver      INTUITY T1/E1 Board Driver
                  (i486)
```

```
Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]:
```

**6** Press **ENTER**.

The system displays the following message:

```
PROCESSING:
Set: INTUITY T1/E1 Board Driver (tldriver) from <diskette1>
INTUITY T1/E1 Board Driver
(i486)
Using </> as the package base directory.
Avaya Inc.
```

The system displays several status messages and then the following message:

```
READY TO PROCESS:
Package:  INTUITY T1/E1 Board Driver (tldriver)
          diskette 2 of 3
```

```
Insert diskette 2 of 3 into Floppy Drive 1.
Type [go] when ready,
  or [q] to quit: (default: go)
```

**7** Remove the diskette labeled “T1/E1 Board Driver 1 of 3” from the diskette drive.

**8** Insert the diskette labeled “T1/E1 Board Driver 2 of 3” into the diskette drive.

**9** Press **ENTER**.

The system displays several status messages and then the following message:

```
READY TO PROCESS:
Package:  INTUITY T1/E1 Board Driver (tldriver)
          diskette 3 of 3
```

```
Insert diskette 3 of 3 into Floppy Drive 1.
Type [go] when ready,
  or [q] to quit: (default: go)
```

**10** Remove the diskette labeled “T1/E1 Board Driver 2 of 3” from the diskette drive.

**11** Insert the diskette labeled “T1/E1 Board Driver 3 of 3” into the diskette drive.

**12** Press **ENTER**.

The system displays several status messages and then the following message:

```
Installation of T1/E1 Board Driver (tldriver) was successful.
Insert diskette into Floppy Drive 1.
Type [go] when ready,
  or [q] to quit: (default: go)
```

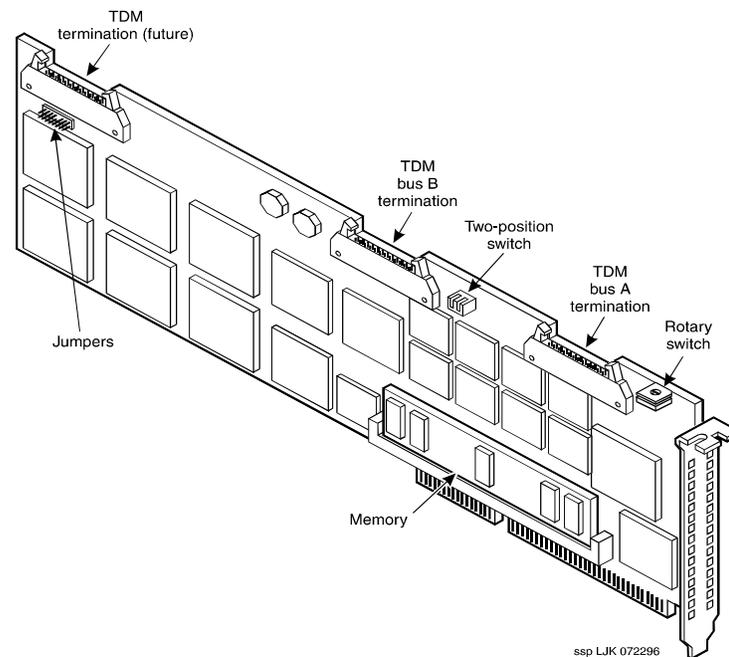
**13** Enter **q**

**14** Remove the diskette labeled “T1/E1 Board Driver 3 of 3” from the diskette drive.

## Speech and Signal Processor (AYC43) Circuit Card

**Note:** The SSP circuit card (Figure 21) contains switches that you must set before you install the circuit card in the MAP/40P.

**Figure 21. Speech and Signal Processor Circuit Card**



### Jumper Settings

Figure 21 shows a location for jumpers. However, there should be no jumpers installed on the SSP circuit card.

### Switch Settings

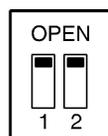
There are two types of switches on the SSP circuit card:

- Two-position switches
- Rotary switch

#### Two-Position Switch Settings

Figure 22 shows the location of the SSP circuit card two-position switches. If the SSP circuit card is not located at the end of the TDM bus, both switches should be set to open. The switches should be set to closed if the SSP circuit card is located at the end of the bus.

**Figure 22. SSP Circuit Card Two-Position Switches (Set for a Placement in the Middle of the TDM Bus)**



ssp-sw LJK 072296

### Rotary Switch Settings

Figure 23 shows the rotary switch. It is set at zero for the first SSP circuit card installed in the MAP/40P.

**Figure 23. SSP Circuit Card Rotary Switch**

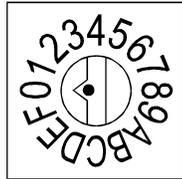


Table 1 shows the rotary switch settings for the subsequent SSP circuit cards installed.

**Table 1. SSP Circuit Card Rotary Switch Setting**

I/O Address	OS Index	Rotary Switch Setting
d20	8	0
d28	9	1
d30	10	2
d38	11	3
920	12	4
928	13	5
930	14	6
938	15	7

### Memory

The SSP circuit card is equipped with 16 MB of memory contained on a dual in-line memory module (DIMM). The DIMM is located in the lower portion of the SSP circuit card (Figure 21 on page 20).

### ▲ CAUTION:

The DIMM is not field serviceable.

### Installing the ASP Driver Package

To install the ASP circuit card driver:

- 1 Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in *CONVERSANT System Reference*, 585-313-215.

- 2 At the UNIX prompt, enter **pkgadd -d diskette1**

The system displays the following message:

```
Insert diskette into Floppy Drive 1.
Type [go] when ready,
  or [q] to quit: (default: go)
```

- 3 Insert the diskette labeled “ASP Driver Package 1 of 2” into the diskette drive.

**4** Press **ENTER**.

The system displays the following message:

```
Installation in progress -- do not remove the diskette.
```

```
The following packages are available:
```

1. asp INTUITY ASP Driver Package  
(i486) cs3.1

```
Select package(s) you wish to process (or 'all' to process  
all packages). (default: all) [?,??,q]:
```

**5** Press **ENTER**.

The system displays the following message:

```
PROCESSING:
```

```
Set: INTUITY ASP Driver Package (asp) from <diskette1>
```

```
INTUITY ASP Driver Package
```

```
(i486) cs3.1
```

```
Using </> as the package base directory.
```

**Note:** If you did not stop the voice system, the system displays the following message at this point:

```
The voice system is currently running and must be  
stopped in order to install this package.  
Is it ok to STOP the voice system ? [y/n]
```

Enter **y**

The system displays the following message:

```
READY TO PROCESS:
```

```
Package: INTUITY ASP Driver Package (asp)  
diskette 2 of 2
```

```
Insert diskette 2 of 2 into Floppy Drive 1.
```

```
Type [go] when ready,
```

```
or [q] to quit: (default: go)
```

**6** Remove the diskette labeled “ASP Driver Package 1 of 2” from the diskette drive.**7** Insert the diskette labeled “ASP Driver Package 2 of 2” into the diskette drive.**8** Press **ENTER**.

The system displays several status messages and then the following message:

```
The UNIX Operating System kernel will be rebuilt to include  
your configuration changes during the next system reboot.
```

```
Installation of INTUITY ASP Driver Package (asp) was  
successful.
```

```
Insert diskette into Floppy Drive 1.
```

```
Type [go] when ready,
```

```
or [q] to quit: (default: go)
```

9 Enter **q**

10 Make sure the light on the diskette drive is off, and remove the diskette from the drive.

Reboot the system. See “Reboot the System,” in “Common System Procedures,” in *CONVERSANT System Reference*, 585-313-215.

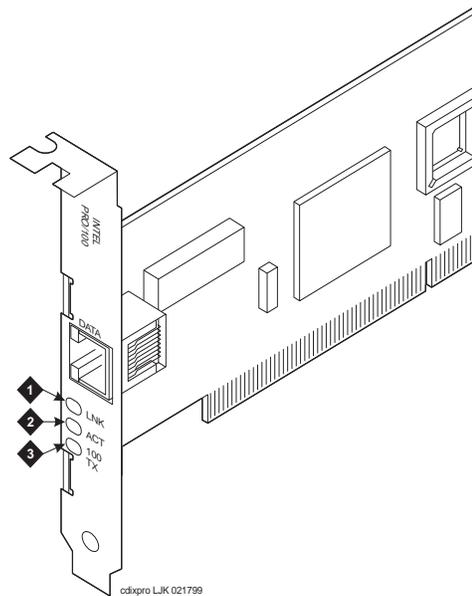
## PCI 10/100 Ethernet LAN Circuit Card

The system supports the Intel PRO100 PCI 10/100-Mbps Ethernet LAN circuit card (Figure 24).

### Jumpers

There are no jumpers on the circuit card.

**Figure 24. PCI 10/100 Ethernet LAN Circuit Card**



1. Link (LNK) LED
2. Activity (ACT) LED
3. 100 Mbps LED

### LED Indicators

Table 2 lists the LED indicators and their associated meanings.

**Table 2. PCI 10/100 Ethernet LAN Circuit Card LED Indicators**

LED	Indication	Meaning
LNK	On	The adapter and switch are receiving power. The cable connection between the switch and adapter is good.

*1 of 2*

Table 2. PCI 10/100 Ethernet LAN Circuit Card LED Indicators

LED	Indication	Meaning
	Off	The adapter and switch are not receiving power. Either the cable connection between the switch and adapter is faulty or there is a driver configuration problem.
ACT	On or flashing	The adapter is sending or receiving network data. The frequency of the flashes varies with the amount of network traffic.
	Off	The adapter is not sending or receiving network data.
100	On	The circuit card is operating at 100 Mbps.
	Off	The circuit card is operating at 10 Mbps.

2 of 2

**Installation Procedures** Installation of a 10/100 Mbps PCI LAN circuit card in a system that did not previously have a LAN circuit card involves the following:

- Installing the PCI LAN Circuit Card on page 24
- CMOS Parameter Settings on page 44
- Verifying the PCI LAN Circuit Card Installation on page 25
- Verifying the PCI LAN Circuit Card Installation on page 25

#### Installing the PCI LAN Circuit Card

To install a 10/100 Mbps PCI LAN circuit card:

- 1 Do one of the following:
  - ~ If the system is running, shut it down. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - ~ If the system is not running, continue with Step 2.
- 2 Install the 10/100 Mbps PCI LAN circuit card. See Installing a Circuit Card on page 9.
- 3 Administer the PCI INT/IRQ Binding. See CMOS Parameter Settings on page 44.

### Verifying the PCI LAN Circuit Card Installation

To set the 10/100 Mbps PCI LAN circuit card installation:

- 1 Enter `/etc/inet/rc.restart`
- 2 Check the message log report for TCP/IP or LAN adapter errors. See Chapter 7, "Peripheral Administration," *CONVERSANT System Version 8.0 Administration*, 585-313-510.
- 3 Verify that you have network connectivity using the **ping** command. See Appendix A, "Summary of Commands," in *CONVERSANT System Version 8.0 Administration*, 585-313-510.

### Replacing a PCI LAN Circuit Card

To replace a 10Mbps or a 10/100Mbps PCI LAN circuit card:

- 1 Run the Hardware Resource Allocator to determine the configuration and slot assignment of the PCI LAN circuit card. See Adding Hardware to an Existing Configuration on page 198 in Appendix A, System Configuration.
- 2 Record the output.
- 3 Complete the procedure in Installing the PCI LAN Circuit Card on page 24.
- 4 Complete the procedure in Verifying the PCI LAN Circuit Card Installation on page 25.

## Token Ring Circuit Card

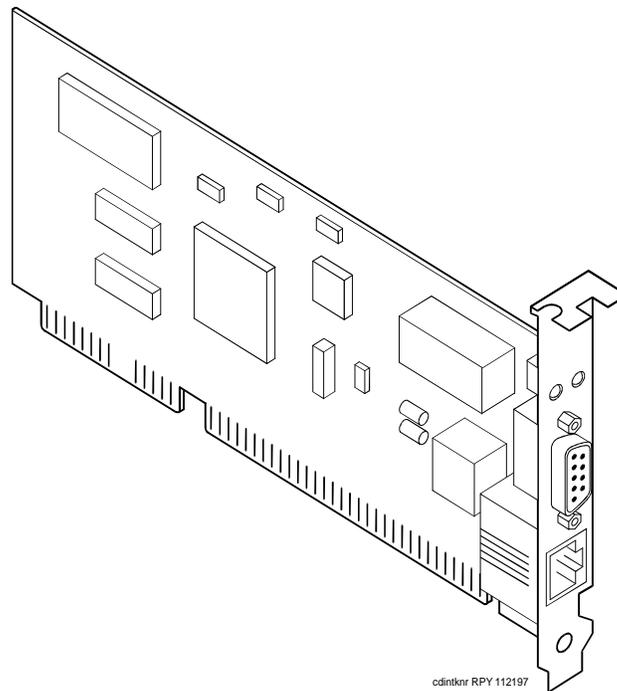
The CONVERSANT Token Ring circuit card allows you to connect the system to your local area network.

### IBM Turbo 16/4

IBM Turbo 16/4 of the Token Ring circuit card (Figure 25) is software configured. This is the latest version of the Token Ring circuit card. A diskette, provided with the Token Ring circuit card, is used to set the IRQ, I/O address, ROM address, RAM address, and RAM size.

**Note:** If you are installing the IBM Turbo 16/4 circuit card, the system cannot be equipped with the IBM Auto 16/4 circuit card.

**Figure 25. Token Ring Circuit Card - IBM Turbo 16/4**



To configure the IBM Turbo 16/4 Token Ring circuit card:

- 1 If the Token Ring circuit card is being added to the system, run the CONVERSANT Hardware Resource Allocator to determine the resource assignments. See Operating the Hardware Resource Allocator on page 198 in Appendix A, System Configuration.

Record the settings for the parameters that are listed in Table 3.

**Table 3. Token Ring Circuit Card Settings**

Parameter	Setting
IRQ	
ROM address	
RAM address	
I/O address	

If the Token Ring circuit card is replacing an existing Token Ring circuit card, record and use the existing hardware resource parameters. You can view the existing parameters by entering `cat /etc/conf/sdevice.d/ibmtok`

The system displays a message similar to the following:

```
ibmtok    Y   16  6   1   3  A20   A23   CC000 CDFFF  -1
ibmtok    Y   16  0   0   0   0     0     D0000 D3FFF  -1
```

Record the settings for the parameters that are listed in Table 3.

In the sample message, the IRQ is 3, the ROM address range is CC000 - CDFFF, the RAM address range is D0000 - D3FFF, and the I/O address range is A20 - A23.

Verify that IRQ being used by the existing Token Ring circuit card or designated by the Hardware Resource Allocator is available.

## 2 Enter `resmgr`

The system displays a table containing available and assigned IRQs. Scan the IRQ column to verify availability.

- 3 Install the new Token Ring circuit card. See Installing a Circuit Card on page 9.

**Note:** Complete all steps in the installation procedure.

- 4 Connect the Token Ring circuit card to the LAN.

## ▲ CAUTION:

Do not use a 10 Base T (802.3) wire to connect the Token Ring circuit card to the LAN.

**Note:** You must remove the tip/ring circuit card that is set as Tip/Ring 1 (I/O address=0x200, OSINDEX=1) before completing this procedure (see Removing a Circuit Card on page 7). If you do not have a tip/ring circuit card set as Tip/Ring 1, continue with Step 5.

- 5 Insert the diskette labeled "Turbo Token Ring Setup Floppy" into the diskette drive.
- 6 Reboot the system. See "Reboot the System," in "Common System Procedures," in the *CONVERSANT System Reference*, 585-313-215.

The system displays the following message:

```
Starting PC DOS...
```

```
PC DOS 7.0 Startup Menu
```

1. IBM Auto/Turbo ISA Configuration using LANAID
2. IBM Auto/Turbo ISA Extended Diagnostics

```
Enter a choice: 1 Time Remaining: 15
```

**Note:** The system automatically defaults to 1 when the time remaining is 0.

#### 7 Press **ENTER**

The system displays the following message:

```
If you have a Tip/Ring card equipped (IVP4, IVP6, IVC6, NGTR)
that is set as Tip/Ring 1 (I/O address=0x200, OSINDEX=1) you
MUST TEMPORARILY REMOVE that Tip/Ring card while running
LANAIDC. If equipped, power down the system NOW and remove
Tip/Ring card 1. Otherwise, continue with LANAIDC.
```

```
Hit any key to continue with LANAIDC...
```

#### 8 Press **ENTER**.

The system displays the following message:

```
Please wait while LANAIDC configures your card. To complete
setup, you must assign the INTERRUPT number, RAM address and
ROM address. Don't forget to reinstall Tip/Ring 1 when
complete.
```

```
Enter LANAIDC parameters - reboot your machine when done.
```

```
Examples: /view
          /help
```

```
LANAIDC >
```

#### **CAUTION:**

If *n* is shown to be 2, enter **9** instead. Do not enter 2.

#### 9 Enter the following:

```
/INT=n /ROM=ROM_start_address /RAM=RAM_start_address
```

where *n* is the IRQ recorded in Table 3 on page 27, and *ROM\_start\_address* and *RAM\_start\_address* are addresses recorded in Table 3 on page 27.

The system displays the following message:

```
Configuration complete:
IBM Turbo/16/4 Token-Ring ISA Adapter

PnP Support:           None Detected
Adapter Number:       1
Adapter MAC Address:  <varies card to card>
MicroCode Level:     <varies card to card>
Serial Number:       <varies card to card>
Adapter Mode:        Auto16 Compatible
Configuration:       LEGACY
Adapter State:       Active
I/O Address:        A20-A23
Interrupt:           <n>*
RAM Address:         <RAM address>
ROM Address:         <ROM address>
Remote IPL:          Disabled
Token-Ring data rate: 16
Auto Sense data rate: Enabled
Adapter bus width:   16
                    * Setting in conflict

LANAIDC >
```

**Note:** The setting in conflict message may or may not appear and can be ignored.

**10** Enter **/V** to view the turbo token ring settings.

The system displays the following message:

```
...Warning: Interrupt level in conflict.
Configuration complete:
IBM Turbo/16/4 Token-Ring ISA Adapter

PnP Support:           None Detected
Adapter Number:       1
Adapter MAC Address:  <varies card to card>
MicroCode Level:     <varies card to card>
Serial Number:       <varies card to card>
Adapter Mode:        Auto16 Compatible
Configuration:       LEGACY
Adapter State:       Active
I/O Address:        A20-A23
Interrupt:           <n>
RAM Address:         <RAM address>
ROM Address:         <ROM address>
Remote IPL:          Disabled
Token-Ring data rate: 16
Auto Sense data rate: Enabled
Adapter bus width:   16

LANAIDC >
```

Record the settings for the parameters that are listed in Table 4 on page 30. These settings are used in the procedures in Installing the Token Ring Driver on page 30.

Table 4. Viewed Token Ring Circuit Card Settings

Parameter	Setting
I/O address	
Interrupt	
RAM address	

- 11 If the configuration is correct, remove the diskette labeled "Turbo Token Ring Setup Floppy" from the diskette drive.
- 12 Insert the Tip/Ring 1 circuit card if it was removed prior to Step 5 (See Installing a Circuit Card on page 9.) Otherwise, continue with Step 13.
- 13 Reboot the system. See "Reboot the System," in "Common System Procedures," in the *CONVERSANT System Reference*, 585-313-215.

### Installing the Token Ring Driver

To configure the Token Ring driver:

- 1 If you are not already logged in as root, do so now.
- 2 Enter **niccfg**

The system displays the following message:

```
Setting up the Network Interface Card Support Utility
```

The system then displays the Network Interface Card Support Utility—Summary Screen (Figure 26).

**Note:** If other network cards are installed in your system, the system first displays a message indicating network drives are currently installed. Press enter to continue.

Figure 26. Network Interface Card Support Utility—Summary Screen

SLOT	BUS-NUM	BOARD NAME	IRQ	IO-ADDR	MAN-ADDR	DMA
----	-----	-----	----	-----	-----	---
6	PCI__0	SMC_EtherPower_9332	IO	f880-f8ff	fedfec00-fedfec7f	

Please Select an Option

- ( ) Accept all Entries
- (\*) Add an entry for a card
- ( ) Delete/restore an Entry for a Card
- ( ) Install Driver from IHV Diskette
- ( ) Cancel this Utility Without Making Changes

Use the up/down arrow keys to select then press ENTER

- 3 Use the down (▼) arrow to select **Add an entry for a card**.
- 4 Press **ENTER**.

The system displays the Selection Screen (Figure 27 on page 31).

Figure 27. Selection Screen

```

Please Select 1

( ) 3COM_ETHERLINK_III_PCMCIA      ( ) HP_EtherTwist_LAN_NC/16TP
( ) 3COM_EtherLink_2_3C503        ( *) IBM_16/4_DLPI_TOKEN_RING
( ) 3COM_EtherLink_2_3C509        ( ) IBM_16/4-TokenRing
( ) 3COM_EtherLink_16_3C507       ( ) IBM-TokenRing_16/4_II
( ) AMD_PCnet_ISA                 ( ) Intel_EtherExpress_16
( ) AMP_PCnet_ISA+               ( ) Intel_EtherExpress_PRO/10
( ) AnselCommunicationsNH2100     ( ) InterLan_EtherBlaster
( ) AnselCommunicationsNS2100     ( ) InterLan_NI6510
( ) CNet-Token-Ring_CN2000T       ( ) InterLan_XLerator
( ) Cabletron_E21XX_Family        ( ) Microdyne_NE1000_B/A
( ) Cabletron_E22XX_Family        ( ) Microdyne_NE2000_A
( ) Compaq_Embedded_AMD_PCnet     ( ) Microdyne_NTR1000_G
( ) Compex_ENET16-VP_NE2000       ( ) National_Semi_NE2000
( ) DEC_EtherWORKS3_Turbo         ( ) National_Semi_NE2000Plus
( ) HP_10/100VG_PC_LAN_J2573A    ( ) Novell/Eagle_NE1000
( ) HP_ETwist_PC_LAN_16_PLUS      ( ) Novell/Eagle_NE2000

(Page Down for more)

```

5 Use the left (◀), right (▶), up (▲), or down (▼) arrows on your keyboard to move through the field selections.

6 Select **IBM\_16/4\_DLPI\_TOKEN\_RING**

7 Press **ENTER**

The system displays the Configuration Screen (Figure 28).

Figure 28. Configuration Screen

```

Configuring: IBM_16/4_DLPI_TOKEN_RING

IRQ Value
IO Address
RAM Address

Press F2 (Choices) to select values then press F10 to apply
and exit.

```

### ▲ CAUTION:

If the IRQ is shown to be 2, enter **9** instead. Do not enter 2.

8 Use **F2** (Choices) to select the values for each field. Enter the following:

- ~ IRQ value from Table 4 on page 30.
- ~ I/O address from Table 4 on page 30.
- ~ RAM address from Table 4 on page 30.

9 Press **F10** to apply the values and exit.

The system displays the Network Interface Support Card Utility-Summary Screen (Figure 29 on page 32).

Figure 29. Network Interface Card Support Utility—Summary Screen

SLOT	BUS-NUM	BOARD NAME	IRQ	IO-ADDR	MAN-ADDR	DMA
----	-----	-----	---	-----	-----	---
-	ISA__0	IBM_16/4_DLPI_TOKEN_RING	9	A20-A23	D000-D3FFF	
6	PCI__0	SMC_EtherPower_9332	IO	f880-f8ff	fedfec00-fedfec7f	

Please Select an Option

- (\*) Accept all Entries
- ( ) Add an entry for a card
- ( ) Delete/restore an Entry for a Card
- ( ) Install Driver from IHV Diskette
- ( ) Cancel this Utility Without Making Changes

Use the up/down arrow keys to select then press ENTER

**10** Use the down (▼) arrow to select **Accept All Entries**

The system displays the following message:

Are you sure?

Yes

No

**11** Select **yes** and press **ENTER**.

The system displays the following message:

Installing drivers for the Network Card(s) you selected. This will take a few minutes.

**12** Reboot the system. See “Reboot the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

The system displays the system prompt.

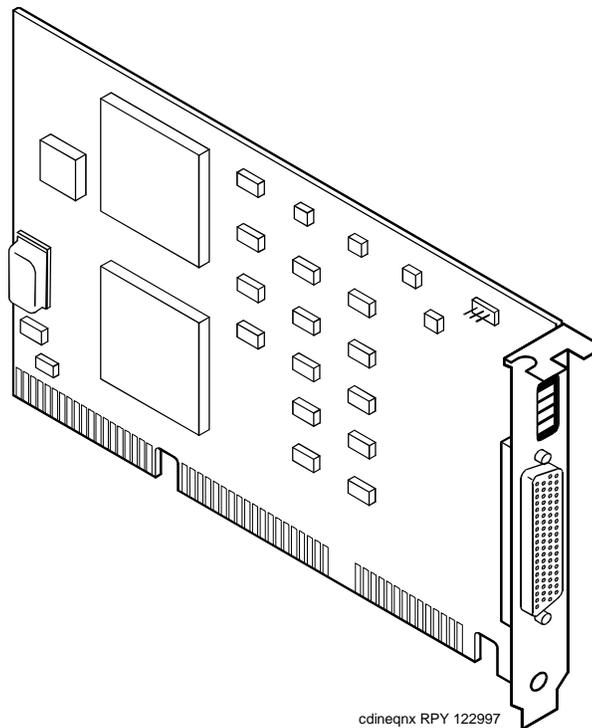
## Asynchronous SuperSerial Card

The asynchronous circuit card allows you to connect the CONVERSANT System to external peripheral equipment. One end of the octopus cable, which is shipped with the circuit card, connects to the circuit card faceplate. The other end splits into eight separate cables, allowing for eight connections to your system.

Figure 30 shows the asynchronous SuperSerial circuit card.

**Note:** If you are installing the asynchronous SuperSerial circuit card, the system cannot be equipped with the 8-Port Asynchronous Megaport circuit card.

**Figure 30. Asynchronous SuperSerial Circuit Card**



### Installing the Asynchronous SuperSerial Card Driver

To install the Asynchronous SuperSerial card driver:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the diskette labeled "Equinox SST Loadable STREAMS Device Driver (EISA/ISA/MCA/PCI/CPCI) 1 of 1" into the diskette drive.
- 3 At the UNIX prompt, enter **pkgadd -d diskette1 eqn**

The system displays the following message:

```
Insert diskette into Floppy Drive 1.
Type [go] when ready,
  or [q] to quit: (default: go)
```

**4 Press ENTER.**

The system displays the following message:

```
PROCESSING:
Package: Equinox SST Loadable STREAMS Device Driver
(EISA/ISA/MCA/PCI/CPCI) (eqn) from <diskette1>

Equinox SST Loadable STREAMS Device Driver
(EISA/ISA/MCA/PCI/CPCI) (i386)
Using </> as the package base directory.
Avaya Inc.

Installing Equinox SSP STREAMS Driver, Version 3.42b (SVR4.2
loadable EISA/ISA/MCA/PCI/CPCI).

Are you installing PCI/CPCI boards only? [Y/n].
```

**5 Enter n**

Are you installing any ISA boards? [Y/n].

**6 Enter y**

```
Installing for ISA bus system.

The following i/o ports appear to be free for use by Equinox
ISA boards:
240 260 280 2a0 2c0 2e0 320 360 3a0 3c0
Should the driver autoconfigure all Equinox ISA boards [Y/n]?
```

**7 Enter y**

The system displays the following message:

You may enable a selection of baud rates above 38400 for all ports by answering "Yes" to the following question.

If you enable baud rates above 38400, speeds below 300 baud will be unavailable. Speeds 300 to 38400 are unaffected.

The high baud rates are selected according to the following table:

57600	B50	
76800	B75	
115200	B110	
238400	B134	(depending on board/module (type

Enable high baud rate selection [y/N]?

**8 Enter y**

The system displays several status messages and then the following messages:

The unix kernel will be rebuilt to include your configuration changes during the next system reboot.

A system rebuild has been requested when the system is shutdown. System tunables have been modified.

Please request a reboot using the "init 6" command to use the driver.

If you desire the default set of port monitors and port services to be installed, execute `"/etc/equportsetup"` after the system has rebooted.

Installation of Equinox SST Loadable STREAMS Device Driver (EISA/ISA/MCA/PCI/CPCI) (eqn) was successful.

Insert diskette into Floppy Drive 1.

Type [go] when ready,  
or [q] to quit: (default: go)

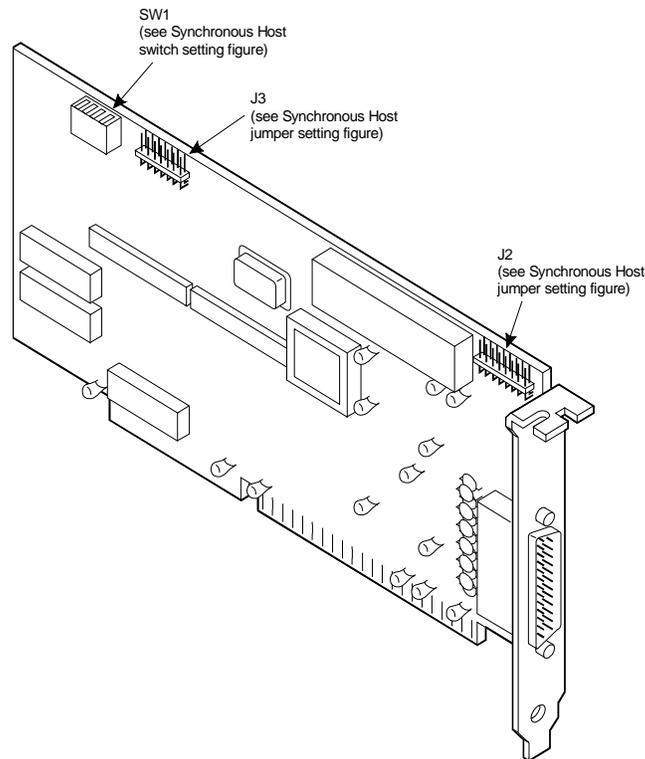
- 9 Enter **q**
- 10 Remove the diskette labeled "Equinox SST Loadable STREAMS Device Driver (EISA/ISA/MCA/PCI) 1 of 1" from the diskette drive.
- 11 Reboot the system. See "Reboot the System," in "Common System Procedures," in the *Intuity CONVERSANT System Reference*, 585-313-205.

## FIFO/SIB Synchronous Host Circuit Card

The MAP/40P supports up to two FIFO/SIB synchronous host circuit cards.

Figure 31 shows the FIFO/SIB synchronous host card and the location of the switches and interrupt jumpers.

**Figure 31. FIFO/SIB Synchronous Host Circuit Card**



### Jumper Settings

There are two jumper locations on the synchronous host circuit card, J3 and J2.

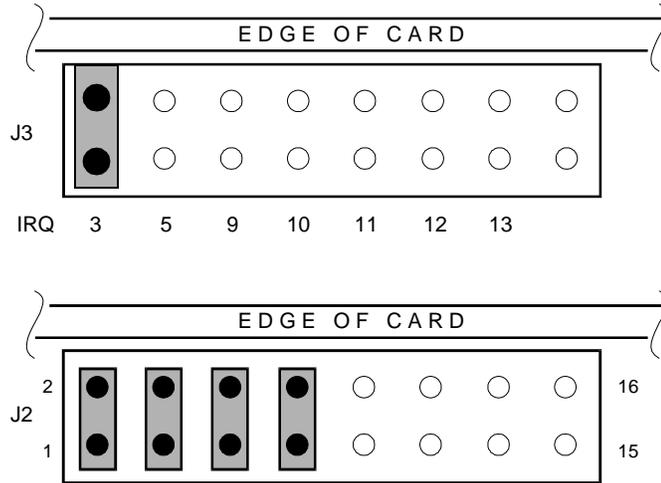
Use J3 to set the interrupt request line (IRQ) to a value of 3, 5, 9, 10, 11, 12, or 13 (Figure 32 on page 37). The IRQ corresponds to the number below the pins. Figure 32 on page 37 shows the card set with an IRQ of 3. See Operating the Hardware Resource Allocator on page 198 in Appendix A, System Configuration.

**Note:** If you are using IRQ 9, ensure that IRQ 2 is unused on your system.

J2 is preset at the factory. However, before you install the FIFO/SIB synchronous host circuit card, ensure that this jumper is set as shown in Figure 32 on page 37.

**Note:** When operating at 64 kbaud, this setting supports a maximum cable length of 15 feet.

**Figure 32. Jumper Settings for the FIFO/SIB Synchronous Host Circuit Card**

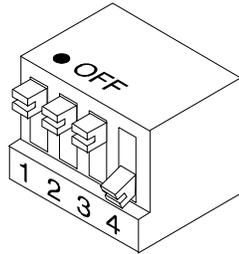


**Switch Settings**

Figure 31 on page 36 shows the location of the I/O switch block SW1. Figure 33 shows the I/O switch settings for an address of 380.

**Figure 33. Switch Settings for the FIFO/SIB Synchronous Host Circuit Card**

Base I/O address = 380 Hex



All switches closed or OFF

**NOTE:** Switch 4 is not used.

Table 5 shows the switch settings for other potential I/O addresses.

**Table 5. FIFO/SIB Switch Settings**

I/O Address	Switch		
	1	2	3
250	On	On	Off
260	Off	Off	On
2B0	On	Off	On
2E0	Off	On	On
380 (default)	Off	Off	Off
3A0	On	Off	Off
3E0	Off	On	Off
Disabled	On	On	On

## Standard Circuit Cards

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer for detailed electrostatic discharge precautions.

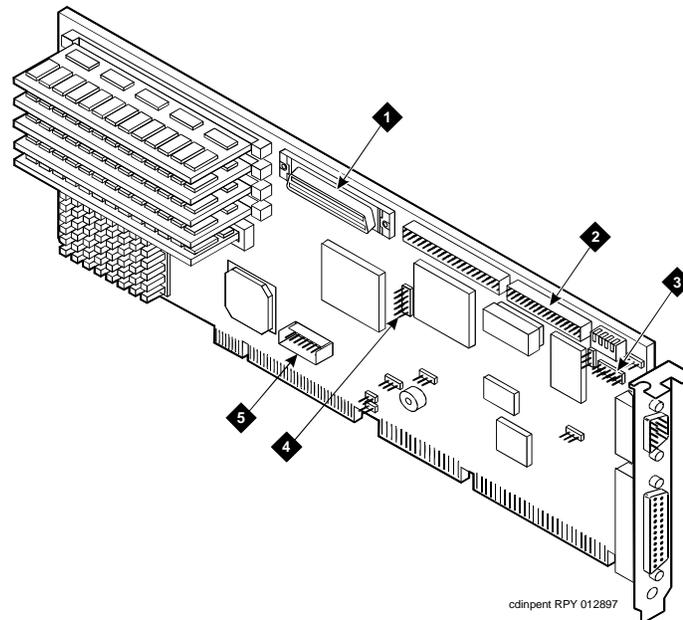
This section provides the following information on the standard circuit cards that are included with every MAP/40P:

- Switch and jumper settings
- Other installation requirements that are specific to the particular circuit card you are installing

## P5 200 MHz CPU Circuit Card

The P5 200 MHz CPU is packaged on a single PC/AT-compatible circuit card (Figure 34) that plugs into the backplane. There is one P5 200 MHz CPU circuit card installed in the MAP/40P.

**Figure 34. P5 200 MHz CPU Circuit Card**



- |                             |                                     |
|-----------------------------|-------------------------------------|
| 1. SCSI cable connector     | 4. Mouse cable connector (not used) |
| 2. Diskette cable connector | 5. Keyboard cable connector         |
| 3. COM2 cable connector     |                                     |

### Setting the Resource Options

The resource options for the P5 200 MHz CPU circuit card are set by jumpers and switches.

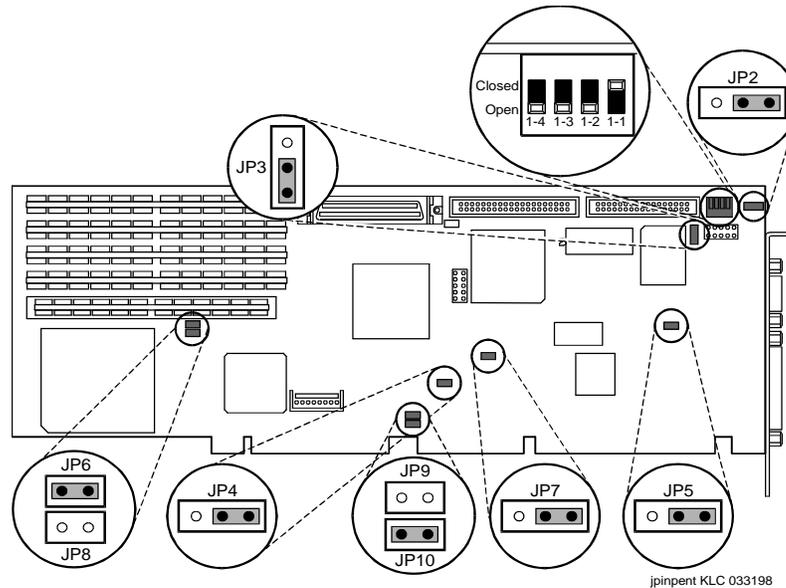
#### Jumper Settings

The P5 200 MHz CPU card has jumpers that you must verify before you install the circuit card (Figure 35 on page 40).

#### Switch Settings

The P5 200 MHz CPU card has switches that you must set before you install the circuit card (Figure 35 on page 40).

Figure 35. P5 200 MHz CPU Circuit Card Jumper and Switch Settings

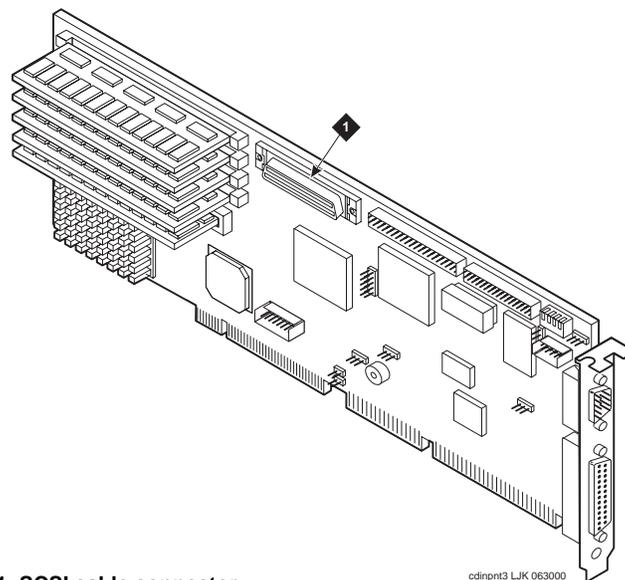


### Placing the P5 200 MHz CPU Circuit Card in the MAP/40P

To place the P5 200 MHz CPU circuit card in the MAP/40P:

- 1 Remove the incoming power. See Removing Power from the MAP/40P on page 3, in Chapter 1, Getting Inside the Computer .
- 2 Remove the dress cover. See Removing the Dress Cover on page 4, in Chapter 1, Getting Inside the Computer .
- 3 Remove the video controller card. See Removing a Circuit Card on page 7.
- 4 Attach the SCSI cable to the P5 200 MHz CPU circuit card (Figure 36).

Figure 36. Attaching the SCSI Cable Adapter



1. SCSI cable connector

- 5 Complete Step 1 and Step 2 of the procedure in Installing a Circuit Card on page 9.
- 6 Attach the keyboard cable to the keyboard pins on the P5 200 MHz CPU circuit card. See Inserting the Remote Maintenance Circuit Card on page 52.
- 7 Complete Step 3 of the procedure in Installing a Circuit Card on page 9.
- 8 Attach the disk activity cable to the P5 200 MHz CPU circuit card with the red lead toward the back of the MAP/40P.
- 9 Install the rear COM2 cable to the P5 200 MHz CPU circuit card. See Inserting the Remote Maintenance Circuit Card on page 52.
- 10 Attach the SCSI cable to the SCSI controller pins on the P5 200 MHz CPU circuit card. See Installing a SCSI Cable on page 90 in Chapter 4, Replacing Other Components ,.

**Note:** The SCSI cable has a label that displays the following message:

```
H600-449 Group 1
MAP/40P SCSI CA
(SCSI/( ) -P5/200)
```

**Note:** The SCSI cable will be routed over the top of the disk activity cable.

- 11 Attach the diskette drive cable to the diskette drive cable pins on the P5 200 MHz CPU circuit card. See Installing a Diskette Cable on page 87 .

**Note:** The diskette drive cable has a label that displays the following message:

```
H600-449 Group 1
MAP/40P Floppy CA
(Floppy/( ) -P5/200)
```

**Note:** Replace the video controller circuit card. See Installing a Circuit Card on page 9.

- 12 Complete Step 4 through Step 10 in Installing a Circuit Card on page 9.

**Verifying the Parameter Settings** P5 200 MHz CPU circuit card parameter settings are preloaded into each card.

#### Host Adapter Parameter Settings

#### CAUTION:

Do not change the settings if there is a mismatch. Contact your remote maintenance center for assistance.

To verify the P5 200 MHz CPU circuit card parameter settings:

- 1 Reboot the system. See “Reboot the System,” in “Common System Procedures,” in the *Intuity CONVERSANT System Reference*, 585-313-205.
- 2 After the power on self test (POST) but before the system boots, press **CONTROL + A** when prompted.

The system displays the Host Adapter Configuration screen (Figure 37 on page 42).

Figure 37. Host Adapter Configuration Screen

Would you like to configure the Host Adapter, or run the SCSI disk utilities? Select the option and press <Enter>. Press <F5> to switch between color and monochrome modes.

Options  
 Configure/View Host Adapter Settings  
 SCSI Disk Utilities

- 3 Place the cursor on **Configure/View Host Adapter Settings**. Use the up (▲) and down (▼) arrows to move the cursor.
- 4 Press **ENTER**.
- 5 Compare the settings shown on the screen with the parameters listed in Table 6.

Table 6. SCSI Bus Interface Definitions

Option	Setting
Host Adapter SCSI ID	7
SCSI Parity Checking	Enabled
Host Adapter SCSI Termination	Low ON/High ON

- 6 Place the cursor on **Boot Device Options**. Use the up (▲) and down (▼) arrows to move the cursor.
- 7 Press **ENTER**.

- 8 Compare the settings shown on the screen with the parameters listed in Table 7.

**Table 7. Boot Device Options**

Option	Setting
Boot Target ID	0
Boot Lun Number	0
Include in BIOS Scan	Yes
SCSI Device ID	#8

- 9 Press **ESC**.

The system displays the SCSI bus interface definitions screen.

- 10 Place the cursor on **SCSI Device Configuration**. Use the up  and down  arrows to move the cursor.

- 11 Press **ENTER**.

- 12 Compare the settings shown on the screen with the parameters listed in Table 8.

**Note:** These settings must be applied to all SCSI IDs (0 to 7) shown.

**Table 8. SCSI Device Configuration**

Option	Setting
Initiate Sync Negotiation	Yes
Maximum Sync Transfer Rate	20.0
Enable Disconnection	Yes
Initiate Wide Negotiation	No

- 13 Press **ESC**.

The system displays the SCSI bus interface definitions screen.

- 14 Place the cursor on **Advanced Configuration Options**. Use the up  and down  arrows to move the cursor.

- 15 Press **ENTER**.

- 16 Compare the settings shown on the screen with the parameters listed in Table 9.

**Table 9. Advanced Configuration Options**

Option	Setting
Reset SCSI Bus at IC Initialization	Enabled
Host Adapter BIOS	Enabled
Support Removable Disks	Disabled
Extended BIOS Translation	Disabled
Display <Ctrl-A> Message	Enabled
Multiple Lun Support	Disabled

17 Press **ESC**.

The system displays the SCSI bus interface definitions screen.

18 Press **ESC**.

The system displays the following message:

```
Exit Utilities
  Yes
  No
```

19 Place the cursor on **Yes**. Use the up  and down  arrows to move the cursor.

20 Press **ENTER**.

The system displays the following message:

```
Please press any key to reboot.
```

21 Press **ENTER**.

The system reboots and displays the UNIX prompt (#).

## CMOS Parameter Settings

### **CAUTION:**

Do not change the settings if there is a mismatch. Contact your local technical support representative for assistance.

1 Perform a hard reboot of the system. See “Reboot the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

2 During the POST, press **F2**.

The system displays the following message:

```
Please standby for SETUP Utility...
```

After the system installs the BIOS, it displays the CMOS basic options set-up menu.

3 Compare the P5 200 MHz CPU circuit card settings in the setup menu with the default parameters listed in Table 10.

**Note:** The settings shown are for BIOS Version 4.05a.2.2 only.

**Note:** The settings in Table 10 that are indicated by an asterisk (\*) may differ from the default parameters due to other equipped feature circuit cards in your system. All other settings should be the same as those listed.

**Note:** ISA option ROMs such as those on the remote maintenance circuit card reside at addresses D000, D400, D800, and DC00 under Shadow RAM.

Table 10. CMOS Basic Option Settings for the P5 200 MHz CPU Circuit Card

Option	Setting
<b>Time and Date</b>	
Set the time and date to the current time and date.	
<b>Floppy Disks</b>	
Floppy Controller	Enabled
Select Drive A: Type	3.5 Inch, 1.44 MB
Select Drive B: Type	Not Installed
<b>Fixed Disks</b>	
IDE Controller Setup	Disabled
<b>Keyboard</b>	
Keyboard Typematic Sound	Enabled
<b>Shadow RAM</b>	
Shadow Select C000:0 32K	SHADOW (*)
Shadow Select C800:0 12K	SHADOW (*)
Shadow Select CC00:0	AVAILABLE (*)
Shadow Select D000:0	AVAILABLE (*) <b>Note:</b> If this line indicates SHADOW, change it to ROM.
Shadow Select D400:0 2K	AVAILABLE (*) <b>Note:</b> If this line indicates SHADOW, change it to ROM.
Shadow Select D800:0	AVAILABLE (*) <b>Note:</b> If this line indicates SHADOW, change it to ROM.
Shadow Select DC00:0 7K	AVAILABLE (*) <b>Note:</b> If this line indicates SHADOW, change it to ROM.
Shadow Select E000:0 64K	SHADOW
Shadow Select F000:0 64K	SHADOW
<b>Boot Options</b>	
101-Key Keyboard Numlock at Boot	Enabled
<b>Password Edit</b>	
Password Options	Disabled

- 4 To change the parameter settings, do the following:
  - a Place the cursor on the appropriate heading. Use the up (▲) and down (▼) arrows to move the cursor.
  - b Press **ENTER**.
  - c Change the parameters. Use the up (▲) and down (▼) arrows to move the cursor.
  - d Press **ENTER**.
- 5 Place the cursor on Advanced Options.
- 6 Press **ENTER**.

The system displays the CMOS advanced options set-up menu.

- 7 Compare the P5 200 MHz CPU circuit card settings in the set-up menu with the default parameters listed in Table 10.

**Note:** The settings in Table 11 that are indicated by an asterisk (\*) may differ from the default parameters due to other equipped feature circuit cards in your system.

**Table 11. CMOS Advanced Option Settings for the P5 200 MHz CPU Circuit Card**

Option	Setting
<b>Serial Ports</b>	
16550 Compatible UART 1:	03F8h, IRQ4 (*) <b>Note:</b> Disable this port if the hardware resource allocator assigned the remote maintenance circuit card here.
16550 Compatible UART 2:	02F8h, IRQ3 (*) <b>Note:</b> Disable this port if the hardware resource allocator assigned the remote maintenance circuit card here.
<b>Parallel Ports</b>	
Select Parallel Port Address:	0378h IRQ 7
Parallel Port Mode	AT Compatible
<b>Redirection</b>	
Select Redirection Destination	Disabled
<b>Memory Cache</b>	
External Cache	Enabled
<b>Advanced Chipset</b>	
DRAM Speed	70ns
<b>I/O Recovery</b>	
8 bit I/O Recovery Time	6.5 SYSCLK

1 of 2

Table 11. CMOS Advanced Option Settings for the P5 200 MHz CPU Circuit Card

Option	Setting
<b>Bus Speed</b>	
ISA Bus Speed	8.25 MHz
<b>Miscellaneous</b>	
SPEAKER Configuration	Enabled
Watchdog Timer Delay:	1.2 sec
<b>PS2 Mouse</b>	
PS2MOUSE Configuration	Disabled
<b>2 of 2</b>	

- 8 To change the parameter settings, do the following.
  - a Place the cursor on the appropriate heading. Use the up (▲) and down (▼) arrows to move the cursor.
  - b Press **ENTER**.
  - c Change the parameters. Use the up (▲) and down (▼) arrows to move the cursor.
  - d Press **ENTER**.

9 Place the cursor on **PCI Options**.

10 Press **ENTER**.

The system displays the CMOS PCI options set-up menu.

11 Compare the P5 200 MHz CPU circuit card settings in the set-up menu with the default parameters listed in Table 12.

**Note:** The settings in Table 12 that are indicated by an asterisk (\*) may differ from the default parameters due to other equipped feature circuit cards in your system.

Table 12. CMOS PCI Option Settings for the P5 200 MHz CPU Circuit Card

Option	Setting
<b>IRQs Setup</b>	
PCI IRQ Line1	IRQ14
PCI IRQ Line2	IRQ14
PCI IRQ Line3	IRQ10
PCI IRQ Line4	IRQ10
<b>PCI Devices</b>	
Bus Device	00:00
Function	00
VenID:DevID	0x8086 / 0x1250
Device Type	Bridge Host
<b>1 of 2</b>	

Table 12. CMOS PCI Option Settings for the P5 200 MHz CPU Circuit Card

Option	Setting
IRQ Binding	No IRQ
<b>PCI Performance</b>	
Delay for PCI Configuration	Disabled
<b>Onboard SCSI</b>	
Onboard PCI SCSI	Enabled
<b>2 of 2</b>	

**12** Place the cursor on **Basic Options**.

**13** Press **ENTER**.

The system displays the CMOS basic options set-up menu.

- a** If you have changed any option from what is indicated in Table 10 on page 45, Table 11 on page 46, and Table 12, press **ESC**.

This will reboot the system using the values you entered without creating a Flash it backup. If you have entered any incorrect values you can still go back to the original CMOS settings.

If you are certain the CMOS settings are correct and that the system will operate properly, place the cursor on **Flash It!** and press **ENTER**.

The system displays the following message.

```
Ready to Flash, Press the ESC key to Exit or ENTER to
flash.
```

**Note:** CMOS options can not be flashed if you made any changes. If any changes were made, you must exit, reboot, and then reenter setup to flash.

- b** Press **ENTER**.

The system displays the following message.

```
Erasing CPU BIOS
Flash It Reset in progress.
```

After approximately 3 minutes, the system reboots and displays the following message:

```
Console Login:
```

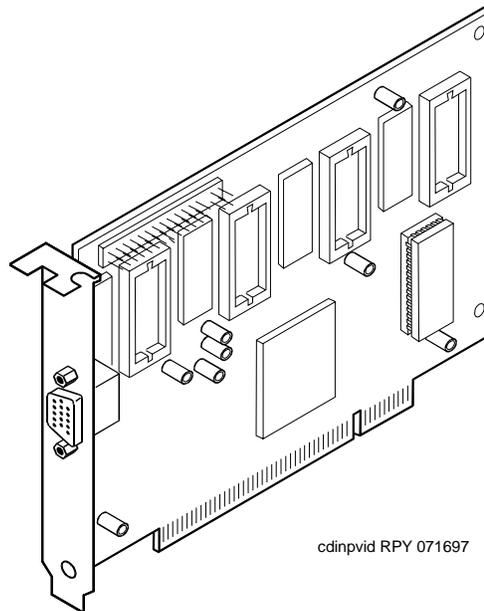
## Video Controller Circuit Cards

**Note:** The AT&T CRT345 monitor is not compatible with the PCI video circuit card.

Figure 38 shows the PCI video controller circuit card.

**Note:** There are no jumpers to set on the PCI video circuit card.

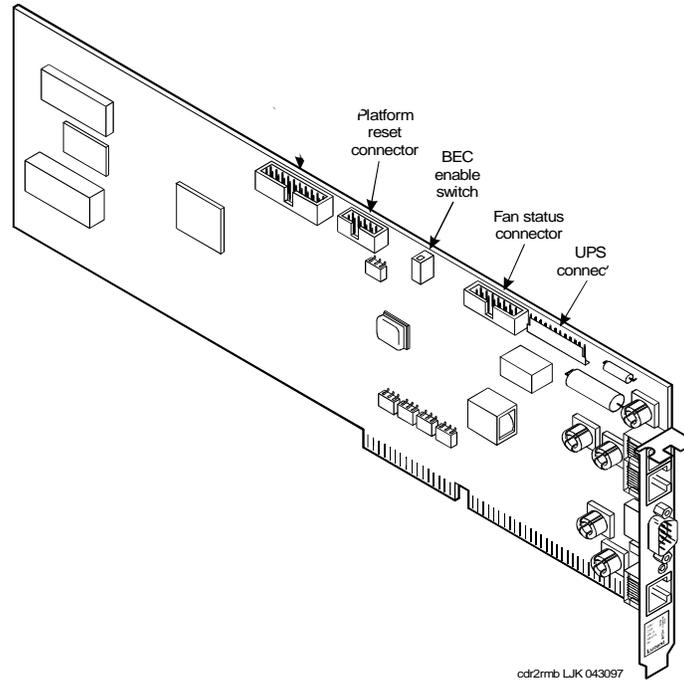
**Figure 38. PCI Video Controller Circuit Card**



## Remote Maintenance Circuit Card

The remote maintenance circuit card provides remote diagnostics of basic components (Figure 39). There is one remote maintenance circuit card installed on the system.

**Figure 39. Remote Maintenance Circuit Card**



### Types of Remote Maintenance Circuit Cards

The CONVERSANT system supports the AYC54/B remote maintenance circuit card.

- With an internal modem (AYC54/B)
- Without an internal modem (AYC55/B)

You can determine the type of remote maintenance circuit card installed on the system by viewing the faceplate. Figure 40 on page 51 shows the faceplate of a remote maintenance circuit card with an internal modem (AYC54/B).

**Note:** The AYC54/B and AYC55/B remote maintenance circuit cards can be connected to an external modem.

Figure 40. AYC54/B Remote Maintenance Circuit Card Faceplate

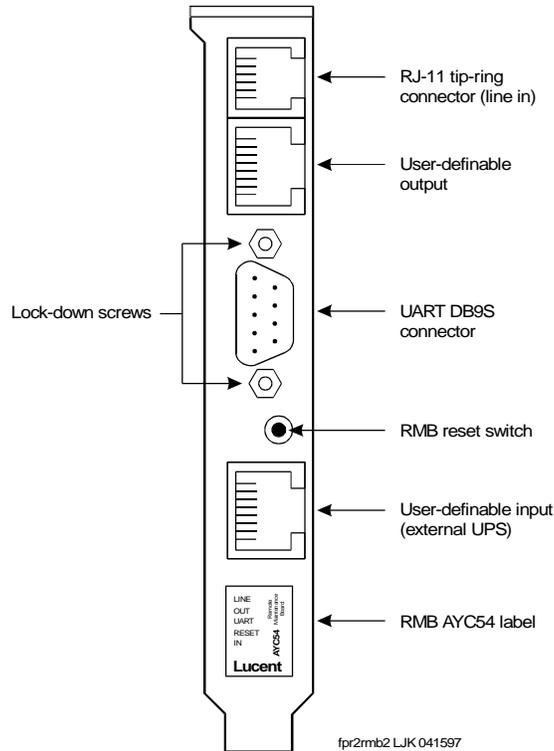
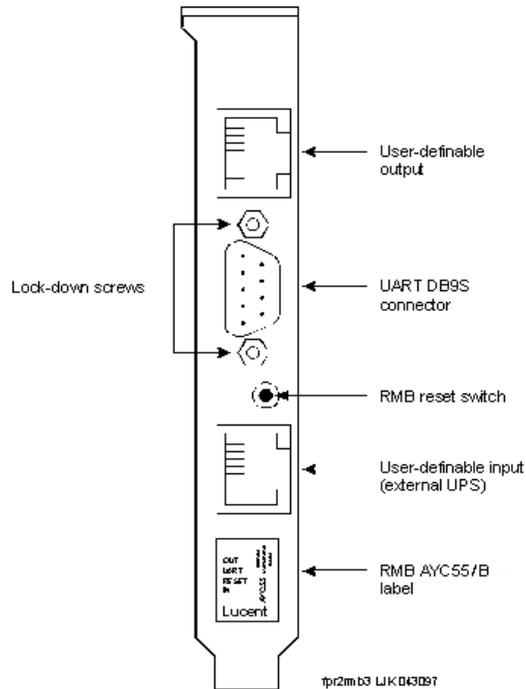


Figure 41 shows the faceplate of a remote maintenance circuit card without an internal modem (AYC55/B).

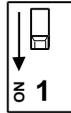
Figure 41. AYC55/B Remote Maintenance Circuit Card Faceplate



**Setting the Resource Options**

The remote maintenance circuit card is equipped with a BEC enable switch (Figure 39 on page 50). Ensure that this switch is set to the ON position (Figure 42).

**Figure 42. BEC Enable Switch**



swr2bec LJK 063097

**Inserting the Remote Maintenance Circuit Card**

To insert the remote maintenance circuit card:

- 1 Complete the procedure Installing a Circuit Card on page 9.
- 2 Connect the remote maintenance circuit card interface cable to the P5 200 MHz CPU circuit card keyboard connection (Figure 34 on page 39).

**Note:** The P5 200 MHz CPU circuit card must be pulled partially out of the MAP/40P before the cable can be connected to the keyboard port.

- 3 Connect the remote maintenance circuit card interface cable to the P5 200 MHz CPU circuit card COM2 port connection (Figure 34 on page 39).
- 4 Connect the remote maintenance circuit card interface cable to the remote maintenance circuit card platform reset connection (Figure 39 on page 50).
- 5 Connect the remote maintenance circuit card interface cable to the remote maintenance circuit card fan status connection (Figure 39 on page 50).

**Installing the Remote Maintenance Circuit Card Software Package**

To install the remote maintenance circuit card software package:

- 1 Stop the voice system.
- 2 Enter **pkgadd -d ctape1**

The system displays the following message:

```
Insert a cartridge into Tape Drive 1.
Type [go] when ready,
    or [q] to quit: (default:go)
```

- 3 Insert the tape labeled “RMB Software Set” into the tape drive.
- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the cartridge tape.

The following sets are available:
  1   RMBset INTUITY RMB V2 Set
      (i486)
```

```
Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]
```

**5** Press **ENTER**.

The system displays the following message:

```
Processing:
```

```
Set: RMB Software Set R2.0 (RMBset) from <ctapel>.
```

```
Intuity RMB Software Set R2.0  
(i486)
```

```
Using </> as the package base directory.
```

```
The RMB BEC ADDR has been defaulted to D1000
```

```
As is typical, should the RMB use COM1, rather than COM2  
(default:y) [y,n,?]:
```

**6** Do one of the following:

- ~ If the remote maintenance circuit card should use COM1, press **ENTER**.
- ~ If the remote maintenance circuit card should use COM2, enter **n**

The system displays the following message:

```
Please select the country code:
```

```
01 - United States  
02 - International
```

```
Country code [01]:
```

**7** Enter the appropriate code.

The system displays the following message:

```
Insert a cartridge into Tape Drive 1.  
Type [go] when ready  
or [q] to quit: (default: go)
```

**8** Enter **q****9** Remove the cartridge tape.



# 3 Replacing the Hard Disk Drive

## Overview

This chapter describes the procedures to identify and recover from CONVERSANT system hard disk drive failures, to add a hard disk drive, and to clean a hard disk drive.

Topics covered include:

- How to identify a failed hard disk drive
- Hardware procedures for replacing a hard disk drive
- Software procedures for preparing the system for a new hard disk drive
- Software procedures for initializing a hard disk drive

## Identifying a Failed Hard Disk Drive

Before a hard disk drive can be replaced you must identify which drive has failed. This section tells how to identify a failed hard disk drive in systems with two hard disk drives (both mirrored and unmirrored).

**Note:** If your system is configured with only one hard disk drive, see Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Nonmirrored System) on page 64.

## Hard Disk Drive Contents of the Hard Disk Drives in a Two-Drive System

To determine which hard disk drive has failed, it is necessary to know what type of information is stored on each drive. Table 13 shows the information contained on each hard disk drive in a nonmirrored system.

**Table 13. Contents of the Hard Disk Drives in a Nonmirrored System**

Disk Identity	Contents of Disk
Hard Disk Drive 0, (bay 4) SCSI ID 00	UNIX operating system, all CONVERSANT software, system data, and speech/voice storage
Hard Disk Drive 1, (bay 5) SCSI ID 01	Speech/voice storage

**Note:** The contents for Hard Disk Drive 0 are identical in nonmirrored and single-disk systems.

Table 14 shows the information contained on each hard disk drive in a mirrored system.

**Table 14. Contents of the Hard Disk Drives in a Mirrored System**

Disk Identity	Contents of Disk
Hard Disk Drive 0, (bay 4) SCSI ID 00	UNIX operating system, all Intuity CONVERSANT software, system data, and speech and voice storage
Hard Disk Drive 1, (bay 5) SCSI ID 01	The same information that is contained on Disk 0

### Identifying a Hard Disk Drive 0 Failure in a Nonmirrored or Single-Disk System

Because Hard Disk Drive 0 contains the only copy of the operating software in a nonmirrored or single disk system, a failure of this drive results in a complete failure of the system. If this occurs, you are not able to reboot the system. See Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Nonmirrored System) on page 64 for the replacement procedure.

### Identifying a Hard Disk Drive 1 Failure in a Nonmirrored System

Hard Disk Drive 1 contains speech and voice storage. If this hard disk drive fails, speech is lost. In the event of a Hard Disk Drive 1 failure, the system displays the following message:

```
WARNING: Disk Driver: HA0 TCX LU0 - Check Condition
```

**Note:** The number after TC is the SCSI ID of the failed hard disk drive.

### Identifying a Hard Disk Drive Failure in a Mirrored System

In a mirrored system both hard disk drives contain the same information. As a result, if either hard disk drive fails, the other drive continues to operate the system. There is no noticeable difference in service. A hard disk drive failure is identified by the message shown in Identifying a Hard Disk Drive 1 Failure in a Nonmirrored System on page 56.

The number preceded by TC in the message is the SCSI ID of the failed hard disk drive. If this message appears on the screen, contact your remote maintenance center.

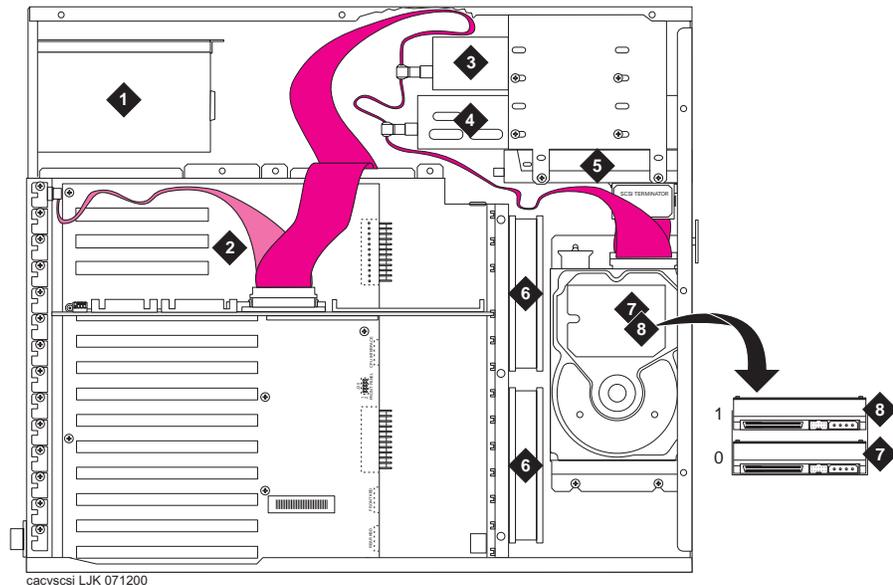
## Replacing a Hard Disk Drive

The MAP/40P can contain two hard disk drives. The first hard disk drive, SCSI ID 0, is located in Bay 4. The second hard disk drive, if provided, is located in Bay 5 (Figure 43).

**⚠ CAUTION:**

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer .

**Figure 43. Internal View of the MAP/40P**



- |  |   |
|--|---|
| 1. Power supply                            | 5. Peripheral Bay 3 - diskette drive    |
| 2. Backplane                               | 6. Circuit card cage fan                |
| 3. Peripheral Bay 1 - CD-ROM drive         | 7. Peripheral Bay 4 - Hard Disk Drive 0 |
| 4. Peripheral Bay 2 - cartridge tape drive | 8. Peripheral Bay 5 - Hard Disk Drive 1 |

## Hard Disk Drive Removal

To remove a hard disk drive, you must complete the following procedures:

- Removing the CONVERSANT System from Service on page 58
- Accessing a Hard Disk Drive on page 58
- Extracting a Hard Disk Drive on page 58

### Removing the CONVERSANT System from Service

To remove the CONVERSANT system from service:

**Note:** This procedure is not necessary if Hard Disk Drive 0 has failed on a single-disk system.

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215, for the procedure.
- 3 Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215, for the procedure.
- 4 Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 5 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .

### Accessing a Hard Disk Drive

To access a hard disk drive, remove the dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .

### Extracting a Hard Disk Drive

To extract a hard disk drive:

- 1 Remove the SCSI and power cables from the back of Hard Disk Drive 0 and 1 (if installed).
- 2 Loosen the two screws holding the hard disk drive bracket to the MAP/40P chassis.
- 3 Slide the hard disk drive bracket toward the diskette drive to release it from the keyed retainers and then lift it from the MAP/40P.
- 4 Remove the screws that secure Hard Disk Drive 0 or 1 to the hard disk drive bracket.

**Note:** Hard Disk Drive 0 is the drive that is closest to the fans.

- 5 Place the hard disk drive assembly with the printed circuit board facing up on an ESD-protected surface.
- 6 Continue with Hard Disk Drive Installation on page 59.

## Hard Disk Drive Installation

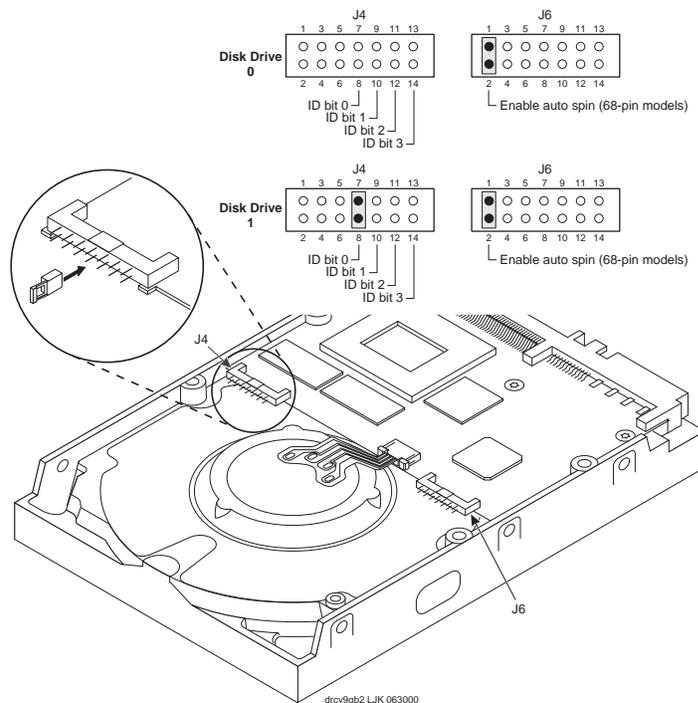
To install Hard Disk Drive 0, you must complete the following procedures:

- Installing the Hard Disk Drive Jumpers on page 59
- Inserting a Hard Disk Drive on page 59

### Installing the Hard Disk Drive Jumpers

Figure 44 shows the jumper settings for the hard disk drives.

**Figure 44. Jumper Settings for the 9.1-GB Hard Disk Drive**



### Inserting a Hard Disk Drive

To insert the hard disk drive:

- 1 Remove the new hard disk drive from its ESD-protective wrapping.

**Note:** Keep the package and all ESD-protective wrapping to return the defective unit. Re-use of the original replacement unit packaging is necessary to meet the manufacturer's warranty.

- 2 Align Hard Disk Drive 0 or 1 in the hard disk drive bracket with the jumpers near the top of the bracket.
- 3 Secure the hard disk drive in the hard disk drive bracket using the screws that you removed in Step 4 of Extracting a Hard Disk Drive on page 58.
- 4 Connect the SCSI and power cables to the back of Hard Disk Drive 0 and 1, if installed.
- 5 Secure the hard disk drive bracket to the chassis using the two screws that you loosened in Step 2 of Extracting a Hard Disk Drive on page 58.

- 6 Do one of the following:
- ~ If you are replacing hard disk drive 0 in a nonmirrored or a single-disk system, complete Replacing Hard Disk Drive 0 (Nonmirrored or Single-Disk System) on page 60
  - ~ If you are replacing hard disk drive 0 in a mirrored system, complete Replacing Hard Disk Drive 0 (Mirrored System) on page 61

## Replacing Hard Disk Drive 0

The following procedure explains how to replace a hard disk drive on an existing CONVERSANT system.

The following sections list the procedures for replacing Hard Disk Drive 0 in mirrored, nonmirrored, and single-disk systems.

### Replacing Hard Disk Drive 0 (Nonmirrored or Single-Disk System)

Hard Disk Drive 0 contains the base system software. Therefore, you must reinstall the entire CONVERSANT system if this disk fails on a nonmirrored or single-disk system, after the hard disk drive has been replaced.

#### Replacing the Hard Disk Drive

To replace the hard disk drive:

- 1 Remove Hard Disk Drive 0 from the system. See Replacing a Hard Disk Drive on page 57 for the procedure.
- 2 Set the jumpers on the replacement Hard Disk Drive 0. See Replacing a Hard Disk Drive on page 57 for the procedure.
- 3 Place the replacement Hard Disk Drive 0 in Bay 4. See Replacing a Hard Disk Drive on page 57 for the procedure.

#### Restoring the CONVERSANT System

##### CAUTION:

After installing a 2-GB hard disk drive into a system as Disk 0, *do not attempt to install an older version of UnixWare*. The version of the operating system tape that should be used contains the phrase “Independent Image.” If the operating system tape does not contain this phrase, notify the remote maintenance center immediately.

To reinstall the CONVERSANT system software:

- 1 Restore the system using the CONVERSANT Image Tape created using the **mkimage** command. See “Restore the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 2 Restore the speech files using the **spres** command. See Appendix A, “Summary of Commands,” in *CONVERSANT System Version 8.0 Administration*, 585-313-510.

## Replacing Hard Disk Drive 0 (Mirrored System)

If Hard Disk Drive 0 fails in a mirrored system, the system is still be operational and there is no noticeable degradation of service. The following procedure explains how to replace Hard Disk Drive 0 on a mirrored system.

### CAUTION:

This initial synchronization of data on a mirrored system can degrade service, depending on system load. Therefore, perform this procedure only during off-peak hours.

#### Replacing the Hard Disk Drive

To replace a hard disk drive:

- 1 Remove Hard Disk Drive 0 from the system. See Replacing a Hard Disk Drive on page 57 for the procedure.
- 2 Set the jumpers on the replacement Hard Disk Drive 0. See Replacing a Hard Disk Drive on page 57 for the procedure.
- 3 Place the replacement Hard Disk Drive 0 in Bay 4. See Replacing a Hard Disk Drive on page 57 for the procedure.

#### Restoring the CONVERSANT System

To restore the CONVERSANT system:

- 1 Log in as root.
- 2 Enter **vxdiskadm**

The system displays the Volume Manager Support Operations screen (Figure 45).

**Figure 45. Volume Manager Support Operations Screen**

```

Volume Manager Support Operations
Menu: VolumeManager/Disk

1   Add or initialize a disk
2   Encapsulate a disk
3   Remove a disk
4   Remove a disk for replacement
5   Replace a failed or removed disk
6   Mirror volumes on a disk
7   Move volumes from a disk
8   Enable access to (import) a disk group
9   Remove access to (deport) a disk group
10  Enable (online) a disk device
11  Disable (offline) a disk device
list List disk information

?   Display help about menu
??  Display help about menuing system
q   Exit from menus

Select an operation to perform:

```

**3 Enter list**

The system displays the List Disk Information screen (Figure 46).

**Figure 46. List Disk Information Screen**

```
List Disk Information
Menu: VolumeManager/Disk/ListDisk

Use this menu option to display a list of disks. You can
also choose to list detailed information about the disk at
a specific disk device address.

Enter disk device or "all" [<address>,all,q,?] (default:all)
```

**4 Press ENTER.**

The system displays the following message:

```
DEVICE    DISK      GROUP    STATUS
c0b0t0d0  disk00    rootdg   online
c0b0t1d0  disk01    rootdg   online
```

**5 Record the device IDs and disk names in the following table.**

Device	Disk

**6 Press ENTER.**

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

**7 Enter 4**

The system displays the following message:

Enter the name of the disk to remove.

**8 Enter the disk name for the drive with the device ID c0b0t0d0.**

**Note:** This should be disk00.

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

**9 Enter 5**

The system displays the following message:

Enter the name of the disk to replace.

**10 Enter the same disk name as in Step 8.**

The system displays the following message:

Enter the device ID of the disk to use as a replacement.

**11 Enter c0b0t0d0**

The system displays the Hard Disk Partitioning – Disk 0 screen (Figure 47).

**Figure 47. Hard Disk Partitioning – Disk 0 Screen**

Total disk size is 2048 cylinders (2048.0MB)							
Partition	Status	Type	Start	End	Length	%	ApproxMB
1	Active	UNIX System	0	2047	2048	100	248.0

SELECT ONE OF THE FOLLOWING.

0. Overwrite system master boot code
1. Create a partition
2. Change Active (Boot from) partition
3. Delete a partition
4. Update (Update disk configuration and exit)
5. Exit (Exit without updating disk configuration)

Enter selection:

**12 Enter 1**

The system displays with a screen on which you must supply information for the new partition.

**13 Select UNIX System.** Use  and  to move through the Partition Type field selections.**14 Press TAB** to move to the Percentage of Disk field.**15 Enter 100****16 Press ** to move to the Apply box and press **ENTER**.

The system displays the Hard Disk Partitioning – Disk 0 screen (Figure 47).

**17 Enter 4**

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

**18 Enter q**

The system starts mirroring the contents of Hard Disk Drive 1 to Hard Disk Drive 0. This does not interrupt normal operation of the CONVERSANT system.

## Replacing Hard Disk Drive 1

The following procedure explains how to replace a hard disk drive on an existing CONVERSANT system.

This procedure only applies to Hard Disk Drive 1. If you can not log in to the CONVERSANT system, it is possible that Hard Disk Drive 0 has failed. See one of the procedures in Replacing Hard Disk Drive 0 on page 60 (nonmirrored or mirrored, depending on your configuration) for instructions.

### Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Nonmirrored System)

If Hard Disk Drive 1 fails in a nonmirrored system, the system is still operational. However, speech files are lost. The following procedure explains how to replace Hard Disk Drive 1 on a nonmirrored system.

#### Replacing the Hard Disk Drive

To replace Hard Disk Drive 1:

- 1 Remove Hard Disk Drive 1 from the system. See Replacing a Hard Disk Drive on page 57 for the procedure.
- 2 Set the jumpers on the replacement Hard Disk Drive 1. See Replacing a Hard Disk Drive on page 57 for the procedure.
- 3 Place the replacement Hard Disk Drive 1 in Bay 5. See Replacing a Hard Disk Drive on page 57 for the procedure.

#### Restoring the CONVERSANT System

To restore the CONVERSANT system:

- 1 Log in as root.
- 2 Enter **vxdiskadm**

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

- 3 Enter **list**

The system displays the List Disk Information screen (Figure 46 on page 62).

- 4 Press **ENTER**.

The system displays the following message:

DEVICE	DISK	GROUP	STATUS
c0b0t0d0	disk00	rootdg	online
c0b0t1d0	disk01	rootdg	online

- Record the device IDs and disk names in the following table

Device	Disk

- Press **ENTER**.

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

- Enter **3**

The system displays the following message:

Enter the name of the disk to remove.

- Enter the disk name for the drive with the device ID c0b0t1d0.

**Note:** This should be disk01.

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

- Add Hard Disk Drive 1 to the system. See Adding a Hard Disk Drive to a System for Speech Storage on page 71.
- Restore the speech files using the **spres** command. See Appendix A, “Summary of Commands” in *CONVERSANT System Version 8.0 Administration*, 585-313-510, for more information.

### Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Mirrored System)

If Hard Disk Drive 1 fails in a mirrored system, the system is still operational and there is no noticeable degradation of service. The following procedure explains how to replace Hard Disk Drive 1 on a mirrored system.

 **CAUTION:**

This initial synchronization of data on a mirrored system can degrade service, depending on system load. Therefore, perform this procedure only during off-peak hours.

#### Replacing the Hard Disk Drive

To replace Hard Disk Drive 1:

- Remove Hard Disk Drive 1 from the system. See Replacing a Hard Disk Drive on page 57 for the procedure.
- Set the jumpers on the replacement Hard Disk Drive 1. See Replacing a Hard Disk Drive on page 57 for the procedure.
- Place the replacement Hard Disk Drive 1 in Bay 3. See Replacing a Hard Disk Drive on page 57 for the procedure.

**Restoring the  
CONVERSANT System**

To restore the CONVERSANT system:

**1** Log in as root.

**2** Enter **vxdiskadm**

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

**3** Enter **list**

The system displays the List Disk Information screen (Figure 46 on page 62).

**4** Press **ENTER**.

The system displays the following message:

```
DEVICE    DISK      GROUP    STATUS
c0b0t0d0  disk00    rootdg   online
c0b0t1d0  disk01    rootdg   online
```

**5** Record the device IDs and disk names in the following table.

Device	Disk

**6** Press **ENTER**.

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

**7** Enter **4**

The system displays the following message:

Enter the name of the disk to remove.

**8** Enter the disk name for the drive with the device ID c0b0t1d0.

**Note:** This should be disk01.

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

**9** Enter **5**

The system displays the following message:

Enter the name of the disk to replace.

**10** Enter the same disk name as in Step 8.

The system displays the following message:

Enter the device ID of the disk to use as a replacement.

**11 Enter c0b0t1d0**

The system displays the Hard Disk Partitioning – Disk 1 screen (Figure 48).

**Figure 48. Hard Disk Partitioning – Disk 1 Screen**

```

Total disk size is 2048 cylinders (2048.0MB)

Partition Status      Type   Start  End    Length  %      ApproxMB
-----
1      Active   UNIX   0      2047   2048   100    2048.0
                System

SELECT ONE OF THE FOLLOWING

0. Overwrite system master boot code
1. Create a partition
2. Change Active (Boot from) partition
3. Delete a partition
4. Update (Update disk configuration and exit)
5. Exit (Exit without updating disk configuration)

Enter selection:

```

**12 Enter 1**

The system displays a screen on which you must supply information for the new partition.

**13 Select UNIX System.** Use **◀** and **▶** to move through the Partition Type field selections.**14 Press TAB** to move to the Percentage of Disk field.**15 Enter 100****16 Press ▼** to move to the Apply box and press **ENTER**.

The system displays the Hard Disk Partitioning – Disk 1 screen (Figure 48 on page 67).

**17 Enter 4**

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

**18 Enter q**

The system starts mirroring the contents of Hard Disk Drive 0 to Hard Disk Drive 1. This does not interrupt normal operation of the CONVERSANT system.

## Adding a Hard Disk Drive

This section details the procedures for adding a second hard disk drive to an CONVERSANT system with only one hard disk drive. If you are replacing an existing drive, see Replacing Hard Disk Drive 0 on page 60 or Replacing Hard Disk Drive 1 on page 64.

### Adding a Hard Disk Drive to a System for Mirroring

To add a hard disk drive:

- 1 Install the new hard disk drive. See Replacing a Hard Disk Drive on page 57.
- 2 Clean the new hard disk drive. See Cleaning a Hard Disk Drive on page 73.
- 3 Log in as root.
- 4 Enter **fdisk /dev/rdisk/c0b0t0d0s0**

The system displays the following message:

```
The recommended default partitioning for your disk is 100%
UNIX system partition.
```

```
To select this, please type "y". To partition your disk
differently, type "n" and the "fdisk" program will let you
select other partitions.
```

- 5 Enter **y**
- 6 Enter **vxdiskadm**

The system displays the Volume Manager Support Operations screen (Figure 45 on page 61).

- 7 Enter **1**

The system displays the Add or Initialize a Disk screen (Figure 49 on page 69).

Figure 49. Add or Initialize a Disk Screen

```

Add or initialize a disk
Menu: VolumeManager/Disk/AddDisk

Use this operation to add a disk to a disk group. You can select an
existing disk group or create a new disk group. You can also
initialize a disk without adding it to a disk group, which leaves
the disk available for use as a replacement disk. This operation
takes, as input, a disk device, for example c0b0t2d0, a disk group
(or none to leave the disk available for as a replacement disk). If
you are adding the disk to a disk group, you will be asked to give a
name to the disk.

More than one disk or pattern may be entered at the prompt. Here are
some disk selection examples:

all:          all disks
c3 c4b0t2:    all disks on both controller 3 and controller 4, bus 0,
              target 2
c3b0t4d2:     a single disk

Select disk device to add
[<pattern-list>,all,list,q,?]

```

**8** Enter **list** to show a list of the disk devices recognized by the system.

**Note:** The **list** command will show the newly added disk **online** or **error**, but not as part of any disk group. Choose this disk address for the next prompt.

The system displays a message similar to the following:

DEVICE	DISK	GROUP	STATUS
c0b0t0d0	disk00	rootdg	online
c0b0t1d0	-	-	online

**9** Enter the device to add, in the form **c0b0tXd0**, where **X** is the number of the drive that you are adding.

The system displays the following message:

```

Here is the disk selected. Output format: [Device_Name]
c0b0tXd0
Continue operation? [y,n,q,?] (default: y)

```

**10** Enter **y**

The system displays the following message:

```

Disk device c0b0tXd0 appears to have been initialized
already.
The disk is currently available as a replacement disk.

```

**Note:** If the disk is new, the above message is not displayed. Sometimes the newly added disk STATUS is shown as error instead of online. This may happen until the disk is added to the Volume Manager internal configuration files using **vxdiskadm**.

```

Do you wish to reinitialize c0b0tXd0?

```

**11 Enter y**

The system displays the following message:

```
You can choose to add this disk to an existing disk group, to
create a new disk group, or you can choose to leave the disk
available for use by future add or replacement operations. To
create a new disk group, select a disk group name that does
not yet exist. To leave the disk available for future use,
specify a disk group name of "none".
```

```
Which disk group [<group>,none,list,q,?] (default: rootdg)
```

**12 Press ENTER.**

The system displays the following message:

```
Use a default disk name for the disk? [y,n,q,?] (default: y)
```

**13 Enter n**

The system displays the following message:

```
Add disk as a hot-spare disk for? [y,n,q,?](default: n)
```

**14 Enter n**

The system displays the following message:

```
The selected disks will be added to the disk group rootdg
with the disk name that you will specify interactively
```

```
c0b0tXd0
```

```
Continue the operation? [y,n,q,?] (default: y)
```

**15 Enter y**

The system displays the following message:

```
The following disk device appears to have been initialized
already. The disk is currently available as a replacement
disk.
```

```
Output format: [Device_name]
```

```
c0b0tXd0
```

```
Use this device? [y,n,q,?] (default: y)
```

**Note:** If the disk is new, the above message is not displayed.

**16 Enter y**

The system displays the following message

```
The following disk you selected for use appears to have
already been initialized for the Volume Manager. If you are
certain the disk has already been initialized for the Volume
Manager, then you do not need to reinitialize the disk device
```

```
Output format: [Device_Name]
```

```
c0b0tXd0
```

```
Reinitialize this device? [y,n,q,?] (default: y)
```

**Note:** If the disk is new, the above message is not displayed.

**17** Enter **n**

The system displays the following message:

```
Perform surface analysis (highly recommended). [y,n,q,?]
default:y
```

**18** Enter **y**

The system displays the following message:

```
Enter disk name for <c0d0tXd0> [<name>,q,?] (default:
disk01)
```

**19** Enter the disk name, or press **ENTER** to select disk01.

The system displays the following message:

```
Adding disk device c0b0tXd0 to disk group rootdg with disk
name <diskname>
```

```
Add or initialize other disks? [y,n,q,?] (default: n)
```

**20** Press **ENTER**.

The system displays the Volume Support Manager Operations screen (Figure 45 on page 61).

**21** Select **q** to quit**22** Enter **vxdisk list**

The system displays a message similar to the following message:

DEVICE	DISK	GROUP	STATUS
c0b0t0d0	disk00	rootdg	online
c0b0t1d0	-	-	online

**23** Verify that the STATUS column for the disk is online.

## Adding a Hard Disk Drive to a System for Speech Storage

**Note:** If you are using an existing disk, perform the Cleaning a Hard Disk Drive on page 73 procedure first.

- 1 Complete the procedure in Adding a Hard Disk Drive to a System for Mirroring on page 68.
- 2 Log in to the system as root.
- 3 Enter **/mtce/bin/dispdisk**

The system displays a message similar to the following:

```
Choose a disk from the following list
```

```
disk00  disk01
```

```
Enter disk:
```

**4** Enter **disk01**

The system displays a message similar to the following:

```
Disk Name:    disk01          Status: online
Device Name:  c0b0t1d0s0     Length: 4187648
Volumes on disk disk01:
-----
home
home2
rootvol
standvol
swapvol
usr
```

**5** Record the value shown in the Length field on the line below.

Length: \_\_\_\_\_

**6** Enter **/mtce/bin/makevol**

The system displays the following message:

Enter Volume Name:

**7** Enter **home3**

The system displays the following message:

Enter Volume Length:

**8** Enter the number you recorded in Step 5.

The system displays the following message:

```
Number of mirrors set to: 0
Volume layout set to: nocontig
Logging type set to: NONE
Disk Group set to: rootdg

Choose a disk from the following list:
disk00  disk01

Enter disk:
```

**9** Enter the disk name (for example, disk01).

The system displays the following message:

```
Please wait, this will take a couple of minutes.
Mkfs: make vxfs file system?
(DEL if wrong)
```

When the system prompt returns, an entry is automatically added to **/etc/vfstab** for the **home3** volume, and the file system is mounted.

## Moving the Speech to the Speech Disk

**Note:** Direct calls away from the system during this procedure.

To add a speech disk to an existing system:

- 1 Log in as root.
- 2 Enter **cd /home2/vfs/talkfiles**
- 3 Enter **find . -name -pring | cpio -pdmuv /home3/vfs/talkfiles**
- 4 Enter **vi /vs/data/irAPI.rc**
- 5 Change the line `SPEECHDIR=/home2/vfs/talkfiles` to the following:  
**SPEECHDIR=/home3/vfs/talkfiles**
- 6 Enter **stop\_vs**
- 7 Enter **start\_vs**
- 8 Enter **cd /home2/vfs/talkfiles**
- 9 Enter **rm -rf - \***

The **/home2** directory is now available for customer files.

## Cleaning a Hard Disk Drive

There are two ways to clean a hard disk drive:

- Using the `fdisk` command
- Low-level formatting the hard disk drive

### Using the `fdisk` Command

A hard disk drive that contains data cannot be installed in a CONVERSANT system. The hard disk drive must be cleaned before use.

To clean a hard disk drive:

- 1 Log in to the system as root.
- 2 Enter **fdisk /dev/rdisk/c0b0t1d0s0**

#### **CAUTION:**

The phrase `c0b0t1d0s0` is the name of the disk to be cleaned. The phrase `c0b0t1d0s0` is correct for Hard Disk Drive 1. Hard Disk Drive 0 is named `c0b0t0d0s0`.

The system displays the Disk Cleaning screen (Figure 50 on page 74).

Figure 50. Disk Cleaning Screen

```

Total disk size is 2048 cylinders (2048.0MB)

Partition Status   Type   Start  End    Length  %    ApproxMB
1      Active      UNIX   0      2047   2048   100    2048.0
      System

SELECT ONE OF THE FOLLOWING

0. Overwrite system master boot code
1. Create a partition
2. Change Active (Boot from) partition
3. Delete a partition
4. Update (Update disk configuration and exit)
5. Exit (Exit without updating disk configuration)

Enter selection:

```

**3 Enter 3**

The system displays the following message:

```
Enter the number of the partition you want to delete
(or enter x to exit)
```

**4 Enter the number of the partition.**

For the example given in Figure 50 on page 74, you would enter 1.

The system displays the following message:

```
Do you want to delete partition X? This will erase all files
and programs in this partition (type "y" or "n").
```

**5 Enter y**

The system displays the following message:

```
Partition X has been deleted.
```

The system displays the Disk Cleaning screen (Figure 50 on page 74).

**6 Enter 4**

The system displays the following message:

```
If you have created or altered a partition, you must
initialize the partition to reflect the new configuration.
For a UNIX System partition run the disksetup(lm) command.
For a DOS partition, run the DOS format command. Changes
limited to the "Active" status field require no additional
action.
```

**7 Reboot the system. See "Reboot the System," in "Common System Procedures," in the *CONVERSANT System Reference*, 585-313-215.**

## Low-Level Formatting the Hard Disk Drive

The procedure for low-level formatting a hard disk drive differs depending on the CPU type installed on your system.

### Low-Level Formatting with a P5 200 MHz CPU Circuit Card

To low-level format a hard disk drive:

- 1 Reboot the system. See “Reboot the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 2 Press **CONTROL + A** when prompted.

The system displays the Host Adapter Configuration screen (Figure 51).

**Figure 51. Host Adapter Configuration Screen**

```

Would you like to configure the host adapter or run the SCSI
disk utilities? Select the option and press <Enter>. Press
<F5> to switch between color or monochrome.

Options
Configure/View Host Adapter Settings
SCSI Disk Utilities
  
```

- 3 Place the cursor on **SCSI Disk Utilities**. Use the up (▲) and down (▼) arrows to move the cursor.
- 4 Press **ENTER**.

The system displays the SCSI Disk Utilities screen (Figure 52).

**Figure 52. SCSI Disk Utilities Screen**

```

Select SCSI Disk and press <Enter>.

SCSI ID #0    IBM DORS-32160
SCSI ID #1    IBM DORS-32160
SCSI ID #2    No Device
SCSI ID #3    TANDBERG TDC4200
SCSI ID #4    No Device
SCSI ID #5    No Device
SCSI ID #6    No Device
SCSI ID #7    AIC - 7850
  
```

- 5 Place the cursor on the SCSI Disk to be formatted. Use the up (▲) and down (▼) arrows to move the cursor.
- 6 Press **ENTER**.

The system displays the Configure/Format Disk screen (Figure 53).

**Figure 53. Configure/Format Disk Screen**

```

Configure Disk
Format Disk
  
```

- 7 Place the cursor on the **Format Disk**. Use the up  and down  arrows to move the cursor.
- 8 Press **ENTER**.  
The system asks you to confirm that the disk is to be formatted.
- 9 Enter **y**

## Mirroring the Boot Disk

For the complete procedure for mirroring a boot disk, see the *Veritas Volume Manager User's Guide*, which is available at the following URL:

[http://uw7doc.sco.com/ODM\\_VMug/ug-13.html#HEADING13-261](http://uw7doc.sco.com/ODM_VMug/ug-13.html#HEADING13-261)

**Note:** Mirroring of non-boot volumes such as VS or ORACLE must be performed manually.

## Removing Mirroring

To remove mirroring:

- 1 At the UNIX prompt, enter **/mtce/bin/rmvolmirr**
- 2 The system displays the following message:

```
Choose a VolumeName from the following list:  
ALL standvol swapvol rootvol mtce oracle tmp vs  
Enter VolumeName or ALL:
```

- 3 Enter **ALL**

The system displays the following message for each volume, where *xxx* is the volume name:

```
Mirroring for xxx volume has been turned off.  
Volume mirror xxx has been removed.
```

---

## Reusing Disks

### Reusing a Speech Disk for Mirroring

To reuse an existing speech disk for mirroring:

- 1 Log in as root.

**Note:** In the following steps, **home3** is the volume where the speech files are stored.

- 2 Enter **umount /home3**
- 3 Enter **voledit -rf rm home3**
- 4 Establish mirroring. See Mirroring the Boot Disk on page 76.

### Reusing a Mirrored Disk for Speech

To reuse an existing mirrored disk for speech:

- 1 Log in as root.
- 2 Remove mirroring. See Removing Mirroring on page 76.
- 3 Add a disk for speech storage. See Adding a Hard Disk Drive to a System for Speech Storage on page 71, and begin with Step 3.
- 4 Move the speech to the speech disk. See Moving the Speech to the Speech Disk on page 73.



# 4 Replacing Other Components

---

## Overview

This chapter describes the correct procedures for replacing the following components on the CONVERSANT system. Information is also provided on the correct configuration and settings for the individual components.

- Electromagnetic interference reduction components (ferrites)
- Backplane
- Cables
- Cartridge tape drive
- CD-ROM drive
- Circuit card cage fans
- Diskette drive
- Filter
- Memory modules
- Power supplies
- Terminator SIPs

**Note:** For circuit card replacement procedures, see Chapter 2, *Installing or Replacing Circuit Cards* . For hard disk drive replacement procedures see Chapter 3, *Replacing the Hard Disk Drive* .

## Replacing the Electromagnetic Interference Reduction Components

All MAP/40P installations require the installation of ferrites as described in the following procedures to meet the individual country agency electromagnetic compatibility (EMC) regulations.

Table 15 lists the ferrites to be installed on a MAP/40P system that uses the AYC10 tip/ring circuit card. Table 16 lists the ferrites to be installed on a MAP/40P system that uses the AYC30 tip/ring circuit card.

**Note:** Table 15 and Table 16 contain data for a MAP/40P system installed with a 200 MHz CPU.

**Table 15. MAP/40P Ferrite Installation Using the AYC10 Tip/Ring Circuit Card**

Component	Location	Cabling
Tip/ring circuit card (AYC10)	Place two ferrites on each modular cable.	Wrap the modular cable once around each ferrite.

**Table 16. MAP/40P Ferrite Installation Using the AYC30 Tip/Ring Circuit Card**

Component	Location	Cabling
Tip/ring circuit card (AYC30)	Place two ferrites on each modular cable.	<ul style="list-style-type: none"> <li>• Wrap the modular cable once around each ferrite.</li> <li>• Wrap each modular cable twice through the ferrite.</li> </ul> <p>See Installing a Ferrite on the MAP/40P on page 81 for the procedure.</p>

### General Ferrite Installation Guidelines

#### CAUTION:

Handle ferrites with care. Ferrites are easily fractured or broken. Immediately replace any fractured or broken ferrites because they are no longer effective for EMC control.

When installing ferrites:

- Install ferrites to all cables as required.
- Minimize the amount of cable between the ferrites and the computer chassis.
- Wrap cables as tightly as possible. Do not leave large amounts of slack in any loop.
- Use cable ties, when required, behind the ferrites to keep them in place.

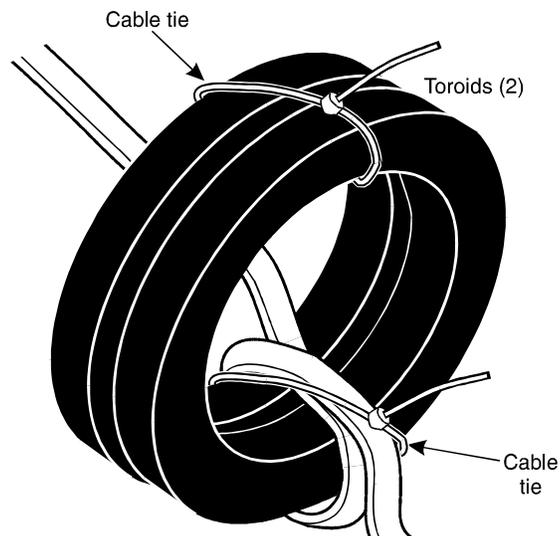
**Installing a Ferrite on the MAP/40P**

The following is the ferrite installation procedure to be used on a MAP/40P system. Figure 54 shows an example of a paired ferrite installation.

To install a ferrite:

- 1 Place the ferrite close to the computer chassis.
- 2 Wrap each modular cable tightly around the ferrite.
- 3 Secure the cable or cables with a small cable tie to reduce cable movement.
- 4 Trim excess length from the cable tie.

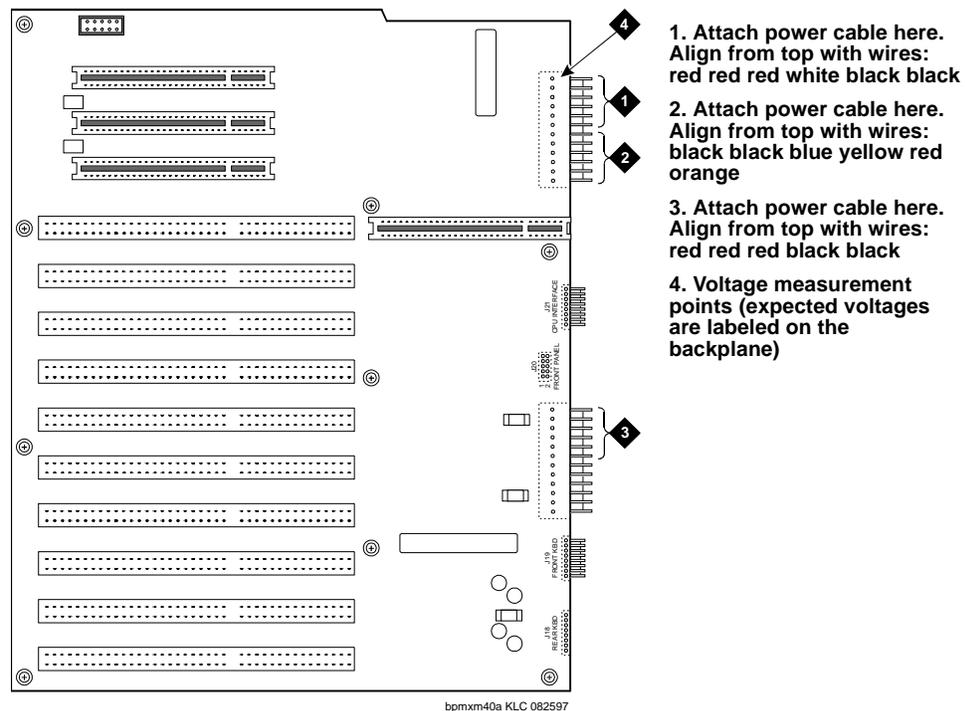
**Figure 54. Example of a Paired Ferrite Installation**



## Replacing the Backplane

The following procedures detail removing and installing the backplane. The backplane (Figure 55) is located in the MAP/40P card cage area as shown in Figure 43 on page 57.

**Figure 55. MAP/40P Backplane**



## Removing the Backplane

### **⚠ CAUTION:**

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1, in Chapter 1, Getting Inside the Computer .

To remove the backplane:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following Steps a and b.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

- b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove the incoming power. See Removing Power from the MAP/40P in Chapter 1, Getting Inside the Computer .
  - 4 Remove the dress cover. See Removing the Dress Cover in Chapter 1, Getting Inside the Computer .
  - 5 Remove all of the circuit cards. See Removing a Circuit Card, in Chapter 2, Installing or Replacing Circuit Cards .
- Note:** Pay close attention to the backplane connector slots from which each circuit card is removed. The circuit cards will need to be replaced in the same slots in the new backplane. See Component Assignments in Appendix A, System Configuration, for circuit card placement.
- 6 Unplug all power lead connectors.
- Note:** Make a note of the connector locations. Connectors are polarized but not keyed.
- 7 Remove the ten screws that secure the backplane to the MAP/40P.
  - 8 Lift the backplane from the MAP/40P.

## Installing the Backplane

To install the backplane:

- 1 Remove the new backplane from its ESD-protective wrapping.
- Note:** Keep the package and all ESD-protective wrapping to return the defective unit. Re-use of the original replacement unit packaging is necessary to meet the manufacturer’s warranty.
- 2 Mount the new backplane to the MAP/40P chassis using the ten screws that you removed in Step 7 of the procedure in Removing the Backplane on page 82.
- Note:** Make sure that no wiring is trapped between standoffs and backplane. Redress the COM2 cable to a position near and under the CPU.
- 3 Connect all power cables that you removed in Step 6 of the procedure in Removing the Backplane on page 82.
  - 4 Seat the CPU circuit card and the video controller card. See Installing a Circuit Card on page 9, in Chapter 2, Installing or Replacing Circuit Cards .
- Note:** Be sure to mount these cards in their correct backplane slot. See Component Assignments on page 197 in Appendix A, System Configuration, for these locations.
- 5 With the MAP/40P still disassembled, connect the COM2 interface and keyboard to the appropriate connectors on the CPU board.

- 6 Connect the video monitor cord to the video monitor interface plug termination on the video controller board.
- 7 Connect the disk activity LED cable assembly to the CPU.
- 8 Restore power to the MAP/40P. See Restoring Power to the MAP/40P, in Chapter 1, Getting Inside the Computer .
- 9 Check for the following indications that the system is properly connected:

- ~ The +5, -5, +12, or -12 volt DC locations marked on the backplane read + (plus) or - (minus) 0.25 volt with respect to the correct voltages.
  - The monitor shows indications that the MAP/40P is attempting to boot. A self-check of memory is displayed on the terminal.
  - The diskette drive LED will temporarily light, indicating diskette drive bus activity and proper cable connection.

If the system is assembled properly, the machine finishes its boot process in approximately 2 minutes and remains in an idle state, waiting for system login. If the system is not assembled properly and this does not happen, repeat Steps 1 through 13 above.

**Note:** Depending on the particular configuration of the MAP/40P being serviced, error messages may be displayed on the screen indicating that certain circuit cards are not in their proper slots. This will not affect the MAP/40P's attempt to boot, and the error messages should subside when the system is fully operational with the four circuit cards.

- ~ The card cage fan begins operating.
  - ~ The front control panel "Power On" indicator is lit.
  - ~ The power supply internal fan is operating.
- 10 Install the remaining cards in their appropriate backplane slots. See Installing a Circuit Card, in Chapter 2, Installing or Replacing Circuit Cards .
  - 11 Replace the dress cover. See Replacing the Dress Cover, in Chapter 1, Getting Inside the Computer .
  - 12 Apply power to the MAP/40P. See Restoring Power to the MAP/40P, in Chapter 1, Getting Inside the Computer .

## Replacing Cables

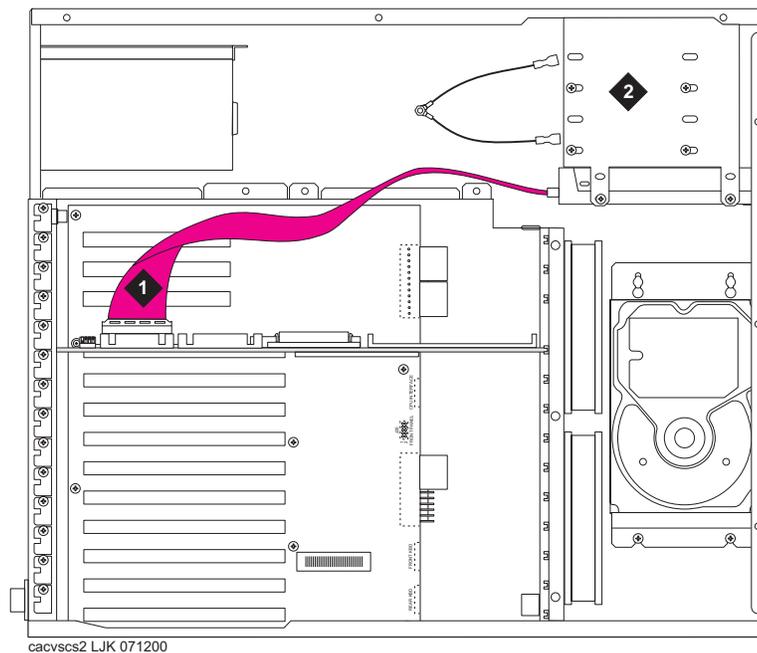
This section provides procedures for replacing the:

- Diskette cable
- Keyboard cable
- SCSI cable

### Replacing the Diskette Cable

The diskette cable (Figure 56) connects the diskette drive to the P5 200 MHz CPU circuit card.

**Figure 56. Diskette Cable Routing**



**1. Diskette cable**

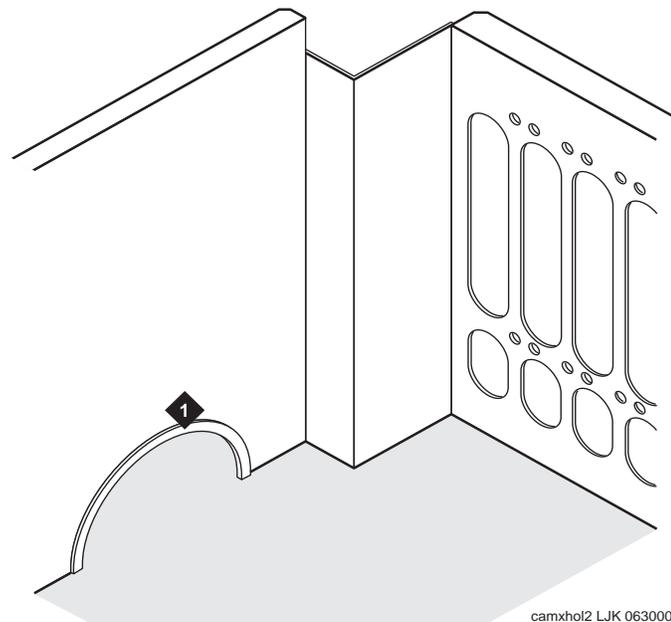
**2. Peripheral bay (diskette drive located in position 3)**

**Removing the Diskette Cable**

To remove the diskette cable:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, do the following.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove dress cover and access panel. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Disconnect the diskette cable from the P5 200 MHz CPU circuit card.
- 6 Disconnect the diskette cable from the diskette drive.
- 7 Gently pull the diskette cable through the opening (Figure 57) in the internal sheet metal into the card cage area of the MAP/40P.
- 8 Remove the diskette cable from the chassis.

**Figure 57. MAP/40P Internal Sheet Metal Opening**



**1. Hole for routing power supply cables to backplane**

**Installing a Diskette Cable**

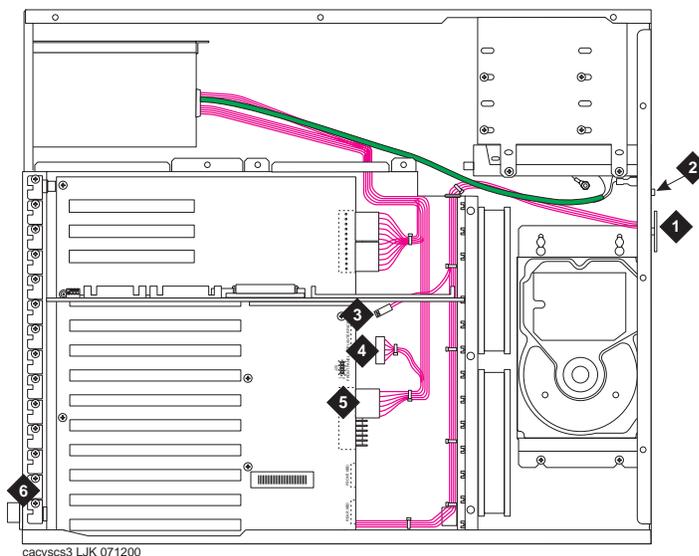
To install a diskette cable:

- 1 Carefully slide the cross over end of the diskette cable through the cable hole (Figure 57 on page 86) from the card cage area to the peripheral bay area.
- 2 Connect the diskette cable to the diskette drive.
- 3 Connect the diskette cable to the P5 200 MHz CPU circuit card.
- 4 Replace the dress cover. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .
- 5 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

**Replacing the Keyboard Cable**

The keyboard cable (Figure 58) connects the keyboard port to the P5 200 MHz CPU circuit card.

**Figure 58. Keyboard Cable Routing**



1. LEDs

2. Reset button

3. Disk activity cable, attach to CPU

4. Reset cable, attach to CPU

5. Keyboard cable, attach to RMB

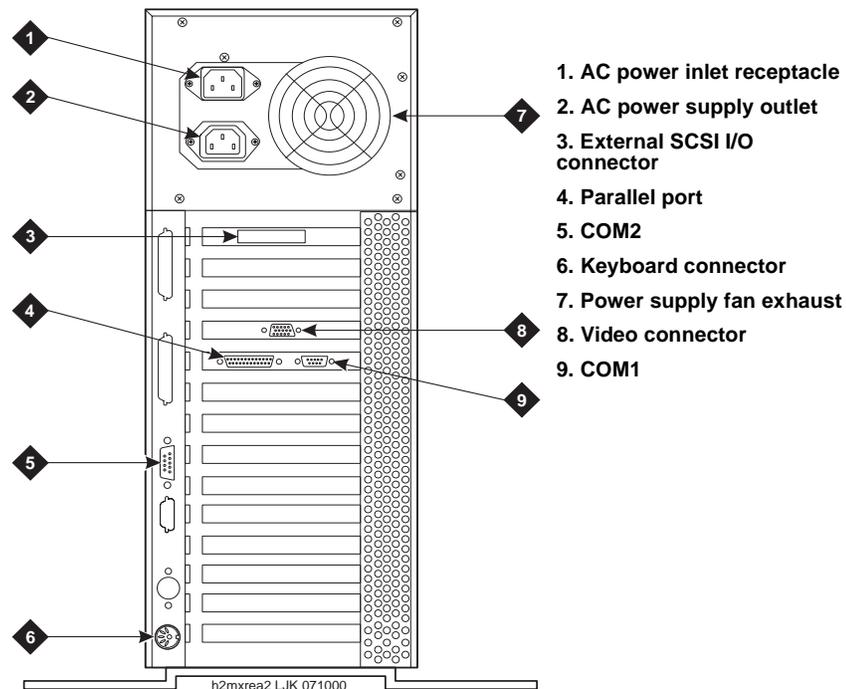
6. External keyboard connector

**Removing the Keyboard Cable**

To remove the keyboard cable:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 Remove the incoming power. See Removing Power from the MAP/40P on page 3, in Chapter 1, Getting Inside the Computer .
- 3 Remove the dress cover and access panel. See Removing the Dress Cover on page 4, in Chapter 1, Getting Inside the Computer .
- 4 Remove the circuit cards in Slots 1 through 6. See Removing a Circuit Card on page 7, in Chapter 2, Installing or Replacing Circuit Cards .
- 5 Disconnect the keyboard port from the MAP/40P chassis by removing the two screws (Figure 59).
- 6 Remove the keyboard cable from the MAP/40P.

**Figure 59. Back View of the MAP/40P**



**Installing a Keyboard Cable**

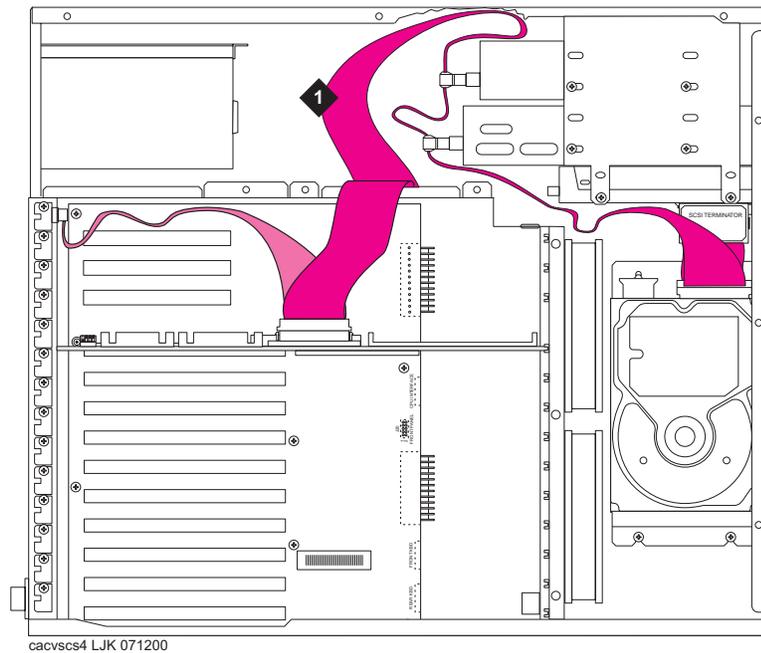
To install a keyboard cable:

- 1 Connect the keyboard cable to the keyboard interface (Figure 59 on page 88).
- 2 Attach the keyboard port to the MAP/40P chassis (Figure 59 on page 88) using the screws that you removed in Step 7 of the procedure in Removing the Keyboard Cable on page 88.
- 3 Replace the circuit cards removed in Step 4 of the procedure in Removing the Keyboard Cable on page 88. See Installing a Circuit Card in Chapter 2, Installing or Replacing Circuit Cards for the procedure.
- 4 Replace the dress cover. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .
- 5 Connect the keyboard to the keyboard port.
- 6 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

**Replacing the SCSI Cable**

The SCSI cable (Figure 60) connects the hard disk drives and cartridge tape drive to the P5 200 MHz CPU circuit card.

**Figure 60. SCSI Cable Routing**



**1. SCSI cable**

**Removing the SCSI Cable**

To remove the SCSI cable:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, do the following:
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove dress cover and access panel. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Disconnect the SCSI cable from the P5 200 MHz CPU circuit card.
- 6 Disconnect the SCSI cable from the external SCSI connector circuit card.
- 7 Disconnect the SCSI cable from the hard disk drives.
- 8 Disconnect the SCSI cable from the cartridge tape drive.
- 9 Gently pull the SCSI cable through the holes (Figure 57 on page 86) in the internal sheet metal into the peripheral bay area of the MAP/40P.
- 10 Remove the SCSI cable from the chassis.

**Installing a SCSI Cable**

To install a SCSI cable:

- 1 Identify the tape drive and the two, closely positioned hard disk connectors.
- 2 Slide this end of the cable into the peripheral bay area, with the dark wire nearest you, and around to the hard disk drives.
- 3 Continue back around with the single-connector end to the rear of the tape drive. See Figure 60 on page 89.
- 4 Attach one end of the SCSI cable to the cartridge tape drive.
- 5 Attach the SCSI cable to the hard disk drives.
- 6 Attach the SCSI cable to the P5 200 MHz CPU circuit card.
- 7 Attach the SCSI cable to the external SCSI connector circuit card.
- 8 Replace the dress cover. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .
- 9 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

## Replacing the Cartridge Tape Drive

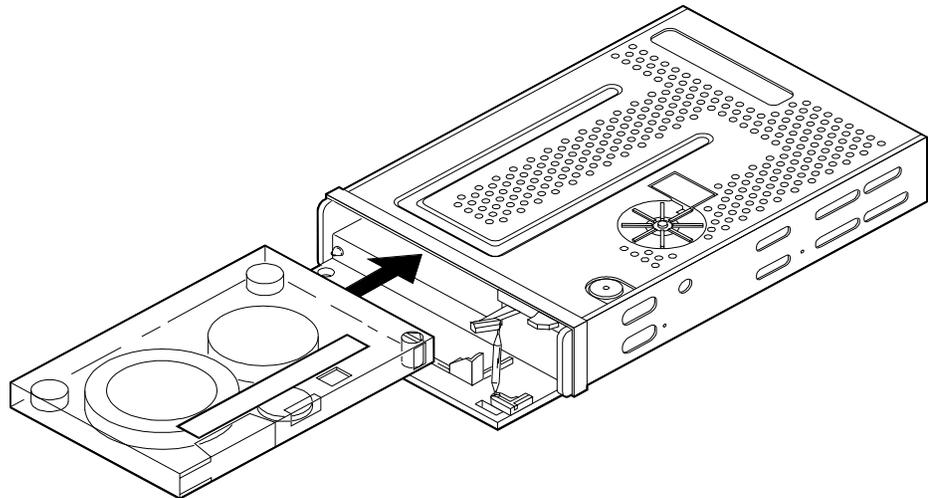
The cartridge tape drive (Figure 61) is located in Position 2 of the peripheral bay (Figure 69 on page 102). The following procedures explain how to remove and install the cartridge tape drive for the MAP/40P:

- Removing the Cartridge Tape Drive on page 91
- Installing the Cartridge Tape Drive on page 92

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer .

**Figure 61. Cartridge Tape Drive**



## Removing the Cartridge Tape Drive

To remove the cartridge tape drive:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following Steps a, b, and c.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

- 3 Turn off the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove the dress cover and bezel. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Remove the power cord connector from the back of the cartridge tape drive.
- 6 Remove the SCSI bus cable assembly connection from the back of the cartridge tape drive.
- 7 Remove the four screws that mount the cartridge tape drive to the peripheral bracket. Two of the screws are accessed through holes in the MAP/40P chassis.
- 8 Slide the cartridge tape drive forward and remove it.
- 9 Place the cartridge tape drive upside down, with the printed circuit board facing up, on an ESD-protected surface.

## Installing the Cartridge Tape Drive

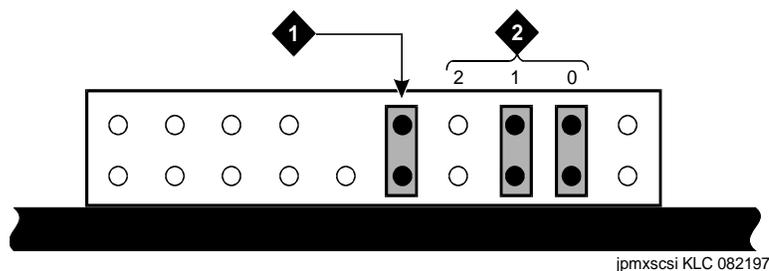
To install a cartridge tape drive:

- 1 Remove the new cartridge tape unit from its ESD-protective wrapping.

**Note:** Keep the package and all ESD-protective wrapping to return the defective unit. Re-use of the original replacement unit packaging is necessary to meet the manufacturer's warranty.

- 2 Verify that the jumper settings were set correctly by the manufacturer (Figure 62).

**Figure 62. Jumper Settings for the 2-GB SCSI Cartridge Tape Drive, SCSI ID = 3**



1. Parity
2. SCSI ID 3
- 3 Slide the new cartridge tape drive unit into the peripheral bracket. Ensure that the front of the cartridge tape drive is flush with the other units in the peripheral bracket.
- 4 Secure the cartridge tape drive using the four screws that you removed in Step 7 of Removing the Cartridge Tape Drive on page 91.
- 5 Attach the SCSI cable to the cartridge tape drive.

- 6 Attach the power cable that is provided with the system power supply wiring.
- 7 Replace the dress cover and bezel. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .
- 8 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

## Replacing the CD-ROM Drive

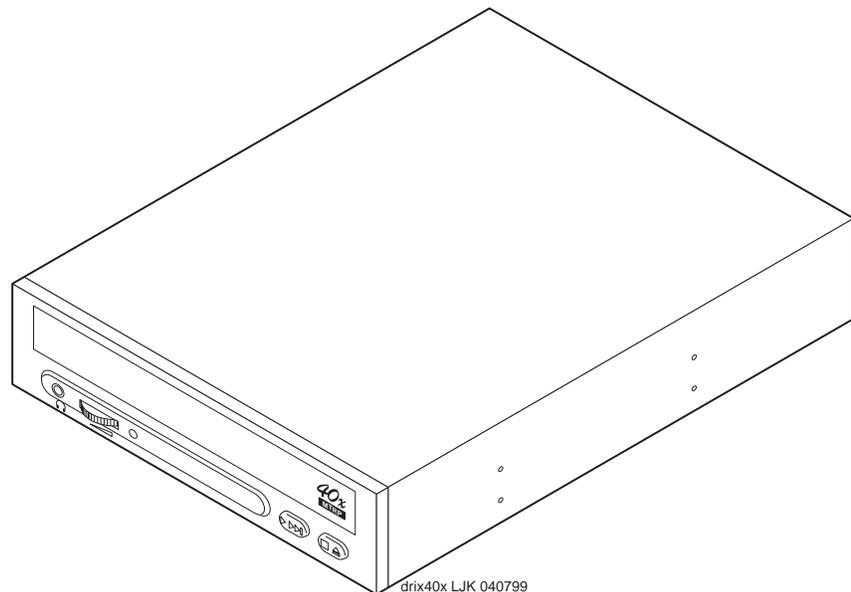
The CD-ROM drive (Figure 63) is located in Position 2 of the peripheral bay (Figure 69 on page 102). The following procedures explain how to remove and install the cartridge tape drive for the MAP/40P:

- Removing the CD-ROM Drive on page 94
- Installing the CD-ROM Drive on page 94

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer .

**Figure 63. CD-ROM Drive**



## Removing the CD-ROM Drive

To remove the CD-ROM drive:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following Steps a through c:
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Turn off the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove the dress cover and bezel. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Remove the power cord connector from the back of the CD-ROM drive.
- 6 Remove the SCSI bus cable and the 68-50 pin adapter from the back of the CD-ROM drive.
- 7 Remove the four screws that mount the CD-ROM drive to the peripheral bracket. Two of the screws are accessed through holes in the MAP/40P chassis.
- 8 Slide the CD-ROM drive forward and remove it.
- 9 Place the CD-ROM drive upside down, with the printed circuit board facing up, on an ESD-protected surface.

## Installing the CD-ROM Drive

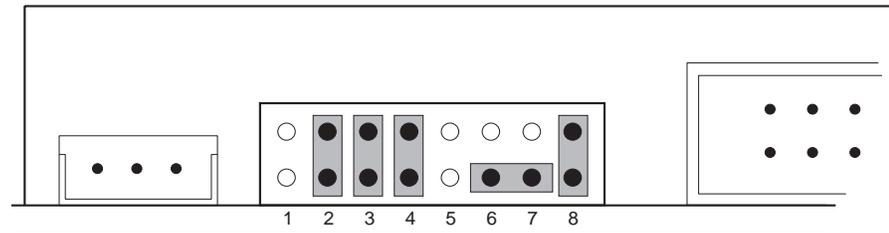
To install a CD-ROM drive:

- 1 Remove the new cartridge tape unit from its ESD-protective wrapping.

**Note:** Keep the package and all ESD-protective wrapping to return the defective unit. Re-use of the original replacement unit packaging is necessary to meet the manufacturer’s warranty.

- 2 Verify that the jumper settings were set correctly by the manufacturer (Figure 64 on page 95).

Figure 64. Jumper Settings for the CD-ROM Drive, SCSI ID = 6



- 3 Slide the new CD-ROM drive unit into the peripheral bracket. Ensure that the front of the cartridge tape drive is flush with the other units in the peripheral bracket.
- 4 Secure the CD-ROM drive using the four screws that you removed in Step 7 of Removing the CD-ROM Drive on page 94.
- 5 Attach the SCSI cable to the CD-ROM drive.
- 6 Attach the power cable that is provided with the system power supply wiring.
- 7 Replace the dress cover and bezel. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .
- 8 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

## Replacing the Circuit Card Cage Fan

The MAP/40P contains three fans that provide cooling inside the unit. The first is located inside the power supply and is not serviceable. Never attempt repairs to this fan. If it fails, you must replace the entire power supply. See Replacing the Power Supply on page 110 for more information.

The other two fans are located in front of the card cage, behind the front cover panel. They are mounted on a support plate and force airflow through the MAP/40P chassis, across the circuit cards as shown in Figure 65 on page 96.

Procedures to replace the circuit card cage fan include:

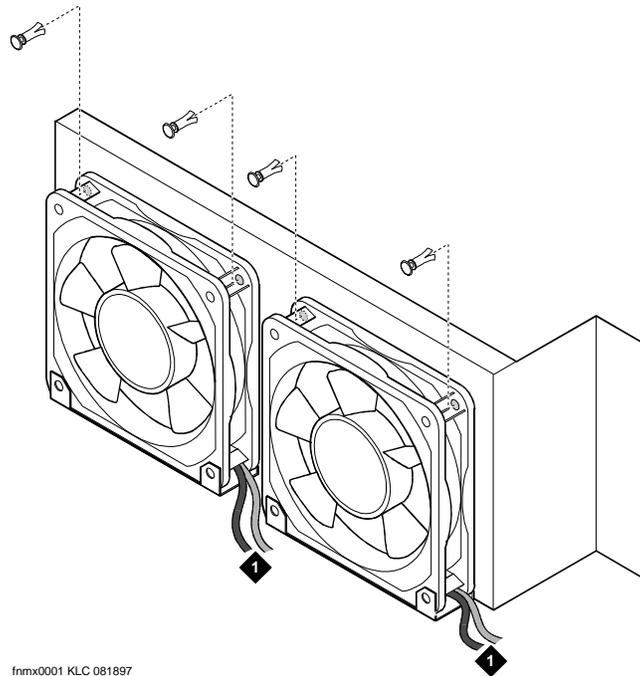
- Removing a Circuit Card Cage Fan on page 96
- Installing a Circuit Card Cage Fan on page 97

## Removing a Circuit Card Cage Fan

To remove a circuit card cage fan:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following Steps a, b, and c.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove the dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Remove the two pop rivets that hold the circuit card cage fan to the chassis (Figure 65).

**Figure 65. Circuit Card Cage Fans**



fnmx0001 KLC 081897

**1. Power cable connection leads**

- 6 Unplug the 12-VDC power lead connector.
- 7 Lift the card cage fan out of the chassis.

## Installing a Circuit Card Cage Fan

To install a circuit card cage fan:

- 1 Attach the 12-VDC connector.

The connector is keyed to ensure correct mating.

- 2 Mount the card cage fan in the MAP/40P chassis and secure it with two pop-rivets (Figure 65 on page 96).

**Note:** The card cage fan unit must be installed so that air travels through the mounting plate hole towards the card cage area, as shown in Figure 65 on page 96. Locate the air-flow direction indicators to ensure that the fan is properly mounted.

- 3 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

- 4 Verify that the replacement fan is operating by placing a small sheet of paper across the grill on the intake side of the fan. The paper should adhere to the grill.

If the fan is operating, continue with Step 5.

If the fan is not operating or is spinning very slowly, check all wiring connections and voltages to ensure that the replacement unit is receiving power.

### CAUTION:

Do not leave the MAP/40P powered up for any length of time or proceed to the next step until the card cage fan is fully operational.

- 5 Replace the dress cover. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .

## Replacing the Diskette Drive

The 1.44 MB, 3.5-inch diskette drive is assembled by the manufacturer with a mounting kit. The diskette drive is located in Position 3 of the peripheral bay, as shown in Figure 69 on page 102.

Procedures to replace the diskette drive include:

- Removing the Diskette Cable on page 86
- Installing a Diskette Cable on page 87

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer .

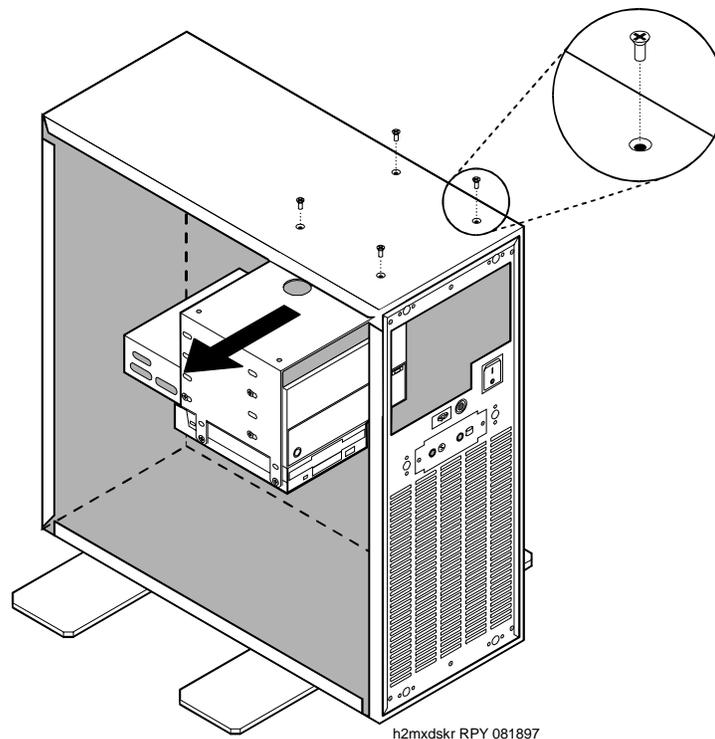
## Removing the Diskette Drive

To remove the diskette drive:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following Steps a, b, and c.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove dress cover and bezel. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Remove the four screws on the top of the chassis.

These screws hold the peripheral bracket (Figure 66) which contains the cartridge tape drive and the diskette drive.

**Figure 66. Peripheral Bracket**



- 6 Slide the bracket toward the power supply to free it from a keyed fastener then lift it out of the MAP/40P.

- 7 Remove the power cord connectors from the back of the diskette and tape drives.
- 8 Remove the SCSI bus cable assembly connection from the back of the tape drive and the floppy cable from the diskette drive.
- 9 Remove the four 3-millimeter screws that mount the diskette drive to the peripheral bracket.

**⚠ CAUTION:**

Keep these four screws separate from the others. These screws are metric. Using any of the other screws associated with the MAP/40P will damage the threads in the diskette drive mounting hardware.

- 10 Slide the diskette drive forward and remove it.

**⚠ CAUTION:**

Handle the diskette drive with care. The spindle motor, stepping motor, and printed circuit board are located on the bottom of the diskette drive. Do not place any force or strain on these components and do not touch the surface of the diskette drive printed circuit board.

- 11 Place the diskette drive upside down, with the printed circuit board facing up, on an ESD-protected surface.

## Installing a Diskette Drive

To install a diskette drive:

- 1 Remove the new diskette drive unit from its ESD-protective wrapping.

**Note:** Keep the package and all ESD-protective wrapping to return the defective unit. Re-use of the original replacement unit packaging is necessary to meet the manufacturer's warranty.

- 2 Identify the diskette drive you are installing. The diskette drive for the MAP/40P is produced in seven versions:
  - ~ FD-235HF-201
  - ~ FD-235HF-3201
  - ~ FD-235HF-4429
  - ~ FD-235F-5429
  - ~ FD-235HF-6429
  - ~ FD-235HF-6529
  - ~ FD-235HF-7529
- 3 Verify that the jumpers are set as shown in Figure 67 on page 100 and Figure 68 on page 100.

Figure 67. Diskette Drive Jumper Connections (6429, 6529, and 7529)

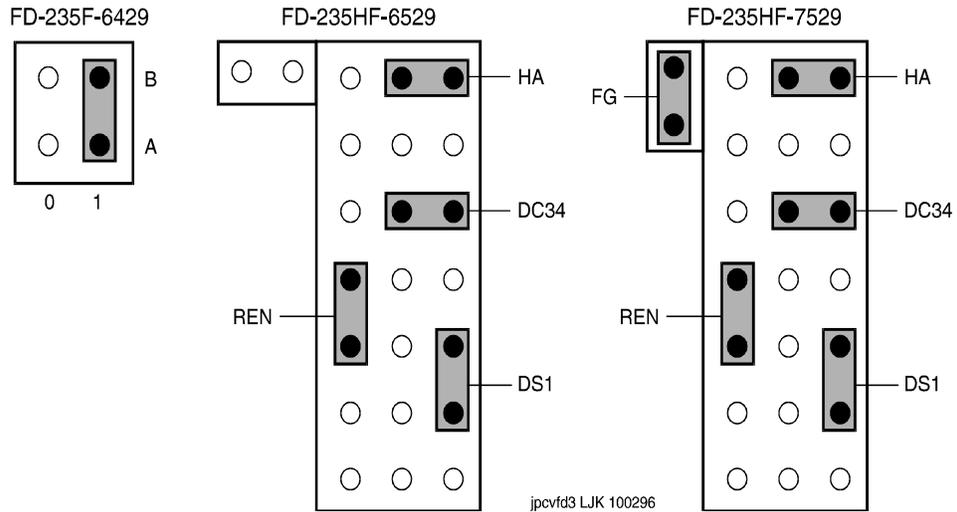
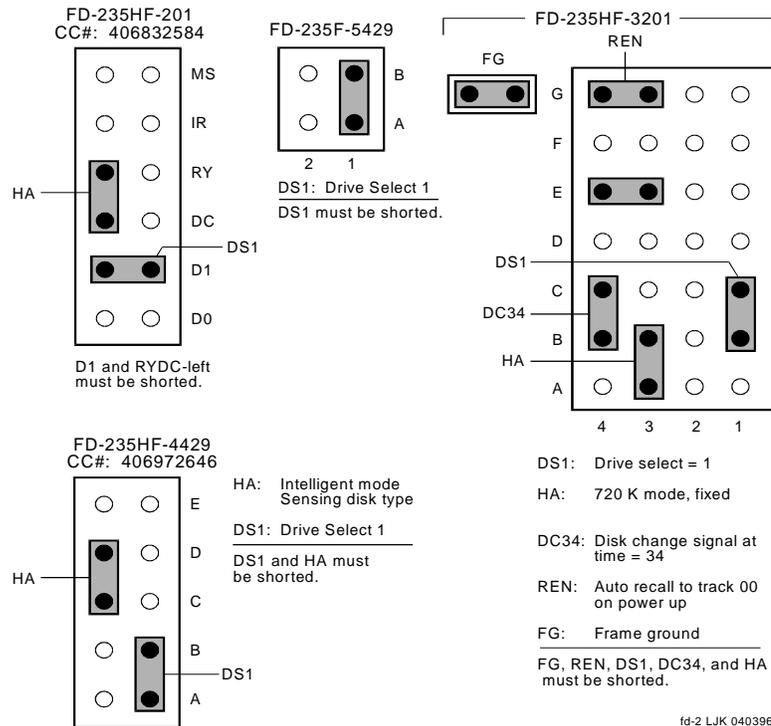


Figure 68. Diskette Drive Jumper Connections (201, 3201, 4429, 5429)



- 4 Slide the new diskette drive unit into the peripheral bracket. Ensure that the front of the diskette drive is flush with the other units in the peripheral bracket.
- 5 Secure the diskette drive using the four 3-millimeter screws that you removed in Step 9 of Removing the Diskette Drive on page 98.
- 6 Attach the mini power-cable assembly that is provided with the system power supply wiring.
- 7 Attach the diskette cable assembly to the diskette drive.  
  
Ensure that the red bus cable No. 1 conductor tracer indicator (this is the dark wire farthest from you) is towards the bottom of the peripheral bay.
- 8 Attach the tape drive SCSI and power cables. (Be sure that the dark wire of the SCSI is nearest you.)
- 9 Slide the peripheral bracket into the MAP/40P chassis.
- 10 Secure the peripheral bracket using the four 3-millimeter screws removed in Step 5 of Removing the Diskette Drive on page 98.
- 11 Replace the dress cover. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .
- 12 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

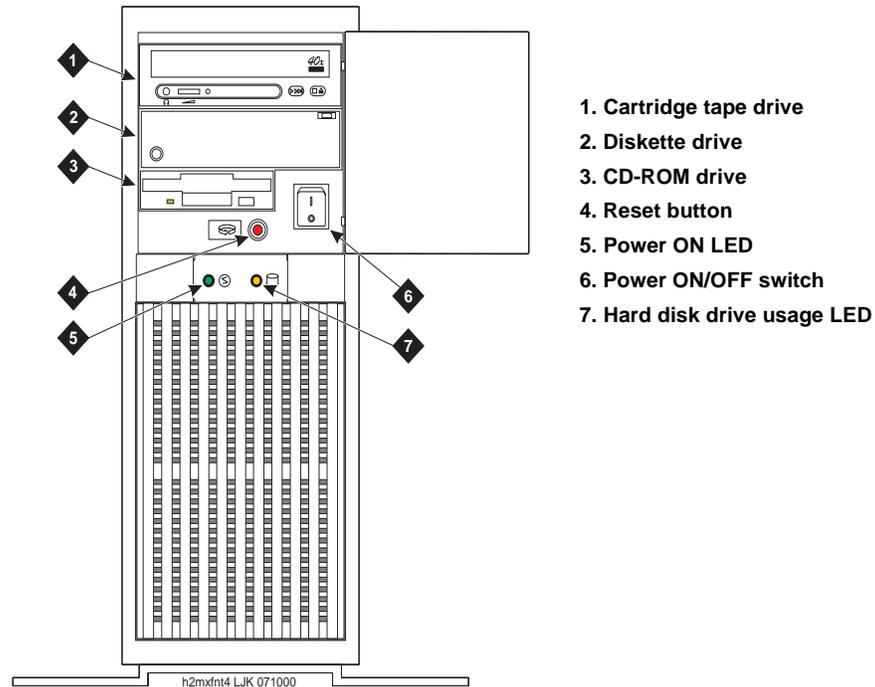
## Replacing the Filter

The MAP/40P is equipped with a filter designed to remove dust and debris from the air before the air circulates inside the chassis. The filter is located behind a vented cover that attaches to the lower portion of the bezel (Figure 69 on page 102). The filter should be checked on a regular basis to determine the condition and cleaned if necessary.

Procedures to replace the filter include:

- Removing the Filter on page 102
- Cleaning the Filter on page 102
- Memory and SIMM Description on page 103

Figure 69. Front View of the MAP/40P



## Removing the Filter

To remove the filter for replacement or cleaning:

- 1 Remove the vented cover from the lower portion of the bezel by pressing down gently on the top of the cover and pulling out.
- 2 Remove the filter from the vented cover.

## Cleaning the Filter

Cleaning the filter should be a part of routine maintenance. Clean the filter with mild soap and water. Allow it to air dry before you replace it.

### **⚠ CAUTION:**

Do not use heat to dry the filter and do not place a wet or damp filter into the MAP/40P.

## Installing the Filter

To install the filter:

- 1 Place the filter into the vented cover.
- 2 Place the vented cover into the bezel by inserting the lower portion behind the bezel, pressing down gently on the top of the cover, and pushing in toward the chassis.

## Replacing Memory Modules

This section describes the memory available with the MAP/40P and includes the following procedures to replace memory modules:

- Identifying a Damaged SIMM on page 105
- Removing SIMMs on page 107
- Installing SIMMs on page 107

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer .

### Memory and SIMM Description

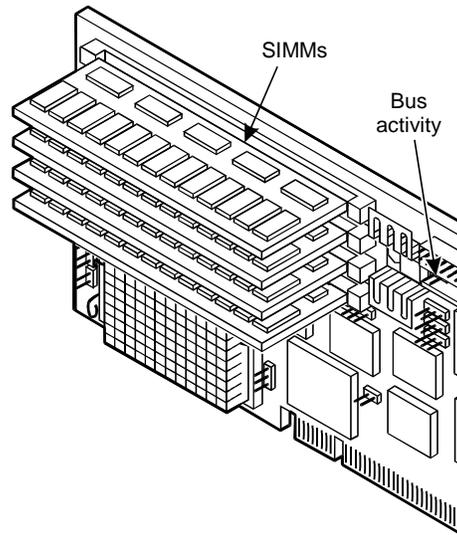
The MAP/40P supports up to 128 MB of memory for the P5 200 MHz CPU circuit card. The memory is packaged on single in-line memory modules (SIMMs). These modules are placed in sockets located in the top left corner of the CPU circuit card (Figure 70).

#### Installation Rules

The SIMMs must be installed on the CPU using the following rules:

- All SIMMs must have a speed rating of either -6, 60nS or -7, 70nS.
- SIMMs must be in matched pairs.
- SIMM1 and SIMM2 must both be equipped.
- SIMM1 and SIMM2 must be identical (same part number, speed, size, and vendor).
- If SIMM3 and SIMM4 are equipped, they must be identical. SIMM3 and SIMM4 can be different than SIMM1 and SIMM2.

Figure 70. CPU Circuit Card SIMM Location



**SIMMs Configurations** The SIMMs must be in one of the following configurations:

- 64 MB consisting of two identical 32-MB SIMMs located in the SIMM1 and SIMM2 sockets.
- 64 MB consisting of two identical 16-MB SIMMs located in the SIMM1 and SIMM2 sockets and two identical 16-MB SIMMs located in the SIMM3 and SIMM4 sockets.
- 96 MB consisting of two identical 32-MB SIMMs located in the SIMM1 and SIMM2 sockets and two identical 16-MB SIMMs located in the SIMM3 and SIMM4 sockets.
- 128 MB consisting of two identical 32-MB SIMMs located in the SIMM1 and SIMM2 sockets and two identical 32-MB SIMMs located in the SIMM3 and SIMM4 sockets.

**Note:** The CONVERSANT system will not boot if there is an odd number of SIMMs installed.

## Identifying a Damaged SIMM

To determine which of the SIMMs is defective, you must test each pair. One pair of SIMMs must be removed and the system then rebooted using the remaining SIMMs to obtain a reading on the amount of memory available.

### Checking for Proper SIMM Seating

To check for proper SIMM seating:

- 1 Verify that the replacement SIMM is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following steps.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove power from the MAP/40P. See Removing Power from the MAP/40P in Chapter 1, Getting Inside the Computer .
- 4 Remove the dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Carefully remove the CPU circuit card. See Removing a Circuit Card on page 7 in Chapter 2, Installing or Replacing Circuit Cards , for more information on removing the CPU circuit card.
- 6 Verify that all SIMMs are properly seated in their slots. If all are properly seated, continue with the procedure in Checking for Defective SIMMs on page 106.

If one or more of the SIMMs are not properly installed or seated, do the following.

- a Properly seat the SIMM.
- b Replace the CPU circuit card. See P5 200 MHz CPU Circuit Card on page 39 in Chapter 2, Installing or Replacing Circuit Cards , for more information on removing the CPU circuit card.
- c Reboot the system. See “Reboot the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

If the system shows an amount of memory that is:

- Equal to that installed on the card, the problem has been corrected.
- Less than that installed on the card, continue with the next procedure, Checking for Defective SIMMs on page 106.

**Checking for Defective SIMMs**

To check for defective SIMMs:

- 1 Remove one of the SIMMs. See Removing SIMMs on page 107.
- 2 Install a new SIMM that is identical to the SIMM which was removed. See Installing SIMMs on page 107.
- 3 Reinstall the CPU circuit card. See P5 200 MHz CPU Circuit Card on page 39 in Chapter 2, Installing or Replacing Circuit Cards , for more information on installing the CPU circuit card.
- 4 Restore power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .
- 5 Reboot the system. See “Reboot the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 6 Verify the amount of memory as the system reboots.
- 7 Do one of the following:
  - ~ If the amount of memory shown by the system is not equal to the amount of memory installed on the card, continue with Step 8.
  - ~ If the amount of memory shown by the system is not equal to the amount of memory installed on the card, one of the remaining SIMMs is defective. Complete Step a through Step c.
    - a Remove power from the MAP/40P. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer , for more information on removing the power.
    - b Replace the SIMM which was removed in Step 1. See Installing SIMMs on page 107, for more information on replacing the SIMM.
    - c Return to Step 1 and continue, removing a second of SIMM.If the amount of memory shown by the system equals the amount of memory installed on the card, the SIMM you removed is defective.
- 8 Replace the dress cover. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer , for more information on replacing these components.
- 9 Apply power to the unit. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

## Removing SIMMs

To remove a SIMM:

- 1 Verify that the replacement SIMMs are on site and appear to be in usable condition.
- 2 If the system is in service, perform the following steps.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove the dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Remove the CPU circuit card. See Removing a Circuit Card on page 7 in Chapter 2, Installing or Replacing Circuit Cards .
- 6 Lay the CPU circuit card on a flat, clean, ESD-protected surface.
- 7 Release the metal snap locks gently at the edge of the SIMM connectors.
- 8 Rotate the SIMM back and downward to approximately a 60-degree angle.
- 9 Remove the SIMM.

## Installing SIMMs

To install a SIMM:

- 1 If the system is in service, perform the following steps.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 2 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 3 Remove the dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 4 Remove the CPU circuit card. See Removing a Circuit Card on page 7 in Chapter 2, Installing or Replacing Circuit Cards .

- 5 Install the SIMM by positioning the new SIMM at approximately a 60-degree angle with respect to the CPU circuit card.

All SIMMs are keyed to prevent them from being inserted incorrectly.

**Note:** Install a new SIMM in the slot adjacent to the last SIMM installed. Do not leave any empty sockets between SIMMS.

- 6 Push down at that angle until the SIMM is reset into the SIMM carrier.

- 7 Snap the SIMM into place by rotating it to an upright position.

The metal snap lock on the ends of the connector for the SIMM will be forced open and then lock when in the upright position.

- 8 Ensure that the connector guide pins are seated into the clearance holes provided at each end of the SIMM.

When properly seated, the guides should be fully extended into the circuit card clearance holes.

- 9 Reinstall the CPU circuit card. See Installing a Circuit Card on page 9 in Chapter 2, Installing or Replacing Circuit Cards .

- 10 Reboot the system. See “Reboot the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

- 11 Verify the amount of memory as the system reboots.

- 12 Replace the dress cover. See Replacing the Dress Cover on page 5 in Chapter 1, Getting Inside the Computer .

- 13 Apply power to the MAP/40P. See Restoring Power to the MAP/40P on page 5 in Chapter 1, Getting Inside the Computer .

## Replacing the Power ON/OFF Switch

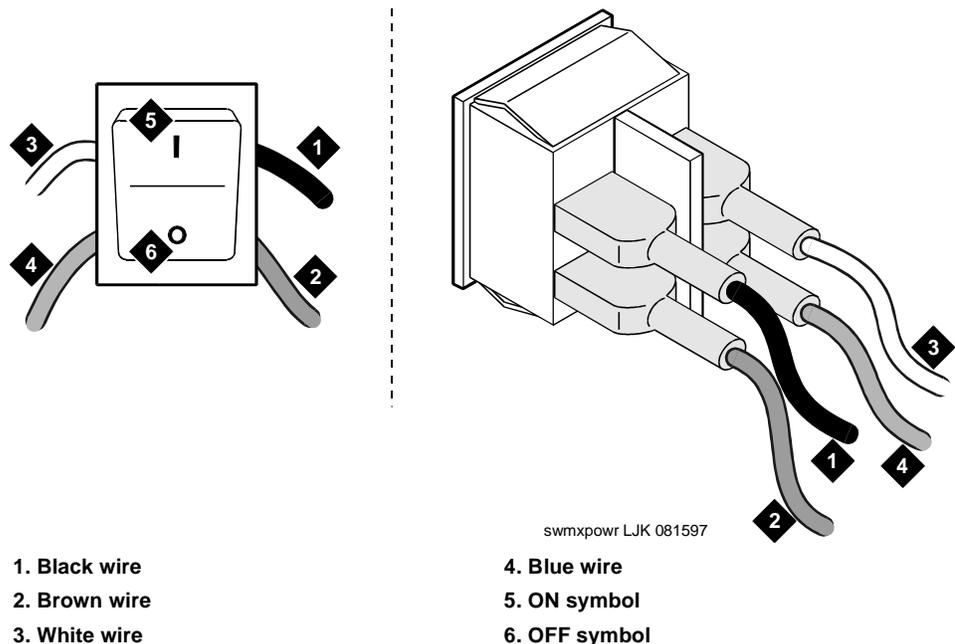
The power ON/OFF switch is located in the front of the MAP/40P (Figure 69 on page 102).

### Removing the Power ON/OFF Switch

To remove the power ON/OFF switch:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following steps.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - c Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Remove the four wires that attach to the back of the power ON/OFF switch (Figure 71).

Figure 71. Power ON/OFF Switch



## Replacing the Power Supply

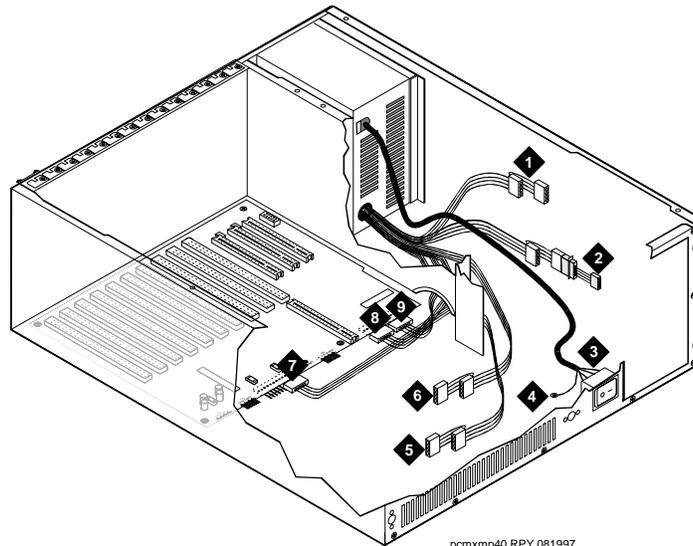
The 110/220-VAC power supply is located in the upper right corner of the MAP/40P as shown in Figure 72 on page 111.

### Removing the Power Supply

To remove the power supply:

- 1 Verify that the replacement equipment is on site and appears to be in usable condition, with no obvious shipping damage.
- 2 If the system is in service, perform the following steps.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215. Shut down the CONVERSANT system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 3 Turn off the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 4 Remove dress cover. See Removing the Dress Cover on page 4 in Chapter 1, Getting Inside the Computer .
- 5 Unplug the connector to the cartridge tape drive (Figure 72 on page 111).
- 6 Unplug the connector to the diskette drive (Figure 72 on page 111).
- 7 Unplug the connector to the second hard disk drive, if provided.
- 8 Unplug the connector to the first hard disk drive (Figure 72 on page 111).

Figure 72. MAP/40P Power Supply Unit



pcmxmp40 RPY 081997

- |   |  |
|---|--|
| <b>1. Cartridge tape drive power connection</b> | <b>6. Hard Disk Drive 0 power connection</b> |
| <b>2. Diskette drive power connection</b>       | <b>7. Backplane power connection</b>         |
| <b>3. Power ON/OFF switch</b>                   | <b>8. Backplane power connection</b>         |
| <b>4. Reset button</b>                          | <b>9. Backplane power connection</b>         |
| <b>5. Hard Disk Drive 1 power connection</b>    |  |

- 9** Remove the circuit cards in PCI slots 1, 2, and 3.

This is necessary to provide adequate clearance to remove the power supply unit from the chassis.

- 10** Remove the SCSI cable from the P5 200 MHz circuit card.

This is necessary to provide adequate clearance to access the backplane power supply connectors.

- 11** Remove the diskette cable from the P5 200 MHz circuit card.

This is necessary to provide adequate clearance to access the backplane power supply connectors.

- 12** Disconnect the four wires connecting the output power cord to the power on switch (Figure 72).

- 13** Remove the four screws on the chassis rear area that secure the power supply unit.

- 14** Slide the unit slightly forward towards the front of the chassis and tilt towards the backplane.

- 15** Lift and remove the power supply.

## Installing a Power Supply

To install the power supply:

- 1 Remove the spare power supply unit from the shipping carton.

**Note:** Keep the package and all ESD-protective wrapping to return the defective unit. Re-use of the original replacement unit packaging is necessary to meet the manufacturer's warranty.

- 2 Install the power supply unit into the chassis and align the screw holes.
- 3 Install the four screws on the chassis rear area that secure the power supply unit.
- 4 Attach the power supply DC output connectors to the backplane connectors.
- 5 Attach the four wires connecting the output power cord to the power on switch (Figure 72 on page 111).
- 6 Attach the connector to the second hard disk drive, if provided.

If a second hard disk drive is not installed, dress this lead back out of the way to reduce cable congestion (Figure 72 on page 111).

- 7 Attach the connector to the first hard disk drive (Figure 72 on page 111).
- 8 Attach the connector to the cartridge tape drive (Figure 72 on page 111).
- 9 Attach the connector to the diskette drive (Figure 72 on page 111).
- 10 Connect the SCSI cable to the P5 200 MHz CPU circuit card.
- 11 Connect the diskette cable to the P5 200 MHz CPU circuit card.
- 12 Reinstall the circuit cards that you removed from PCI slots 1, 2, and 3. See *Installing a Circuit Card* on page 9 in Chapter 2, *Installing or Replacing Circuit Cards*.
- 13 Apply power to the MAP/40P. See *Restoring Power to the MAP/40P* on page 5 in Chapter 1, *Getting Inside the Computer*.
- 14 Verify that the replacement power supply unit is functioning properly by doing the following:
  - a Measure the backplane +5V, -5V +12V and -12V voltages.
  - b Make sure that the card cage fans are operating.
- 15 Replace the dress cover. See *Replacing the Dress Cover* on page 5 in Chapter 1, *Getting Inside the Computer*.

## Replacing a Terminator SIP

If the circuit card is the last circuit card that is connected to either end of the TDM bus, you must ensure that the TDM bus terminator single in-line packages (SIPs) are in place on the circuit card. If the circuit card is not the last circuit card on the bus, you must remove the SIPs.

**Note:** “Last circuit card connected” means that there are no other cards between the circuit card and the end of the bus. There may, however, be empty connectors.

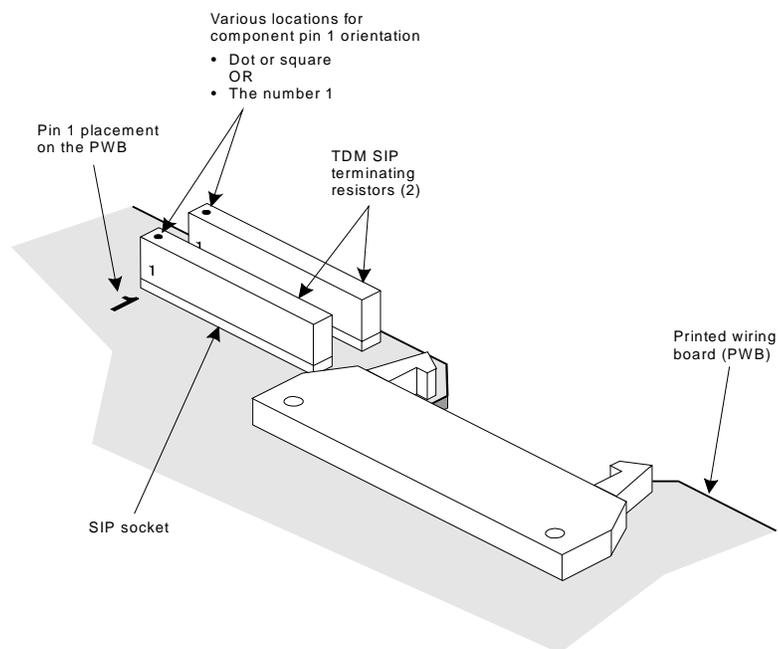
To replace a terminator SIP, complete the following:

- 1 Align the terminator SIP with the SIP socket on the circuit card (Figure 73).

There are markings on both the terminator SIP and the circuit card for your use in aligning the terminator SIP.

- 2 Insert the terminator SIP.

**Figure 73. Replacing Terminator SIPs on the TDM Bus**





# 5 Installing the Tip/Ring Distribution Hardware

## Overview

As the number of lines served by the CONVERSANT system increases, the number of 6-pin modular cords also increases. These 6-pin modular cords connect the system with the customer-premises equipment or the on-premises terminal block provided by the central office.

Optional tip/ring distribution hardware is available to help simplify the wiring scheme.

This chapter describes the two types of tip/ring distribution hardware and the proper installation procedures for them.

## Capacity

The tip/ring distribution hardware allows you to connect to a maximum of 48 channels (eight tip/ring circuit cards) through two 25-pair, high-density cables (RJ21X).

## Types of Tip/Ring Distribution Hardware

There are two types of tip/ring distribution hardware:

- Distribution hardware with a 356B adapter
- Distribution panel without a 356B adapter

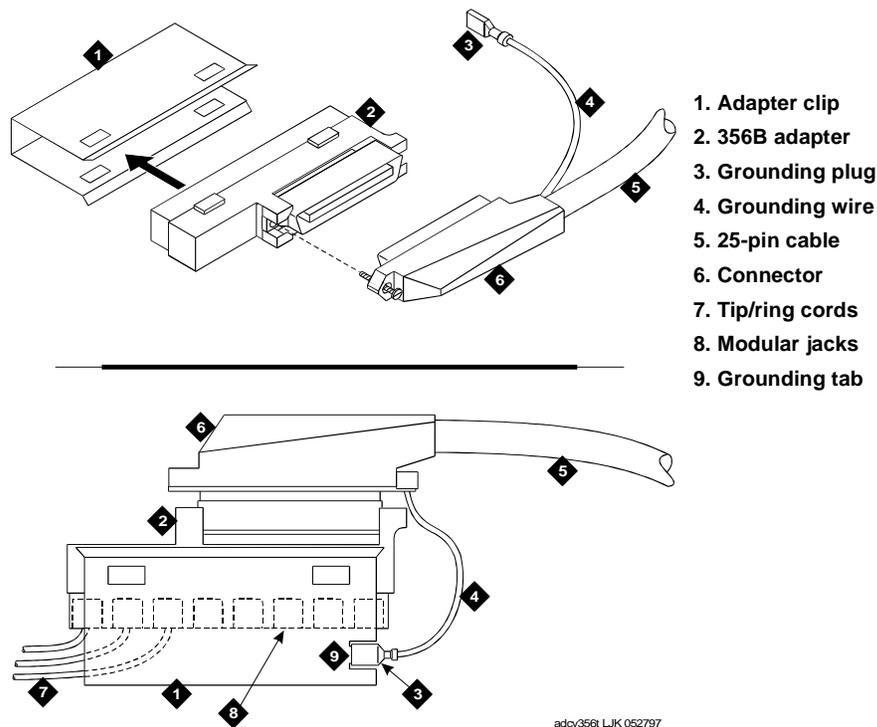
### Tip/Ring Distribution Hardware with a 356B Adapter

The tip/ring distribution hardware with the 356B adapter (Figure 74 on page 116) comes in a kit which consists of:

- A 356B adapter
- An adapter bracket
- A mounting plate
- A 25-pair, high-density cable for the first 24 channels

**Note:** An additional 25-pair, high-density cable is required for the second 24 channels to be supported by the distribution panel. Therefore, if you are connecting 48 channels, you will need another cable that is not part of this kit.

Figure 74. Assembly of MAP/40P Tip/Ring Distribution Hardware with 356B Adapter



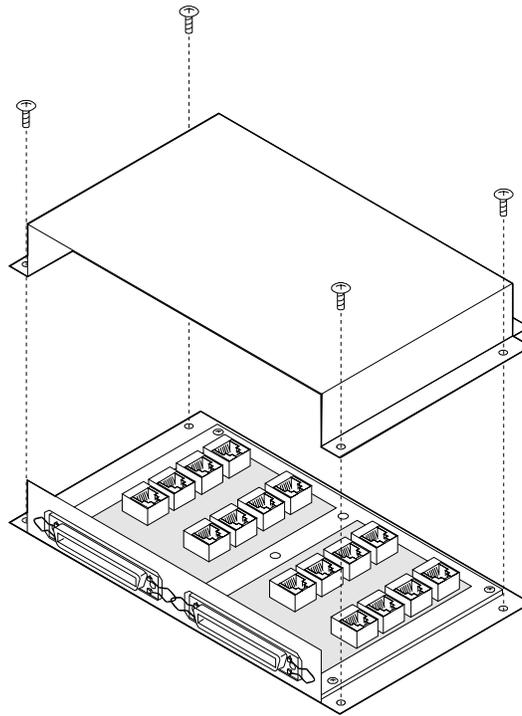
### Tip/Ring Distribution Hardware Without a 356B Adapter

The tip/ring distribution hardware without the 356B adapter (Figure 75 on page 117) comes in a kit. This kit consists of a:

- Distribution panel with a circuit pack assembly mounted in its base
- Top cover plate
- 25-pair, high-density cable for the first 24 channels

**Note:** An additional 25-pair, high-density cable is required for the second 24 channels to be supported by the distribution panel. Therefore, if you are connecting 48 channels, you will need another cable that is not part of this kit.

Figure 75. MAP/40P Tip/Ring Distribution Hardware Assembly Without 356B Adapter



## Installing and Connecting the Tip/Ring Distribution Hardware with a 356B Adapter

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer .

### Installing the Tip/Ring Distribution Hardware with a 356B Adapter

- 1 Verify that the distribution hardware is on site and appears to be in usable condition.
- 2 If the system is currently connected to the telephone network, notify the service provider that the system is about to be disconnected. The service provider will ask which extensions will be affected.
- 3 If the system is in service, perform the following Steps a and b.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the system. See “Shut Down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
- 4 Remove the incoming power. See Removing Power from the MAP/40P on page 3 in Chapter 1, Getting Inside the Computer .
- 5 Remove dress cover and access panel. See Chapter 1, Getting Inside the Computer .
- 6 Verify that all of the necessary components are included. See Figure 74 on page 116 for the components.
- 7 Place the MAP/40P on its side and install the distribution mounting plate below the circuit card cage on the bottom of the MAP/40P (Figure 74 on page 116).
- 8 Locate the two mounting holes that are parallel to those used to mount the support base.
- 9 Attach the short end of the mounting plate to the two mounting holes with the two screws provided. The end of the mounting plate should rest against the support base.
- 10 Return the MAP/40P to an upright position.
- 11 Install the u-shaped adapter brackets with the screws provided. Attach the brackets to the mounting plate.

The u-shape of the bracket should face out with the grounding lug towards the MAP/40P top surface (Figure 74 on page 116).
- 12 Plug the 3-foot, 6-pin modular cords from the tip/ring cards into the 356B adapters. Each adapter can accommodate eight modular cords (Figure 74 on page 116).

- 13 Using the connector provided, attach the 25-pair, high-density cable to the 356B adapter.
- 14 Snap the 356B adapters into the adapter bracket. Ensure that the modular cords are inside the adapter bracket.

**Note:** The 356B adapters can be removed by spreading the bracket sides apart.



**CAUTION:**

The 25-pair, high-density cables should come from the top of the adapter brackets.

- 15 Connect the grounding wire and strap to the top of the adapter bracket.

### Connecting the Tip/Ring Distribution Hardware with a 356B Adapter

The numbering scheme for pinouts and channels that shows how to connect the short modular cords provided with the tip/ring cards to the distribution hardware is shown in Tip/Ring Circuit Cards on page 10 in Chapter 2, Installing or Replacing Circuit Cards .

Referring to those tables and using the channel numbers on the tip/ring cards and the number of the tip/ring circuit cards in the system, connect the tip/ring card modular jacks to the appropriate jacks on the 356B connectors.

## Installing and Connecting the Tip/Ring Distribution Hardware Without a 356B Adapter

### CAUTION:

Observe proper electrostatic discharge precautions when you handle computer components. Wear an antistatic wrist strap that touches your bare skin and connect the strap cable to an earth ground. See Protecting Against Damage from Electrostatic Discharge on page 1 in Chapter 1, Getting Inside the Computer .

### Installing the Tip/Ring Distribution Hardware Without the 356B Adapter

- 1 Make sure that the tip/ring distribution hardware assembly kit is on site and appears to be in usable condition.
- 2 Verify that all of the necessary components are included. See Figure 74 on page 116 for the components.
- 3 If you are currently connected to the telephone network, notify the service provider that you are disconnecting. The service provider will ask you which extensions will be affected.
- 4 If the system is in service, perform the following Steps a and b.
  - a Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.
  - b Shut down the system. See “Shut down the System,” in “Common System Procedures,” in the *CONVERSANT System Reference*, 585-313-215.

### Connecting the Tip/Ring Distribution Hardware Without a 356B Adapter

- 1 Remove the seven screws that secure the distribution panel cover.
- 2 Put the distribution panel cover aside.
- 3 Table 17 on page 120 shows the numbering scheme for connecting the short modular cords provided with the tip/ring circuit cards to the panel.

Use this information, the channel numbers on the tip/ring circuit cards, and the number of tip/ring circuit cards in the system to connect the tip/ring circuit card modular jacks to the appropriate jacks on the tip/ring distribution panel.

**Table 17. Connecting the Modular Cords from the MAP/40P Tip/Ring Circuit Cards to the Tip/Ring Distribution Panel**

Tip/Ring Card	Channel Numbers on Tip/Ring Card	Jack Number on Distribution Panel
1st	1, 2, 3	J1
	4, 5, 6	J2
2nd	1, 2, 3	J3
	4, 5, 6	J4

1 of 2

## Installing and Connecting the Tip/Ring Distribution Hardware Without a 356B Adapter

**Table 17. Connecting the Modular Cords from the MAP/40P Tip/Ring Circuit Cards to the Tip/Ring Distribution Panel**

Tip/Ring Card	Channel Numbers on Tip/Ring Card	Jack Number on Distribution Panel
3rd	1, 2, 3	J5
	4, 5, 6	J6
4th	1, 2, 3	J7
	4, 5, 6	J8
5th	1, 2, 3	J9
	4, 5, 6	J10
6th	1, 2, 3	J11
	4, 5, 6	J12
7th	1, 2, 3	J13
	4, 5, 6	J14
8th	1, 2, 3	J15
	4, 5, 6	J16

**2 of 2**

- 4** Make telephone line connections to the MAP/40P with the 25-pair, high-density cables equipped with USOC RJ21X connections.
- 5** Mount the rear cover plate to the distribution panel cover with the four screws provided.
- 6** Mount the tip/ring distribution panel on a wall or cabinet or allow it to rest on a shelf or the floor.

## Completing the Installation

To complete the installation and put the system back in service:

- 1 Replace the circuit card access panel and the dress cover and reconnect the keyboard, and the monitor. See *Replacing the Dress Cover* on page 5 in Chapter 1, *Getting Inside the Computer*.
- 2 Turn on the power to the MAP/40P. See *Restoring Power to the MAP/40P* on page 5 in Chapter 1, *Getting Inside the Computer*.
- 3 Run diagnostics to verify that the hardware is functioning properly. See “Diagnostics,” in the *CONVERSANT System Reference*, 585-313-215, for more information on running the diagnostics.
- 4 Notify the service provider that the system is back online, if necessary.

# 6 Installing Base System Software

## Overview

This chapter describes the installation procedures for the UnixWare operating system software. The purpose of this chapter is to provide the information necessary to reload the operating system on a system that has experienced a disk failure. Use this chapter in conjunction with Appendix D, Disaster Recovery Checklists (page 221).

**Note:** The installer must have the root password to complete these procedures.

## Installing UnixWare

**Note:** Installing the UnixWare operating system unmounts file systems. If this software is being loaded onto a system that has clean hard disks that have not been previously loaded, the system will not detect file systems. If this is a recovery installation, the system will detect previously loaded file systems.

## Loading UnixWare

To load UnixWare:

- 1 Insert the diskette labeled “Unixware 7.1 Boot Floppy 1” into the diskette drive.
- 2 Boot the system by following the appropriate instruction in Table 18.

**Table 18. Initial Boot**

If . . .	Then . . .
you are starting from the DOS prompt	enter <b>CONTROL+ ALT + DELETE</b>
the system is off	turn it on by using the power switch on the back of the system.
the system is on	reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the <i>CONVERSANT System Version 8.0 System Reference</i> , 585-313-215.

The system displays the SCO trademark screen as it begins to load the base system software. When the first boot floppy is loaded, the system displays the following message:

Insert the second floppy and Press ENTER

- 3 Remove the diskette labeled “UnixWare 7.1 Boot Floppy 1” from the diskette drive.
- 4 Insert the diskette labeled “UnixWare 7.1 Boot Floppy 2” into the diskette drive.

**5** Press **ENTER**.

The system displays the following message:

Reading the second boot floppy.

After several minutes, the system displays the Introduction screen (Figure 76).

**Figure 76. Introduction Screen**

```
Unixware Installation                               Introduction
                                                   
SCO UnixWare 7 Install Menu
Load Unixware 7 Image
Access UnixWare Shell
Mount File Systems
Reboot
```

**6** Press the **▼** key to select Load UnixWare 7 Image and then press **ENTER**.

The system displays the Insert Diskette 3 screen (Figure 77).

**Figure 77. Insert Diskette 3 Screen**

```
UnixWare Installation                               Insert Diskette 3
                                                   
Please Remove Diskette 2 of 3.
Insert Diskette 3 of 3 and press <Enter>

Your choices are:

1. The diskette has been installed in the drive.
2. Go back to the previous menu.

Press '1' or '2' followed by <Enter>: 1
```

**7** Remove the diskette labeled "UnixWare 7.1 Boot Floppy 2" from the diskette drive.**8** Insert the diskette labeled "UnixWare 7.1 Boot Floppy 3" into the diskette drive.

**9** Press **ENTER**.

The system displays the Remove Floppy screen (Figure 78).

**Figure 78. Remove Floppy Screen**

```
UnixWare Installation                                Remove Floppy

Please Remove the Floppy from the floppy Drive

Press 'Enter' to continue
```

**10** Remove the diskette labeled "UnixWare 7.1 Boot Floppy 3" from the diskette drive.

**Note:** Unixware automatically detects the host bus adapter for the system on which you are installing and loads the appropriate drivers. Unixware cannot be installed on 486 systems.

**11** Press **ENTER**.

The system displays the Introduction screen (Figure 79).

**Figure 79. Introduction Screen**

```
UnixWare Installation                                Introduction

Welcome to the UnixWare installation process!

If you have never installed UnixWare before, it is
recommended that you press the 'F1' (or '?') key now to learn
more about the installation process and the hardware
requirements of UnixWare.

-Pressing the 'F1' (or '?') key at any time during
installation will display more information or help.

-Pressing the 'Del' key at any time cancels the
installation.

Press the 'F1' (or '?') key for more information or 'ENTER' to
continue.
```

**⚠ CAUTION:**

If you use the **DELETE** key to stop the UnixWare installation at any time during this process, you must then restart the software installation process at Step 1.

**12** Continue with the next procedure, Setting Up the UnixWare Environment on page 126.

**Setting Up the  
UnixWare Environment**

To set up the UnixWare environment:

- 1 Starting at the Introduction Screen, press **ENTER**.

The system displays the Keyboard Setup screen (Figure 80).

**Figure 80. Keyboard Setup Screen**

UnixWare Installation	Keyboard Setup
<p>The UnixWare Installation procedure supports the following international keyboards. You may select alternate keyboard types by using the left and right arrow keys and then press the 'ENTER' or 'RETURN' key.</p>	
<p>Keyboard Nationality: U. S. ASCII</p>	
<input type="button" value="Apply"/>	<input type="button" value="Reset"/>
<p>When Finished, move the cursor to "Apply" and then press 'Enter' to continue.</p>	

- 2 Press the  and  keys on your keyboard to move through the field selections and select U.S. ASCII.

- 3 Press **TAB** to move to the Apply field and then press **ENTER**.

The system displays the Configure Date and Time screen (Figure 81).

**Figure 81. Configure Date and Time Screen**

UnixWare Installation	Configure Date and Time
<p>On this screen, you will check the current date and time that is set on your computer, and change them if necessary. You also select what timezone configuration you require. Either select a continent(s) which will lead you onto a further screen with locations or Manual entry for a custom timezone.</p>	
<p>The current date:            The current time:            Enter the current year:            Enter the month of the year (1-12):            Enter the day of the month (1-31):            Enter the hour of the day (0-23):            Enter the minute of the hour (0-59):            Timezone configuration:</p>	
<input type="button" value="Apply"/>	<input type="button" value="Reset"/>
<p>Press 'TAB' to move the cursor between fields. When finished, move the cursor to "Apply" and then press 'Enter' to continue.</p>	

- 4 Use the ◀ and ▶ keys on your keyboard to move through the field selections. Use **TAB** to move to the next field.
- 5 Select the appropriate data for each field.
- 6 Press **TAB** to move to the Apply field and then press then **ENTER**.

The system displays the Continent Location Choice screen (Figure 82).

**Figure 82. Continent Location Choice Screen**

```

UnixWare Installation           Continent Location Choice Screen

On this screen, you choose the country/location you are in,
having already selected the continent. To go back to the
continent screen select "Back One Screen". Use the left and
right arrow keys.

      Location: US/Eastern

                        [Apply]      [Reset]

Press 'TAB' to move the cursor between fields. When finished,
move the cursor to "Apply" and then press 'Enter' to continue.
  
```

- 7 Use the ◀ and ▶ keys on your keyboard to move through the field selections.
- 8 Select the appropriate data for each field.
- 9 Press **TAB** to move to the Apply field and then press **ENTER**.

The system displays the Installation Type Selection screen (Figure 83).

**Figure 83. Installation Type Selection Screen**

```

UnixWare System Installation     Installation Type Selection

You must choose a system type. The system type you choose will
determine the default file system sizes you will specify on
the next screen.

Press the 'F1' or '?' key to see more information about these
different system types.

      Platform Type: MAP40P
      Offer Type: Intuity CONVERSANT

                        [Apply]      [Reset]

Press 'TAB' to move the cursor between fields.
  
```

- 10 Use the ◀ and ▶ keys on your keyboard to move through the field selections. Use **TAB** to move to the next field.

11 Select the appropriate data for each field as specified in Table 19.

**Table 19. Entries for the Installation Type Selection Screen**

Field	Setting
Platform Type:	MAP/40P
Offer Type:	Intuity CONVERSANT

12 Press **TAB** to move to the `Apply` field and then press **ENTER**.

The system displays the Intuity CONVERSANT Installation Type screen (Figure 84).

**Figure 84. Intuity CONVERSANT Installation Type Screen**

```

Unix System Installation                Intuity CONVERSANT
Installation Type

You must select whether you are performing a new installation
which configures both disk 0 and disk 1 (if installed), or
are restoring a system from a previously created mkimage.

Your choices are:
1. New Installation
2. Restore from a mkimage

```

13 Enter 1 and then press **Enter**.

**Note:** If you are restoring a system from a mkimage tape, use the procedures in Chapter 3, "Common System Procedures," in *CONVERSANT System Version 8.0 System Reference*, 585-313-215.

The system displays the Set Disk Partitions menu (Figure 85).

**Figure 85. Set Disk Partition Menu**

```

Unix System Installation                Set Disk Partitions

Please select whether you would like the recommended disk
partitions or would like to customize the disk partitions.

The recommended disk partitions are 100% UNIX partitions for
all the disks on the system.

WARNING:  PROCEEDING PAST THIS SCREEN MAY DESTROY ALL THE
          DATA CURRENTLY ON THE DISKS!

Your choices are:
1. Recommended Disk Partitions (100% UNIX partitions)
2. Customize Disk Partitions

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

```

14 Continue with the appropriate instruction from Table 20.

**Table 20. Set Disk Partition Options**

If you choose	Enter	Then proceed to
1 Recommended Disk Partition	1	Continue with Installing the CONVERSANT Image on page 137 on page 136
2 Customize Disk Partitions	2	Initializing the Hard Disk Drives on page 129

## Initializing the Hard Disk Drives

### Customizing Disk Partitions

If you chose 2. Customize Disk Partitions from the Set Disk Partitions menu, the system displays the Primary Hard Disk Partitioning screen (Figure 86).

**Figure 86. Primary Hard Disk Partitioning Screen**

```

UnixWare Installation           Primary Hard Disk Partitioning

In order to install Intuity CONVERSANT, you should reserve a
UNIX system partition (a portion of your hard disk's space)
containing 100% of the space on your primary hard disk.
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 partitions(s).

The UNIX system partition that you intend to use on the
primary hard disk must be at least 60 MBs and labeled
"Active."

Press 'ENTER' to continue
    
```

To partition the hard disk drives:

- 1 Starting at the Primary Hard Disk Partitioning screen, press **ENTER**.

The system displays the Hard Disk Partition - Disk 1 screen (Figure 87).

**Figure 87. Hard Disk Partition - Disk 1 Screen**

```

UnixWare Installation                               Hard Disk Partition - Disk
1

                Total disk size is 8748 cylinders (8748.0MB)

Partition Status Type  Start  End    Length %    Approx MB
   1      Active  UNIX   0.00  8747   8748  100    8748.98
                        System

1. Overwrite system master boot code
2. Delete a partition
3. Exit (Update disk configuration and exit)
4. Cancel (Exit without updating disk configuration)

Enter selection:

```

- 2 Enter **2**

The system displays the Delete A Partition screen (Figure 88).

**Figure 88. Delete A Partition Screen**

```

UnixWare Installation                               Delete A Partition

                Total disk size is 8748 cylinders (8748.0MB)

Partition Status Type  Start  End    Length %    Approx MB
   1      Active  UNIX   0.00  8747   8748  100    8748.0
                        System

1. Partition 1

Enter the number of partition to delete: 1

```

3 Press **ENTER**.

The system displays the Hard Disk Partitioning-Disk 1 screen (Figure 89).

**Figure 89. Hard Disk Partitioning-Disk 1 Screen**

```

UnixWare Installation                Hard Disk Partitioning - Disk 1

                Total disk size is 8748 cylinders (8748.0MB)

Partition Status  Type  Start  End    Length %    Approx MB
                   0.00

1. Overwrite system master boot code
2. Create a partition
3. Exit (Update disk configuration and exit)
4. Cancel (Exit without updating disk configuration)

Enter selection:
    
```

4 Enter 2 and then press **ENTER**.

The system displays the Create a Partition screen (Figure 90).

**Figure 90. Create a Partition Screen**

```

UnixWare Installation                Create A Partition

                Total disk size is 8748 cylinders (8748.0MB)

Partition Status  Type  Start  End    Length %    Approx MB
1                   0.00

Partition Type: UNIX System
Percentage of Disk: 100

                [Apply]                [Reset]
    
```

5 Use the **◀** and **▶** keys on your keyboard to move through the field selections. Use **TAB** to move to the next field.

6 Select the appropriate data for each field as specified in Table 21.

**Table 21. Create a Partition Screen Entries**

Field	Setting
Partition type	UNIX System
Percentage of Disk	100

7 Press **TAB** to move to the Apply field and then press **ENTER**.

The system displays the Hard Disk Partitioning - Disk 1 screen (Figure 91).

**Figure 91. Hard Disk Partitioning - Disk 1 Screen**

```

UnixWare Installation                Hard Disk Partitioning - Disk
1

                                Total disk size is 8748 cylinders (8748.0MB)

                                Cylinders
Partition Status  Type  Start End Length    %      Approx MB
   1             UNIX  System 0   8748 100  8747.984375  0.00

1. Overwrite system master boot code
2. Change Active (Boot from) partition
3. Delete a partition
4. Cancel (Exit without updating disk configuration)

Enter selection:

```

8 Enter **2** and then press **ENTER**.

The system displays the Change Active Partition screen (Figure 92).

**Figure 92. Change Active Partition Screen**

```

UnixWare Installation                Change Active Partition

                                Total disk size is 8748 cylinders (8748.0MB)

Partition Status  Type  Start End Length    %      Approx MB
   1             UNIX  System 0   8748 100  8748.0      0.00

1. Partition 1

Enter the number of partition you want to boot from:1

```

9 Press **ENTER**.

The system displays the Hard Disk Partitioning - Disk 1 screen (Figure 93).

**Figure 93. Hard Disk Partitioning - Disk 1 Screen**

```

UnixWare Installation                               Hard Disk Partition - Disk
1
                                                    Total disk size is 8748 cylinders (8748.0MB)

                                                    Cylinders

Partition Status Type Start End Length % Approx MB
  1      Active UNIX 0.00 8747 8748 100 8748.0
                System

1. Overwrite system master boot code
2. Delete a partition
3. Exit (Update disk configuration and exit)
4. Cancel (Exit without updating disk configuration)
    
```

10 Enter **3** and then press **ENTER**.

The system displays the Set Slice Sizes menu (Figure 94).

**Figure 94. Set Slice Sizes Menu**

```

UNIX System Installation                               Set Slice Sizes

Please select whether you would like the recommended slice
sizes or would like to customize the slice sizes.

Your choices are:
1. Recommended Slice Sizes
2. Customize Slice Sizes

Press '1' or '2' followed by 'ENTER': 1
    
```

11 Continue with the appropriate steps in Table 22.

**Table 22. Set Slice Size Options**

If you choose ...	Enter ...	Then continue with ...
1 Recommended Slice Sizes	1	Installing the CONVERSANT Image on page 137
2 Customize Slice Sizes	2	Selecting Customized Slice Sizes on page 134

## Selecting Customized Slice Sizes

If you chose 1. *Customize Slice Sizes* from the Set Slice Sizes Menu (Figure 94 on page 133), the system displays page 1 of the Set Up File Systems on Disk(s) screen (Figure 95).

**Figure 95. Set Up File Systems on Disk(s) Screen, Page 1**

```

UnixWare Installation          Set up File Systems on Disk(s)

Enter filesystem sizes on first disk.

Size of / in MB:1024
Size of /stand in MB:20
Size of /dev/dump in MB:128
Size of /dev/swap in MB:550
Size of /mtce in MB:30
Size of /vs in MB:150
Size of /oracle in MB:1500
Size of /tmp in MB:300
Size of /voicel in MB:100
Size of /fax in MB:100
Size of /support in MB:600

Apply      Reset

Consult software installation manual for correct sizes.
Megabytes in Active Partition: Disk 1 - 4339
  
```

To set the slice sizes:

- 1 On page 1 of the Set Up File Systems on Disk(s) screen, enter the appropriate number of megabytes of space needed for each slice as specified in Table 23.

Use the **◀** and **▶** keys on your keyboard to move through the field selections. Use **TAB** to move to the next field.

**Note:** The sizes listed in Table 23 are the recommended default sizes. If you are loading a system using a mkimage tape, use the sizes on the tape label. If there are no sizes, use the recommended size from Table 23.

**Table 23. Recommended Default Space Requirements for the MAP/40P**

Slice	Space Requirements (MB)
/	1024
/stand	20
/dev/dump	128
/dev/swap	550
/mtce	30
/vs	150

**1 of 2**

**Table 23. Recommended Default Space Requirements for the MAP/40P**

Slice	Space Requirements (MB)
/oracle	1500
/tmp	300
/voice1	3000
/fax	100
/support	600

**2 of 2**

- 2** After you complete the last field on the screen, press **TAB** to move to the Apply field and then press **ENTER**.

The system displays page 2 of the Set Up File Systems on Disk(s) screen (Figure 96).

**Figure 96. Set Up File Systems on Disk(s) Screen, Page 2**

```

UnixWare Installation           Set up File Systems on Disk(s)

Enter filesystem sizes on first disk.

Size of /appl in MB: 200
Size of /unused1 in MB: 0
Size of /unused2 in MB: 0
Size of /unused3 in MB: 0
Size of /oradev in MB: 0

      [ Apply ]           [ Reset ]

Consult software installation manual for correct sizes.
Megabytes in Active Partition: Disk 1 - 8747

```

- 3** Use the **◀** and **▶** keys on your keyboard to move through the field selections. Use **TAB** to move to the next field.

- 4 After you complete the last field on the screen, press **TAB** to move to the Apply field and then press **ENTER**.

The system displays the Intuity CONVERSANT Device Type menu, (Figure 97).

**Figure 97. Intuity CONVERSANT Device Type Screen**

```

UnixWare Installation                               Intuity CONVERSANT Device Type
Please select the device you wish to install from.

Your choices are:
1. CD-ROM
2. Tape

Press a number between 1 and 2 followed by 'ENTER':1

```

- 5 Continue with Installing the CONVERSANT Image on page 137

## Selecting the Recommended Disk Partitions

### Recommended Disk Partitions

If you chose 1. Recommended Disk Partitions from the Set Slice Sizes Menu (Figure 94 on page 133), the system displays the Set Slice Sizes screen (Figure 98).

**Figure 98. Set Slice Sizes Screen**

```

UnixWare Installation                               Set Slice Sizes
Please select whether you would like the recommended slice
sizes or would like to customize the slice sizes.

Your choices are:
1. Recommended Slice Sizes
2. Customize Slice Sizes

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

```

Continue with the steps in Table 24.

**Table 24. Set Slice Size Options**

If you choose . . .	Enter . . .	Then continue with . . .
1 Recommended Slice Sizes	1	Installing the CONVERSANT Image
2 Customize Slice Sizes	2	Selecting Customized Slice Sizes on page 134

## Installing the CONVERSANT Image

To install the CONVERSANT Image:

- 1 From the Intuity CONVERSANT Device Type screen (Figure 97 on page 136), press **ENTER**.

The system displays the Intuity CONVERSANT CD-ROM screen (Figure 99).

**Figure 99. Intuity CONVERSANT CD-ROM Screen**

```
UnixWare Installation                               Intuity CONVERSANT CD-ROM

Please insert the Intuity CONVERSANT CD-ROM into the CD-ROM
drive and press 'ENTER'.

Your choices are:
1. The CD-ROM has been inserted in the CD-ROM drive
2. Go back to previous menu

Press '1' or '2' followed by 'ENTER': 1
```

- 2 Insert the CD labeled "Intuity CONVERSANT CD-ROM" into the CD-ROM drive and then press **ENTER**.

The system displays the Continue Installation screen (Figure 100).

**Figure 100. Continue Installation Screen**

```
UnixWare Installation                               Continue Installation

The Intuity CONVERSANT CD-ROM has been inserted correctly.

Next the hard disk will be checked for defects and the file
systems will be created. Then the Intuity CONVERSANT Image
will be copied to the hard disk and the system will be
rebooted.

Do not remove the Intuity CONVERSANT CD-ROM until prompted to
do so.

This will take at least one hour. Please wait.

Press 'Enter' to continue.
```

**3 Press ENTER.**

The system displays the Verifying Hard Disk(s) screen, Figure 101.

**Figure 101. Verifying Hard Disk(s) Screen**

```
UnixWare Installation                               Verifying Hard Disk(s)
Checking the hard disk for defects and creating file systems.
This will take a few minutes. Please wait.

X% complete
```

After approximately 10 minutes, the system displays the Copying Files screen (Figure 102).

**Figure 102. Copying Files Screen**

```
UnixWare Installation                               Copying Files
Copying Intuity CONVERSANT Image to the hard disk.

Do Not remove the Intuity CONVERSANT CD-ROM until prompted to
do so.
```

**Note:** If you are loading the CONVERSANT image from tape, you will see a screen prompting you to remove the tape from the tape drive.

After approximately 20 minutes, the system displays the Rebuilding UNIX screen (Figure 103).

**Note:** If you have just completed the Installing UnixWare on page 123 procedure on a RAID system, the time intervals may be significantly longer. Total UNIX load time may be closer to 2 hours instead of 30 minutes.

**Figure 103. Rebuilding UNIX Screen**

```
UnixWare Installation                               Rebuilding UNIX
The system is now being rebuilt to reflect your selections

This will not require any user input.
```

The system automatically reboots and displays the Console Login: prompt.

The procedure is now complete and the CONVERSANT base system software is installed. Continue with Setting Up the LAN Connection on page 139.

## Setting Up the LAN Connection

To set up the LAN connection:

- 1 From the network administrator, determine the following:

- ~ The machine IP address
- ~ The machine node name
- ~ The system name

- 2 If you are not already logged in as root, do so now.

- 3 Enter **uname -S name** where *name* is the machine node name.

The system displays the following message:

```
WARNING: Changing will affect the system's feature license.
The feature provided by these license will be unavailable.
Please refer to System User documentation for more
information.
```

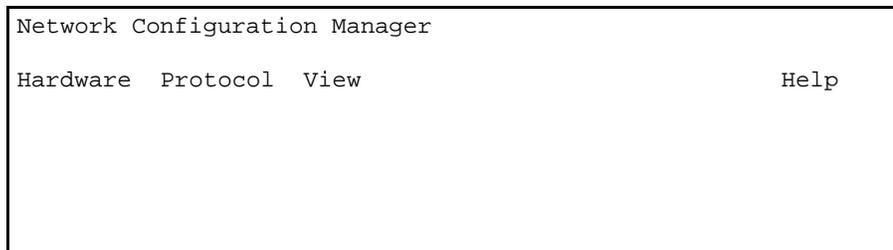
```
Do you really want to change the system's node name? [y/n] y
```

- 4 Use the vi editor to add the machine node name and IP address to the *etc/hosts* file.

- 5 Enter **netcfg**.

The system will display the Network Configuration Manager screen (Figure 104).

**Figure 104. Network Configuration Manager Screen**



- 6 Use arrow keys on your keyboard and **Tab** to navigate around the screen.

- 7 Press **Tab** to place the cursor on **Hardware**.

- 8 Press the  arrow key.

The system displays the Hardware menu.

- 9 From the Hardware menu, select **Add new LAN adapter** and then press **ENTER**.

The system displays the Add New LAN Adapter screen (Figure 105 on page 140).

**Figure 105. Add New LAN Adapter Screen**

```

Add New LAN Adapter

*Ethernet - Force Computers Intel 21143 Drive (2.00)

Continue  Cancel  Help

```

**10** Use the **▼** key to select the LAN adapter installed on your system.

**Note:** You must set up the LAN adapter for Ethernet 1 and Ethernet 2.

**11** Press **Tab** to place the cursor on `Continue` and then press **ENTER**.

The system displays the following message at the bottom of the Add New LAN Adapter screen:

```
Please wait while Network drivers are added.
```

When it finishes adding the network drivers, the system displays the Add Protocol screen (Figure 106).

**Figure 106. Add Protocol Screen**

```

Add Protocol

TCP/IP

Add  Cancel  Help

```

**12** Use the **▼** arrow key to select `TCP/IP`.

**13** Press **Tab** to place the cursor on `Add` and then press **ENTER**.

The system displays the Internet Protocol Configuration screen (Figure 107). The host name you defined Step 3 appears in the `Host name` field. Disregard the `DHCP client` and `Domain name` fields.

**Figure 107. Internet Protocol Configuration Screen**

```

Internet Protocol Configuration

Host name:
DHCP client < > Yes < > No
Domain name:
IP address:
Netmask:
Broadcast address:
Default router:
[Advanced options]

OK  Cancel  Help

```

- 14 Use the arrow keys to move between fields.
- 15 Enter the IP address.  
The system enters the appropriate information in the `Netmask` and `Broadcast address` fields.
- 16 Enter the default router number.
- 17 Press **Tab** to place the cursor on `OK` and then press **ENTER**.
- 18 The system displays the Configure Networking Product screen with a confirmation message similar to one appearing in Figure 108.

**Figure 108. Configure Networking Product Screen**

```
Configure Networking Product

The following product was successfully configured into the
system:

HW Intel 2114x based 10/100 Mbps Ethernet Controller-PCI Slot 0
-TCP/IP

OK      Cancel      Help
```

- 19 Press **Tab** to place the cursor on `OK` and then press **ENTER**.
- 20 The system displays the Network Configuration Manager screen (Figure 104 on page 139).  
The adapter you configured and TCP/IP will be listed on the screen.
- 21 Press the **▼** key.  
The system displays the Hardware menu.
- 22 From the Hardware menu, select `Exit` and then press **ENTER**.  
The system displays the Unix prompt.

## Initializing the Mouse

MR 33695 (BJ): This section rewritten. To initialize the mouse:

- 1 Type **mouseadmin** at the system prompt and then press **ENTER**.

The system displays the Mouse Configuration Menu (Figure 109).

**Figure 109. Mouse Configuration Menu**

```

Mouse Configuration Program
-----

There are no mice assigned.

Select one of the following:

    D) Display configuration
    A) Autoconfigure mouse (PS2/serial mice only)
    B) Add a bus mouse
    P) Add a PS2 mouse
    S) Add a serial mouse
    N) Set number of mouse buttons
    E) Exit

Enter selection:

```

- 2 Do one of the following:

- ~ If you are not installing a mouse, enter **e** and then press **ENTER**.
- ~ If you are installing a mouse, enter **s** and then press **ENTER**.

- 3 At the prompt for the display terminal that will be using the mouse, type **console** and then press **ENTER**.

- 4 When prompted for the mouse device, type **/dev/tty01** and then press **ENTER**.

The system displays the mouse assignment (Figure 110).

**Figure 110. Mouse Assignment**

```

The following terminals have mice assigned:

Display Terminal      Mouse Device
-----
console              Serial mouse on /dev/tty01

Strike the ENTER key to continue.

```

5 Press **ENTER**.

The Mouse Configuration Menu will be displayed.

**Figure 111. Mouse Configuration Menu with Mouse Assigned**

```

Mouse Configuration Program
-----
Select one of the following:

    D) Display configuration
    A) Autoconfigure mouse (PS2/serial mice only)
    B) Add a bus mouse
    P) Add a PS2 mouse
    S) Add a serial mouse
    N) Set number of mouse buttons
    T) Test your mouse configuration
    R) Remove a mouse
    E) Exit

Enter selection:
    
```

6 Continue with Testing the Mouse, Step 2.

**Testing the Mouse**

To test the mouse:

1 Type **mouseadmin** at the system prompt and then press **ENTER**.

The system displays the Mouse Configuration Menu (Figure 111 on page 143).

2 Enter **t** and then press **ENTER**.

The system displays the following message:

```
Please try using your mouse when the next
screen appears.
```

Strike the ENTER key when ready:

3 Press **ENTER**.

The system displays the following message:

```
Press a mouse button to stop test.
Test will be cancelled automatically in 15 seconds.
```

4 Move the mouse and verify that there is a response on the screen.

5 After a few seconds, click a mouse button.

The system displays the Mouse Configuration Menu (Figure 111 on page 143).

6 Type **e** and then press **ENTER**.

You have now installed all the required software for your UnixWare operating system.



# 7 Installing the CONVERSANT System Software

## Overview

This chapter details installation procedures for the CONVERSANT system software and provides the information necessary to reload the CONVERSANT system after a disk failure. Use this chapter in conjunction with Appendix D, Disaster Recovery Checklists.

## Installing the CONVERSANT Base Software Set

The CONVERSANT base software set includes:

- CONVERSANT Utilities Package
- CONVERSANT Runtime Processing Package
- CONVERSANT Maintenance Package
- CONVERSANT Logger/Alerter Package
- Intuity AUDIX Logger Package
- CONVERSANT Base ORACLE RDBMS 8
- CONVERSANT ORACLE 8 Integration Package
- CONVERSANT Administration Screens Package
- CONVERSANT Transaction State Machine Package
- CONVERSANT Switch Utilities Package
- CONVERSANT License Modification Package
- CONVERSANT Platform CONVERSANT Tuning

All of the packages included in the CONVERSANT base software set are required for the operation of the CONVERSANT system. All of the packages are contained on one CD-ROM.

To install the CONVERSANT base software set, do the following:

### CAUTION:

If you are using this procedure in conjunction with an upgrade, skip the first three steps and begin with Step 4.

- 1 Log in as root.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 Enter **pkgadd -d cdrom1**

The system displays the following message:

```
Insert CD into SCSI CD-ROM Drive1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

**4 Press ENTER.**

The system displays the following message:

Installation in progress. Do not remove the CD.

The following sets are available:

1. CVISset INTUITY CONVERSANT VIS V8 Set  
(i486)4.3.1-5

Select the package(s) you wish to process (or 'all' to process all packages). (default: all) [?,??,quit]:

**5 Press ENTER.**

The system displays the following message:

PROCESSING:

Set: INTUITY CONVERSANT VIS V8 Set (CVISset) from <cdrom1>

INTUITY CONVERSANT VIS V8 Set  
(i486)4.3.1-5

Using </> as the package base directory.

Do you want to run the default set installation? (default: y)

**6 Answer the questions in Table 25 with a check mark for "yes" or "no."**

**Table 25. Questions to Determine if the Default Installation is Appropriate**

Number	Question	Yes	No
1	Do you want to turn off daylight savings time?		
2	Does your system have a remote maintenance circuit card? <b>Note:</b> If you answer yes to this question, you must answer yes to Question 3.		
3	Do you want to disable COM1?		
4	Do you want to disable COM2?		
5	Do you want to disable the parallel port?		
6	Is Interrupt Level 4 being used by anything other than COM1?		
7	Is Interrupt Level 3 being used by anything other than COM2?		
8	Is Interrupt Level 7 being used by anything other than the parallel port?		
9	Is your ORACLE database larger than 65 MB?		

**7 If you answered no to all of the questions in Table 25 on page 146, you can use the default installation; enter y**

If you answered **yes** to any of the questions in Table 25 on page 146, you can not use the default installation; complete the following Step a through Step j:

**a Enter n**

The system displays the following message:

Do you want the default installation for mtce? [y,n,?]

- b** If you answered **no** to Question 1 in Table 25 on page 146, enter **y** and continue with Step d.

If you answered **yes** to Question 1 in Table 25 on page 146, enter **n**

The system displays the following message:

```
Is Daylight Savings ever used? [y,n,?]
```

- c** Enter **n**

The system displays the following message:

```
Do you want default installation for vs? [y,n,?]
```

- d** If you answered **no** to all seven Questions 2, 3, 4, 5, 6, 7, and 8 in Table 25 on page 146, enter **y** and continue with Step g.

If you answered **yes** to Question 2, 3, 4, 5, 6, 7, or 8 in Table 25 on page 146, enter **n**

The system displays the following message:

```
First serial port uses interrupt level 4
Second serial port uses interrupt level 3
Parallel port uses interrupt level 7
```

If you wish to reclaim some of these interrupts for other devices, you may DISABLE some of these ports. However, at least ONE serial port must be enabled at all times.

For serial ports would you like to:

1. ENABLE both first and second serial port.
2. ENABLE first and DISABLE second serial port.
3. DISABLE first and ENABLE second serial port.

Please enter your selection [1,2,or 3]:

- e** If you answered **no** for Questions 2, 3, 4, 6, and 7 in Table 25 on page 146, enter **1**

If you answered **no** for Questions 2, 3, and 6 and **yes** for Question 4 or 7 in Table 25 on page 146, enter **2**

If you answered **yes** for Question 2, 3, or 6 and **no** for Questions 4 and 7 in Table 25 on page 146, enter **3**

**Note:** If you want to disable both serial ports, enter **3**, complete the installation procedure, edit the **/etc/conf/sdevice.d/async** file, and reboot the system.

The system displays the following message:

```
For the parallel port (interrupt level 7) would you like to:
```

1. ENABLE the parallel port.
2. DISABLE the parallel port.

- f** If you answered **no** for Questions 5 and 8 in Table 25 on page 146, enter **1**

If you answered **yes** for Question 5 or 8 in Table 25 on page 146, enter **2**

The system displays the following message:

```
Do you want the default installation for maint?
```

**g** Enter **n**

**Note:** There is no difference between the default installation and a custom installation of the maint system.

The system displays the following message:

```
Do you want the default installation for machlog? [y,n,?]
```

**h** If you answered **no** to Questions 2, 3, and 4 in Table 25 on page 146, enter **y** and continue with Step i.

If you answered **yes** to Question 2, 3, or 4 in Table 25 on page 146, enter **n**

The system displays the following message:

```
Do you want the default installation for TSM? (default: y)
```

**i** Enter **y**.

The system displays the following message:

```
Do you want the default installation for cdh? (default: y)
```

**j** Enter **y**.

The system displays the following message:

```
Avaya Inc.
## Processing package information.
## Processing system information.
## Verifying disk space requirements.

Installing INTUITY CONVERSANT VIS V8.0 Set <CVISset>
## Executing preinstall script.
Executing the preinstall personality script for CVISstune.

The system displays a series of messages. After approximately one half hour
the system displays the following message:

Processing of packages for set <CVISset> is completed.
Insert CD into SCSI CD-ROM Drive1.
Type [go] when ready,
or [q] to quit: (default: go)
```

**8** Enter **q**

The system displays the following message:

```
***IMPORTANT NOTICE***
If installation of all desired packages is
complete, the machine should be rebooted in order
to ensure sane operation. Execute the shutdown
command with the appropriate options to reboot.
```

**9** Enter **shutdown -i6 -g0 -y**

# 8 Installing the Optional Feature Software

## Overview

This purpose of this chapter is to provide the information necessary to reload the optional feature software on a system that has experienced a disk failure.

This chapter describes the procedures to install all the software that was not included as part of the CONVERSANT system software. This software is called *optional* software since it is not required for the basic system to function.

Optional software is contained on the various CD-ROMs. See *CONVERSANT System Version 8.0 System Description*, 585-313-219, for a complete list of software.

**Note:** You will not necessarily install all of the packages for which procedures are provided in this chapter, nor will you necessarily install them in the order documented. Packages that are order-specific are identified as such.

This chapter also describes the general procedure for removing software packages.

**Note:** All of the procedures in this chapter must be performed with root permission.

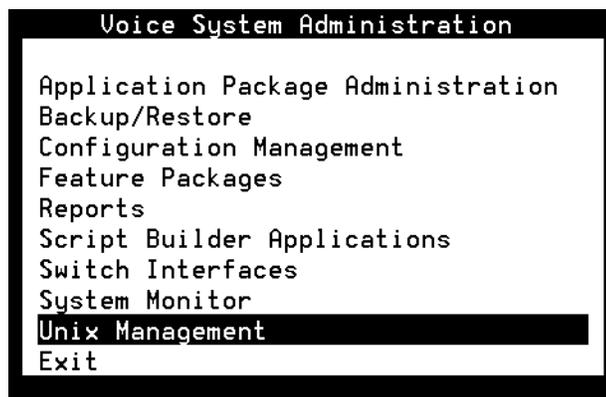
## Installing Software Packages Using the Unix Management Screens

If your system is equipped with the Unix Management Screens Package, software can be loaded using the CONVERSANT system screens.

To load software a software package using the CONVERSANT system screens:

- 1 Access the Voice System Administration menu (Figure 112) by entering **cvis\_menu**.

Figure 112. Voice System Administration Menu



2 Select:

```
> UNIX Management
>Software Install
```

The system displays the Software Install menu (Figure 113).

Figure 113. Software Install Menu

```
Software Install
>Floppy drive
Tape drive
```

3 Select the appropriate media.

4 Continue with the following procedures for the optional feature packages.

**Note:** When installing optional feature packages from media other than the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages," you do not need to enter the **pkgadd** command as described in the following procedures. The system will list the packages available on the media and display the following message:

```
Select the package(s) you wish to process (or 'all' to
process all packages). (default: all) [?,??,q].
From the list of available packages, select the package you want to install
and then press ENTER. After you press ENTER, the installation
procedure for the package is identical to the procedure described in this
chapter.
```

When installing optional feature packages from the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages," you must enter the **pkgadd** command as described in the following procedures.

## Installing the ASP Driver

To install the ASP circuit card driver:

- 1 Stop the voice system. See "Administering the Voice System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.
- 2 Insert the CD-ROM labeled, "CONVERSANT V8.0 CVISset and Base Software Packages" into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 asp**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.
Type [go] when ready,
or [q] to quit: (default: go)
```

**4** Press **ENTER**.

The system displays the following message:

```
Installation in progress.  Do not remove the CD.

PROCESSING:
Package: INTUITY ASP Driver Package (asp) from <cdrom1>
INTUITY ASP Driver Package
(i486) 4.3.1-5
Using </> as the package base directory.
```

If you did not stop the voice system, the system displays the following message:

The voice system is currently running and must be stopped in order to install this package.

Is it ok to STOP the voice system? [y/n] y

**a** Enter **y** and then press **ENTER**.

The system displays the following message:

```
After installation is completed, would you like to restart
the voice system? [y/n] n
```

**b** Enter **y** or **n** as appropriate.

If you stopped the voice system, the system continues and displays the following message:

```
Installation of INTUITY ASP Driver Package (asp) was
successful.
```

```
***Important Notice***
```

```
If installation of all desired packages is complete, the
machine should be rebooted in order to ensure sane operation.
Execute the shutdown command with the appropriate options to
reboot.
```

The system then displays the UNIX prompt.

- 5** If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6** Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221 for the procedure.

## Installing the Access Security Gateway Package

To install the Access Security Gateway optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 asg**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Access Security Gateway Package (asg) from  
<cdrom1>  
  
INTUITY Access Security Gateway Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY Access Security Gateway Package(asg)  
was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Adjunct/Switch Application Interface Packages

The ASAI packages must be installed in the following order:

- 1 Installing the CALLVISOR PC CVLAN CLIENT Package on page 153
- 2 Installing the Adjunct/Switch Application Interface Package on page 154

### Installing the CALLVISOR PC CVLAN CLIENT Package

To install the CALLVISOR PC CVLAN CLIENT package:

- 1 If you are not already logged in as **root**, do so now.
- 2 Insert the CD-ROM labeled, "ASAI Feature Software Packages" into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 cvlanxcl**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress -- do not remove the cdrom.
```

```
PROCESSING:
```

```
Package: AVAYA INC. CALLVISOR PC CVLAN CLIENT (UNIX SV x86)  
(cvlanxcl) from <cdrom1>
```

```
AVAYA INC. CALLVISOR PC CVLAN CLIENT (UNIX SV x86)  
(cvlanxcl)(i386) 6.1.4
```

```
Using </> as the package base directory.  
Avaya Inc.
```

```
Installation of AVAYA INC. CALLVISOR PC CVLAN CLIENT (UNIX SV x86)  
(cvlanxcl) was successful.
```

The system then displays the UNIX prompt.

- 5 Continue with the next procedure, Installing the Adjunct/Switch Application Interface Package on page 154.

### Installing the Adjunct/Switch Application Interface Package

To install the Adjunct/Switch Application Interface optional feature package:

- 1 If you are not already logged in as **root**, do so now.
- 2 Insert the CD-ROM labeled, "ASAI Feature Software Packages" into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 asai**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the cdrom.  
  
PROCESSING:  
Package: INTUITY Adjunct/Switch Application Interface  
Package (asai) from <cdrom1>  
  
INTUITY Adjunct/Switch Application Interface Package  
(i486)4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Enter LAN destination (IP or hostname) for link [definity]:
```

- 1 Enter the IP address for the machine or the name of the DEFINITY from the /etc/hosts file. Note that default name is "definity", but this should be changed to match the name of DEFINITY.

If the system displays the following message:

```
No entry for destination <name found in /etc/hosts file.  
Re-enter destination? y/n
```

Press **y** to reenter.

The system displays several status messages and then the following message:

```
Installation of INTUITY Adjunct/Switch Application Interface  
Package (asai) was successful.
```

**\*\*\*Important Notice\*\*\***

If installation of all desired packages is complete, the machine should be rebooted to ensure sane operation. Execute the shutdown command with the appropriate options to reboot

The system then displays the UNIX prompt.

- 5 Remove the CD labeled "ASAI Feature Software Packages" from the CD drive.

- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *CONVERSANT System Version 8.0 System Reference*, 585-313-215, for the procedure.

For more information on this feature package, see *CONVERSANT System Version 8.0 Communication Development*, 585-313-220.

## Installing the HTML Server and Browser Package

To install the html server and browser optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 html**

The system displays the following message

```
Insert CD into SCSI CD-ROM Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in Progress. Do not remove the CD.  
  
PROCESSING:  
Package: Intuity html server and browser (html) from  
<cdrom1>.  
  
Intuity html server and browser  
(INTUITY) 8.0-0  
Using </> as the package base directory.  
/* Copyright (c) 1998 Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of Intuity html server and browser (html) was  
successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Call Bridge Application Package

To install the Call Bridge Application optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 xferdip**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Call Bridge Application Package (xferdip)  
from <CD-ROM>  
  
INTUITY Call Bridge Application Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.  
  
Installation of INTUITY Call Bridge Application Package  
(xferdip) was successful.
```

The system displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Call Classification Analysis Package

**Note:** If you are installing the package and feature\_tst is already installed on your system (as in assisted upgrades), once you have finished installing all other packages desired, you must remove feature\_tst and reinstall it in order to select the CCA test.

To install this optional feature package, do the following:

- 1 Ensure that the ASP Driver package has been installed by entering **pkginfo asp**

If the ASP Driver package has been installed, the system displays the following message:

```
intuity    asp          INTUITY ASP Driver Package
```

If the system displays this message, continue with step 3.

If the ASP Driver package has *not* been installed, the system displays the following message:

```
UX:pkginfo:ERROR: information for "asp" was not found
```

If the system displays this message, see Installing the ASP Driver on page 150 for the procedure to load the driver.

- 2 Insert the diskette labeled “Call Classification Analysis Package 1 of 1” into the diskette drive.
- 3 At the UNIX prompt, enter **pkgadd -d diskette1 cca**

The system displays the following message:

```
Insert diskette into Floppy Drive 1.
Type [go] when ready,
    or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress.   Do not remove the diskette.

PROCESSING:
Package: INTUITY Call Classification Analysis Package (cca)
from <diskette1>

INTUITY Call Classification Analysis Package
(i486)
Using </> as the package base directory.
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY Call Classification Analysis Package
(cca) was successful.

Insert diskette into Floppy Drive 1.
Type [go] when ready,
    or [q] to quit: (default: go)
```

**5** Enter **q**

The system displays the UNIX prompt.

**6** If you are finished installing the optional feature software, remove the diskette labeled "Call Classification Analysis Package 1 of 1" from the diskette drive.**7** Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *CONVERSANT System Version 8.0 System Reference*, 585-313-215, for the procedure.

**Note:** For CCA to work properly, install the Call Bridge Application optional feature package (see Installing the Call Bridge Application Package on page 156).

For more information on this feature package, see *CONVERSANT Version 8.0 Application Development with Script Builder*, 585-313-217, and *CONVERSANT Version 8.0 Communication Development*, 585-313-220.

## Installing the Data Collection Toolkit

To install the Data Collection Toolkit optional feature package:

**1** If you are not already logged in as root, do so now.**2** Insert the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" into the CD-ROM drive.**3** At the UNIX prompt, enter **pkgadd -d cdrom1 dctoolkit**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

**4** Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Data Collection Toolkit (dctoolkit) from  
<cdrom1>  
  
INTUITY Data Collection Toolkit  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY Data Collection Toolkit (dctoolkit)  
was successful.
```

The system then displays the UNIX prompt.

**5** If you are finished installing the optional feature software, remove the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" from the CD-ROM drive.

- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Dial Pulse Recognition Package

To install the Dial Pulse Recognition optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 dpr**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Dial-Pulse Recognition Package (dpr) from  
<cdrom1>  
  
INTUITY Dial-Pulse Recognition Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY Dial-Pulse Recognition Package (dpr)  
was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the E1 CAS Interface Package

To install the E1 CAS Interface optional feature package:

- 1 Insert the diskette labeled "E1 CAS R2 MFC Interface Package - **<country>**" in the diskette drive.

- 2 At the UNIX prompt, enter **pkgadd -d diskette1 <package>**

Enter the appropriate package for your country:

- ~ **r2arg** for Argentina
- ~ **r2bra** for Brazil
- ~ **p2aus** for Australia
- ~ **r2mex** for Mexico

The system displays the following message:

```
Insert diskette into diskette drive.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 3 Press **ENTER**.

The system displays a message similar to the following:

```
Installation in progress. Do not remove the diskette.
```

```
PROCESSING:
```

```
Package: INTUITY E1 CAS R2 MFC Interface Package - Mexico  
(r2mex) from <diskette1>
```

```
INTUITY E1 CAS R2 MFC Interface Package - Mexico  
(i486) 4.3.1-5
```

```
Using </> as the package base directory.
```

```
Avaya Inc.
```

The package name displayed in the message will match the package name on the diskette.

The system displays several status messages and then a message similar to the following:

```
Installation of INTUITY E1 CAS R2 MFC Interface Package -  
Mexico (r2mex) was successful.
```

The package name displayed in the message will match the package name on the diskette.

The system then displays the UNIX prompt.

- 4 If you are finished installing the optional feature software, remove the diskette labeled "E1 CAS R2 MFC Interface Package - **<country>**" from the diskette drive.
- 5 Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

For more information on this feature package, see "Backing Up the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the E1/T1 Circuit Card Driver

**Note:** If the E1/T1 circuit cards are not recognized when the voice system is started or if other problems are noticed with the E1/T1 circuit card driver, it may be necessary to remove and reinstall the E1/T1 circuit card driver.

Occasionally dynamically loadable drivers fail to load into the UnixWare kernel properly.

To install the E1/T1 circuit card driver, do the following:

- 1 If you are not already logged in as root, do so now.
- 2 Stop the voice system. See “Administer the Voice System,” in “Common System Procedures,” in the *Intuity CONVERSANT System Reference*, 585-313-205.
- 3 Insert the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" into the CD-ROM drive.
- 4 At the UNIX prompt, enter **pkgadd -d cdrom1 t1driver**

The system displays the following message:

```
Insert CD into SCSI CD-ROM Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 5 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Set: INTUITY T1/E1 Board Driver (t1driver) from <cdrom1>  
  
Intuity T1/E1 Board Driver  
(i486)4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of T1/E1 Board Driver (t1driver) was successful.
```

- 6 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 7 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Asynchronous SuperSerial Circuit Card Driver

To install the asynchronous SuperSerial card driver, do the following:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the diskette labeled “Equinox SST Loadable STREAMS Device Driver (EISA/ISA/MCA/PCI/CPCI) 1 of 1” into the diskette drive.
- 3 At the UNIX prompt, enter **pkgadd -d diskette1 eqn**

The system displays the following message:

```
Insert diskette into Floppy Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
PROCESSING:  
Package: Equinox SST Loadable STREAMS Device Driver  
(EISA/ISA/MCA/PCI/CPCI) (eqn) from <diskette1>  
  
Equinox SST Loadable STREAMS Device Driver  
(EISA/ISA/MCA/PCI/CPCI) (i386)  
Using </> as the package base directory.  
Avaya Inc.  
  
Installing Equinox SSP STREAMS Driver, Version 3.42b (SVR4.2  
loadable EISA/ISA/MCA/PCI/CPCI).  
  
Are you installing PCI/CPCI boards only? [Y/n].
```

- 5 Enter **n**

```
Are you installing any ISA boards? [Y/n].
```

- 6 Enter **y**

```
Installing for ISA bus system.  
  
The following i/o ports appear to be free for use by Equinox  
ISA boards:  
240 260 280 2a0 2c0 2e0 320 360 3a0 3c0  
Should the driver autoconfigure all Equinox ISA boards [Y/n]?
```

**7 Enter y**

The system displays the following message:

```
You may enable a selection of baud rates above 38400 for all
ports by answering "Yes" to the following question.
```

```
If you enable baud rates above 38400, speeds below 300 baud
will be unavailable. Speeds 300 to 38400 are unaffected.
```

```
The high baud rates are selected according to the following
table:
```

```
57600      B50
76800      B75
115200     B110
238400     B134 (depending on board/module
                (type
```

```
Enable high baud rate selection [y/N]?
```

**8 Enter y**

The system displays several status messages and then the following messages:

```
The unix kernel will be rebuilt to include your configuration
changes during the next system reboot.
```

```
A system rebuild has been requested when the system is
shutdown. System tunables have been modified.
```

```
Please request a reboot using the "init 6" command to use the
driver.
```

```
If you desire the default set of port monitors and port
services to be installed, execute "/etc/equportsetup" after
the system has rebooted.
```

```
Installation of Equinox SST Loadable STREAMS Device Driver
(EISA/ISA/MCA/PCI/CPCI) (eqn) was successful.
```

```
Insert diskette into Floppy Drive 1.
```

```
Type [go] when ready,
or [q] to quit: (default: go)
```

**9 Enter q**

**10** Remove the diskette labeled "Equinox SST Loadable STREAMS Device Driver (EISA/ISA/MCA/PCI) 1 of 1" from the diskette drive.

**11** Reboot the system. See "Reboot the System," in "Common System Procedures," in the *Intuity CONVERSANT System Reference*, 585-313-205.

## Installing the FlexWord Speech Recognition Package

Installing the FlexWord™ Speech Recognition Package requires installing the following packages in the order shown:

- ASP Driver package. See Installing the ASP Driver on page 150 for the procedure.
- FlexWord Recognition - Base. See Installing FlexWord Recognition - Base on page 164 for the procedure.
- FlexWord Recognition - U.S. English. See Installing FlexWord Recognition on page 165 for the procedure.

### Installing FlexWord Recognition - Base

To install the FlexWord Recognition - Base optional feature package:

- 1 Stop the voice system. See “Administering the Voice System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.
- 2 Ensure that the ASP Driver package has been installed.
- 3 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 4 At the UNIX prompt, enter **pkgadd -d cdrom1 flexrecog**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 5 Press **ENTER**.

If you did not stop the voice system, the system displays the following message:

```
The voice system is currently running and must be stopped in  
order to install this package.
```

```
Is it ok to STOP the voice system? [y/n] y
```

- a Enter **y** and then press **ENTER**.

The system displays the following message:

```
After installation is completed, would you like to restart  
the voice system? [y/n] n
```

- b Enter **y** or **n** as appropriate.

If you stopped the voice system, the system continues and displays the following message:

```
Installation in progress. Do not remove the CD.
```

```
PROCESSING:
```

```
Package: INTUITY FlexWord Recognition - Base (flexrecog) from  
<cdrom1>
```

```
INTUITY FlexWord Recognition - Base
(i486) 4.3.1-5
Using </> as the package base directory.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY FlexWord Recognition - Base
(flexrecog) was successful.
```

The system then displays the UNIX prompt.

- 6 If you are finished installing the optional feature software, remove the CD labeled "CONVERSANT V8.0 CVISset and Base Software Packages" from the CD-ROM from the drive.
- 7 Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221 for the procedure.

### Installing FlexWord Recognition

To install the FlexWord Recognition optional feature package:

- 1 Stop the voice system. See "Administering the Voice System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.
- 2 Ensure that the ASP Driver package is installed.
- 3 Ensure that the FlexWord Recognition - Base package is installed.
- 4 Insert the CD-ROM labeled "FlexWord Recognition - **<language>**" into the CD-ROM drive.
- 5 At the UNIX prompt, enter **pkgadd -d cdrom1 <package>**

Enter the appropriate package for your language:

- ~ **bpflex** for Brazilian Portuguese
- ~ **csflex** for Spanish
- ~ **frflex** for French
- ~ **grflex** for German
- ~ **jnflex** for Japanese
- ~ **usflex** for U.S. English

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.
Type [go] when ready,
or [q] to quit: (default: go)
```

**6** Press **ENTER**.

If you did not stop the voice system, the system displays the following message:

```
The voice system is currently running and must be stopped in
order to install this package.
```

```
Is it ok to STOP the voice system? [y/n] y
```

**a** Enter **y** and then press **ENTER**.

The system displays the following message:

```
After installation is completed, would you like to restart
the voice system? [y/n] n
```

**b** Enter **y** or **n** as appropriate.

If you stopped the voice system, the system continues and displays a message similar to the following:

```
Installation in progress. Do not remove the CD.
```

```
PROCESSING:
```

```
Package: INTUITY FlexWord Recognition - US English (usflex)
from <cdrom1>
```

```
INTUITY FlexWord Recognition - US English
(i486) 4.3.1-5
```

```
Using </> as the package base directory.
```

```
Installation of INTUITY FlexWord Recognition - US English
(usflex) was successful.
```

The package name displayed in the message will match the package name on the CD-ROM.

The system displays several status messages and then a message similar to the following:

```
Installation of INTUITY FlexWord Recognition - US English
(usflex) was successful.
```

The package name displayed in the message will match the package name on the CD-ROM.

The system then displays the UNIX prompt.

**7** If you are finished installing the optional feature software, remove the CD-ROM labeled "FlexWord Recognition - **<language>**" from the CD-ROM drive.**8** Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

For more information on this feature package, see *UCS 1000 R4.6 Speech Development, Processing, and Recognition*, 585-313-223.

## Installing the Host Interface Packages

See *Interface Systems, Inc. (ISI) TN3270 Quick Start Guide* for information about installing software on the CONVERSANT system. This software will allow you to access an IBM mainframe computer through the following connections:

- TN3270
- SNA 3270 (SDLC, Token Ring, or LLC2)

## Installing the NGFax Feature Package

**Note:** This feature requires that you have at least one SSP (AYC43) circuit card installed in the system.

To install the NGFax optional feature package:

- 1 Insert the CD-ROM labeled “CONVERSANT V8.0 FAX Set” into the CD-ROM drive.

- 2 At the UNIX prompt, enter **pkgadd -d cdrom1 csfax**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 3 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
PROCESSING:  
Package: INTUITY Next Generation FAX Interface Package  
(csfax) from <cdrom1>  
  
INTUITY Next Generation FAX Interface Package  
(i486)4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY Next Generation FAX Package (csfax)  
was successful.
```

The system then displays the UNIX prompt.

- 4 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 FAX Set” from the CD-ROM drive.
- 5 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

For more information on this feature package, see “Backing Up the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Primary Rate Interface Packages

The primary rate interface packages include:

- ISDN primary rate interface
- Advanced primary rate interface (restricted availability)

The ISDN primary rate interface package must be installed first.

### Installing the ISDN Primary Rate Interface Package

To install the ISDN Primary Rate Interface optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 PRI Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 pri**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
PROCESSING:  
Package: INTUITY ISDN Primary Rate Interface Package (pri)  
from <cdrom1>  
  
INTUITY ISDN Primary Rate Interface Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

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

```
The UNIX kernel has been rebuilt.
```

```
RM PROFILE_SIZE has been changed.  
Reboot before attempting to use this PRI package.
```

The system displays several status messages and then the following message:

```
This concludes the steps required to install the 'ISDN  
Primary Rate Interface' feature. However, additional steps  
are required to activate the feature. Consult the INTUITY VIS  
Operations guide for the steps required. Administration must  
also be done at the connecting end (PBX, ACD, or other  
switch) to properly configure the T1 or E1 channels.
```

```
Installation of INTUITY ISDN Primary Rate Interface Package  
(pri) was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled "CONVERSANT V8.0 PRI Software Packages" from the CD-ROM drive.
- 6 Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

For more information on this feature, see: Chapter 3, "Digital Telephony Interfaces," of *UCS 1000 R4.6 Communication Development*, 585-313-224, and Chapter 6, "Switch Interfaces," of *UCS 1000 R4.6 Administration*, 585-313-509.

### Installing the Advanced Primary Rate Interface Package

To install the Advanced Primary Rate Interface optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled "CONVERSANT V8.0 PRI Software Packages" into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 npri**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Advanced PRI Package (npri) from <cdrom1>  
INTUITY Advanced PRI Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
This concludes the steps required to install the 'Advanced  
PRI' feature.
```

```
Installation of INTUITY Advanced PRI Package (npri) was  
successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled "CONVERSANT V8.0 PRI Software Packages" from the CD-ROM drive.
- 6 Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing and configuring the TBCT feature software

### Before you begin

Before you install and configure the TBCT, make sure that:

- Your Central Office has administered your PRI trunk groups correctly
- The PRI package is installed
- The Service Creation (SC) package is installed
- Your lines are in service

#### Central Office administration of the PRI trunk group

You must ensure that your Central Office has administered your PRI trunk groups so that:

- All of your PRIs are at the same PRI serving group
- Your PRI trunks are administered for TBCT on the network switch
- Your trunk groups are two-way trunks

You must also determine the hunt direction on the switch. Switches usually deliver incoming calls by hunting the B-channels in order from either low to high or high to low. When you configure the TBCT feature, you can hunt for outgoing channels in the opposite direction, minimizing the number of collisions between incoming and outgoing calls.

#### PRI package

Check to make sure that the PRI package is installed using the **pkginfo** command:

```
pkginfo pri
```

For a complete explanation of the **pkginfo** command, see “pkginfo” in Appendix A, “Summary of Commands,” of *CONVERSANT System Version 8.0 Administration*, 585-313-510.

If the PRI package is not on your system, you must purchase it before you can install TBCT.

#### Lines in service

Check to see if the lines are all in service using the **disp card** command:

```
disp card all
```

For a complete explanation of the **display card** command, see “display card” in Appendix A, “Summary of Commands,” of *CONVERSANT System Version 8.0 Administration*, 585-313-510.

#### Service Creation package

Check to make sure that the Service Creation package is installed using the **pkginfo** command:

```
pkginfo sc
```

For a complete explanation of the **pkginfo** command, see “pkginfo” in Appendix A, “Summary of Commands,” of *CONVERSANT System Version 8.0 Administration*, 585-313-510.

If the SC package is not on your system, it has been removed. Reinstall the package using **pkgadd**. For a complete explanation of the **pkgadd** command, see “pkgadd” in Appendix A, “Summary of Commands,” of *CONVERSANT System Version 8.0 Administration*, 585-313-510.

### Installing the TBCT software

To install the TBCT package, run **pkgadd** using this commandline format.

```
pkgadd -d path tbct
```

For a complete explanation of the **pkgadd** command, see “pkgadd” in Appendix A, “Summary of Commands,” of *CONVERSANT System Version 8.0 Administration*, 585-313-510.

Although you are not required to reboot at this time, it is always recommended to reboot after installing new software.

### Configuring the TBCT feature for CONVERSANT

To complete the configuration of the TBCT package on the CONVERSANT, you must

- Administer the PRI trunk type for the CONVERSANT system
- Modify two TBCT files:
  - ~ **pri.rc**
  - ~ **tbct.rc**

**Administer the PRI type** To administer the correct PRI trunk type for your system:

- 1 Run **cvis\_menu**
- 2 From the main menu, select:

```
> Voice System Administration
> Switch Interfaces
> Digital Interfaces
> ISDN- Primary Rate Interface
> Assign Card (or Change Card)
```

- 3 Press **F2** to display a list of available cards on the system.
- 4 Select the T1/E1 to be configured as PRI.

5 For **Type** : Select the PRI type for your system:

For ...	Select...
TBCT with a Lucent 5ESS switch on a National ISDN protocol	TBCT
TBCT with a Nortel DMS100 switch on a National ISDN protocol	TBCT
RLT with a Nortel DMS-100 switch on a Nortel proprietary switch	Nortel

For more information about assigning the PRI type to your system, see “Assigning the PRI Protocol to Digital Circuit Cards” in Chapter 5, “Voice System Administration,” of *CONVERSANT System Version 8.0 Administration*, 585-313-510

### Modify the TBCT files

To configure TBCT, modify:

- **pri.rc**
- **tbct.rc**

Before modifying any file, copy the file to a backup file (for example, **filename.bak** or **filename.old**) in case you need to revert to the original file.

You can modify these files in either of two ways:

- Run **tbct\_config** to modify *either* **tbct.rc** or **tbct.rc** and **pri.rc**.

See Using **tbct\_config** to modify TBCT files on page 172

or

- Edit the individual files.

See Manually editing the TBCT files on page 174.

### Using **tbct\_config** to modify TBCT files

**tbct\_config** provides a set of menus from which you select your choices for the TBCT configuration. **tbct\_config** then makes the changes to **tbct.rc**. After you have made all of your choices for the **tbct.rc** fields, the tool asks you if you want it to change the **pri.rc** file also.

#### 1 Enter **tbct\_config**.

The system begins displaying menus for each of the fields in the **tbct.rc** file:

```
Select TBCT_TYPE: (default=1)
  1) NT_RLT
  2) NT_NI
  3) LU_NI
==>
```

```
Enter BCH_RESERVE: (default=10)
```

```
Select PRIORITY: (default=1)
  1) Transfer on answer
  2) Transfer on alert
```

```
==>

Enter MAX_RING: (default=20)
==>

Select EH_METHOD: (default=1)
  1) Stay Bridging
  2) Disconnect
==>

Select CH_METHOD: (default=1)
  1) Ascent
  2) Descent
==>
```

Enter the number for your choice. If you enter a number out of range or tab past a choice, `tbct_config` enters the default into `tbct.rc`.

**Note:** For information about each of the fields, see Field values for `tbct.rc` file on page 175.

**tbct\_config** then asks whether you want it to modify the **pri.rc** file (based on your input to the first menu):

```
The configuration file for pri may or may not
be changed. Do you want this program to modify
pri.rc file? [y/n/q]
==>
y
```

```
=====
                        !!IMPORTANT!!
=====

The FLAG parameter under /vs/data/pri/pri.rc file
has to be modified in order to support TBCT/RLT.
Suggested values are:
Nortel Custom:    0x80949
NISDN w/o BCAS:  0x40988
NISDN w BCAS:    0x409a9
The parameter should be changed by this program.

In order to make the change effective
Voice System has to be restarted.
=====
```

- 2 Enter **y**, **n**, or **q**. The program defaults to **y** (yes).
- 3 Restart the voice system.

**Manually editing the TBCT files**

To edit the `pri.rc` file:

- 1 Using `vi` or another UNIX text editor, open the `pri.rc` file:  
`/vs/data/pri/pri.rc`
- 2 In the `pri.rc` file, modify the `FLAGS` parameter depending on the switch configuration.

The `FLAGS` parameter is written in a line in the file. For example:

```
FLAGS=0x409a9
```

For ...	Enter this FLAGS parameter ...
TBCT with a Lucent 5ESS switch on a National ISDN protocol	0x409a9
TBCT with a Nortel DMS100 switch on a National ISDN protocol	0x409a9
RLT with a Nortel DMS-100 switch on a Nortel proprietary switch	0x80949

To edit the `tbct.rc` file:

- 1 using `vi` or another UNIX text editor, open the `tbct.rc` file:

`/vs/data/pri/tbct.rc`

Following is an example `tbct.rc` file:

```
# /vs/data/tbct.rc
#
# 1-NT_RLT, 2-NT_NI, 3-LU_NI
TBCT_TYPE=3
# Number of reserved B Channels for transferring outgoing
calls.
BCH_RESERVE=10
# Priority. 1-Transfer on answer. 2-Transfer on alert.
# Not available for NT_RLT
PRIORITY=1
# Maximum number of rings before answering
MAX_RING=20
# Error Handling Method. 1-Stay Bridging, 2-Disconnect.
EH_METHOD=1
# Chan Hunting Method. 1-ascent. 2-descent.
CH_METHOD=1
```

2 Modify the field values as necessary in the **tbct.rc** file, following the guidelines in the following table, "Field values for tbct.rc file".

**Table 26. Field values for tbct.rc file**

Field	Specifies	Options	Default conditions
TBCT_TYPE	The type of TBCT / RLT PRI feature you subscribe to	<ul style="list-style-type: none"> <li>• 1 (Nortel RLT)</li> <li>• 2 (Nortel NI)</li> <li>• 3 (Lucent 5ESS)</li> </ul>	<p>If:</p> <ul style="list-style-type: none"> <li>• Any number besides 1, 2, or 3 is assigned here</li> <li>or</li> <li>• This parameter is missing in <b>tbct.rc</b></li> </ul> <p>TBCT_TYPE is set to 1.</p>
BCH_RESERVE	Number of reserved B-channels for outgoing calls	Any positive number between 1 and half of the number of B-channels on the system	<p>If:</p> <ul style="list-style-type: none"> <li>• Any number less than one or greater than half of the total B-channels is assigned here</li> <li>or</li> <li>• This parameter is missing in <b>tbct.rc</b></li> </ul> <p>BCH_RESERVE is assigned the number of B-channels on the system divided by four.</p>
PRIORITY RLT transfers only on CONNECT.	<p>The priority of sending the TBCT / RLT request to the network:</p> <ul style="list-style-type: none"> <li>• Transfer on CONNECT</li> </ul> <p>The call is transferred when the outgoing call is answered.</p> <ul style="list-style-type: none"> <li>• Transfer on ALERTING requests the transfer as soon as ring tone is detected.</li> </ul> <p>This option transfers the call more quickly.</p>	<ul style="list-style-type: none"> <li>• 1 (transfer on CONNECT)</li> <li>• 2 (transfer on ALERTING)</li> </ul>	<p>If:</p> <ul style="list-style-type: none"> <li>• Any number besides 1 or 2 is assigned here</li> <li>or</li> <li>• This parameter is missing in <b>tbct.rc</b></li> </ul> <p>PRIORITY is set to 1 (transfer on CONNECT).</p> <p>If you have the RLT service and assign 2, your service will still transfer on CONNECT.</p>

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Table 26. Field values for tbct.rc file

Field	Specifies	Options	Default conditions
MAX_RING (used only when PRIORITY = 1)	Maximum number of rings to wait for an answer before abandoning the call	Any number.	If: <ul style="list-style-type: none"> <li>Any number less than 0 is assigned here</li> <li>or</li> <li>This parameter is missing in <b>tbct.rc</b></li> </ul> MAX_RING is assigned the default of 20.
EH_METHOD	Error handling method if the transfer fails.	<ul style="list-style-type: none"> <li><b>1 (Stay Bridged)</b> Maintains a voice connection between the incoming and outgoing calls and waits for one of the parties to disconnect. This option uses more capacity of the call system.</li> <li><b>2 (Disconnect)</b> Disconnects the outgoing call. It also: <ul style="list-style-type: none"> <li>~ Returns an error indication to the application</li> <li>~ Logs a system alarm event</li> </ul> This option provides for a disconnect message.</li> </ul>	If: <ul style="list-style-type: none"> <li>Any number besides <b>1</b> or <b>2</b> is assigned here</li> <li>~ or</li> <li>This parameter is missing in <b>tbct.rc</b></li> </ul> EH_METHOD is set to 1.

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**Table 26. Field values for tbct.rc file**

Field	Specifies	Options	Default conditions
CH_METHOD	<p>Channel hunt method (ascend, or descend)</p> <p>To minimize collisions between incoming and outgoing calls, it is recommended that the system hunt for outgoing channels in the opposite direction from the direction the switch is using for incoming calls.</p>	<ul style="list-style-type: none"> <li>• <b>1</b> (ascending)</li> <li>• <b>2</b> (descending)</li> </ul>	<p>If:</p> <ul style="list-style-type: none"> <li>• Any number besides <b>1</b> or <b>2</b> is assigned here</li> <li>or</li> <li>• This parameter is missing in <b>tbct.rc</b></li> </ul> <p>CH_METHOD is set to <b>1</b>.</p>

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**3** Stop and then restart the voice system for the changes to take effect:

**stop\_vs**  
**start\_vs**

## Installing the Software Management Package

To install the Software Management optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Ensure that the HTML Server and Browser package has been installed by entering **pkginfo html**

If the HTML Server and Browser package has been installed, the system displays the following message:

```
intuity  html      Intuity html server and browser
```

If the system displays this message, continue with step 3.

If the HTML Server and Browser package has *not* been installed, the system displays the following message:

```
UX:pkginfo:ERROR: information for "html" was not found
```

If the system displays this message, see Installing the HTML Server and Browser Package on page 155 for the procedure to load this package.

- 3 Insert the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" into the CD-ROM drive.
- 4 At the UNIX prompt, enter **pkgadd -d cdrom1 swmgmt**

The system displays the following message

```
Insert CD into SCSI CD-ROM Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 5 Press **ENTER**.

The system displays the following message:

```
Installation in Progress. Do not remove the CD.  
PROCESSING:  
Package: Software Management (swmgmt) from <cdrom1>.  
  
Software Management  
(INTUITY) 8.0-0  
Using </> as the package base directory.  
/* Copyright (c) 1998 Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of Software Management (swmgmt) was successful.
```

The system then displays the UNIX prompt.

- 6 If you are finished installing the optional feature software, remove the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" from the CD-ROM drive.
- 7 Reboot the system. See "Rebooting the System" in "Common System Procedures", in the CONVERSANT System Version 8.0 System Reference, 585-313-215, for the procedure.

## Installing the T1 E&M Package

To install the T1 E&M optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Ensure that the T1 Driver package has been installed by entering **pkginfo t1driver**

If the T1 Driver package has been installed, the system displays the following message:

```
intuity  t1driver          INTUITY T1/E1 Board Driver
```

If the system displays this message, continue with step 3.

If the T1 Driver package has *not* been installed, the system displays the following message:

```
UX:pkginfo:ERROR: information for "t1driver" was not found
```

If the system displays this message, see Installing the E1/T1 Circuit Card Driver on page 161 for the procedure to load the driver.

- 3 Insert the diskette labeled “T1 E&M Interface Package” into the diskette drive.
- 4 At the UNIX prompt, enter **pkgadd -d diskette1 t1em**

The system displays the following message:

```
Insert diskette into diskette drive.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 5 Press **ENTER**.

The system displays the following message:

```
Installation in progress.  Do not remove the diskette.  
PROCESSING:  
Package: INTUITY T1 E&M Interface Package (t1em) from  
<diskette1>  
  
INTUITY T1 E&M Interface Package  
(i486) 4.0-3  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
This concludes the steps required to install the 'T1 E&M  
Interface Package' feature. However, additional steps are  
required to activate the feature. Consult the INTUITY VIS  
Operations guide for the steps required. Administration must  
also be done at the connecting end (PBX, ACD, or other  
switch) to properly configure the T1 channels.
```

```
Installation of INTUITY T1 E&M Interface Package (t1em) was  
successful.
```

The system then displays the UNIX prompt.

- 6 If you are finished installing the optional feature software, remove the diskette labeled "T1 E&M Interface Package" from the diskette drive.
- 7 Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Text-To-Speech Package

**Note:** If you are installing the TTS package and `feature_tst` is already installed on your system, once you have finished installing all other packages desired, you must remove `feature_tst` and reinstall it in order to select the TTS test.

To install the TTS optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled "CONVERSANT V.8.0 CVISset and Base Software Packages" into the CD-ROM drive.
- 3 At the UNIX prompt, enter **`pkgadd -d cdrom1 tts`**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Text To Speech Package (tts) from <cdrom1>  
  
INTUITY Text To Speech Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY Text To Speech Package (tts) was  
successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD labeled "CONVERSANT V8.0 CVISset and Base Software Packages" from the CD-ROM drive.
- 6 Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

For more information on this feature package, see *UCS 1000 R4.6 Speech Development, Processing, and Recognition*, 585-313-223.

## Installing the WholeWord Recognition Packages

The WholeWord recognition packages include the *WholeWord Recognition - Base* and the *WholeWord Recognition - Language*.

### Installing the WholeWord Recognition Base Package

**Note:** If you are installing the WholeWord Recognition - Base package and `feature_tst` is already installed on your system, once you have finished installing all other packages desired, you must remove `feature_tst` and reinstall it in order to select the ASR test.

To install the WholeWord Recognition - Base optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **`pkgadd -d cdrom1 asr`**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY WholeWord Recognition - Base (asr) from  
<cdrom1>  
  
INTUITY WholeWord Recognition - Base  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY WholeWord Recognition - Base (asr)  
was successful.
```

The system then displays the UNIX prompt.

- 5 Continue with Installing the WholeWord Recognition Language Package.

### Installing the WholeWord Recognition Language Package

To install the Wholeword Recognition Language optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the diskette labeled “WholeWord Recognition - *<language>*” into the diskette drive.
- 3 At the UNIX prompt, enter **pkgadd -d diskette1 <package>**

Enter the appropriate package for your language:

- ~ **usrecog** for U.S. English
- ~ **cfrecog** for Canadian French
- ~ **msrecog** for Latin American Spanish
- ~ **bprecog** for Brazilian Portuguese
- ~ **ukrecog** for U.K. English
- ~ **aurecog** for Australian English
- ~ **grrecog** for German
- ~ **csrecog** for Castilian Spanish
- ~ **jnrecog** for Japanese
- ~ **frrecog** for French
- ~ **nlrecog** for Dutch
- ~ **itrecog** for Italian

The system displays the following message:

```
Insert diskette into diskette drive.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays a message similar to the following:

```
Installation in progress. Do not remove the diskette.  
  
PROCESSING:  
Package: INTUITY WholeWord Recognition - US English (usrecog)  
from <diskette1>  
  
INTUITY WholeWord Recognition - US English  
(i486) 4.0-3  
Using </> as the package base directory.  
Avaya Inc.
```

The package name displayed in the message will match the package name on the diskette.

The system displays several status messages and then a message similar to the following:

```
Installation of INTUITY WholeWord Recognition - US English  
(usrecog) was successful.
```

The package name displayed in the message will match the package name on the diskette.

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the diskette labeled "WholeWord Recognition - *<language>*" from the diskette drive.
- 6 Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

For more information on this feature package, see *UCS 1000 R4.6 Speech Development, Processing, and Recognition*, 585-313-223.

## Installing the Feature Test Script Package

**Note:** Install the Feature Test Script optional feature package *only after* all the other optional feature packages have been installed:

To install the Feature Test Script optional feature package:

- 1 Insert the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" into the CD-ROM drive.

- 2 At the UNIX prompt, enter **pkgadd -d cdrom1 ftst**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 3 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Feature Test Script Package (ftst) from  
<cdrom1>  
  
INTUITY Feature Test Script Package  
(i486) 4.3.1-5  
  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays the following message:

```
Do you want to include the Simple CCA test? (y/n)
```

**Note:** If you answer **y** and that package has not been installed on your system, you are given an opportunity to cancel the installation. The following is an example for Full CCA:

```
Displaypkg shows that Full CCA is not installed.  
You will not be able to test Full CCA with this script.  
Type q to quit or return to continue.
```

- 4 Enter **y**

The system displays the following message:

```
Do you want to include the Playback and Coding test? (y/n)
```

**5** Enter **y**

The system displays the following message:

```
Do you want to include the Chantst test? (y/n)
```

**6** Enter **y**

The system displays the following message:

```
Do you want to include the Transfer Test test? (y/n)
```

**7** Enter **y**

The system displays the following message:

```
Do you want to include the Text to Speech test? (y/n)
```

**8** Enter **y**

The system displays the following message:

```
Do you want to include the Dial Pulse Recognition test? (y/n)
```

**9** Enter **y**

The system displays several status messages and then the following messages:

```
Installing feature_tst application scripts.
```

```
Adding phrases to talkfile2.
```

```
The script feature_test is now installed and is available.
```

```
Installation of INTUITY Feature Test Script Package (ftst)
was successful.
```

The system then displays the UNIX prompt.

- 10** If you are finished installing the optional feature software, remove the CD-ROM labeled "CONVERSANT V8.0 CVISset and Base Software Packages" from the CD-ROM drive.
- 11** Reboot the system. See "Rebooting the System," in "Common System Procedures," in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Universal Call ID Package

To install the Universal Call ID optional feature package:

- 1 If you are not already logged in as **root**, do so now.
- 2 Insert the CD-ROM labeled “ASAI Feature Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 ucid**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY Universal Call ID Package (ucid) from  
<cdrom1>  
  
INTUITY Universal Call ID Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY Universal Call ID (ucid) was  
successful
```

The system displays the UNIX Login prompt.

- 5 Remove the CD-ROM labeled “ASAI Feature Software Packages” from the CD-ROM drive.

In order to activate this feature, you must specify the UCID Network Node ID. See Chapter 4, “Feature Package Administration,” of *CONVERSANT System Version 8.0 Administration*, 585-313-508.

## Installing the SNMP Emanate Agent Package

To install the SNMP Emanate Agent optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 snmp**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: INTUITY SNMP Emanate Agent (snmp) from <cdrom1>  
  
INTUITY SNMP Emanate Agent Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of INTUITY SNMP Emanate Agent (snmp) was  
successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Script Builder Package

To install this optional feature package, do the following:

- 1 If you are not already logged in as **root**, do so now.
- 2 Insert the CD-ROM labeled "Script Builder" into the CD-ROM drive
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 sb**

The system displays the following message:

```
Insert CD-ROM into SCSI CD-ROM Drive 1.  
Type [go] when ready,  
    or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
PROCESSING:  
Set: INTUITY Script Builder (sb) from <cdrom1>  
  
INTUITY Script Builder  
(i486)  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of Script Builder (sb) was successful.  
  
Insert CD into SCSI CD-ROM Drive 1.  
Type [go] when ready,  
    or [q] to quit: (default: go)
```

- 5 Enter **q**
- 6 Remove the CD-ROM labeled "Script Builder" from the CD-ROM drive.

For more information on this feature, see *CONVERSANT Version 8.0 Application Development with Script Builder*, 585-313-217.

## Installing the GNU File Compression Utilities

To install the GNU File Compression Utilities optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 gzip**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
  
PROCESSING:  
Package: g-zip GNU File Compression Utilities (gzip) from  
<cdrom1>  
  
g-zip GNU File Compression Utilities  
(i386) Version 1.2.4  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of g-zip GNU File Compression Utilities (gzip)  
was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing Perl

To install the Perl optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 Perl**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
PROCESSING:  
Package: Perl (Perl) from <cdrom1>  
  
Perl  
(i386) Version 5.003  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of Perl (Perl) was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the SAMBA Connectivity

To install the SAMBA Connectivity optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” into the CD-ROM drive.
- 3 At the UNIX prompt, enter **pkgadd -d cdrom1 samba**

The system displays the following message:

```
Insert CD into SCSI CD-Rom Drive 1.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the CD.  
PROCESSING:  
Package: SAMBA Connectivity (samba) from <cdrom1>  
  
SAMBA Connectivity  
(i486) Version 2.0.6  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of SAMBA Connectivity (samba) was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the CD-ROM labeled “CONVERSANT V8.0 CVISset and Base Software Packages” from the CD-ROM drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the User Interface Internationalization Module

To install the User Interface Internationalization Module optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the diskette labeled “User Interface Internationalization Package” into the diskette drive.
- 3 At the UNIX prompt, enter **pkgadd -d diskette1 ui2m**

The system displays the following message:

```
Insert diskette into diskette drive.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the diskette.  
  
PROCESSING:  
Package: UI2M - User Interface Internationalization Module  
(ui2m) from <diskette1>  
  
UI2M - User Interface Internationalization Module  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of UI2M - User Interface Internationalization  
Module (ui2m) was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the diskette labeled "User Interface Internationalization Package" from the diskette drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Ground Start FXS Package

To install the Ground Start FXS optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the diskette labeled “Ground Start FXS Package” into the diskette drive.
- 3 At the UNIX prompt, enter **pkgadd -d diskette1 Ground**

The system displays the following message:

```
Insert diskette into diskette drive.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the diskette.  
  
PROCESSING:  
Package: Ground Start FXS Package (Ground) from <diskette1>  
  
Ground Start FXS Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of Ground Start FXS Package (Ground) was  
successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the diskette labeled "Ground Start FXS Package" from the diskette drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Installing the Loop Start FXS Package

To install the Loop Start FXS optional feature package:

- 1 If you are not already logged in as root, do so now.
- 2 Insert the diskette labeled “Loop Start FXS Package” into the diskette drive.
- 3 At the UNIX prompt, enter **pkgadd -d diskette1 Loop**

The system displays the following message:

```
Insert diskette into diskette drive.  
Type [go] when ready,  
or [q] to quit: (default: go)
```

- 4 Press **ENTER**.

The system displays the following message:

```
Installation in progress. Do not remove the diskette.  
PROCESSING:  
Package: Loop Start FXS Package (Loop) from <diskette1>  
  
Loop Start FXS Package  
(i486) 4.3.1-5  
Using </> as the package base directory.  
Avaya Inc.
```

The system displays several status messages and then the following message:

```
Installation of Loop Start FXS Package (Loop) was successful.
```

The system then displays the UNIX prompt.

- 5 If you are finished installing the optional feature software, remove the diskette labeled "Loop Start FXS Package" from the diskette drive.
- 6 Reboot the system. See “Rebooting the System,” in “Common System Procedures,” in the *UCS 1000 R4.6 System Reference*, 585-313-221, for the procedure.

## Removing Software Packages

There are some *important* issues you need to be aware of when removing software from your system:

- If you are finished installing the optional feature software, remove all services, functions, or card assignments before removing any software packages.
- When removing the Application software, you are asked if you want to remove speech file systems. Answer **no** to this prompt.
- During an initial installation of the Base ORACLE RDBMS package, a user called “oracle” is created. This user is not removed when the Base ORACLE RDBMS package is removed. Once all the base and add-on ORACLE packages have been removed, if you want to remove the “oracle” user, do so through **SYSADM**. See Appendix A, “System Administration Features,” in *UCS 1000 R4.6 Administration*, 585-313-509, for more information.

Software packages can be removed using the *command line* or by using the *administration screens*.

### Using the Command Line

To remove software packages using the command line:

- 1 Enter **pkgrm**
- 2 At the prompt, enter the number (as it appears on the screen) beside the package you want to remove.
- 3 Repeat step 2 for each package you want to remove.

### CAUTION:

After you have removed packages from a UnixWare system, you *must* reboot the system before reinstalling packages. You can remove more than one package before rebooting, but you must reboot before reinstalling any packages.

### Using the Administration Screens

**Note:** Your system must have the Unix Management Screens Package installed in order to use this procedure.

To remove software using the administration screen:

- 1 Starting at the Voice System Administration menu, select:

```
> UNIX Management
    >Software Remove
```

The system displays the Software Remove screen (Figure 114 on page 195) which lists the software installed on the system.

Figure 114. Software Remove Screen

```
Software Remove Screen

The following packages are available:

  1. CVISset      INTUITY CONVERSANT VIS V8 Set
                   (i486) 4.3.1-5
  2. asp          INTUITY ASP Driver Package
                   (i486) 4.3.1-5
  3. dpr          INTUITY Dial-Pulse Recognition Package
                   (i486) 4.3.1-5

... more menu choices to follow:
<RETURN> for more choices, <CTRL-D> to stop display:
```

**2** Locate the package you want to remove.

**3** Note the number of the package given in the first column.

**4** Press **Control+D**

The system displays the following message:

```
Select package(s) you wish to process (or 'all' to process
all packages). (default: all) [?,??,q]
```

**5** Enter the number of the package.

The system displays the name and version number for the package selected.

**6** Enter **y**

The system removes the package.

**Note:** If the system displays any messages warning of dependencies, enter **y** again to continue with the software removal.

**7** Press **ENTER**.



# A System Configuration

## Overview

This appendix describes the placement of components in the MAP/40P and the operation of the Hardware Resource Allocator. The information is designed to enable technicians to reconfigure the CONVERSANT system when it is necessary to add or remove hardware.

Topics covered include:

- Component Assignments on page 197
- Operating the Hardware Resource Allocator on page 198
- Configuration Device Data on page 209

## Component Assignments

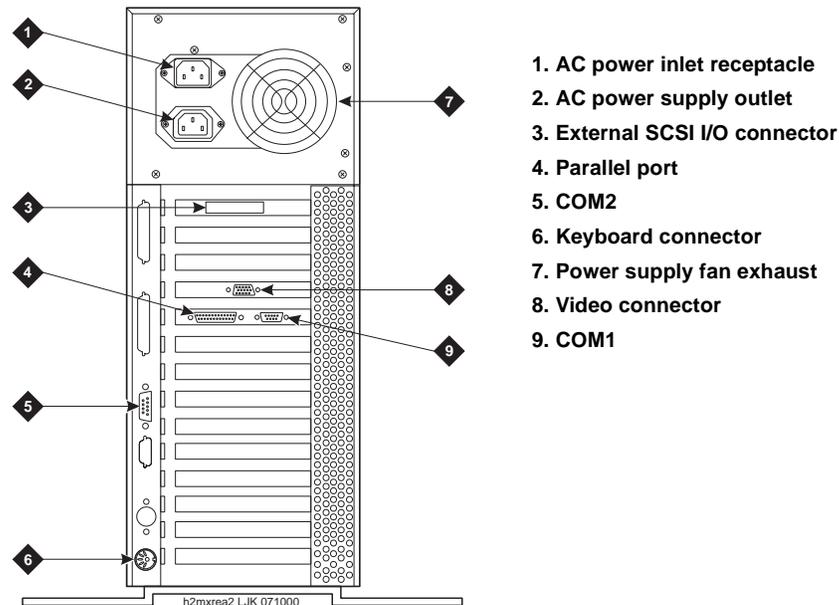
Circuit cards are placed in the MAP/40P in locations called *slots*. Slots are numbered ISA1 through ISA 10 and PCI 1 through PCI 3 from the bottom of the MAP/40P to the top of the card cage. Slots are accessible from the back of the MAP/40P (Figure 115 on page 198).

Table 27 lists the SCSI IDs for the components installed for the CONVERSANT system.

**Table 27. MAP/40P Resource Locations**

Device	SCSI ID
Primary hard disk drive	0
Secondary hard disk drive (if present)	1
Tape drive	3
Diskette drive	N/A

Figure 115. Back View of the MAP/40P



## Operating the Hardware Resource Allocator

Operation of the Hardware Resource Allocator includes the following tasks:

- Adding Hardware to an Existing Configuration on page 198
- Removing Hardware from an Existing Configuration on page 200
- Specifying a New Configuration on page 203
- Saving a Configuration on page 205
- Viewing a Configuration on page 206
- Comparing a Configuration on page 208
- Presetting Hardware Resources on page 208

### Adding Hardware to an Existing Configuration

When you modify an existing configuration, you might have to change the current resource assignments:

- Differences in slot assignments or serial or parallel port assignments **do not** require switch settings and/or driver software changes. However, you might need to rearrange the cards and/or cables to fit the new configuration output.
- Differences in INTR, DMAC, IOADDR, or RAMADDR assignments *will* in most cases require you to change switch settings and reinstall driver software for the affected cards.

To add hardware to an existing configuration:

**1** Enter **get\_config**

The system displays the following message:

```
This program retrieves the /vs/data/confData file for a given
VIS machine from floppy disk. This file represents the
configuration of the machine and is required in order for the
/vs/bin/util/configure program to upgrade the machine with
new or additional hardware.
```

```
Please insert the "CONFIGURATION DATA" floppy for this
machine.
```

```
Press <Enter> when ready to proceed...
```

**2** Insert the diskette labeled "Configuration Data" into the diskette drive.

**3** Press **ENTER**.

The system displays the following message:

```
Working.../vs/data/confData retrieved
```

```
UNIX_SV#
```

**4** Make a hard copy of the current configuration by printing the output of the **show\_config** command. See Viewing a Configuration on page 206 for an explanation of the **show\_config** command.

**5** Enter **configure**

The system displays the following message:

```
A configuration file, confData, exists.
Do you wish to make changes to the previous configuration
[y|n]?
```

**6** Enter **y**

The system displays the following message:

```
Reading old configuration. Please wait...
```

```
Successfully read MAP/40P Platform with PCI backplane and P5
200 CPU.
```

```
Adding device ADAPSCSI
```

```
Adding device VIDEO
```

```
Adding device SCSIHD
```

```
Adding device SCSITAPE
```

```
Press any key to continue...
```

**Note:** This message depends on your system configuration and may look different than the one shown.

**7** Press **ENTER**.

The system displays the Device Menu screen (Figure 120 on page 204).

**8** Select the hardware item you want to add to the configuration file. Use the **▲** up arrow and **▼** down arrow keys to move through the screen.

- 9 Press **ENTER**.
- 10 If the system displays the following message:  

```
Enter quantity to add (X max in multiples of 1):
```

Enter the quantity of this hardware item you want to install in your system.

If the system does not display this message, continue with Step 11.
- 11 If the system displays the following message:  

```
Do you wish to preset hardware options for device  
XXXX [y|n]?
```

enter **n**

If the system does not display this message, continue with Step 12.
- 12 When the system displays the following message:  

```
1 XXXX device(s) added.  
Press Enter to continue...
```

press **ENTER**.

The system displays the Device Menu screen (Figure 120 on page 204).
- 13 When you are done adding hardware to the configuration press **d**.

The system displays the following message:

```
Configuration complete and successful.  
Configuration data written to file: /vs/data/confData.
```

- 14 View the new configuration file to make sure you have added the correct hardware. See Viewing a Configuration on page 206 for the procedure.
- 15 Make the necessary adjustments on the installed hardware based on the new configuration.
- 16 Save the new configuration. See Saving a Configuration on page 205 for the procedure.
- 17 Enter **hconchk**

The system displays the following message:

```
hconchk: The hardware configuration check is complete.
```

## Removing Hardware from an Existing Configuration

When you modify an existing configuration, you might have to change the current resource assignments:

- Differences in slot assignments or serial or parallel port assignments *do not* require switch settings and/or driver software changes. However, you might need to rearrange the cards and/or cables to fit the new configuration output.
- Differences in INTR, DMAC, IOADDR, or RAMADDR assignments *will* in most cases require you to change switch settings and reinstall driver software for the affected cards.

To remove hardware from an existing configuration:

**1** Enter **get\_config**

The system displays the following message:

```
This program retrieves the /vs/data/confData file for a given
VIS machine from floppy disk. This file represents the
configuration of the machine and is required in order for the
/vs/bin/util/configure program to upgrade the machine with
new or additional hardware.
```

```
Please insert the "CONFIGURATION DATA" floppy for this
machine.
```

```
Press <Enter> when ready to proceed...
```

**2** Insert the diskette labeled "Configuration Data" into the diskette drive.

**3** Press **ENTER**.

The system displays the following message:

```
Working.../vs/data/confData retrieved
```

```
UNIX_SV#
```

**4** Make a hard copy of the current configuration by printing the output of the **show\_config** command. See Viewing a Configuration on page 206 for an explanation of the **show\_config** command.

**5** Enter **configure**

The system displays the following message:

```
A configuration file, confData, exists.
Do you wish to make changes to the previous configuration
[y|n]?
```

**6** Enter **y**

The system displays the following message:

```
Reading old configuration. Please wait...
```

```
Successfully read MAP/40P Platform with PCI backplane and P5
200 CPU.
```

```
Adding device ADAPSCSI
```

```
Adding device VIDEO
```

```
Adding device SCSIHD
```

```
Adding device SCSITAPE
```

```
Press any key to continue...
```

**Note:** This message depends on your system configuration and may look different than the one shown.

**7** Press **ENTER**.

The system displays the Device Menu screen (Figure 120 on page 204).

**8 Press r**

The system displays the Currently Selected Devices screen (Figure 116).

**Figure 116. Currently Selected Devices Screen**

```

Currently Selected Devices

1  SCSI_TAPE_DRIVE      5  SCSI_TAPE_DRIVE      9  SP
2  VIDEO_CONTROLLER    6  16MB_SIMM             10 SP
3  RMB_M               7  16MB_SIMM             11 IVP6
4  SCSI_DISK           8  COMPANION             12 ETHERNET

Select Device to remove, q to quit

```

**Note:** This screen depends on your system configuration and might look different than the one shown.

**9** Place the cursor on the hardware item you want to remove from the configuration file. Use the **▲** up arrow and **▼** down arrow keys to move through the screen.

**10 Press ENTER.**

The system displays the following message:

```

You have currently selected 1 XX device(s)
How many do you wish to remove?

```

**11** Enter the quantity of the hardware item you want to remove from your system.

The system displays the Currently Selected Devices screen (Figure 116).

**12** Do one of the following:

- ~ If you want to remove additional hardware from your system, repeat Step 9 through Step 11.
- ~ If you are done removing hardware from your system, press **q**.

The system displays the Device Menu screen (Figure 120 on page 204).

**13 Press d.**

The system displays the following message:

```

Configuration complete and successful.
Configuration data written to file: /vs/data/confData.

```

**14** View the new configuration file to make sure you removed the correct hardware. See Viewing a Configuration on page 206 for the procedure.**15** Make the necessary adjustments on the installed hardware based on the new configuration.**16** Save the new configuration. See Saving a Configuration on page 205 for the procedure.**17 Enter hconchk**

The system displays the following message:

```

hconchk: The hardware configuration check is complete.

```

## Specifying a New Configuration

To specify a new configuration:

**1** Enter **configure new**

The system displays the Platform Menu screen (Figure 117).

**Figure 117. Platform Menu Screen**

```

-----
                        Platform Menu
-----
1  MAP/5P                3  MAP/100P
2  MAP/40P               4  MAP/100C
-----
                        Select a Platform

```

**2** Place the cursor on **MAP/40P**.

**3** Press **ENTER**.

The system displays the Backplane Menu screen (Figure 118).

**Figure 118. Backplane Menu screen**

```

-----
Backplane Menu
-----
1  ISA                2  PCI
-----
Select a Backplane for MAP/40P

```

**Note:** This screen depends on your system configuration and might look different than the one shown.

**4** Place the cursor on appropriate backplane type.

**5** Press **ENTER**.

The system displays the CPU Menu screen (Figure 119).

**Figure 119. CPU Menu screen**

```

-----
CPU Menu
-----
1  Pentium200
-----
Select a CPU for MAP/40P with PCI

```

**Note:** This screen depends on your system configuration and might look different than the one shown.

**6** Place the cursor on the appropriate CPU type.

**7** Press **ENTER**.

The system displays the Device Menu screen (Figure 120).

**Figure 120. Device Menu Screen**

```

Device Menu

1  SCSI_TAPE_DRIVE      17  T1              33  EICON
2  SCSI_DISK            18  T1_AYC21        34  8_PORT_SERIAL_EXP
3  PCI_SCSI             19  E1_AYC21        35  MEGA_8_PORT_SERIAL
4  EXT_SCSI             20  SP              36  REMOTE_TERMINAL
5  16MB_SIMM            21  MEGASP          37  EXTERNAL_MODEM
6  32MB_SIMM            22  SSP             38  SERIAL_PRINTER
7  VIDEO_CONTROLLER    23  COMPANION       39  SERIAL_MOUSE
8  RMB_M                24  TOKEN_RING      40  PS2_MOUSE
9  RMB_SP               25  CLEO_PCXL       41  PARALLEL_PRINTER
10 IVP6                 26  FIFO_SIB        42  FAX
11 IVC6                 27  ETHERNET        43  DCP
12 IVP6IU              28  PCI_LAN         44  DCP_NO_DMA
13 IVP6IA              29  IPCI            45  COLOR_CONSOLE
14 IVP6ID              30  PROTOCOL_CONV   46  VOICE_WORKSTATION
15 IVC6IA              31  ACCX
16 NGTR6               32  GPSYNC

Select Device #, r to remove, s to show, d when done, or q to quit

```

**Note:** This screen depends on your system configuration and might look different than the one shown.

**8** Place the cursor on the hardware item you want to add to the configuration file. Use the  up arrow and  down arrow keys to move through the screen.

**9** Press **ENTER**.

**10** Do one of the following:

~ If the system displays the following message, enter the quantity of this hardware item that you want to install in your system:

```
Enter quantity to add (X max in multiples of 1):
```

~ If the system does not display this message, continue with Step 11.

**11** Do one of the following:

~ If the system displays the following message, enter **n**:

```
Do you wish to preset hardware options for device
XXXX [y|n]?
```

~ If the system does not display this message, continue with Step 12.

**12** When the system displays the following message, press **ENTER**:

```
1 XXXX device(s) added.
```

```
Press Enter to continue...
```

The system then displays the Device Menu screen (Figure 120).

- 13 When you are done adding hardware to the configuration press **d**.

The system displays the following message:

```
Configuration complete and successful.  
Configuration data written to file: /vs/data/confData.
```

- 14 View the new configuration file to make sure you have added the correct hardware. See Viewing a Configuration on page 206 for the procedure.
- 15 Make the necessary adjustments on the installed hardware based on the new configuration.
- 16 Save the new configuration. See Saving a Configuration on page 205 for the procedure.
- 17 Enter **hconchk**

The system displays the following message:

```
hconchk: The hardware configuration check is complete.
```

## Saving a Configuration

The system configuration should be saved whenever a change has been made.

To save the system configuration:

- 1 Enter **save\_config**

The system displays the following message:

```
This program copies the /vs/data/confData file for a given  
VIS machine to floppy disk. This file represents the  
configuration of the machine. The floppy must be kept in a  
safe place. It will be required as input for the  
/vs/bin/util/configure program in the event of a hardware  
upgrade to this machine.
```

```
Please insert the "CONFIGURATION DATA" floppy for this  
machine.
```

```
Press <Enter> when ready to proceed...
```

- 2 Insert the diskette labeled "Configuration Data" into the diskette drive.
- 3 Press **ENTER**.

The system displays the following message:

```
Working.../vs/data/confData  
/vs/data/confData saved  
UNIX_SV#
```

- 4 Remove the diskette labeled "Configuration Data" from the diskette drive.

### **CAUTION:**

Be sure you put the diskette in a safe place.

## Viewing a Configuration

The `show_config` command allows you to view:

- Successful configurations
- Unsuccessful configurations
- Dated configurations

### Viewing a Successful Configuration

To view a successful system configuration:

**1** Enter **show\_config**

The system displays the following message:

```
Using /vs/data/confData as configuration data input file.
Output file is ./configuration
```

**2** If the system displays the following message, enter **y**:

```
A "./configuration" file already exists
Overwrite? [y|n]
```

The system then displays the following message:

```
Configuration has been written to the "./configuration"
```

**3** Enter **vi ./configuration**

The system displays the System Configuration Table screen (Figure 121).

**Figure 121. Partial System Configuration Table Screen**

```

SYSTEM CONFIGURATION TABLE

PLATFORM

MAP/40P
Description: MAP/40P platform w/ PCI backplane and P5200 CPU
Backplane:   PCI
CPU:         P5200

DEVICES

Device Name:      VIDEO_CONTROLLER
Device Description: [S]VGA Video Card

LOCATION  TDM?  INTR  IOADDR  RAMADDR  DMA  PORT  SCSI ID
-----  ----  ----  -
PCI 2   -     -     3b0    a0000

Device Name:      RMB_M
Device Description: Remote Maintenance Board with modem interface

LOCATION  TDM?  INTR  IOADDR  RAMADDR  DMA  PORT  SCSI ID
-----  ----  ----  -
ISA9   -     3     180    d1000

```

**4** Use the  up arrow and  down arrow keys to move through the screen.

**Viewing an Unsuccessful Configuration**

To view an unsuccessful system configuration:

**1** Enter **show\_config fail**

The system displays the following message:

```
Using /vs/data/fail_data as configuration data input file.  
Output file is ./failed_config
```

```
Configuration has been written to the "./failed_config"
```

**2** Enter **vi ./failed\_config**

The system displays a System Configuration Table screen similar to the one shown in Figure 121 on page 206. Asterisks (\*) next to any field value indicate an unresolved resource conflict.

**3** Use the  up arrow and  down arrow keys to move through the screen.**Viewing a Dated Configuration**

You can also use **show\_config** to view a previous configuration file saved by the configure program. To do this, type the command with a file name argument (for example, **show\_config /vs/data/conf\_MMDDYY**). This command line expands the contents of the **conf\_MMDDYY** file (if it exists) and prints its output to the screen. The program prompts you for an output file name so as to specify the output to this file rather than to the **./configuration** file.

To view a dated system configuration:

**1** Enter **show\_config /vs/data/conf\_MMDDYY**

where *MMDDYY* is the month, day, and year of the configuration you want to view.

The system displays the following message:

```
Using /vs/data/conf_MMDDYY as configuration data input file.
```

```
Please specify full path name of output file for this configuration:
```

**2** Enter **pathname/fn**

where *pathname* is the file location and *fn* is the filename.

The system displays the following message:

```
Configuration has been written to the "pathname/fn" file.
```

**3** Enter **vi pathname/fn**

where *pathname* is the file location and *fn* is the filename from Step 2.

The system displays a System Configuration Table screen similar to the one shown in Figure 121 on page 206.

**4** Use the  up arrow and  down arrow keys to move through the screen.

## Comparing a Configuration

The hardware configuration checker verifies that the device configuration information associated with the hardware resource allocator is consistent with the actual system device configuration.

To verify the configuration:

- 1 Enter **hconchk**

The system displays the following message:

```
hconchk: The hardware configuration check is complete.
```

If you receive any other error message or warning see “Alarm and Log Messages,” in the *CONVERSANT System Reference*, 585-313-215.

## Presetting Hardware Resources

The preset option allows you to preset the resources used for a particular card. This makes the card compatible and interchangeable with any of your application setups. The purpose of this option is to give you the flexibility to use your hardware with more than one application. You may want to preset certain resources of a single new device being selected for a configuration, for example, to force the configure program to select interrupt 6 for a particular device being specified.

If you have preset hardware resources, the CONVERSANT Hardware Resource Allocator makes one attempt at configuration. If this attempt is successful, the program terminates normally. A second attempt is not performed.

To preset hardware resources:

- 1 When you specify a single device, the system displays the following prompt:

```
Do you wish to preset any hardware options of <device name>?  
[y|(n)]
```

- 2 Press **y**

The system asks you to select a value for the following parameters (where applicable):

- ~ IRQ
- ~ I/O address
- ~ RAM address
- ~ DMA address

When you have entered all applicable presets, the system displays the following message:

```
Press Enter to continue...
```

- 3 Press **ENTER**.

The system displays the following message:

```
1 XXX device(s) added.  
Press Enter to continue...
```

**4** Press **ENTER**.

The system displays the Device Menu screen (Figure 120 on page 204).

**5** Enter **hconchk**

The system displays the following message:

```
hconchk: The hardware configuration check is complete.
```

## Configuration Device Data

The **deviceData** file stores the devices and the attributes for creating a configuration. The **show\_devices** command displays and prints to a file all devices and their attributes as represented in the **deviceData** file.

**CAUTION:**

Do not alter this file.

### The show\_devices Command

The **show\_devices** command uncompresses the database of devices and their attributes contained in the **deviceData** file and displays the information on the screen. At the same time, it creates a **./devices** file so that you can send this information to a printer.

If a **./devices** file already exists, you are prompted as to whether it is acceptable to overwrite the existing file.



# B Component Ordering Numbers

## Overview

This appendix provides the ordering numbers for replacement components used in the MAP/40P.

## Component Ordering Numbers

Table 28 contains a list of component ordering numbers.

**Table 28. Component Ordering Numbers**

Basic Component Description	Order Number
Adapter, 356A	104158829
Adapter, 356B	105197297
Adapter, 415A (for extending E1/T1 cables)	103942272
Adapter, electrical, DCE female	407345776
Adapter, electrical, DCE male (wyse trm, prntrs)	407050111
Adapter, RJ45--DB25, DCE male (octopus)	406983171
Adapter, electrical, DTE female	407345768
Adapter, electrical, DTE male (modems)	407050095
Adapter, RJ45--DB-25, DTE male (octopus)	406983155
Adapter, electrical, jack to jack	407005255
Adapter, electrical, external SCSI	407524073
Adapter, T1-to-551 Paradyne CSU	407665884
Backplane, 12-slot	406900084
Backplane, 13 slot	407561125
Backplane, 13-slot (9-ISA, 3-PCI, 1-CPU)	407788702
Base, tower	406900019
Bezel, front	406900001
Bezel	407791060
Brackets, PC filter (20)	406798686
Cable, floppy drive	407561109

1 of 7

Table 28. Component Ordering Numbers

Basic Component Description	Order Number
Cable assembly, 386 keyboard/reset	601436066
Cable assembly, 486 keyboard adapter	601436082
Cable assembly, 486 reset	601436090
Cable assembly, 9 position TDM bus	601412836
Cable assembly, audio input/output	407667757
Cable assembly, COM2	406899963
Cable assembly, CPU extension	601436132
Cable assembly, disk activity	406899856
Cable assembly, E1 M/M, 25 ft (BNC Coaxial)	407615285
Cable assembly, E1 M/M, 75 ft (BNC Coaxial)	407615277
Cable assembly, E1/Aculab, 75 Ohm M/M	407276211
Cable assembly, E1/T1 MF crossover adapter (TwPr)	407617968
Cable assembly, E1/T1 M/M, 25 ft (TwPr)	407613983
Cable assembly, E1/T1 M/M, 75 ft (TwPr)	407613975
Cable assembly, EMI suppression (RMB)	407265529
Cable assembly, diskette drive	601412851
Cable assembly, diskette drive, LED	407789932
Cable assembly, diskette drive (SCSI units)	601412851
Cable assembly, hard drive	601412844
Cable assembly, LED PCB/fan	406899872
Cable assembly, M/F RS232	405119355
Cable assembly, reset/dual keyboard	406899997
Cable assembly, reset/dual keyboard	407076876
Cable assembly, SCSI peripheral control	601436058
Cable assembly, SP/CMP bus	601412828
Cable assembly, switch power extension	406932947
Cable assembly, T1, line side adapter	601806649
Cable assembly, T1, 75 ft	601386873
Cable assembly, tape drive	601415227
Cable assembly, TDM Bus, 9 Pos.	601412836
Cable assembly, telephone cord, 3-ft	601448632
<b>2 of 7</b>	

**Table 28. Component Ordering Numbers**

<b>Basic Component Description</b>	<b>Order Number</b>
Cable assembly, utility harness	407789916
Cable assembly, bus activity (P5, 100-PCI)	601818206
Cable assembly, bus mouse (P5 MAPs)	601855851
Cable assembly, SCSI (P5 & 525-MB tape drive)	601818230
Cable assembly, SCSI (P5 and 2-GB tape drive)	601818313
Cable assembly, SCSI	601854706
Cable assembly, floppy (P5)	601818339
Cable assembly, floppy	407795947
Cable assembly, keyboard (P5, 100-PCI, 100C-PCI)	601818412
Cable assembly, keyboard	407789890
Cable assembly, modular, 25-ft RJ-45 reversing (EQUINOX SSt-8I)	407463157
Card guide, 4-in.	407789049
Chassis, slide kit	407562081
Circuit card, 8-port asynchronous interface	406618538
Circuit card, 8-port asynchronous interface	407009046
Circuit card, companion processor (CMP)	106024151
Circuit card, companion processor (CMP)	106944960
Circuit card, CPU, 25-MHz, 0 MB memory	407019272
Circuit card, CPU, 25-MHz, 12 MB memory	406900100
Circuit card, CPU, 25-MHz, 12 MB memory	406989806
Circuit card, CPU, 50-MHz, 0 MB memory	407019306
Circuit card, DCP, PC/PBX interface	106986870
Circuit card, disk drive controller	406222109
Circuit card, E1, digital interface	106733348
Circuit card, Ethernet LAN adapter (10MB/PCI)	407553254
Circuit card, Ethernet LAN interface, Version 1	407199538
Circuit card, Ethernet LAN interface, Version 2	601834153
Circuit card, fax, TR114+14L (Australia)	407334754
Circuit card, fax, TR114+14L (Australia)	407433424
Circuit card, fax, TR114+14L (Australia)	407644673
<b>3 of 7</b>	

Table 28. Component Ordering Numbers

Basic Component Description	Order Number
Circuit card, fax, TR114+14L (France)	407658749
Circuit card, fax, TR114+14L (Germany)	407468982
Circuit card, fax, TR114+14L (Germany)	407644681
Circuit card, fax, TR114+14L (Japan)	407389659
Circuit card, fax, TR114+14L (Japan)	407644707
Circuit card, fax, TR114+14L (Netherlands)	407455484
Circuit card, fax, TR114+14L (Netherlands)	407644715
Circuit card, fax, TR114+14L (Spain)	407658731
Circuit card, fax, TR114+14L (United Kingdom)	407334770
Circuit card, fax, TR114+14L (United Kingdom)	407433440
Circuit card, fax, TR114+14L (United Kingdom)	407644723
Circuit card, fax, TR114+14L (US & Canada)	407334747
Circuit card, fax, TR114+14L (US & Canada)	407433408
Circuit card, fax, TR114+14L (US & Canada)	407612126
Circuit card, fax, TR114+14L (Hong Kong)	407334762
Circuit card, fax, TR114+14L (Hong Kong)	407433432
Circuit card, fax, TR114+14L (Hong Kong)	407632421
Circuit card, fax, TR114+14L (Hong Kong)	407644699
Circuit card, fax, TR114-14L (US & Canada)	407455450
Circuit card, LAN interface	406230573
Circuit card, LAN interface	406972646
Circuit card, remote maintenance	406969238
Circuit card, SCSI drive controller	406830356
Circuit card, SCSI drive controller	407021856
Circuit card, Speech and Signal Processor (SSP)	107570491
Circuit card, tip/ring (IVC6)	106406580
Circuit card, tip/ring (IVC6-1A)	107213944
Circuit card, tip/ring (IVP4) analog interface	106024094
Circuit card, tip/ring (IVP4) analog interface	106769227
Circuit card, tip/ring (IVP6) analog interface	105732267
Circuit card, tip/ring (IVP6) analog interface	106430861

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**Table 28. Component Ordering Numbers**

<b>Basic Component Description</b>	<b>Order Number</b>
Circuit card, tip/ring (IVP6) analog interface	107213936
Circuit card, tip/ring (IVP6-IA) analog interface	107101164
Circuit card, tip/ring (IVP6-ID) analog interface	107213381
Circuit card, tip/ring (IVP6-IU) analog interface	106560170
Circuit card, tip/ring, Next Generation (NGTR)	107224586
Circuit card, serial synchronous interface	406715771
Circuit card, signal processor (SP)	106406572
Circuit card, signal processor (SP)	106439839
Circuit card, starlan interface	406817999
Circuit card, synchronous host interface (FIFO/SIB)	407176601
Circuit card, synchronous interface	601824956
Circuit card, T1 digital interface	106077753
Circuit card, T1 digital interface with upgrade kit	601413172
Circuit card, tape drive controller	406272799
Circuit card, token ring, Version 1	407199637
Circuit card, token ring, Version 2	407664507
Circuit card, video controller	406901884
Circuit card, video controller	407095835
Circuit card, video controller	407356955
Circuit card, video controller, PCI	407783620
Connector, BNC Wye LAN	405990169
Cord, 10-pin modular, 10 ft	846362705
Cord, 10-pin modular, 10 ft	846983039
Cord, 6-pin modular, 14-ft	102937604
Cord, AC power, 9-ft	406900092
Cord, AC power, Australia, 8-ft	407051630
Cord, AC power, Chile (Italy-style), 6-ft	407515196
Cord, AC power, Germany, 6-ft	407051648
Cord, AC power, India, 8-ft	407406735
Cord, AC power, Japan, 8-ft	407406727
Cord, AC power, United Kingdom, 6-ft	406999243
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Table 28. Component Ordering Numbers

Basic Component Description	Order Number
Cord, AC power, United States, 8-ft.	407789924
Cord, power, monitor (PC style)	407115591
Cord, telephone, 25-ft	103623195
Cord, telephone, DW8A-SE, 25 ft	103848800
Coupler, E1, F/F (BNC Coaxial)	407617901
Cover, dress	406900563
Cover, filter	407792464
Disk drive, floppy, 1.44-MB	406832584
Disk drive, hard, 200-MB	406902791
Disk drive, hard, 200-MB	407021153
Disk drive, hard, SCSI, 1.2-GB	406844134
Disk drive, hard, SCSI, 1.75-GB	407071950
Disk drive, hard, SCSI, 2.0-GB (Starfire)	407340942
Disk drive, hard, SCSI, 2.0-GB (Medalist)	407773555
Door	407791102
Door, drive cover	406900043
Door, vented	406900035
Fan, card cage, 85-cfm, 12VDC	406900126
Fan, card cage (Includes connector & 2 snap rivets)	407789031
Feet, tower (2-feet & mounting hardware)	407789056
Filter, air (for fan)	407561117
Filter, card cage	407791144
Filter, vented door (quantity: 5)	406900050
IC, 16-MB SIMM	406997601
IC, 16-MB SIMM	407244094
IC, 16-MB SIMM	407420116
IC, 16-MB SIMM	407608199
IC, 16-MB SIMM	407701747
IC, 32-MB SIMM	407420124
IC, 32-MB SIMM	407700285
IC, 4-MB SIMM	406666727
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Table 28. Component Ordering Numbers

Basic Component Description	Order Number
IC, 4-MB SIMM	406995522
IC, 4-MB SIMM	407022961
IC, 4-MB SIMM	407056696
Keyboard (GIS gray)	407104066
Kit, conversion (desk top)	407562099
Miscellaneous hardware kit	406899849
Module, voice workstation	601459621
Monitor, color, VGA	406594952
Monitor, color, VGA (Beige housing)	407773316
Monitor, color, VGA (GIS gray)	407088335
Mount, LED	407789072
Mouse, serial	407050970
Mouse, serial	407176593
Power supply, AC, 325-Watts	406900027
Power supply, AC, 325-Watts	406962654
Power supply, AC, 350-Watts	407561661
Resistor SIP, TDM terminator	403789167
Switch, reset	406901926
Switch, rocker	406901918
Switch, rocker, power	407793843
Tape drive, SCSI streaming	406844126
Tape drive, SCSI streaming, 2-GB, black	407334507
Tape drive, streaming	406664862
Terminator, single-ended active, SCSI-2	407524719
Toroid, ring type	405853458
Toroid, split type	407616846
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# C How to Build a System Using This Book

## Overview

This appendix provides the sequence of operations for building a CONVERSANT system.

## Checklist for Building a System

The following checklist (Table 29) assumes that you are starting with a MAP/40P shell that has only the power supply and the 12-slot backplane.

If your system does not have a power supply or a 12-slot backplane included, see Chapter 4, Replacing Other Components , for the installation procedures.

**Table 29. Checklist for Building a System**

Task	Description	Comments	See	
1	Acquire all of the components necessary to build your system.		Appendix B, Component Ordering Numbers	
2	Determine the slot and bay locations for the equipment.		Appendix A, System Configuration	
3	Install the hard disk drive or drives.		Chapter 3, Replacing the Hard Disk Drive	
4	Install the tape drive.		Chapter 4, Replacing Other Components	
5	Install the diskette drive.		Chapter 4, Replacing Other Components	
6	Install the CD-ROM drive		Chapter 4, Replacing Other Components	
7	Install the circuit cards.		Chapter 2, Installing or Replacing Circuit Cards	
8	Apply power to the unit.		Chapter 1, Getting Inside the Computer	

1 of 2

Table 29. Checklist for Building a System

Task	Description	Comments	See	
9	Install the base system software.		Chapter 6, Installing Base System Software	
10	Install the CONVERSANT system software.		Chapter 7, Installing the CONVERSANT System Software	
11	Install the UNIX multi-user software.	This is an optional feature software.	Chapter 8, Installing the Optional Feature Software	

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# D Disaster Recovery Checklists

## Disaster Recovery Checklists

The following checklists are included in this section:

- Checklist for Software Reloading on Nonmirrored CONVERSANT Systems with Existing Hard Disk Drives on page 221
- Checklist for CONVERSANT Systems with All New Hard Disk Drives on page 222
- Checklist for Nonmirrored CONVERSANT Systems with a New Hard Disk Drive 0 and an Existing Hard Disk Drive 1 on page 223
- Checklist for Nonmirrored CONVERSANT Systems with an Existing Hard Disk Drive 0 and a New Hard Disk Drive 1 on page 224
- Checklist for Mirrored CONVERSANT Systems with a New Hard Disk Drive 0 and an Existing Hard Disk Drive 1 on page 225
- Checklist for Mirrored CONVERSANT Systems with an Existing Hard Disk Drive 0 and a New Hard Disk Drive 1 on page 226

### Checklist for Software Reloading on Nonmirrored CONVERSANT Systems with Existing Hard Disk Drives

The procedures in Table 30 should be conducted when your CONVERSANT system experiences a software disaster. This checklist should not be used if hard disk drives are being replaced.

**Table 30. Checklist for Software Reloading for Nonmirrored Intuity CONVERSANT Systems with Existing Hard Disk Drives**

✓	Task	Reference Documentation
	Locate the most recent <b>mkimage</b> backup tape. You will also need to use any <b>spres</b> backup tape which has been created.	
	Shut down the CONVERSANT system.	“Shut Down the System,” in “Common System Procedures,” in the <i>CONVERSANT System Reference</i> , 585-313-215.
	Leave all hard disks connected to the SCSI bus.	

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**Table 30. Checklist for Software Reloading for Nonmirrored Intuity CONVERSANT Systems with Existing Hard Disk Drives**

✓	Task	Reference Documentation
	Restore the system using the <b>mkimage</b> backup tape.	“Restore the System,” in “Common System Procedures,” in the Intuity CONVERSANT System Reference, 585-313-215
	Restore any speech files using the <b>spres</b> backup tape.	<i>CONVERSANT System Version 8.0 Speech Development, Processing, and Recognition</i> , 585-313-218.
<b>2 of 2</b>		

### Checklist for CONVERSANT Systems with All New Hard Disk Drives

The procedures in this checklist (Table 31) should be conducted when you are replacing both hard disk drives on your CONVERSANT system. There are no provisions in this checklist for recovering existing file system. As a result, this checklist should not be used if either hard disk drive has been previously used in your CONVERSANT system.

**Table 31. Checklist for CONVERSANT Systems with New Hard Disk Drives 0 and 1**

✓	Task	Reference Documentation
	Locate the most recent <b>mkimage</b> backup tape. You will also need to use any <b>spres</b> backup tape which has been created.	
	Replace the hard disk drive or drives.	Replacing a Hard Disk Drive on page 57, in Chapter 3, Replacing the Hard Disk Drive
	Restore the system using the <b>mkimage</b> backup tape.	“Restore the System,” in “Common System Procedures,” in the <i>CONVERSANT System Reference</i> , 585-313-215
	Restore any speech files using the <b>spres</b> backup tape.	<i>CONVERSANT System Version 8.0 Speech Development, Processing, and Recognition</i> , 585-313-218.

## Checklist for Nonmirrored CONVERSANT Systems with a New Hard Disk Drive 0 and an Existing Hard Disk Drive 1

The procedures in this checklist (Table 32) should be conducted on a two disk nonmirrored CONVERSANT system in which Hard Disk Drive 0 has failed. This checklist should not be used if Hard Disk Drive 1 has also failed.

**Table 32. Checklist for Nonmirrored Avaya Systems with a New Hard Disk Drive 0 and an Existing Hard Disk Drive 1**

✓	Task	Reference Documentation
	Locate the most recent <b>mkimage</b> backup tape. You will also need to use any <b>spres</b> backup tape which has been created.	
	Replace the hard disk drive.	Replacing a Hard Disk Drive on page 57, in Chapter 3, Replacing the Hard Disk Drive
	Restore the system using the <b>mkimage</b> backup tape.	"Restore the System," in "Common System Procedures," in the <i>CONVERSANT System Reference</i> , 585-313-215
	Restore any speech files using the <b>spres</b> backup tape.	<i>CONVERSANT System Version 8.0 Speech Development, Processing, and Recognition</i> , 585-313-218.

### Checklist for Nonmirrored CONVERSANT Systems with an Existing Hard Disk Drive 0 and a New Hard Disk Drive 1

The procedures in this checklist (Table 33) should be conducted on a two disk nonmirrored CONVERSANT system in which Hard Disk Drive 1 has failed. This checklist should not be used if Hard Disk Drive 0 has also failed.

**Table 33. Checklist for Nonmirrored CONVERSANT Systems with an Existing Hard Disk Drive 0 and a New Hard Disk Drive 1**

✓	Task	Reference Documentation
	Locate the most recent <b>mkimage</b> backup tape. You will also need to use any <b>spres</b> backup tape which has been created.	
	Replace the hard disk drive.	Replacing a Hard Disk Drive on page 57, in Chapter 3, Replacing the Hard Disk Drive
	Remove, for replacement, the old Hard Disk Drive 1 using the Veritas screens.	Replacing Hard Disk Drive 1 on page 64, in Chapter 3, Replacing the Hard Disk Drive
	Add the new Hard Disk Drive 1, using the Veritas screens.	Adding a Hard Disk Drive to a System for Speech Storage, in Chapter 3, Replacing the Hard Disk Drive
	Initialize the new Hard Disk Drive 1 as a speech drive.	Adding a Hard Disk Drive to a System for Speech Storage, in Chapter 3, Replacing the Hard Disk Drive
	Exit the Veritas screens.	Replacing Hard Disk Drive 1, in Chapter 3, Replacing the Hard Disk Drive
	Restore any speech files using the <b>spres</b> backup tape.	<i>CONVERSANT System Version 8.0 Speech Development, Processing, and Recognition</i> , 585-313-218.

## Checklist for Mirrored CONVERSANT Systems with a New Hard Disk Drive 0 and an Existing Hard Disk Drive 1

The procedures in this checklist (Table 35) should be conducted on a two-disk mirrored CONVERSANT system in which Hard Disk Drive 0 has failed. This checklist should not be used if Hard Disk Drive 1 has also failed.

**Table 34. Checklist for Mirrored CONVERSANT Systems with a New Hard Disk Drive 0 and an Existing Hard Disk Drive 1**

✓	Task	Reference Documentation
	Locate the diskette labeled "VERITAS Boot Floppy 1 of 1".	
	Replace the hard disk drive.	Replacing a Hard Disk Drive, in Chapter 3, Replacing the Hard Disk Drive
	Reboot the system with the diskette labeled "VERITAS Boot Floppy 1 of 1" in the diskette drive.	Replacing Hard Disk Drive 0 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Remove, for replacement, the old Hard Disk Drive 0 using the Veritas screens.	Replacing Hard Disk Drive 0 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Replace the old Hard Disk Drive 0 with the new Hard Disk Drive 0, using the Veritas screens.	Replacing Hard Disk Drive 0 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Create a partition on Hard Disk Drive 0 using the Veritas screens.	Replacing Hard Disk Drive 0 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Exit the Veritas screens.	Replacing Hard Disk Drive 0 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Remove the diskette labelled "VERITAS Boot Floppy 1 of 1" from the diskette drive.	

## Checklist for Mirrored CONVERSANT Systems with an Existing Hard Disk Drive 0 and a New Hard Disk Drive 1

The procedures in this checklist (Table 35) should be conducted on a two-disk mirrored CONVERSANT system in which Hard Disk Drive 1 has failed. This checklist should not be used if Hard Disk Drive 0 has also failed.

**Table 35. Checklist for Mirrored CONVERSANT Systems with an Existing Hard Disk Drive 0 and a New Hard Disk Drive 1**

✓	Task	Reference Documentation
	Replace the hard disk drive.	Replacing a Hard Disk Drive, in Chapter 3, Replacing the Hard Disk Drive
	Remove, for replacement, the old Hard Disk Drive 1 using the Veritas screens.	Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Replace the old Hard Disk Drive 1 with the new Hard Disk Drive 1, using the Veritas screens.	Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Create a partition on Hard Disk Drive 1 using the Veritas screens.	Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive
	Exit the Veritas screens.	Software and Hardware Procedures for Replacing Hard Disk Drive 1 (Mirrored System), in Chapter 3, Replacing the Hard Disk Drive

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## Numerics

### **23B+D**

23 bearer (communication) and 1 data (signaling) channel on a T1 PRI circuit card.

### **30B+D**

30 bearer (communication) and 1 data (signaling) channel (plus framing channel 0) on an E1 PRI circuit card.

### **3270 interface**

A link between one or more CONVERSANT machines and a host mainframe. In CONVERSANT system documentation, the 3270 interface specifically means the link between one or more system machines and an IBM host mainframe.

### **47B+D**

47 bearer (communication) and 1 data (signaling) channel on two T1 PRI circuit cards.

### **4ESS<sup>®</sup>**

A large Lucent central office switch used to route calls through the telephone network.

## A

### **AC**

alternating current

### **ACD**

automatic call distributor

### **AD**

application dispatch

### **AD-API**

application dispatch application programming interface

### **adaptive differential pulse code modulation**

A means of encoding analog voice signals into digital signals by adaptively predicting future encoded voice signals. This adaptive modulation method reduces the number of bits required to encode voice. See also "pulse code modulation."

**adjunct products**

Products (for example, the Adjunct/Switch Application Interface) that the system administers via cut-through access to the inherent management capabilities of the product itself. This is in opposition to the ability of the system to administer the switch directly.

**Adjunct/Switch Application Interface**

An optional feature package that provides an Integrated Services Digital Network-based interface between Avaya PBXs and adjunct processors.

**ADPCM**

adaptive differential pulse code modulation

**ADU**

asynchronous data unit

**advanced speech recognition**

A speech recognition ability that allows the system to understand WholeWord, FlexWord, and Natural Language Speech Recognition inputs from callers.

**affiliate**

A business organization that Avaya controls or with which Avaya is in partnership.

**AGL**

application generation language

**ALERT**

System alerter process

**alerter**

A system process that responds to patterns of events logged by the "logdaemon" process.

**American Standard Code for Information Interchange**

A standard code for data representation that represents alphanumeric characters as binary numbers. The code includes 128 uppercase and lowercase letters, numerals, and special characters. Each alphanumeric and special character has an ASCII code (binary) equivalent that is 1 byte long.

**analog**

An analog signal, such as voice or music, that varies in a continuous manner. An analog signal may be contrasted with a digital signal, which represents only discrete states.

**ANI**

automatic number identification

**announcement**

A message the system plays to the caller to provide information. The caller is not asked to give a response. Compare to prompt.

**API**

Application programming interface

**application**

The automated transaction (interactions) among the caller, the voice response system, and any databases or host computers required for your business. See also application script.

**application administration**

The component of the system that provides access to the available applications and helps you manage and administer them.

**application installation**

A two-step process in which the CONVERSANT system invokes the TSM script assembler for the specific application name and moves files to the appropriate directories.

**application script**

The computer program that controls the application (the transaction between the caller and the system). The CONVERSANT system provides several methods for creating application scripts, including Voice@Work, Script Builder, Transaction Assembler Script (TAS) language, and the Intuity Response Application Programming Interface (IRAPI).

**application simulation**

A process in which the system simulates the behavior of an application as it is expected to behave on the CONVERSANT system. It is useful as a debugging tool.

**application verification**

A process in which the system verifies that all the components needed by an application are complete.

**ASCII**

American Standard Code for Information Interchange

**ASI**

analog switch integration

**ASR**

advanced speech recognition

**asynchronous communication**

A method of data transmission in which bits or characters are sent at irregular intervals and spaced by start and stop bits rather than by time. Compare to synchronous communication.

**asynchronous data unit**

An electronic communications device that allows computer systems to communicate over asynchronous lines more than 50 feet (15 meters) in length.

**asynchronous event**

An event detected by the system that disrupts the normal flow of an application that is running. At present, the CONVERSANT system recognizes only one type of asynchronous event—a hang up.

**automatic call distributor**

That part of a telephone system that recognizes and answers incoming calls and completes these calls based on a set of instructions contained in a database. The ACD can send the call to an operator or group of operators as soon as the operator has completed a previous call or after the system has played a message to the caller.

**automatic number identification**

A method of identifying the calling party by automatically receiving a string of digits that identifies the calling station of a particular customer.

**B****back up**

The preservation of the information in a file in a different location so that the data is not lost in the event of hardware or system failure.

**backing up an application**

Using a utility that makes an archive copy of a completed application or an interim copy of an application in progress. The backup copy can be restored to the system if the online version is damaged, or if you make revisions and want to go back to the previous version.

**barge-in**

A capability provided by WholeWord speech recognition, Dial Pulse Recognition (DPR), and Natural Language Speech Recognition (NLSR) that allows callers to speak or enter their responses during the prompt and have those responses recognized (similar to the Speak with Interrupt capability). See also echo cancellation.

**batch file**

A file containing one or more lines, each of which is a command executable by the UNIX shell.

**BB**

bulletin board

**binary synchronous communications**

A character-oriented synchronous link protocol.

**blind transfer protocol**

A protocol in which a call is completed as soon as the extension is dialed, without having to wait to see if the telephone is busy or if the caller answered.

**bps**

bits per second

**BRDG**

call bridging process

**bridging**

The process of connecting one telephone network connection to another over the system TDM bus. Bridging decreases the processing load on the system since an active bridge does not require speech processing, database access, host activity, and so on, for the transaction.

**BSC**

binary synchronous communications

**bundle**

In the context of the Enhanced File Transfer package, this term is used to denote a single file, a group of files (package), or a combination of both.

**byte**

A unit of storage in the computer. On many systems, a byte is 8 bits (binary digits), which is the equivalent of one character of text.

**C****call classification analysis**

A process that enables application designers to use information available within the system to classify the disposition of originated and transferred calls. Intelligent CCA is provided with the system. Full CCA is an optional feature package.

**call data event**

A parameter that specifies a list of variables that are appended to a call data record at the end of each call.

**call data handler process**

A software process that accumulates generic call statistics and application events.

**called party number**

The number dialed by the person making a telephone call. Telephone switching equipment can use this number to selectively route an incoming call to a particular department or agent.

**caller**

The party who calls for a service, gets connected to the system, and interacts with it. Because the system can also make outbound calls for service, the caller can also be the person who responds to those outbound calls.

**call flow**

See transaction.

**call progress tones**

Standard telephony sounds that indicate the status of the call. These sounds include busy, fast busy, ringback, reorder, etc.

**card cage**

An area within a hardware platform that contains and secures all of the standard and optional circuit cards used in the system.

**cartridge tape drive**

A high-capacity data storage and retrieval device that can be used to transfer large amounts of information onto high-density magnetic cartridge tape based on a predetermined format. This tape can be removed from the system and stored as a backup or used on another system.

**CAS**

channel associated signalling

**caution**

An admonishment or advisory statement used in the system documentation to alert the user to the possibility of a service interruption or a loss of data.

**CCA**

call classification analysis

**CDH**

call data handler process

**CELP**

code excited linear prediction

**central office**

A location in which large telecommunication devices such as telephone switches and network access facilities are maintained. These locations follow strict installation and operation requirements.

**central processing unit**

See processor.

**CGEN**

Voice system general message class

**channel**

See port.

**channel associated signaling**

A type of signaling that can be used on E1 circuit cards. It occurs on channel 16.

**CICS**

Customer Information Control System

**circuit card upgrade**

A new circuit card that replaces an existing card in the platform. Usually the replacement is an updated version of the original circuit card to replace technology made obsolete by industry trends or a new system release.

**cluster controller**

A bisynchronous interface that provides a means of handling remote communication processing.

**CMS**

Call Management System

**CO**

central office

**code excited linear prediction**

A means of encoding analog voice signals into digital signals that provides excellent quality with use of minimum disk space.

**command**

An instruction or request the user issues to the system software to make the system perform a particular function. An entire command consists of the command name and options.

**configuration**

The arrangement of the software and hardware of a computer system or network. The system configuration includes either a standard or custom processor, peripheral equipment (for example, printers and modems), and software applications. Configuration also refers to the way in which the switch network is set up; that is, the types of products that are in the network and how those products communicate.

**configuration management**

The component of the system that allows you to manage the current configuration of voice channels, host sessions, and database connections, assign scripts to run on specific voice channels or host sessions, assign functionality to SSP and E1/T1 circuit cards, and perform various maintenance functions.

**connect and disconnect (C and D) tones**

DTMF tones that inform the system when the attendant has been connected (C) and when the caller has been disconnected (D).

**connected digits**

A sequence of digits that the system can process as a group, rather than requiring the caller to enter the digits one at a time.

**Converse Data Return (conv\_data)**

A Voice@Work external function or a Script Builder external action that supports the DEFINITY<sup>®</sup> call vectoring (routing) feature by enabling the switch to retain control of vector processing in the system environment. It supports the DEFINITY “converse” vector command to establish a two-way routing mechanism between the switch and the system to facilitate data passing and return.

**controller circuit card**

A circuit card used on a computer system that controls its basic functionality and makes the system operational. These circuit cards are used to control magnetic peripherals, video monitors, and basic system communications.

**copying an application**

A utility in which information from a source application is directed into the destination application.

**coresidency**

The ability of two products or services to operate and interact with each other on a single hardware platform.

**CPE**

customer-provided equipment or customer premise equipment

**CPN**

called party number

**CPT**

call progress tones

**CPU**

central processing unit

**crash**

An interactive utility for examining the operating system core and for determining if system parameters are being exceeded.

**CSU**

channel service unit

**custom grammar**

See custom vocabulary.

**custom speech**

Unique words or phrases to be used in system voice prompts that Avaya records on a per-customer basis.

**custom vocabulary**

A specialized package of unique words or phrases created on a per-customer basis and used by WholeWord or FlexWord speech recognition.

**Customer Information Control System**

Part of the operating system that manages resources for running applications (for example, IND\$FILE). Note that TSO and CMS provide analogous functionality in other host environments.

**CVS****converse vector step****D****danger**

An admonishment or advisory statement used in the system documentation to alert the user to the possibility of personal injury or death.

**data interface process**

A software process that communicates with interactive voice response (IVR) applications.

**database**

A structured set of files, records, or tables.

**database field**

A field used to extract values from a local database and form the structure upon which a database is built.

**database record**

The information in a database for a person, product, event, and so on. The database record is made up of individual fields for each information item.

**database table**

A structure, made up of columns and rows, that holds information in a database. Database tables provide a means of storing information that changes too often to “hard-code,” or store permanently, in the transaction outline.

**dB**

decibel

**DB**

database

**DBC**

database checking process

**DBMS**

database management system

**DC**

direct current

**DCE**

data communications equipment

**DCP**

digital communications protocol

**debug**

The process of locating and correcting errors in computer programs; also referred to as troubleshooting.

**default**

The way a computer performs a task in the absence of other instructions.

**default owner**

The owner of a channel when no process takes ownership of that channel. The default owner holds all idle, in-service channels. In terms of the IRAPI, this is typically the Application Dispatch process.

**diagnose**

The process of performing diagnostics on a bus or on circuit cards.

**dial ahead**

The ability to collect and process touchtone inputs in sequence, even when they are received before the prompts.

**dial pulse recognition**

A method of recognizing caller pulse inputs from a rotary telephone.

**dialed number identification service**

A service that allows incoming calls to contain information about the telephone number for which it is destined.

**dial through**

A capability provided by touchtone and dial pulse recognition that allows callers to enter their responses during the prompt and have those responses recognized (similar to the Speak with Interrupt capability). See also barge-in and echo cancellation.

**DIMM**

dual in-line memory module

**DIO**

disk input and output process

**DIP**

data interface process

**directory**

A type of file used to group and organize other files or directories.

**display errdata**

A command that displays system errors sent to the logger.

**DMA**

direct memory address

**DNIS**

dialed number identification service

**DPR**

dial pulse recognition

**DSP**

digital signal processor

**DTE**

data terminal equipment

**DTMF**

dual tone multi-frequency

**DTR**

data terminal ready

**dual 3270 links**

A feature that provides an additional physical unit (PU) for a cost-effective means of connecting to two host computers. The customer can connect a system to two separate FEPs or to a single FEP shared by one or more host computers. Each link supports a maximum of 32 LUs.

**dual tone multi-frequency**

A touchtone sound that is an audio signal including two different frequencies. *DTMF feedback* is the process of the switch providing this information to the system. *DTMF muting* is the process of ignoring these tones (which might be simulated by human speech) when they are not needed for the application.

**dump space**

An area of the disk that is fixed in size and should equal the amount of RAM on the system. The operating system “dumps” an image of core memory when the system shuts down automatically. The dump can be fetched after rebooting to help in analyzing the cause of the shutdown.

**E****E&M**

Ear and Mouth

**E1 / T1**

Digital telephony interfaces, commonly called *trunks*. E1 is an international standard at 2.048 Mbps. T1 is a North American standard at 1.544 Mbps.

**Ear and Mouth**

A common T1 trunking protocol for connection between two switches.

**EBCDIC**

Extended Binary Coded Decimal Interexchange Code

**echo cancellation**

The process of making the channel quiet enough so that the system can hear and recognize WholeWord, dial pulse, and Natural Language inputs during the prompt. See also barge-in.

**ECS**

Enterprise Communications Server

**editor system**

A system that allows speech phrases to be displayed and edited by a user.

**EFT**

Enhanced File Transfer

**EIA**

Electronic Industries Association

**EISA**

Extended Industry Standard Architecture

**EMI**

electromagnetic interference

**emulator**

Software on one operating system that imitates or reproduces the behavior of input and output on a different operating system.

**engine**

The software used to perform speech recognition or text-to-speech functions. Usually used with reference to proxy software and systems. See also Proxy Text-to-Speech (PTTS) and Natural Language Speech Recognition (NLSR).

**enhanced basic speech**

Prerecorded speech available from Avaya in several languages. Sometimes called standard speech.

**Enhanced File Transfer**

A feature that allows the transferring of files automatically between the CONVERSANT system and a synchronous host processor on a designated logical unit.

**Enhanced Serial Data Interface**

A software-controlled and hardware-controlled method used to store data on magnetic peripherals.

**Enterprise Communications Server**

The telephony equipment that connects your business to the telephone network. Sometimes called a switch.

**error message**

A message on the screen indicating that something is wrong with the system, often with a suggestion of how to correct it.

**ESD**

electrostatic discharge

**ESDI**

Enhanced Serial Data Interface

**ESS**

electronic switching system

**EST**

Enhanced Software Technologies, Inc.

**ET**

error tracker

**Ethernet**

A name for a local area network that follows IEEE Standard 802.3. Supported implementations are 10Baset and 100Baset.

**event**

The notification given to an application when some condition occurs that is generally not encountered in normal operation.

**EXTA**

external alarms feature message class

**external actions**

Specific predefined (or customer-created) system tasks that Script Builder can call or *invoke* to interact with other products or services. When an external action is invoked, the systems displays a form that provides choices in each field for the application developer to select. Examples are Call\_Bridge, Make\_Call, SP\_Allocate, SR\_Prompt, and so on. In Voice@Work, external actions are called external functions.

**external functions**

Specific predefined (or customer-created) system tasks that Voice@Work can call or *invoke* to interact with other products or services. The function allows the application developer to enter the arguments for the function to act on. Examples are concat, getarg, length, substring, and so on. In Script Builder, external functions are called external actions.

**F****FAX Actions**

An optional feature package that allows the system to send fax messages.

**FCC**

Federal Communications Commission

**FDD**

floppy disk drive

**feature**

A function or capability of a product or an application within the system.

**feature package**

An optional package that may contain both hardware and software resources to provide additional functionality to a standard system.

**feature\_tst script package**

A standard system software program that allows a user to perform self-tests of critical hardware and software functionality.

**FEP**

front end processor

**field**

See database field.

**FIFO**

first-in-first-out processing order

**file**

A collection of data treated as a basic unit of storage.

**file transfer**

An option that allows you to transfer files interactively or directly to and from UNIX using the file transfer system (FTS).

**filename**

Alphabetic characters used to identify a particular file.

**FlexWord™ speech recognition**

A type of speech recognition based on subword technology that recognizes phonemes or parts of words in a specific language. See also subword technology.

**foos**

facility out-of-service state

**FTS**

file transfer process message class

**Full CCA**

A feature package that augments the types of call dispositions that Intelligent CCA can provide.

**function key**

A key, labeled F1 through F8, on your keyboard to which the system software gives special properties for manipulating the user interface.

**G****GEN**

PRISM logger and alerter general message class

**grammar**

The inputs that a recognizer can match (identify) from a caller.

**GUI**

graphical user interface

**H****hard disk drive**

A high-capacity data storage and retrieval device that is located inside a computer platform. A hard disk drive stores data on nonremovable high-density magnetic media based on a predetermined format for retrieval by the system at a later date.

**hardware**

The physical components of a computer system. The central processing unit, disks, tape and diskette drives, and so on, are all hardware.

**hardware upgrade**

Replacement of one or more fundamental platform hardware components (for example, the CPU or hard disk drive), while the existing platform and other existing optional circuit cards remain.

**HDD**

hard disk drive

**High Level Language Applications Programming Interface**

An application programming interface that allows a user to write custom applications that can communicate with a host computer via an API.

**HLLAPI**

High Level Language Applications Programming Interface

**HOST**

host interface process message class

**host computer**

A computer linked to a network to provide a range of services, such as database access and computation. The host computer operates in a time-sharing manner with other computers linked to it via the network.

**hwoos**

hardware out-of-service state

**Hz**

Hertz

**I****IBM**

International Business Machines

**iCk or ICK**

The system integrity checking process.

**ID**

identification

**IDE**

integrated disk electronics

**idle channel**

A channel that either has no owner or is owned by its default owner and is onhook.

**IE**

information element

**IEEE**

Institute of Electrical and Electronic Engineers

**IND\$FILE**

The standard SNA file transfer utility that runs as an application under CICS, TSO, and CMS. IND\$FILE is independent of link-level protocols such as BISYNC and SDLC.

**independent software vendor**

A company that has an agreement with Avaya to develop software to work with the system to provide additional features required by customers.

**indexed table**

A table that, unlike a nonindexed table, can be searched via a field name that has been indexed.

**industry standard architecture**

A PC bus standard that allows processors and other circuit cards to communicate with each other.

**INIT**

voice system initialization message class

**initialize**

To start up the system for the first time.

**inserv**

in-service state

**Integrated Services Digital Network**

A network that provides end-to-end digital connectivity to support a wide range of voice and data services.

**intelligent CCA**

Monitoring the line after dialing is complete to determine whether a busy, reorder (fast busy), or other failure has been encountered. Intelligent CCA also recognizes when the extension is answered or if the extension is not answered after a specified number of rings. The monitoring capabilities are dependent on the network interface circuit card and protocol used

**interface**

The access point of a system. The interface is designed to provide you with easy access to the software capabilities of the system.

**interrupt**

The termination of voice and/or telephony functions when some condition occurs.

**Intuity Response Application Programming Interface**

A library of commands that provide a standard development interface for voice-telephony applications.

**IOB**

I/O companion card to the SBC. This is part of the CPU Complex.

**IPC**

interprocess communication

**IRAPI**

Intuity Response Application Programming Interface

**IRQ**

interrupt request

**ISA**

industry standard architecture

**ISDN**

Integrated Services Digital Network

**ISV**

independent software vendor

**ITAC**

International Technical Assistance Center

**K****Kbps**

kilobytes per second

**KB**

kilobyte

**keyboard mapping**

In emulation mode, this feature enables the keyboard to send 3270 keyboard codes to the host according to a configuration table set up during installation.

**keyword spotting**

A capability provided by WholeWord speech recognition, FlexWord speech recognition, and Natural Language speech recognition that allows the system to recognize a single word in the middle of an entire phrase spoken by a caller in response to a prompt.

**L****LAN**

local area network

**LDB**

local database

**LED**

light-emitting diode

**library states**

The state information about channel activities maintained by the IRAPI.

**LIFO**

last-in-first-out processing order

**line side E1**

A digital method of interfacing a system to a PBX or switch using E1-related hardware and software.

**line side T1**

A digital method of interfacing a system to a PBX or switch using T1-related hardware and software.

**listfile**

An ASCII catalog that lists the contents of one or more talkfiles. Each application script is typically associated with a separate listfile. The listfile maps speech phrase strings used by application scripts into speech phrase numbers.

**local area network**

A data communications network in a limited geographical area. The LAN provides communications between computers and peripherals.

**local database**

A database residing on the system.

**LOG**

System logger process message class

**logical unit**

A type of SNA Network Addressable Unit.

**logdaemon**

A UNIX system information and error logging process.

**logger**

See logdaemon.

**logging on/off**

Entering or exiting the system software.

**LSE1**

line side E1

**LST1**

line side T1

**LU**

logical unit

**M****magnetic peripherals**

Data storage devices that use magnetic media to store information. Such devices include hard disk drives, diskette drives, and cartridge tape drives.

**main screen**

The system screen from which you are able to enter either the System Administration or Voice System Administration menu.

**maintenance process**

A software process that runs temporary diagnostics and maintains the state of circuit cards and channels.

**manoos**

manually out-of-service state

**masked event**

An event that an application can ignore (that is, the application can request not to be informed of the event).

**master**

A circuit card that provides clock information to the TDM bus.

**Mbps**

megabits per second

**MB**

megabyte

**megabyte**

A unit of memory equal to 1,048,576 bytes (1024 x 1024). It is often rounded to one million.

**menu**

Options presented to a user on a computer screen or with voice prompts.

**MF**

multifrequency

**MHz**

megahertz

**mirroring**

A method of data backup that allows all of the data transactions to the primary hard disk drive to be copied and maintained on a second identical drive in near real time. If the primary disk drive fails or becomes disabled, all of the data stored on it (up to 1.2 billion bytes of information) is accessible on the second mirrored disk drive.

**ms**

millisecond

**msec**

millisecond

**MS-DOS**

A personal computer disk operating system developed by the Microsoft Corporation.

**MTC**

maintenance process

**multifrequency**

Dual tone digit signaling (similar to DTMF), used for trunk addressing between network switches or by network operators.

**multithreaded application**

A single process or application that controls several channels. Each thread of the application is managed explicitly. Typically this means state information for each thread is maintained and the state of the application on each channel is tracked.

**N****Natural Language Speech Recognition (NLSR)**

An advanced type of speech recognition. Like WholeWord and Flexword speech recognition, NLSR can recognize particular words and phrases, but it can also interpret and assign meaning to those words and phrases. NLSR can also recognize natural numbers and currency amounts. Because of the greater vocabulary and grammar requirements associated with NLSR, it works best with an external speech recognition or "proxy" server.

**NCP**

Network Control Program

**NEBS**

Network Equipment Building Standards

**NEMA**

National Electrical Manufacturers Association

**netoos**

network out-of-service state

**NetView**

An optional feature package that transmits high-priority (major or critical) messages to the host as operator-generated alerts (OGAs) over the 3270 host link. The NetView Alarm feature package does not require a dedicated LU.

**NFAS**

non-facility associated signaling

**NFS**

network file sharing

**NM-API**

Network Management - Application Programming Interface

**NMVT**

network management vector transport

**nonex**

nonexistent state

**nonindexed table**

A table that can be searched only in a sequential manner and not via a field name.

**nonmasked event**

An event that must be sent to the application. Generally, an event is nonmaskable if the application is likely to encounter state transition errors by trying to ignore it.

**NRZ**

non return to zero

**NRZI**

non return to zero inverted

**null value**

An entry containing no value. A field containing a null value is normally displayed as blank and is different from a field containing a value of zero.

**O****OEM**

original equipment manufacturer

**OGA**

operator-generated alert

**online help**

Messages or information that appear on the user's screen when a function key (F1 through F8) is pressed or a "Help" menu item or icon is clicked.

**operator-generated alert**

A system-monitoring message that is transmitted from the CONVERSANT system or other computer system to an IBM host computer and is classified as critical or major.

**option**

An argument used in a command line to modify program output by modifying the execution of a command. When you do not specify any options, the command executes according to its default options.

**ORACLE**

A company that produces relational database management software. It is also used as a generic term that identifies a database residing on a local or remote system that is created and maintained using an ORACLE RDBMS product.

**P****P&C**

Prompt and Collect Voice@Work node or Script Builder action step

**PBX**

private branch exchange

**PC**

personal computer

**PCB**

printed circuit board

**PCI**

peripheral component interconnect

**PCI Mezzanine Card**

A PCI module, such as a LAN or RAID controller, that connects to the CPU Complex IOB companion card.

**PCM**

pulse code modulation

**PEC**

price element code

**peripheral (device)**

Equipment such as printers or terminals that is in addition to the basic processor.

**peripheral component interconnect**

A newer, higher speed PC bus that is gradually displacing ISA for many components.

**permanent process**

A process that starts and initializes itself before it is needed by a caller.

**phoneme**

A single basic sound of a particular spoken language. For example, the English language contains 40 phonemes that represent all basic sounds used with the language. The English word "one" can be represented with three phonemes, "w" - "uh" - "n." Phonemes vary between languages because of guttural and nasal inflections and syllable constructs.

**phrase**

A set of one or more words used within an application. Examples include "Thank you for calling XZY Business," "One," and "At the tone, press—."

**phrase filtering (screening)**

The rejection of unrecognized speech. The WholeWord, FlexWord, and Natural Language speech recognition packages can be programmed to reprompt the caller if the system does not recognize a spoken response.

**phrase number**

An identification number associated with a particular phrase in a speech pool.

**phrase tag**

A string of up to 50 characters that identifies the contents of a speech phrase used by an application script.

**platform migration**

See platform upgrade.

**platform upgrade**

The process of replacing the existing platform with a new platform.

**pluggable**

A term usually used with speech technologies, in particular standard speech, to indicate that a basic algorithmic technique has been implemented to accept one or more sets of parameters that tailors the algorithm to perform in one or more languages.

**PMC**

PCI Mezzanine Card

**poll**

A message sent from a central controller to an individual station on a multipoint network inviting that station to send if it has any traffic.

**polling**

A network arrangement whereby a central computer asks each remote location whether it wants to send information. This arrangement enables each user or remote data terminal to transmit and receive information on shared facilities.

**port**

A connection or link between two devices that allows information to travel to a desired location. See telephone network connection.

**PRI**

Primary Rate Interface

**Primary Rate Interface**

An ISDN term for connections over E1 or T1 facilities that are usually treated as trunks.

**private branch exchange**

A private switching system, either manual or automatic, usually serving an organization, such as a business or government agency, and usually located on the customer's premises.

**processor**

In system documentation, the computer on which UnixWare and the system software runs. In general, the part of the computer system that processes the data. Also known as the central processing unit.

**prompt**

A message played to a caller that gives the caller a choice of selections in a menu and asks for a response. Compare to announcement.

**prompt and collect (P and C)**

A message played to a caller that gives the caller a choice of selections in a menu and asks for a response. The response is collected and the script progresses based on the caller's response.

**proxy server**

A server external to the CONVERSANT system used in a client/server configuration to perform processor-intensive functions, such as Natural Language Speech Recognition or text-to-speech beyond the capabilities of the CONVERSANT system. See also Natural Language Speech Recognition (NLSR) and Proxy Text-to-Speech (PTTS).

**Proxy Text-to-Speech (PTTS)**

The capability to do text-to-speech processing using one or more auxiliary computers that are connected to the CONVERSANT in a client/server configuration. PTTS is an alternative to the standard Text-to-Speech feature for use in applications where the demand is very high or where a language is needed that is not supported on the SSP circuit card. See also Text-to-Speech.

**pseudo driver**

A driver that does not control any hardware.

**PSTN**

public switch telephone network

**pulse code modulation**

A digital modulation method of encoding voice signals into digital signals. See also adaptive differential pulse code modulation.

**R****RAID**

redundant array of independent disks

**RAID array**

An assembly of disk drives configured to provide some level of RAID functionality.

**RAM**

random access memory

**RDMBS**

ORACLE relational database management system

**RECOG**

speech recognition feature message class

**recognition type**

The type of input the recognizer can understand. Available types include touchtone, dial pulse, and Advanced Speech Recognition (ASR), which includes WholeWord, FlexWord, and Natural Language speech recognition.

**recognizer**

The part of the system that compares caller input to a grammar to correctly match (identify) the caller input.

**record**

See database record.

**recovery**

The process of using copies of the system software to reconstruct files that have been lost or damaged. See also restore.

**remote database**

Information stored on a system other than your current system that can be accessed by the CONVERSANT system.

**remote maintenance circuit card**

A CONVERSANT system circuit card, available with a built-in modem, that allows remote personnel (for example, field support) to access all CONVERSANT system machines. This card is standard equipment on all new purchases.

**REN**

ringer equivalence number

**reports administration**

The component of the system that provides access to system reports, including call classification, call data detail, call data summary, message log, and traffic reports.

**restore**

The process of recovering lost or damaged files by retrieving them from available backup tapes or from another disk device. See also recovery.

**restore application**

A utility that replaces a damaged application or restores an older version of an application.

**reuse**

The concept of using a component from a source system in a target system after a software upgrade or platform migration.

**RFS**

remote file sharing

**RM**

resource manager

**RMB**

remote maintenance circuit card

**roll back**

To cancel changes to a database since the point at which changes were last committed.

**rollback segment**

A portion of the database that records actions that should be undone under certain circumstances. Rollback segments are used to provide transaction rollback, read consistency, and recovery.

**RTS**

request to send

**S****SBC**

(1) sub-band coding; (2) a single-board computing circuit card that is part of the CPU Complex

**SCA**

single connector architecture

**screen pop**

A method of delivering a screen of information to a telephone operator at the same time a telephone call is delivered. This is accomplished by a complex chain of tasks that include identifying the calling party number, using that information to access a local or remote ORACLE database, and pulling a "form" full of information from the database using an ORACLE database utility package.

**script**

The set of instructions for the CONVERSANT system to follow during a transaction.

**Script Builder**

An optional software package that provides a menu-oriented interface designed to assist in the development of custom voice response applications on the CONVERSANT system (see also Voice@Work).

**SCSI**

small computer system interface

**SDLC**

synchronous data link control

**SDN**

software defined network

**shared database table**

A database table that is used in more than one application.

**shared speech**

Speech that is a part of more than one application.

**shared speech pools**

A parameter that allows the user of a voice application to share speech components with other applications.

**SID**

station identification

**signal processor circuit card**

A speech processing circuit card that is an older, lower-capacity version of the speech and signal processor (SSP) circuit card.

**single-threaded application**

An application that runs on a single voice channel.

**slave**

A circuit card that depends on the TDM bus for clock information.

**SLIP**

serial line interface protocol

**small computer system interface**

A disk drive control technology in which a single SCSI adapter circuit card plugged into a PC slot is capable of controlling as many as seven different hard disks, optical disks, tape drives, and so on.

**SNA**

systems network architecture

**SNMP**

simple network management protocol

**software**

The set or sets of programs that instruct the computer hardware to perform a task or series of tasks, for example, UnixWare software and the system software.

**software upgrade**

The installation of a new version of software in which the existing platform and circuit cards are retained.

**source system**

The system from which you are upgrading (that is, your system as it exists *before* you upgrade).

**speech and signal processor circuit card**

A high-performance signal processing circuit card capable of simultaneous support for various speech technologies.

**speech energy**

The amount of energy in an audio signal. Literally translated, it is the output level of the sound in every phonetic utterance.

**speech envelope**

The linear representation of voltage on a line. It reflects the sound wave amplitude at different intervals of time. This envelope can be plotted on a graph to represent the oscillation of an audio signal between the positive and negative extremes.

**speech file**

A file containing an encoded speech phrase.

**speech filesystem**

A collection of several talkfiles. The filesystem is organized into 16-KB blocks for efficient management and retrieval of talkfiles.

**speech modeling**

The process of creating WholeWord speech recognition algorithms by collecting thousands of different speech samples of a single word and comparing them all to obtain a statistical average of the word. This average is then used by a WholeWord speech recognition program to recognize a single spoken word.

**speech space**

An area that contains all digitized speech used for playback in the applications loaded on the system.

**speech phrase**

A continuous speech segment encoded into a digital string.

**speech recognition**

The ability of the system to understand input from callers.

**speech recognition engine**

See engine.

**SPIP**

signal processor interface process

**SPPLIB**

speech processing library

**SQL**

structured query language

**SR**

speech recognition

**SSP**

speech and signal processor circuit card

**standard speech**

The speech package available in several languages containing simple words and phrases produced by Avaya for use with the system. This package includes digits, numbers, days of the week, and months, each spoken with initial, medial, and falling inflection. The speech is in digitized files stored on the hard disk to be used in voice prompts and messages to the caller. This feature is also called enhanced basic speech.

**standard vocabulary**

A standard package of simple word speech models provided by Avaya and used for WholeWord speech recognition. These phrases include the digits "zero" through "nine," "yes," "no," and "oh," or the equivalent words in a specific language.

**string**

A contiguous sequence of characters treated as a unit. Strings are normally bounded by white spaces, tabs, or a character designated as a separator. A string value is a specified group of characters symbolized by a variable.

**structured query language**

A standard data programming language used with data storage and data query applications.

**subword technology**

A method of speech recognition used in FlexWord recognition that recognizes phonemes or parts of words. Compare to WholeWord speech recognition.

**switch**

A software and hardware device that controls and directs voice and data traffic. A customer-based switch is known as a private branch exchange.

**switch hook**

The device at the top of most telephones that is depressed when the handset is resting in the cradle (in other words, is *on hook*). The device is raised when the handset is picked up (in other words, when the telephone is *off hook*).

**switch hook flash**

A signaling technique in which the signal is originated by momentarily depressing the switch hook.

**switch interface administration**

The component of the system that enables you to define the interaction between the system and switches by allowing you to establish and modify switch interface parameters and protocol options.

**switch network**

Two or more interconnected telephone switching systems.

**synchronous communication**

A method of data transmission in which bits or characters are sent at regular time intervals, rather than being spaced by start and stop bits. Compare to asynchronous communication.

**SYS**

UNIX system calls message class

**sysgen**

system generation

**System 75**

An advanced digital switch supporting up to 800 lines that provides voice and data communications for its users.

**System 85**

An advanced digital switch supporting up to 3000 lines that provides voice and data communications for its users.

**system administrator**

The person assigned the responsibility of monitoring all system software processing, performing daily system operations and preventive maintenance, and troubleshooting errors as required.

**system architecture**

The manner in which the system software is structured.

**system message**

An event or alarm generated by either the system or an end-user process.

**system monitor**

A component of the system that tests to verify that each incoming telephone line and its associated circuit card is functional. Through the "System Monitor" component, you are able to see displays of the Voice Channel and Host Session Monitors.

**T****T1**

A digital transmission link with a capacity of 1.544 Mbps.

**table**

See database table.

**tag image file format**

A format for storing and exchanging digital image data associated with fax modem data transfers and other applications. These files can be identified by the .tif extension.

**talkfile**

An ASCII file that contains the speech phrase tags and phrase tag numbers for all the phrases of a specific application. The speech phrases are organized and stored in groups. Each talkfile can contain up to 65,535 phrases, and the speech filesystem can contain multiple talkfiles.

**talkoff**

The process of a caller interrupting a prompt, so the prompt message stops playing.

**target system**

The system to which you are upgrading (that is, your system as you expect it to exist *after* you upgrade).

**TAS**

transaction assembler script

**TCC**

Technology Control Center

**TCP/IP**

transmission control protocol/internet protocol

**TDM**

time division multiplexing

**TE**

terminal emulator

**telephone network connection**

The point at which a telephone network connection terminates on a system. Supported telephone connections are T1 and E1.

**terminal emulator**

Software that allows a PC or UNIX process to look like a specific type of terminal. In particular, it allows the system to temporarily transform itself into a "look alike" of an IBM 3270 terminal. In addition to providing full 3270 functionality, the terminal emulator enables you to transfer files to and from UNIX.

**Text-to-Speech**

An optional feature that allows an application to play US English speech directly from ASCII text by converting that text to synthesized speech. The text can be used for prompts or for text retrieved from a database or host, and can be spoken in an application with prerecorded speech.

**ThickNet**

A 10-mm (10BASE5) coaxial cable used to provide interLAN communications.

**ThinNet**

A 5-mm (10BASE2) coaxial cable used to provide interLAN communications.

**TIFF**

tag image file format

**time-division multiplex**

A method of serving a number of simultaneous channels over a common transmission path by assigning the transmission path sequentially to the channels, with each assignment being for a discrete time interval.

**token ring**

A ring type of local area network that allows any station in the network to communicate with any other station.

**trace**

A command that can be used to monitor the execution of a script.

**traffic**

The flow of information or messages through a communications network for voice, data, or audio services.

**transaction**

The interactions (exchanges) between the caller and the voice response system. A transaction can involve one or more telephone network connections and voice responses from the system. It can also involve one or more of the system optional features, such as speech recognition.

**transaction assembler script**

The computer program code that controls the application operating on the voice response system. The code can be produced from Voice@Work, Script Builder, or by writing directly in TAS code.

**transaction state machine process**

A multi-channel IRAPI application that runs applications controlled by TAS script code.

**transient process**

A process that is created dynamically only when needed.

**troubleshooting**

The process of locating and correcting errors in computer programs. This process is also referred to as debugging.

**TSO**

(1) Technical Services Organization; (2) time share operation

**TSM**

transaction state machine process

**TTS**

Text-to-Speech

**TWIP**

T1 interface process

**U****UK**

United Kingdom

**US**

United States of America

**UNIX operating system**

A multiuser, multitasking computer operating system originally developed by Lucent Technologies.

**UNIX shell**

The command language that provides a user interface to the UNIX operating system.

**upgrade scenario**

The particular combination of current hardware, software, application and target hardware, software, applications, and so on.

**usability**

A measurement of how easy an application is for callers to use. The measurement is made by making observations and by asking questions. An application should have high usability to be successful.

**USOC**

universal service ordering code

**UVL**

unified voice library

**V****VDC**

video display controller

**vi editor**

A screen editor used to create and change electronic files.

**virtual channel**

A channel that is not associated with an interface to the telephone network (T1, LSE1/LST1, or PRI). Virtual channels are intended to run “data-only” applications which do not interact with callers but may interact with DIPs. Voice or network functions (for example, coding or playing speech, call answer, origination, or transfer) will not work on a virtual channel. Virtual channel applications can be initiated only by a “virtual seizure” request to TSM from a DIP.

**vocabulary**

A collection of words that the system is able to recognize using either WholeWord, FlexWord, or Natural Language Speech Recognition.

**vocabulary activation**

The set of active vocabularies that define the words and wordlists known to the FlexWord recognizer.

**vocabulary loading**

The process of copying the vocabulary from the system where it was developed and adding it to the target system.

**Voice@Work**

An optional software package that provides a graphical interface to assist in the development of voice response applications on the system (see also Script Builder).

**voice channel**

A channel that is associated with an interface to the telephone network (T1, E1, LSE1/LST1, or PRI). Any system application can run on a voice channel. Voice channel applications can be initiated by being assigned to particular voice channels or dialed numbers to handle incoming calls or by a “soft seizure” request to TSM from a DIP or the **soft\_srz** command.

**voice processing co-marketer**

A company licensed to purchase voice processing equipment to sell based on their own marketing strategies.

**voice response output process**

A software process that transfers digitized speech between system hardware (for example, SSP circuit cards) and data storage devices (for example, hard disk, and so on).

**voice response unit**

A computer connected to a telephone network that can play messages to callers, recognize caller inputs, access and update a databases, and transfer and monitor calls.

**voice system administration**

The means by which you are able to administer both voice-related and nonvoice-related aspects of the system.

**VPC**

voice processing co-marketer

**VROP**

voice response output process

**VRU**

voice response unit

**W****warning**

An admonishment or advisory statement used in the system documentation to alert the user to the possibility of equipment damage.

**WholeWord speech recognition**

An optional feature, available in several languages, based on whole-word technology that can recognize the numbers one through zero, "yes", and "no" (the key words). This feature is reliable, regardless of the individual speaker. This feature can identify the key words when spoken in phrases with other words. A string of key words, called *connected digits*, can be recognized. During the prompt announcement, the caller can speak or use touchtones (or dial pulses, if available). See also whole-word technology.

**whole-word technology**

The ability to recognize an entire word, rather than just the phoneme or a part of a word. Compare to subword technology.

**wink signal**

An interruption of current to a busy lamp indicating that there is a line on hold.

**word**

A unique utterance understood by the recognizer.

**wordlist**

A set of words available for FlexWord recognition by an application during a Prompt & Collect action step.

**word spotting**

The ability to search through extraneous speech during a recognition.

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