AUDIX™ Voice Power

Release 2.1.1
Installation and
Maintenance Guide

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- This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manuals, may cause interference to radio communications.

- It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against interference when operated in a commercial environment.

- Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

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About This Guide

Purpose and Scope

AT&T Service Technicians should already be familiar with the contents of this guide. Customer technical personnel performing their own installation should read this entire guide before attempting an initial installation.

To upgrade an existing system, follow the instructions in Chapter 2 for upgrading the hardware, and in Chapter 5 for upgrading the software.

Refer to other chapters as necessary for troubleshooting and recovery. The guide is divided into the following chapters and appendices:

Preface: About This Guide explains how to use this guide.

Chapter1: Introduction explains how to prepare for installation.

Chapter 2: Hardware Installation explains how to set up an 80386-based microprocessor to support AUDIX ™ Voice Power. This process includes installing circuit board hardware and connecting to the switch.

Chapter 3: Software Installation explains how to install all software necessary for the operation of the AUDIX Voice Power system.

Chapter 4: Configuration Testing and Troubleshooting explains how to test your system for proper operation after all hardware and software has been installed, or if you suspect problems.

Chapter 5: Upgrade Procedures explains the procedure used to upgrade from AUDIX Voice Power Release 1.1 to AUDIX Voice Power Release 2.0, and from AUDIX Voice Power Release 2.0 to AUDIX Voice Power Release **2.1.1.**

Chapter 6: Recovery from System Failures provides procedures for recovering the system from backup in the event of a system failure.

Appendix A: Installing a Second Hard Disk provides procedures for installing a second hard disk.

Intended Audience

This guide is intended for technical personnel at customer sites and for AT&T Service Technicians. Use it as a guide for system installation and as a reference for system maintenance.

Assistance

If you have questions or problems with AUDIX Voice Power, please try to resolve them by using this guide and the other AUDIX Voice Power documents. If you are still unable to resolve the problem, then contact your AT&T Account Representative or AT&T Authorized Dealer.

Conventions Used in This Guide

The following conventions are used in this guide:

- Commands and text you should type appear *in this style of type.*

- Values, instructions, and prompts that appear on the screen are shown `in this style of type.`

- Key names that are always located on the keyboard in the same place appear in round-cornered boxes, as in (E<u>NTER</u>).

- Touch-tone keys on the telephone set keypad are enclosed in squares, such as [3] and [#].

- A plus sign (+) indicates an operation in which one key is held down while another is pressed. For example, (C<u>trl</u>) + (Alt) + (<u>Del</u>) indicates that the (C<u>trl</u>) key should be held down while the (<u>Alt</u>) and (<u>Del</u>) keys are pressed.

- Function keys (keys that start with an F, followed by a number), appear in boxes with the current meaning following in parentheses, such as [<u>F3</u>] (SAVE).

  The current meanings of the function keys are shown by labels at the bottom of the screen. On the actual screen, one of two sets of labels will appear. The first label is the meaning of the function key when the screen first appears. These meanings have been selected to be the most useful for that screen.

  The second set of labels appears after [<u>F8</u>] (CHG-KEYS) has been pressed. Pressing [F8] (CHG-KEYS) again restores the first set of labels.

Some of the screens and prompts used in this guide are samples used for illustration purposes only. Keep this in mind if the information shown in this guide differs from the actual prompt or message.

Information Conventions

The following conventions are used in this guide to describe the different types of data that appear on your screen.

Menus	A menu is a list of options, usually numbered in sequential order, that appears on your screen or is spoken. By selecting an option, you can access a submenu or a form.
Forms	Forms that appear on your screen are similar to the paper forms. Forms appear when you enter or edit data for the database. They contain information that you can change and blanks for you to provide new information.
Fields	The areas in a form where you change or provide information.
Choice List	In some forms, in addition to the cursor highlighting a field, a list of logical choices appears on the screen for that field. This list may show previously entered data or the default values for the field.
Window	A box of text that appears on the screen for informational purposes. A typical information window instructs you to perform a certain action, such as `press any Key to Continue`. `No data` is entered in a window.

Related Documents

The following documents contain information pertinent to the installation process.

- *AT&T User's Guide 6386 WGS Processor*
  (Document No. 999-300-500)

- *AT&T User's Guide 6386E WGS Processor*
  (Document No. 999-300-460)

- *AT&T User's Guide 6386/SX WGS Processor*
  (Document No. 562-200-100)

- *AT&T User's Guide 6386/25 WGS Processor*
  (Document No. 562-200-1 03)

- *AT&T User's Guide 6386E/3 WGS Processor*
  (Document No. 562-200-106)

- *AT& T 570/571 Printer User's Guide*
  (Document No. 999-300-561)

- *AT& T AUDIX™ Voice Power System Manager's Guide*
  (Document No. 585-310-520)

- *AT&T AUDIX™ Voice Power Planning Guide and Forms*
  (Document No. 585-310-901)

- *AT&T AUDIX™ Voice Power Switch Notes*
  (Separate documents are provided for each supported telephone system. For integrated configurations, the appropriate document is provided with the switch integration software. For non-integrated configurations, your Account Representative provides the appropriate document number for your telephone system.)

- *AT&T DEFINITY® 75/85 Communications System Generic 1 and System 75 and System 75 XE Planning/Configuration*
  (Document No. 555-200-600)

- *AT&T DEFINITY® 75/85 Communications System Generic 1 Installation and Test* (Document No. 555-204-104)

A glossary for AUDIX Voice Power is included in the *AT&T AUDIX™ Voice Power Planning Guide and Forms* document.

Introduction

This *AT&T AUDIX™ Voice Power/installation and Maintenance Guide* includes procedures for installing and maintaining new AUDIX Voice Power systems and for upgrading from existing AUDIX Voice Power Release 1.1 and Release 2.0 systems to Release 2.1.1. Technical personnel at customer sites and AT&T Service Technicians should use this document as a guide for system installation and as a reference for system maintenance.

Preassembled Systems

The AUDIX Voice Power system includes an 80386-based microprocessor. You must install add-in circuit boards and separate software. AT&T may install and test the additional circuit boards and software before it ships the system to the customer site. If your system has been preassembled, you can skip the instructions for installing circuit boards and memory at the beginning of Chapter 2 and proceed directly to the instructions for *Connecting Peripherals and Cables* later in Chapter 2. Similarly, if your system has been preconfigured, you can skip the instructions for installing basic software given at the beginning of Chapter 3 and proceed directly to the instructions for *Competing Installation* and *Acceptance Testing* later in Chapter 3. You should then continue with the *Hardware Verification* section of Chapter 4.

Physical Requirements

Before you begin to setup your equipment or to install the software, you should verify that you have selected an appropriate site and have received the materials necessary for installation.

Selecting a Site

Select a site for the AUDIX Voice Power processor that provides easy access for the cabling and also provides good workspace for the System Manager or operators who will use the system. The site should be comfortable for the operators and should meet the following environmental requirements:

■ Temperature: 50 to 100 °F (1 0 to 38 °C)

■ Humidity: 20 to 80% noncondensing

■ Power: 115 V, 50-60 Hz, 220 Watts

Protect your AUDIX Voice Power processor from sunlight, heat, cold, chemicals, static electricity, magnetic fields, vibration, and grime.

Be sure to use a grounded, nonswitched outlet for the processor.

Materials Checklist

Use the following checklist tables to verify that you have all the hardware and software necessary for your configuration. First, check the type of System Module you have in the following table.

Description	Check
AT&T 6386 WorkGroup System (WGS) System Module with 1 MB memory and 5 l/4-inch floppy disk drive	
AT&T 6386E WGS System Module with 1 MB memory and 5 l/4-inch floppy disk drive	
AT&T 6386/SX WGS System Module with 2 MB memory and 3 l/2-inch floppy disk drive	
AT&T 6386/25 WGS System Module with 4 MB memory and 3 l/2-inch floppy disk drive	
AT&T 6386/33 WGS System Module with 4 MB memory and 3 l/2-inch floppv disk drive	

Next, check that you have the following minimum hardware to complete
your system.

Description	Check
8 MB memory (minimum)	
Three 2 MB memory kits for 6386/SX System Module	
Three 1 MB memory kits for 6386 or 6386E System Module	
For a 6386 WGS or 6386E WGS system: two 4 MB Memory Kits with 1 MB SIMMS	
For a 6386/25 WGS or 6386E WGS system: two 2 MB Memory Kits	
Keyboard, included	
68 MB hard disk (minimum), included	
AT&T 329D VGA color monitor, or	
AT&T 324LN VGA monochrome monitor	
AT&T VGA Video Display Controller (VDC600) Board (Not required for 6386/SX WGS)	
One to three Integrated Voice Power (IVP4) boards	
Digital Communications Protocol (DCP) circuit card (for integrated AUDIX Voice Power systems using DCP only)	

Description	Check
Modem for remote support (System 25 and System 75)	
Modem cable (5-ft D25F-87) [System 25 and System 75)	
Optional AT&T 570/571 Printer	
Printer cable (74 36-25 pin) for optional printer	
Optional Cartridge Tape Drive*	

Check that the following software is included in your system.

Description	Check
AT&T UNIX® Operating System V/386, Version 3.2.2	
AUDIX Voice Power File System Modification Software	
Integrated Voice Power System Software, R2.O	
AUDIX Voice Power Application Software, R2.1.1**	
AUDIX Voice Power Switch Integration Software (Please see the *AT&T AUDIX™ Voice Power Switch Notes* for your telephone system for the exact name and release number for this component.)	
Remote Terminal Package	

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* For Integrated Solution II (IS II) environment or where AUDIX Voice Power does not require a DCP card.

** On systems where AUDIX Voice Power is installed on a dedicated computer, this package has separate "speech" and "software" components. On systems where AUDIX Voice Power is installed on the same computer used to administer the telephone switch (IS II environment), this package has a single component.

Check that the following software is included if you are doing a system upgrade.

Description	Check
AUDIX Voice Power Upgrade Utility R1.0 (if you are upgrading from AUDIX Voice Power R1.1)	
AUDIX Voice Power Application Software, R2.0 (If you are upgrading from AUDIX Voice Power R1.1)	

➡ N O T E :

> For integrated System 75 and DEFINITY G1 configurations only, a DCP (or PC/PBX) board is required along with a port on a TN-754 board at the switch. If no existing port is available, an additional TN-754 board must be installed in the switch.

For additional information, please see the *AT&T AUDIX™ Voice Power Switch Notes* for your telephone switch.

System Diagram

Figure 1-1 is a representation of an AUDIX Voice Power system configuration.
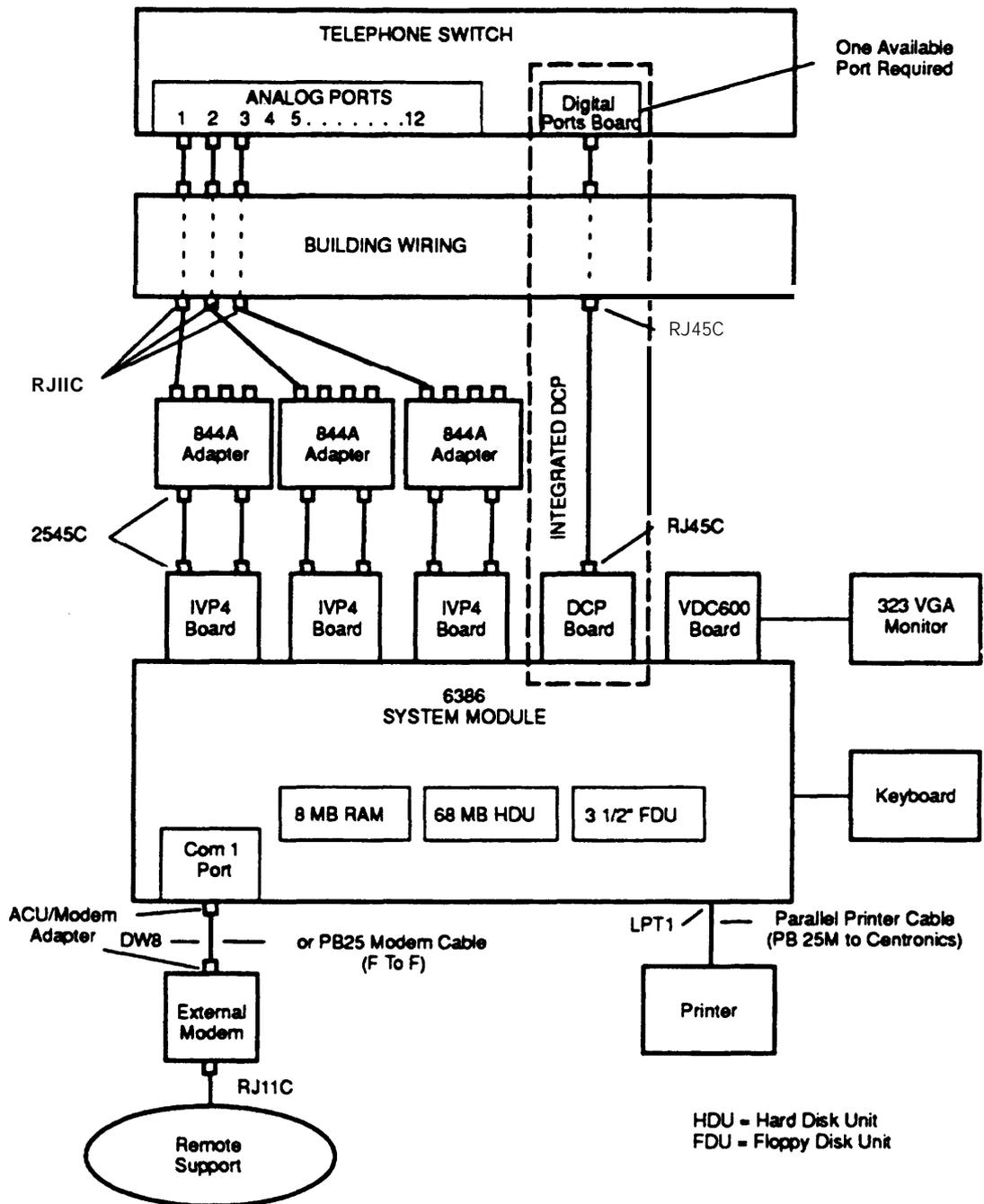
Figure 1-1. System Diagram

Hardware Installation

2

This chapter explains how to setup the AUDIX Voice Power processor.
This process may include adding memory to the main circuit board
(motherboard) or to auxiliary circuit boards, installing additional circuit
boards, and connecting peripheral devices.

The additional circuit boards and memory may have been installed and
tested by AT&T before the system was shipped to the customer site. If
your system has been preassembled, you can skip the instructions for
installing circuit boards and memory at the beginning of this chapter and
proceed directly to the instructions for *Connecting Peripherals and Cables*
later in the chapter.

Hardware Overview

The AUDIX Voice Power processor is an AT&T WGS based on an Intel®
80386 microprocessor. There are several models that can be used.

- 6386 WGS–16 or 20 MHz processor, desktop configuration

- 6386E WGS–20 MHz processor, floor model

- 6386/SX WGS–16 MHz processor, small footprint desktop
  configuration

- 6386/25 WGS–25 MHz processor, desktop configuration

- 6386E/33 WGS–33 MHz processor, floor model

The AT&T WGS includes the system module (chassis) with keyboard, a single 3 1/2-inch floppy disk drive or a single 5 1/4-inch floppy disk drive, at least 1 MB of memory, and at least a 40 MB hard disk.

For an AUDIX Voice Power 2.1.1 system to function, a minimum of 8 MB of memory is required. All AUDIX Voice Power systems require a hard disk with a minimum capacity of 68 MB. If you need to increase the system memory, please see the instructions provided in *Installing Additional Memory* in Chapter 2, *Hardware Installation.* If you must replace the hard disk, please see the service manual user's guide for the appropriate WGS model.

➪ N O T E :

> If your system requires a second hard disk for expanded speech storage, please refer to Appendix A for installation information.

Memory expansion kits that increase system memory to a total of 8 MB may be installed on the motherboard or a special memory circuit board.

The following circuit boards may be installed in the system module:

- one to three IVP4 4-port circuit beads

- DCP circuit board (integrated AUDIX Voice Power with System 75 switch configuration only)

  ### ➪ N O T E :

  > In order to use a DCP board, a DCP port on the switch is necessary. A port on an existing board maybe used if one is available. Otherwise, an additional DCP board must be installed in the switch.

- Video Display Controller (VDC600) board (except on 8386/SX WGS)

The following items are connected externally to the system module:

- keyboard (included with the system module)

- AT&T VGA 329D color monitor or AT&T 324 monochrome monitor

The following devices may be connected to the system module:

- External modem for remote support

- AT&T 570/571 printer for report printing (AT&T 470/471 printers are also supported).

- Optional cartridge tape drive if AUDIX does not require a DCP board

General Installation Instructions

Procedures are provided here for installing additional memory on the motherboard and for installing circuit boards in the system module.

See Appendix A for information about installing a second hard drive.

If you need additional illustrations or details, see the installation guides provided with each item.

Hardware installation requires the following tools:

- a No.1 or No. 2 Phillips® screwdriver

- a medium-width, flat-blade screwdriver

- a 3/16-inch nut driver (recommended)

- an antistatic grounded wrist strap

- an antistatic grounded work mat

⚠ **CAUTION:**
Electronic equipment can be damaged by electrostatic discharge. Do not touch any electronic component unless you are properly grounded. Grounding can be established by placing the equipment on a properly grounded work mat and by wearing a properly grounded wrist strap. The wrist strap must have direct contact with the bare skin and must *never* be worn over clothing. Do not work on equipment unless you are familiar with the necessary procedures for preventing damage caused by electrostatic discharge.

The basic procedure for installing hardware is as follows:

1. Shut off all power and remove all cables.

2. Ground the work mat and wrist strap, and put on the wrist strap.

3. Place the equipment on the grounded work mat.

4. Remove the system module cover.

5. Install or replace circuits on the motherboard.

6. Prepare new circuit boards for installation.

7. Install or replace circuit boards.

8. Replace the cover.

9. Reconnect peripherals and cables.

Opening and Closing the Case

The procedures for opening and closing the case vary from model to model. The procedures for opening the case for the various models are described on the following pages. Find and follow the instructions to open the case of the model you have, then reverse those procedures to close the case.

Opening the 6386 WGS

Follow these steps to remove the cover:

1. Be sure the system power is turned OFF. If any cables have been connected to the system module, disconnect them.

2. Unlock the cover lock. (A set of keys is provided with the system module.)

3. Loosen the two main cover-securing screws **(A** and **B)** on the back panel as shown in Figure 2-1.
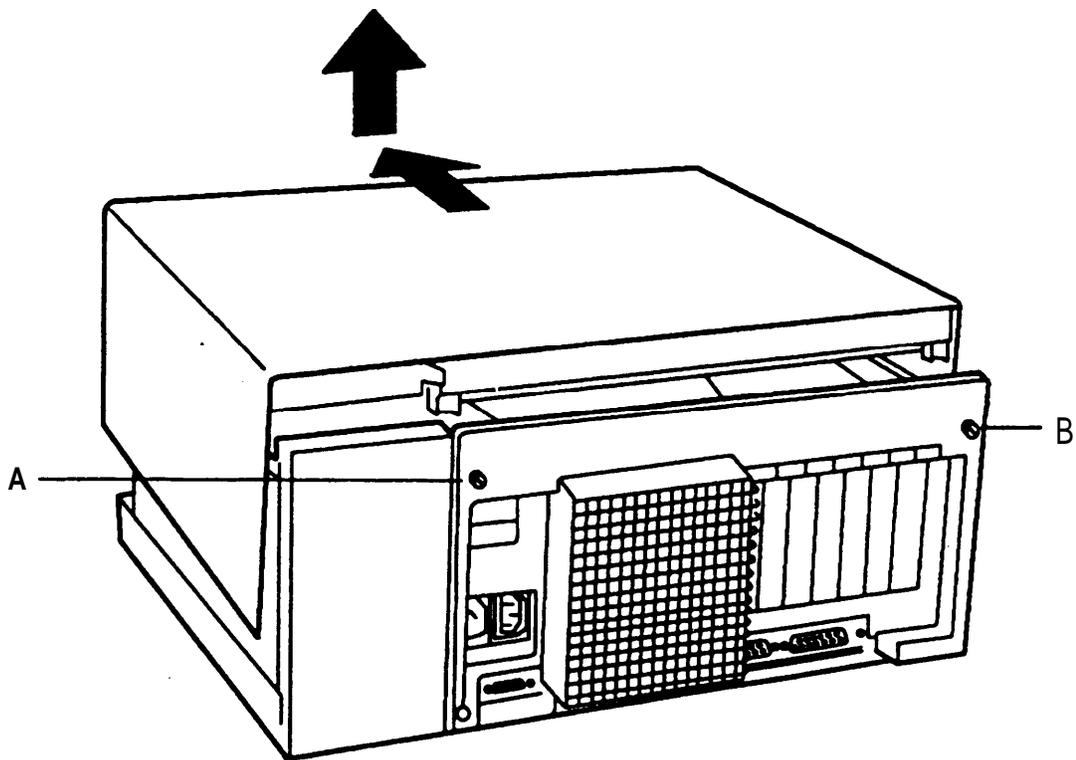
Figure 2-1. 6386 WGS Main Cover-Securing Screws

4. Pull the cover towards the front of the computer (the cover will move about 1/2 inch). Then tilt the back of the cover up and remove it. Take care not to catch the cover on any internal cables or wires.

Opening the 6386E WGS

Follow these steps to remove the cover:

1. Be sure the system power is turned OFF. If any cables have been connected to the system module, disconnect them.

2. Unlock the cover lock. (A set of keys is provided with the system module.)

3. Remove the top cover of the system by lifting from the rear as shown in Figure 2-2.
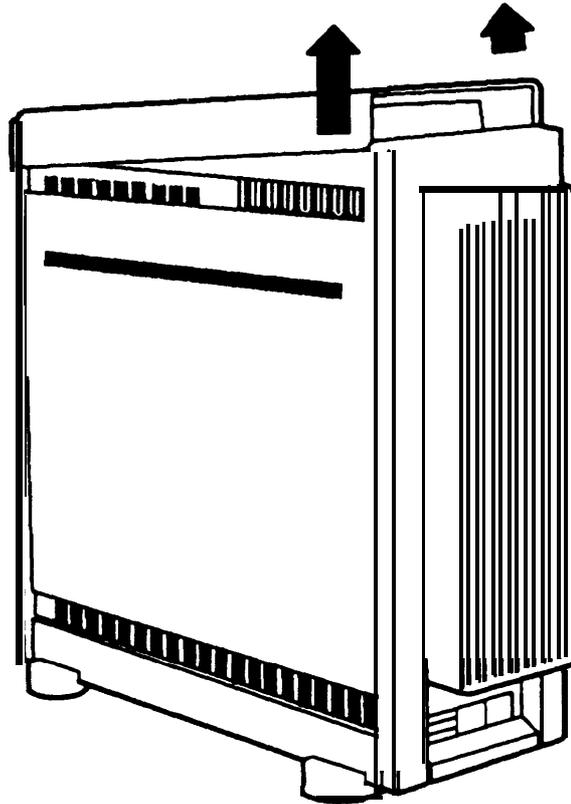
Figure 2-2   6386E WGS Removing Top Cover

4.   Using the Philips screwdriver, loosen the access cover mounting screw located on the top left of the system, just behind the power supply unit (refer to Figure 2-3). There are two screws; remove the outer screw.
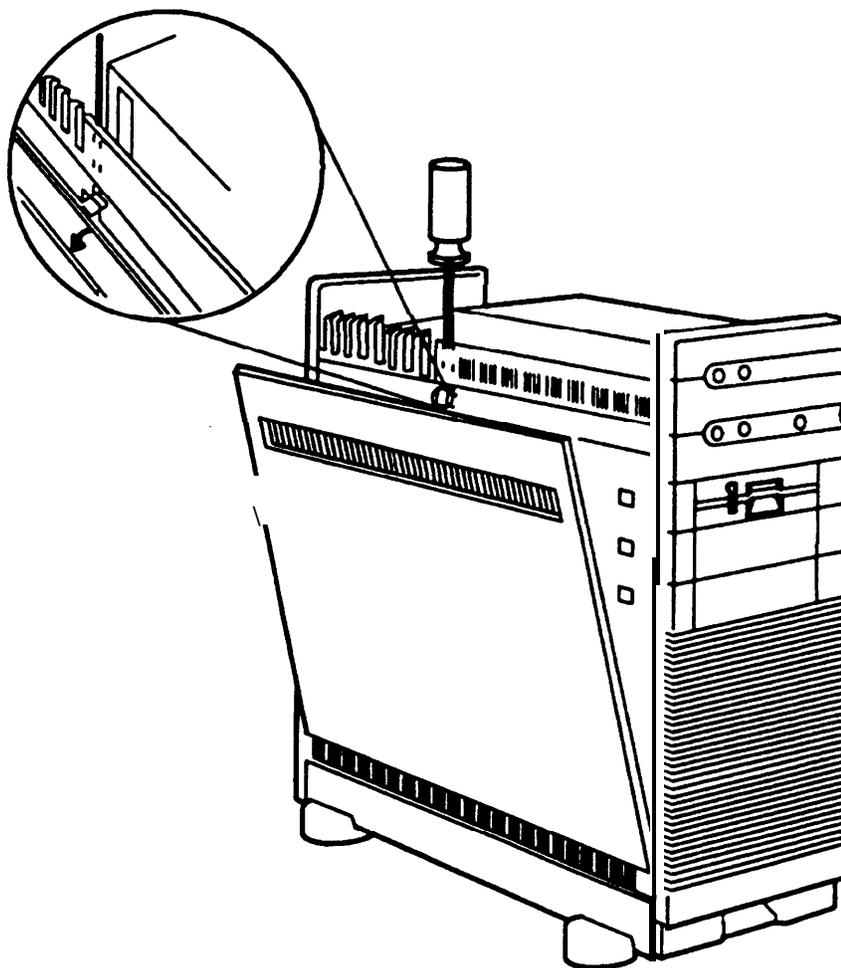
Figure 2-3.   6386E WGS Access Cover Removal

5.   Pull the top of the cover outward, then lift the tabs out of the bottom slots.

Opening the 6386/SX WGS

Follow these steps to remove the cover:

1. Be sure the system power is turned OFF. If any cables have been connected to the system module, disconnect them.

2. Unlock the cover lock. (A set of keys is packed in a plastic bag in the carton with the system module.)

3. Loosen the three main cover-securing screws **(A, B,** and **C)** on the back panel as shown in Figure 2-4.
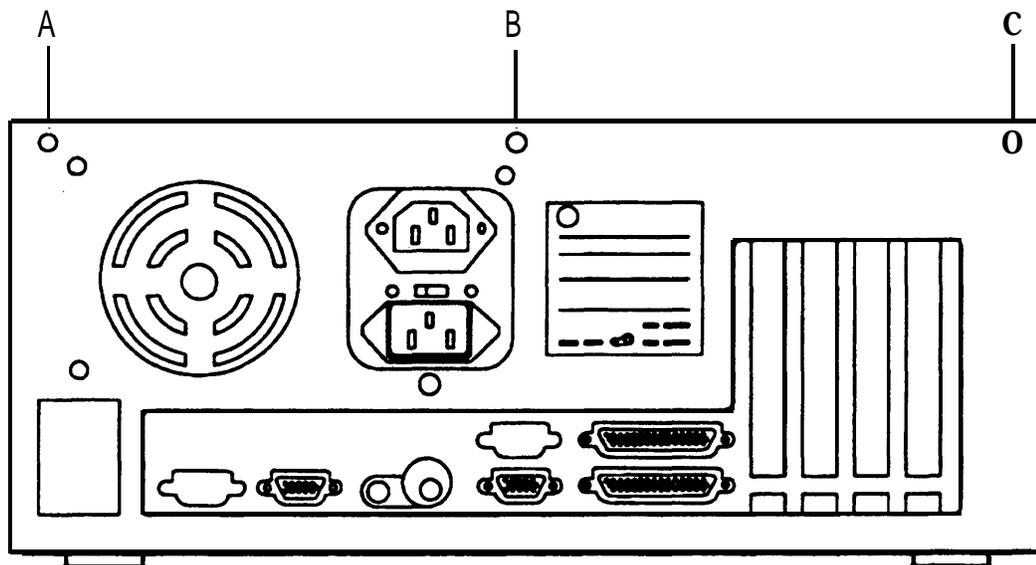
Figure 2-4. 6386/SX WGS Main Cover-Securing Screws

4. Slide the cover off the system module by pulling it forward until it clears the back half of the chassis. Then tilt the back of the cover up and remove it. Take care not to catch the cover on any internal cables or wires.

Opening the 6386/25 WGS

Follow these steps to remove the cover:

1. Be sure the system power is turned OFF. if any cables have been connected to the system module, disconnect them.

2. Unlock the cover lock. (A set of keys is packed in a plastic bag in the carton with the system module.)

3. Loosen the five main cover-securing screws **(A** through **E)** on the back panel as shown in Figure 2-5.
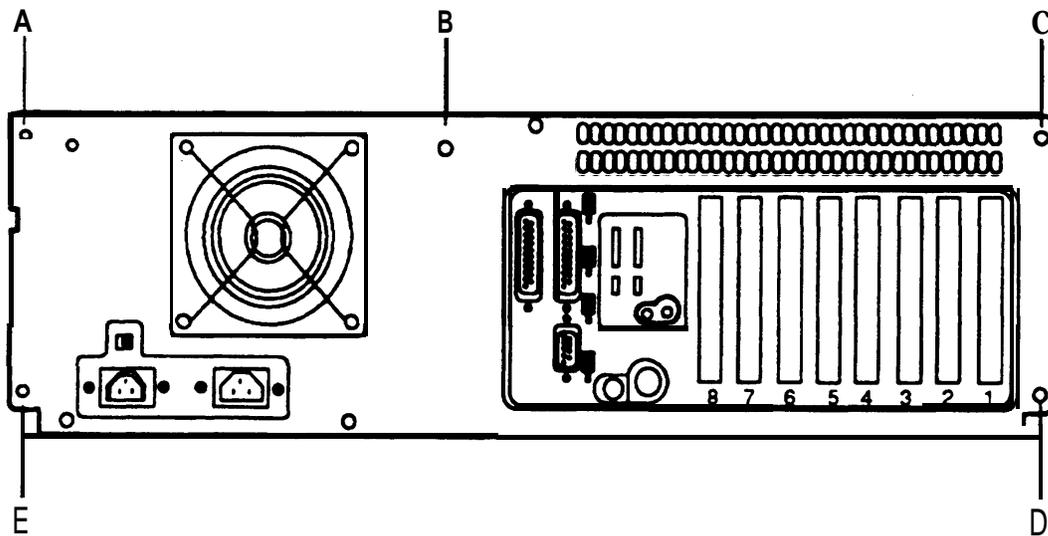
Figure 2-5. 6386/25 WGS Main Cover-Securing Screws

4. Slide the cover off the system module by pulling it forward until it clears the back half of the chassis. Then tilt the back of the cover up and remove it. Take care not to catch the cover on any internal cables or wires.

Opening the 6386E/33 WGS

Follow these steps to remove the cover:

1. Be sure the system power is turned OFF. If any cables have been connected to the system module, disconnect them.

2. Unlock the cover lock. (A set of keys is packed in a plastic bag in the carton with the system module.)

3. Remove the top cover **(B)** of the system by lifting from the rear.

4. Loosen the cover-securing screw **(A)** as shown in Figure 2-6.

5. Slide the cover **(C)** off the chassis by moving it forward.

6. Refer to Figure 2-7. Remove the four retaining screws **(A)** from the card cage cover.

7. Slide the card cage cover **(B)** forward and then away from the chassis.

8. If you are installing additional memory on the motherboard, disconnect all cables that cover the air deflector **(C).** Then remove the air deflector by lifting it gently outward to release it from the chassis.
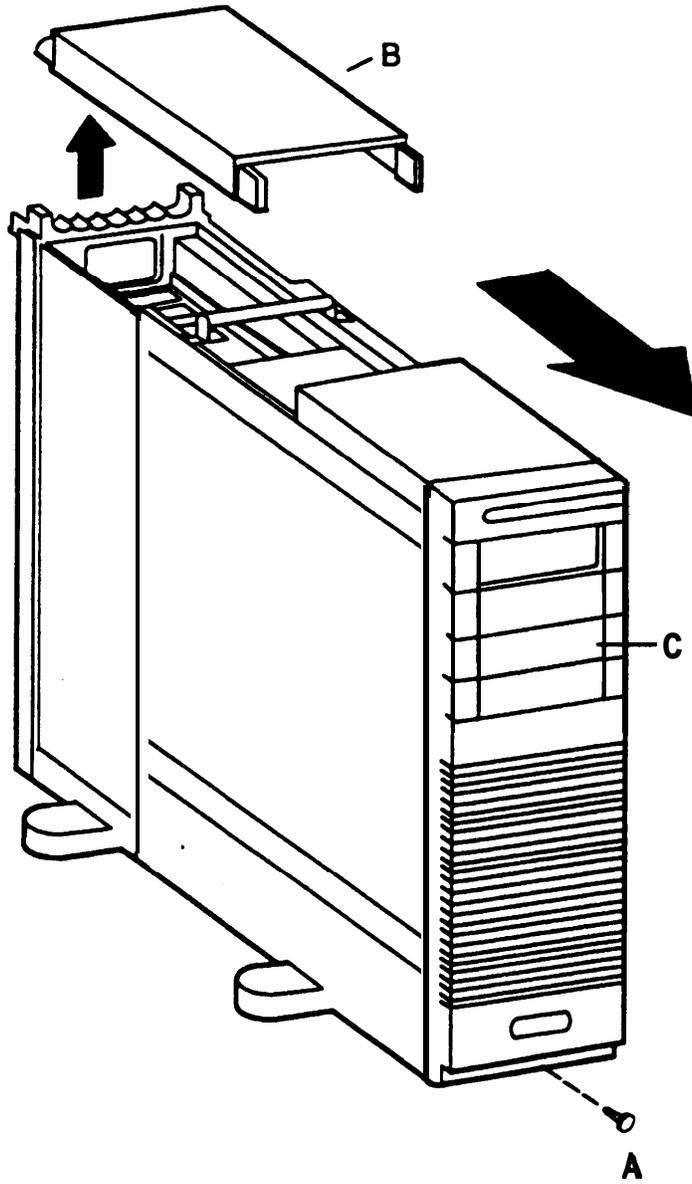
Figure 2-6. 6386E/33 WGS Removing Outside Cover
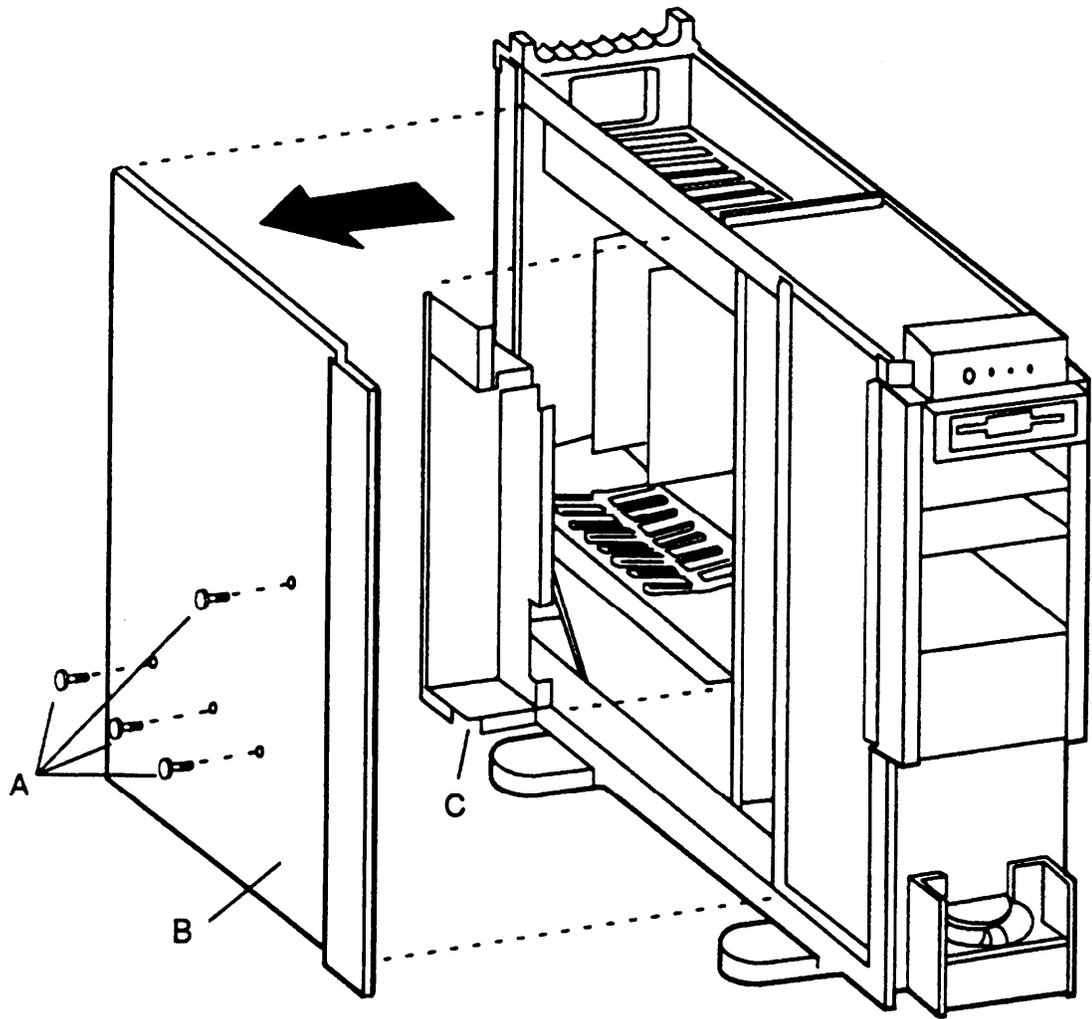
Figure 2-7. 6386E/33 WGS Access Cover Removal

General Instructions
for Installing Circuit Boards

All expansion boards are installed according to the following general instructions. The expansion slot to be used is described in the section on preparing the individual boards.

Follow these steps to install an expansion board:

1. Refer to Figure 2-8. Remove the slot cover by removing the screw **(A)** from the metal cover **(B).** Then lift out the metal cover. Save the screw to secure the board in place later. On the 6386 and 6386E WGS processors, there may be a plastic cover over the slot as well as the metal cover. If a plastic cover is present, break it out with the screwdriver and discard it.

2. Holding the expansion board by its edges, insert the board into the correct slot as shown in Figure 2-9.

   Be sure that the bracket on the expansion board is at the back of the chassis (top of the chassis for floor models) and fits into the space left by the slot cover. Be sure that the connector edge of the board is properly aligned with the socket on the adapter board. The front edge of long cards goes in the alignment guide attached near the front (bottom on floor models) of the computer enclosure.
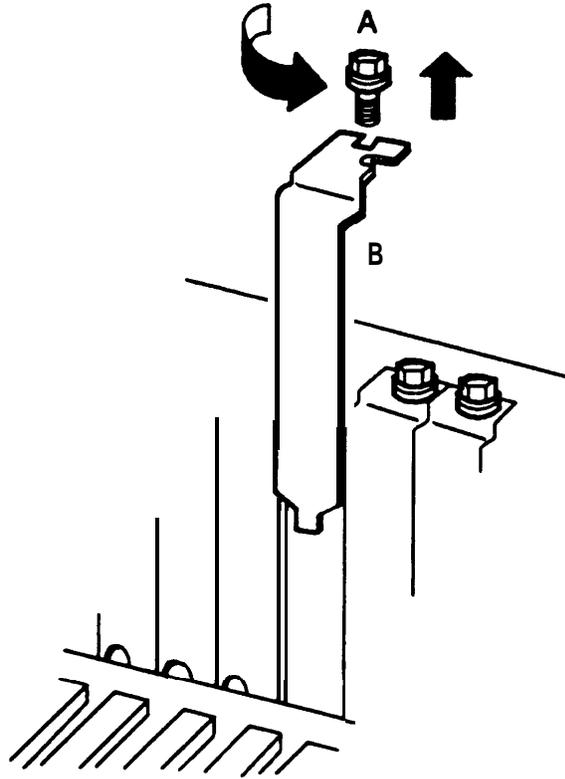
Figure 2-8. Removing the Slot Cover
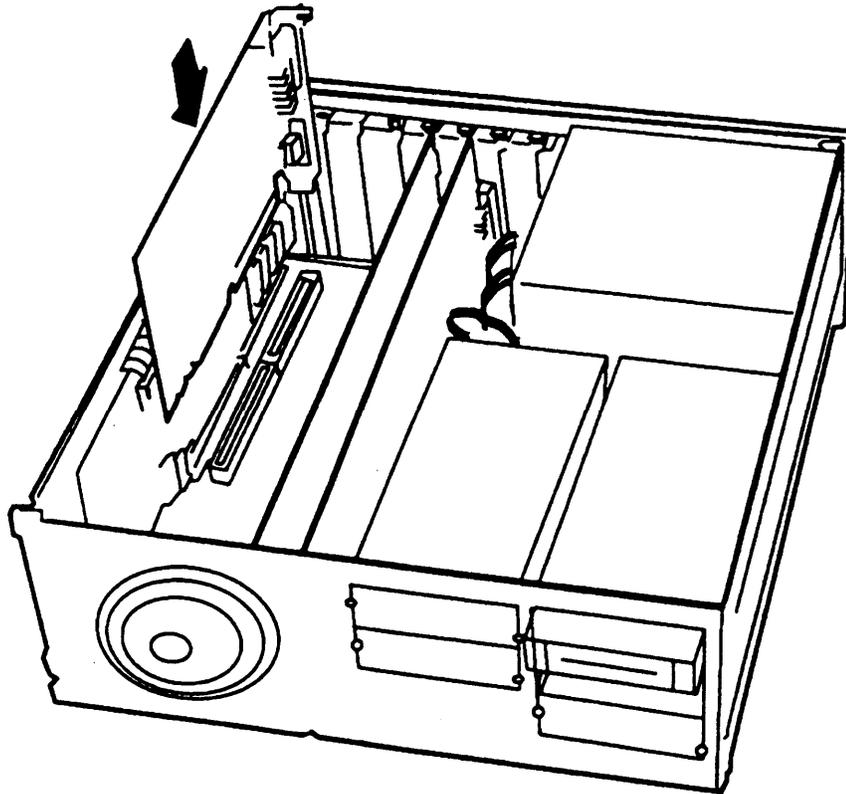
Figure 2-9. Inserting a Circuit Board into an Expansion Slot

3. When the expansion board is properly seated in the expansion slot, press down evenly on the edges of the board to ensure a solid connection.

4. Secure the expansion board in the computer chassis using the screw removed from the slot cover plate, as shown in Figure 2-10.

5. After all expansion boards have been installed, replace the system module cover.
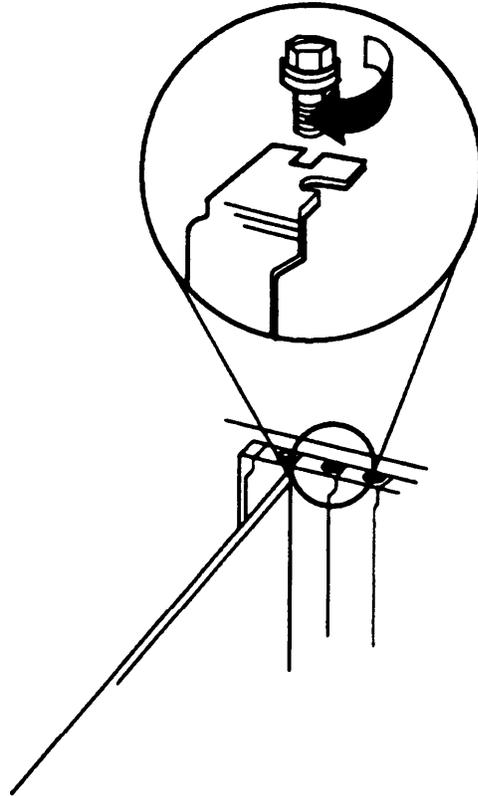
Figure 2-10. Securing the Board

Installing Additional Memory

It maybe necessary to install additional memory on 6386 and 6386/SX WGS processors to bring the system total up to a minimum of 8 MB. Instructions are provided for adding memory to all configurations.

Installing Additional Memory in the 6386 and 6386E WGS

The 6386 and 6386E WGS processors use a special memory expansion board shown in Figure 2-11. This memory board plugs into one of the 32-bit **slots.**
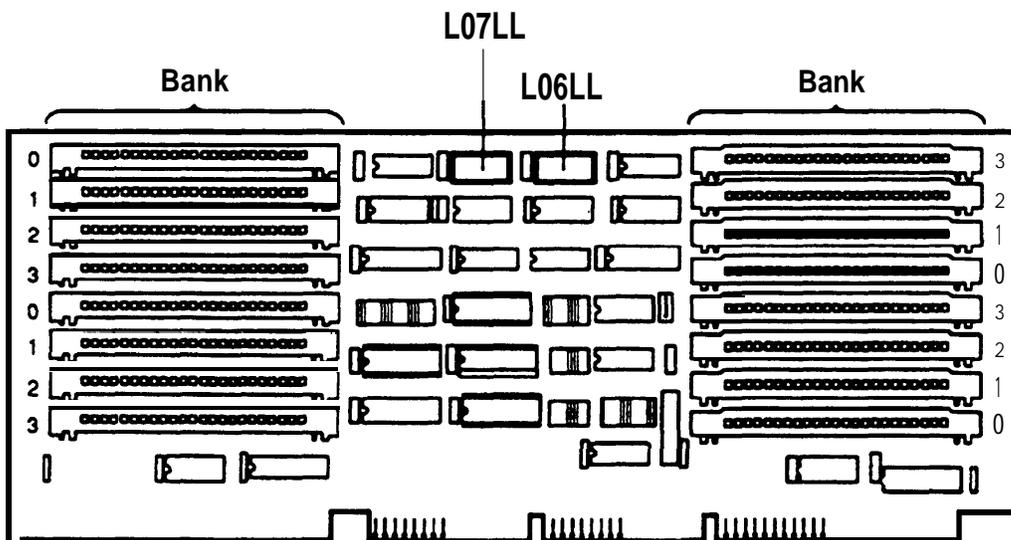
Figure 2-11. 6386 and 6386E WGS Memory Expansion Board

The memory expansion board has 16 sockets for Single In-line Memory Modules (SIMMs). The sockets are grouped in "banks" numbered 0, 1,2 and 3. The memory board comes with SIMMs installed in bank 0. You can add sets of four SIMMs in bank 1 or in banks 1, 2 and 3. Total memory

depends on the SIMMs used: 256 kB SIMMs allow 1, 2, or 4 MB capacity; 1 MB SIMMs allow 4,8, or 16 MB capacity. Either 256 kB or 1 MB SIMMs can be used, but the two different types *cannot* be mixed on the same board.

If you are upgrading to AVP 2.1.1, you have to add additional memory to bring the total system memory capacity to 8 MB. To perform this task, you must first remove the SIMMs that are already installed. You will not reuse these old SIMMs.

➡ **N O T E :**

Remove SIMMs one at a time, from right to left. That is, remove the right-hand SIMM first, and the left-hand SIMM last.

⚠ **CAUTION:**

Apply only enough pressure on the retaining clips to release the module. To much pressure can break the retaining clips or damage the socket slot.

Follow the steps below to remove a SIMM.

1. Use a properly grounded wrist strap or discharge any static electricity from your body by touching a nearby grounded metal object.

2. Locate the socket that contains the SIMM you wish to remove. Remove the SIMM in the right slot of the socket.

3. Gently spread the retaining clips just enough to pull the top edge of the SIMM away from the clips (See Figure 2-1 2).

4. Carefully lift the SIMM away from the socket and store it in a suitable static-free protective wrapper.

5. Repeat Steps 2 through 4, as necessary, to remove and store SIMMs from the remaining sockets.
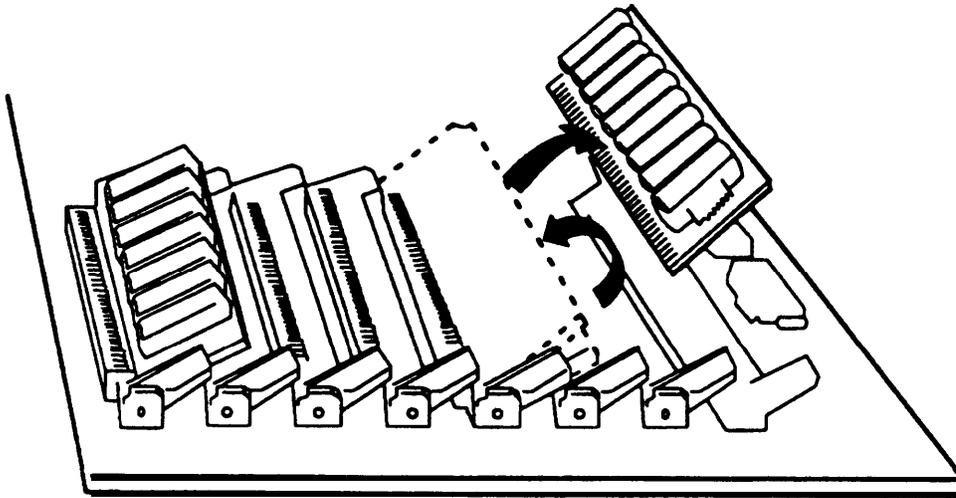
Figure 2-12. Removing SIMMs from the Memory Expansion Board

Follow these steps to install additional memory on the memory expansion board:

1. Determine the type of SIMM strips you have from the part number printed on the modules:

   — 256 kB SIMMs contain the number 256 in the part number.

   — 1 MB SIMMs contain the number 1000 or 1024 in the part number.

   ➥ **N O T E :**

   > If part numbers are missing or unreadable, you can identify the type of SIMM by examining the chips. The 256 kB chips have leads on all four sides. The 1 MB chips have leads on only two sides.

   You may use only one type of SIMM on each memory board.

2. To install one kit of four SIMMs, insert the four SIMMs only in the sockets marked 1 in Figure 2-11. To install three kits of four SIMMs, insert SIMMs in all open sockets.

3. Referring to Figure 2-13, slide each module carefully into the socket with the circuit packs facing up. When the module is seated, press down gently until it snaps into place. Compare it with other modules already in place to ensure that it has been inserted correctly.

   ⚠ **CAUTION:**

   > Use extreme care when installing or removing SIMMs. The plastic retaining clips on the sockets are easily broken by using too much force.
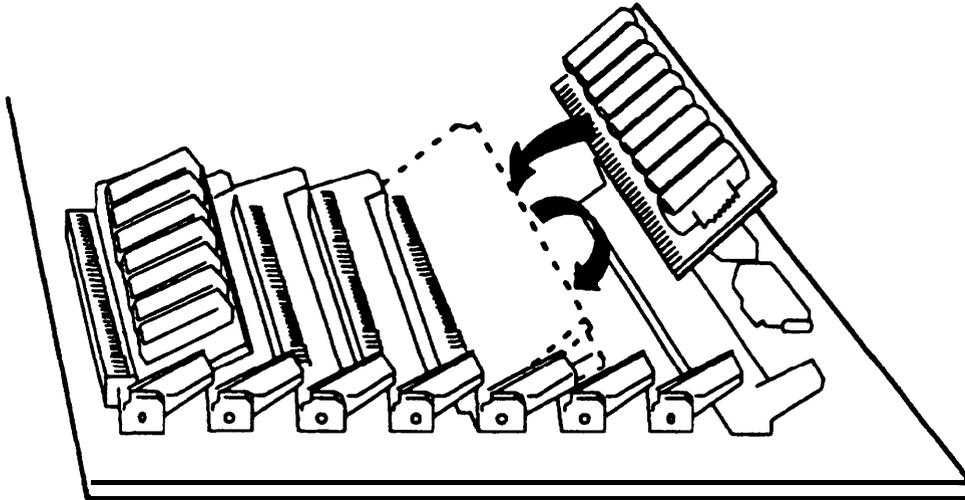
Figure 2-13. Installing SIMMs on the Memory Expansion Board

4.   Set the memory board switches (switches L07LL and L06LL) as described in Figures 2-14 and 2-15. The figures show how to set these switches for some common memory configurations. If your memory configuration does not belong to one of those given in these figures, follow the procedure outlined in the *6386, 6386E WorkGroup Systems Memory Expansion — Installation Guide* to determine the appropriate switch settings.

Type of Memory Configuration	L07LL Switches 1-8 should be set to
4 MB with 256 kB SIMMS (one memory board)	ON / OFF, switches 1-8
4 MB with 1 MB SIMMS (one memory board)	ON / OFF, switches 1-8
8 MB with 1 MB SIMMS (one memory board)	ON / OFF, switches 1-8

Figure 2-14. Switch L07LL-1 through L07LL-8

Type of Memory Configuration	L06LL Switches 1-8 should be set to
4 MB with 256 kB SIMMS (one memory board)	ON / OFF, switches 1-8
4 MB with 1 MB SIMMS (one memory board)	ON / OFF, switches 1-8
8 MB with 1 MB SIMMS (one memory board)	ON / OFF, switches 1-8

Figure 2-15. Switch L06LL-1 through L06LL-8

5.   Install each memory board in a 32-bit slot (3 connectors). Use the leftmost available slots on the 6386 WGS and the rearmost available slots on the 6386E WGS. The order in which the boards are inserted does not matter. Follow the general instructions for installing circuit boards given in the section *General Installation Instructions* in this chapter.

6.   After modifying the memory configuration, you must run the SETUP program. For details on how to run the SETUP program, refer to the section *Configuration: the SETUP Utility* in this chapter. If you have installed 8 MB of memory on your system, the Extended Memory Size should be modified to 7168 kB.

Installing Additional Memory in the 6386/SX, 6386/25, and 6386E/33 WGS

The 6386/SX, 6386/25 and 6386E/33 WGS processors can have up to 8 MB of memory installed on the motherboard.

➡ **NOTE:**
There are two different versions of the 6386/25 motherboard. See Figures 2-17 and 2-18 to determine which version of the motherboard you have.

Follow these steps to install additional memory on the motherboard:

1. Locate the empty SIMM sockets for the processor that you are working on, as shown in Figures 2-16, 2-17, 2-18, or 2-19.
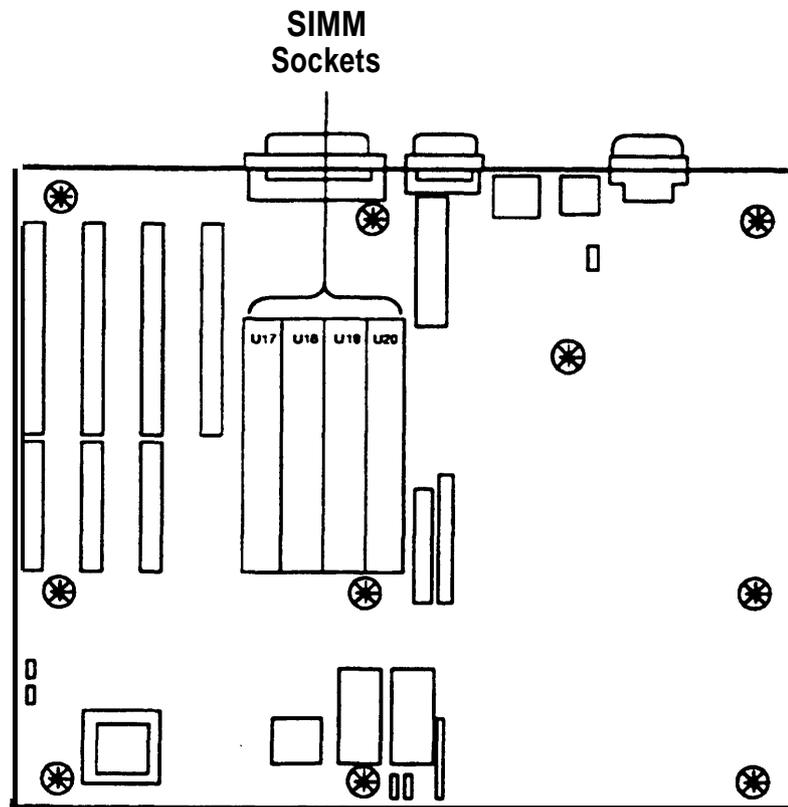
**SIMM
Sockets**

Figure 2-16. Location of Memory (SIMM) Sockets on the 6386/SX WGS
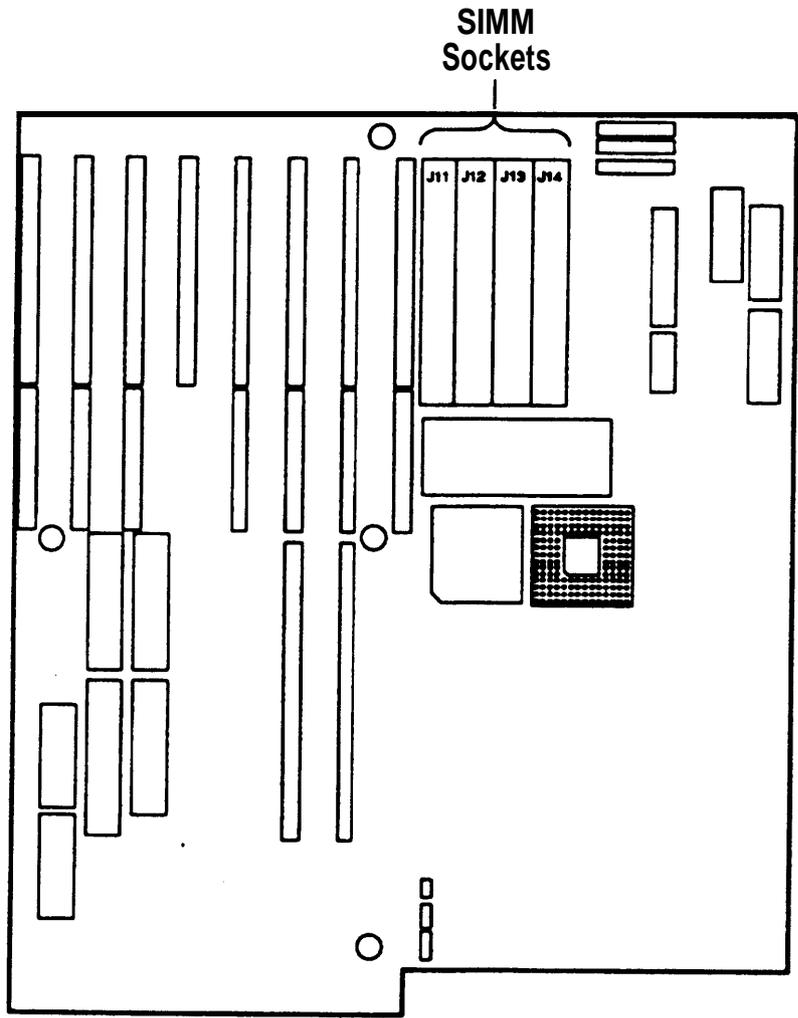
**Figure 2-17. Location of Memory (SIMM) Sockets on the
6386/25 WGS (Version 1)**
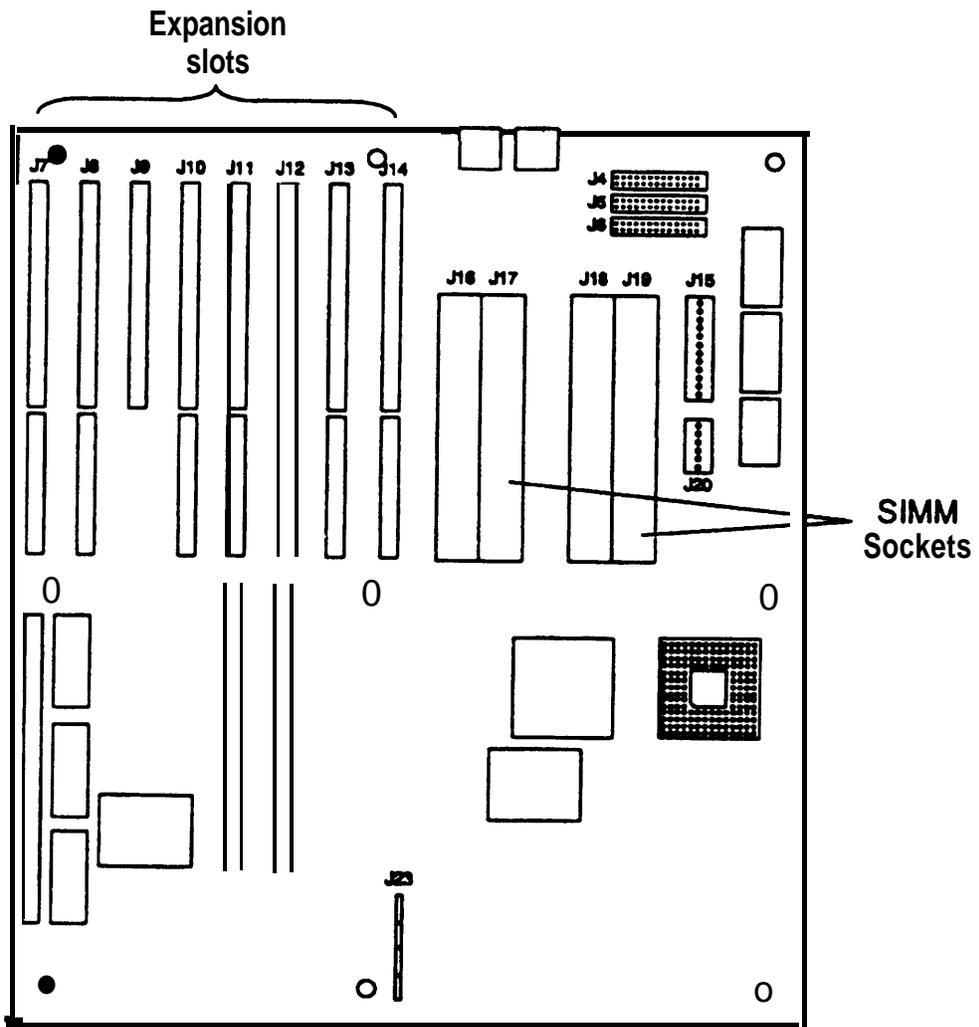
Figure 2-18. Location of Memory (SIMM) Sockets on the 6386/25 WGS (Version 2)
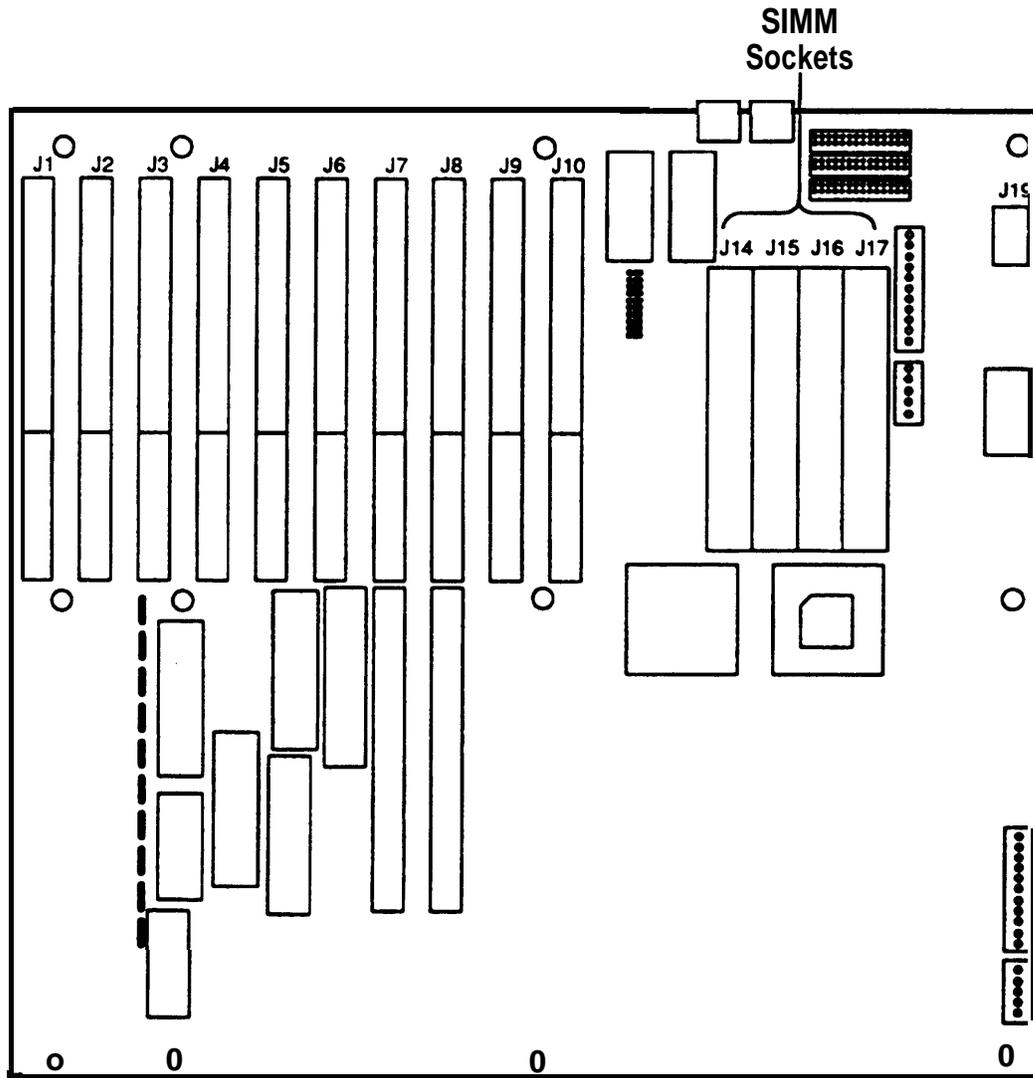
Figure 2-19. Location of Memory (SIMM) Sockets on the 6386E/33 WGS

2. If necessary, remove the cables connected to the hard disk and
floppy disk and fold them out of the way near the disk controller
circuit board to obtain access to the SIMM sockets.

3. Each empty SIMM socket holds two SIMMs. For each socket, insert the first SIMM into the left slot and the second SIMM into the right slot.

4. Refer to Figure 2-20. Holding the SIMM only by the edges **(A),** align the SIMM with its socket **(B).** The contact edge should be inserted into the socket first. The chips should be on the left side of the SIMM. Press down firmly while maintaining the angle of insertion.

⚠ CAUTION:

> Use extreme care when installing or removing SIMMs. The plastic retaining clips on the sockets are easily broken by using too much force.
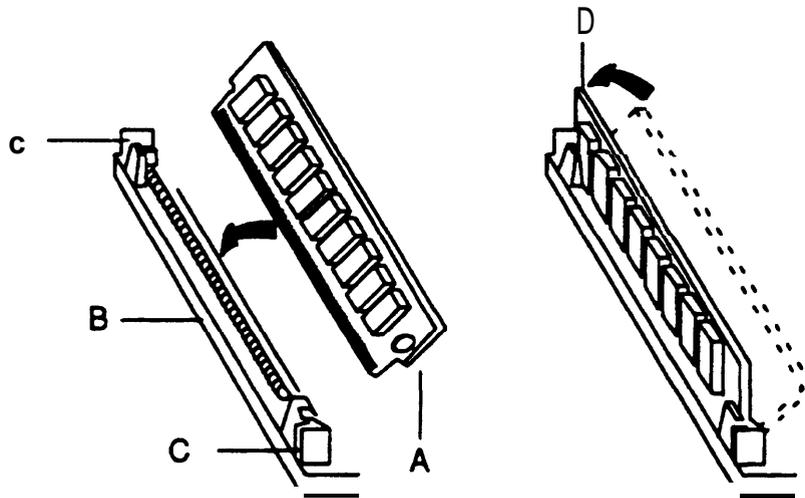
Figure 2-20. Inserting the SIMMs into Sockets

5. Make sure that the SIMM is seated correctly. If not, gently spread the retaining clips **(C)** just enough to permit the top edge of the SIMM to be pulled away from the clips. Then reseat the SIMM.

6. When the SIMM is seated, gently push the top edge toward the slot retaining clips until it snaps into place **(D).**

7. Install the remaining SIMMs working from left to right.

8. After installing the required SIMMS for 6386/25 and 6386E/33 processors, you need to setup the motherboard jumpers as described in the *Setting Motherboard Jumpers on the 6386 and 6386E/33 WGS* section. After setting up the jumpers, you need to run the SETUP utility for 6386/25 and 6386/33 systems. For details on how to run the SETUP program, refer to the section *Configuration: the SETUP Utility* in this chapter. If you have installed 8 MB of memory on your system, the Extended Memory Size should be modified to7168 kB.

Setting Motherboard Jumpers on the 6386/25 and 6386E/33 WGS

On the 6386/25 and 6386E/33 WGS, jumper settings must be changed to provide the following system configuration information to the CPU:

■ total onboard RAM —8MB

■ serial port enable/disable (COM2 port disabled)

All other jumpers are left in the factory default configuration.

➡ N O T E :

Motherboard jumpers do not need to be set for the 6386/SX system.

The location and correct settings for all jumpers are shown in Figures 2-21,2-22, and 2-23 for the 6386/25 (Version 1), 6386/25 (Version 2), and 6386E/33, respectively.
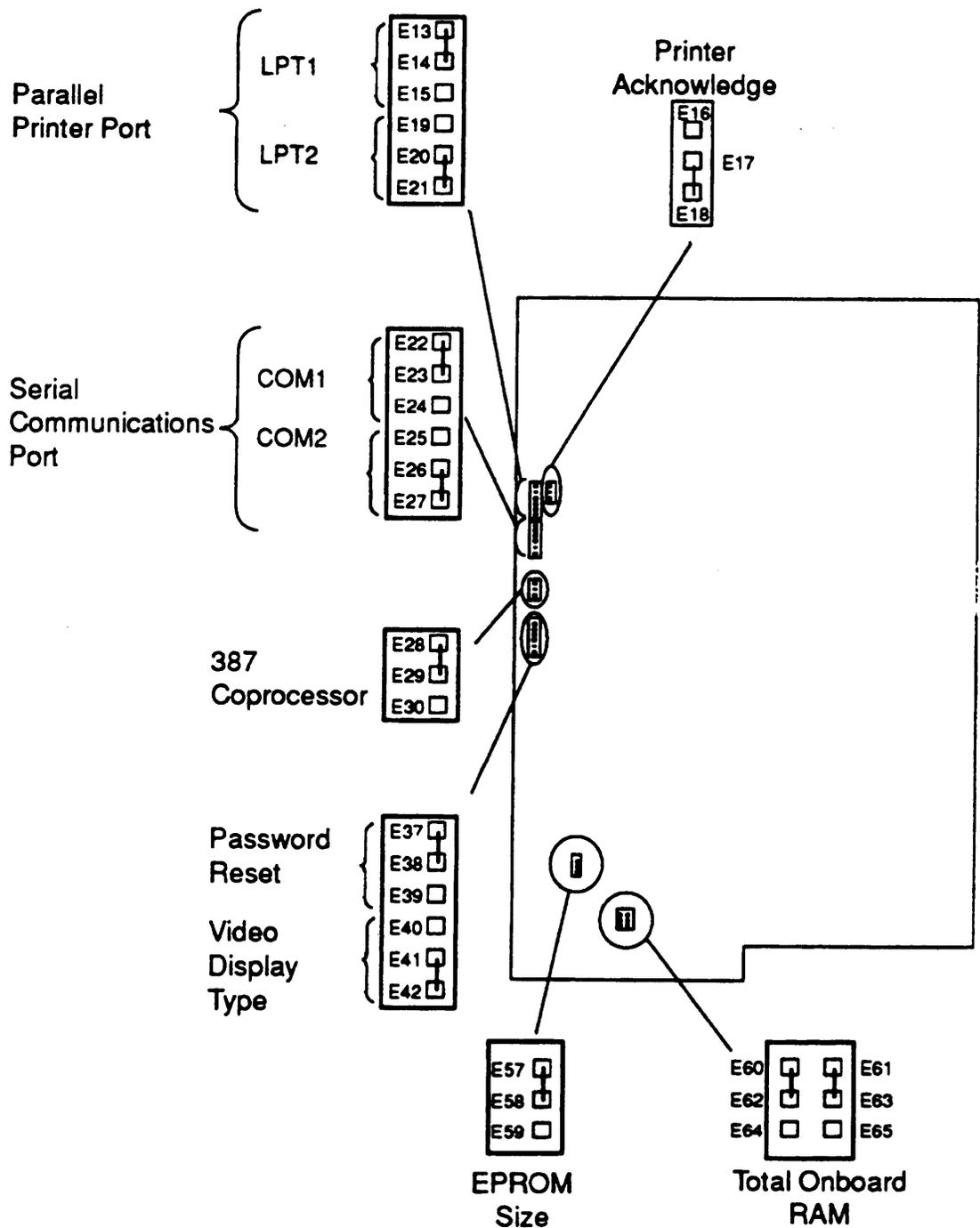
Figure 2-21. Location of Motherboard Jumpers on the 6386/25 WGS (Version 1)
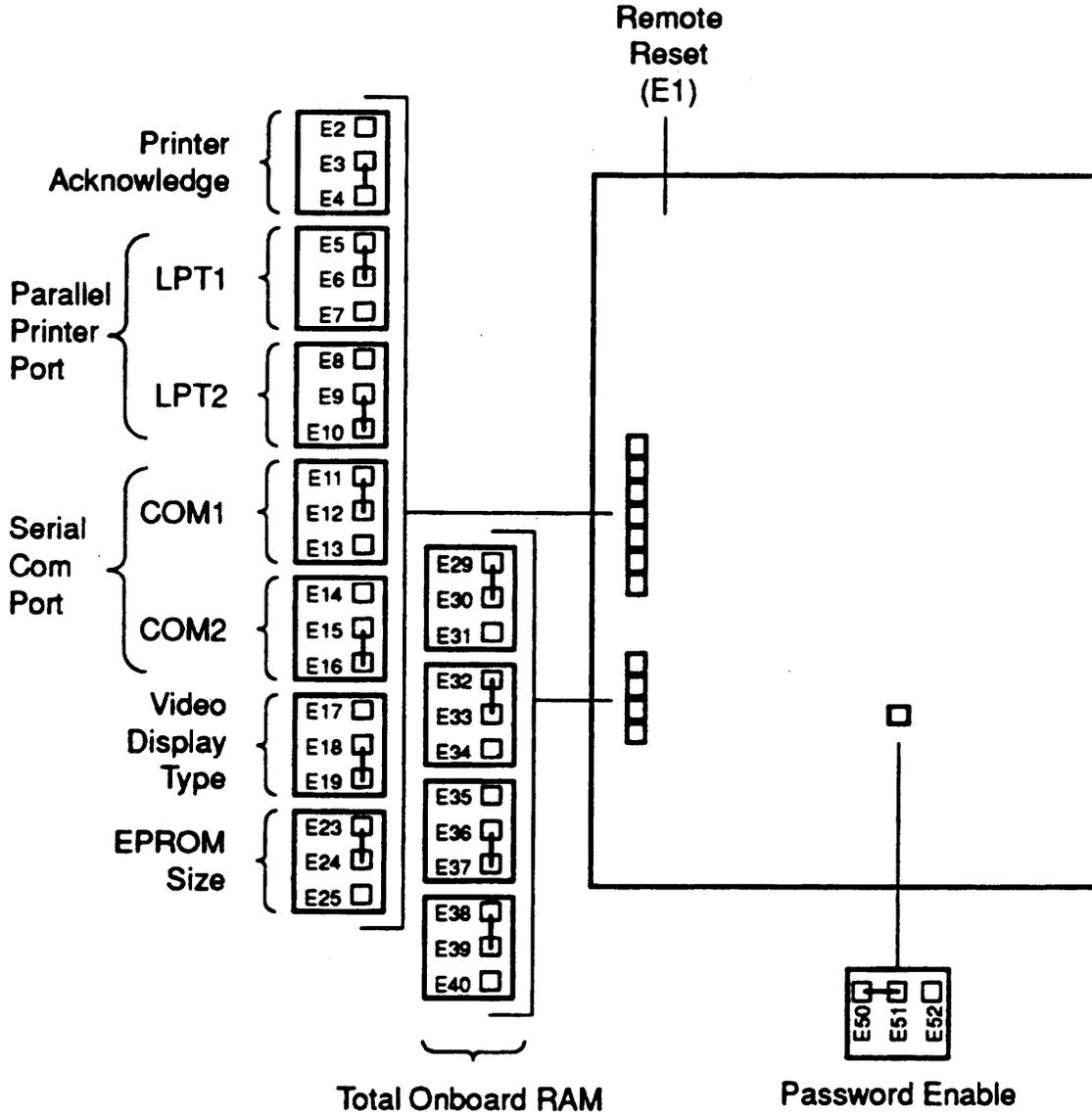
Figure 2-22. Location of Motherboard Jumpers on the
6386/25 WGS (Version 2)
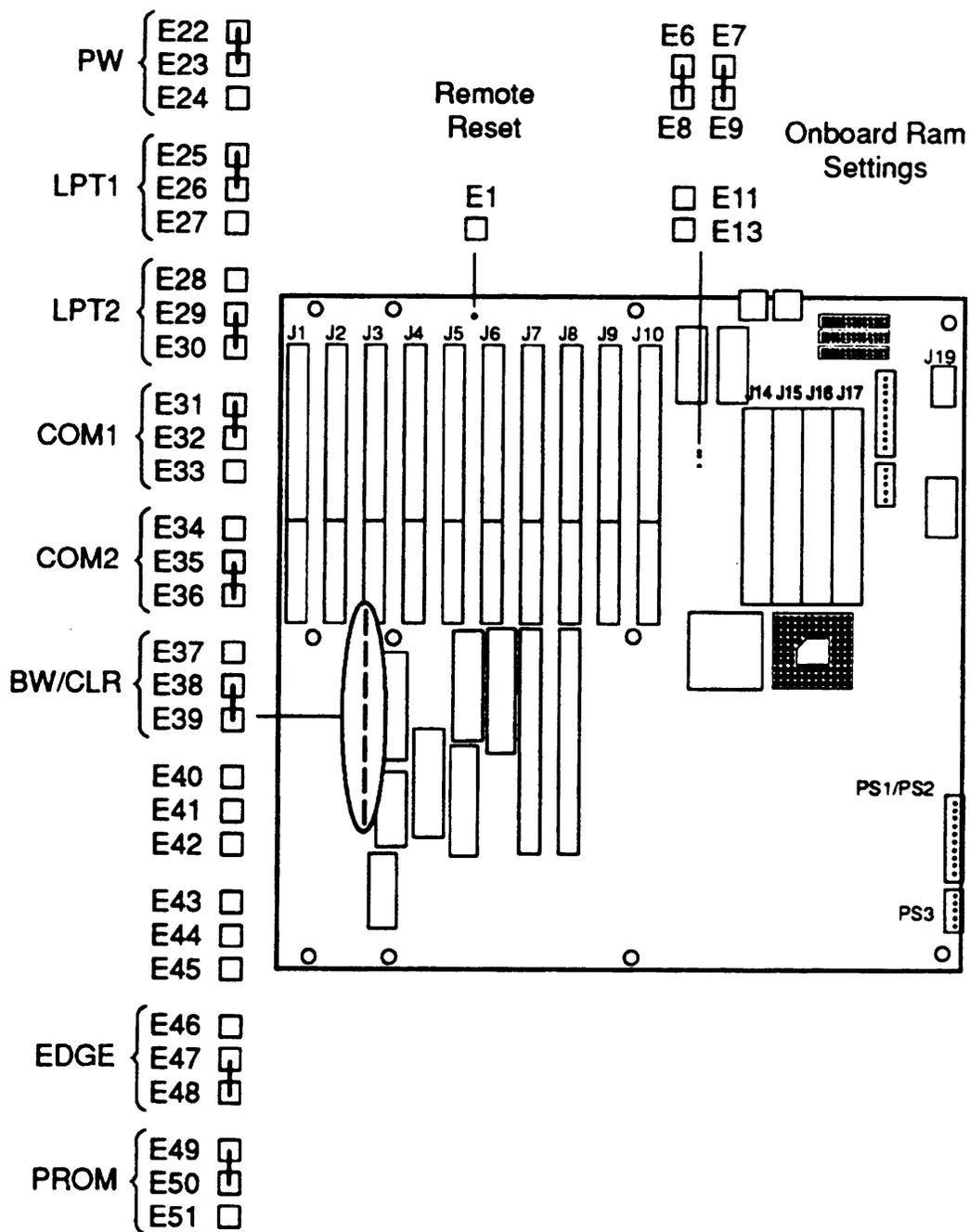
Figure 2-23. Location of Motherboard Jumpers on the 6386E/33 WGS

Onboard RAM Configuration Jumpers

If additional memory has been added to the motherboard, the onboard RAM configuration must be set to 8 MB.

On the 6386/25 WGS (Version 1)

1. Leave the jumper between pins E60 and E62 in place.

2. Remove the jumper between pins E63 and E65 and place it between pins E61 and E63.

On the 6386/25 WGS (Version 2)

1. Leave the jumper between pins E29 and E30 in place.

2. Leave the jumper between pins E36 and E37 in place.

3. Leave the jumper between pins E38 and E39 in place.

4. Remove the jumper between pins E33 and E34 and place it between pins E32 and E33.

On the 6386E/33 WGS

1. Leave the jumper between pins E6 and E8 in place.

2. Remove the jumper between pins E11 and E13 and place it between pins E7 and E9.

■

Serial Port Configuration Jumpers

Serial port COM2 must be disabled since its interrupt request (IRQ) will be used by another board.

On the 6386/25 WGS (Version 1), remove the jumper between pins E25 and E26, and place it between pins E26 and E27.

On the 6386/25 (Version 2), remove the jumper between pins E14 and E15 and place it between pins E15 and E16.

On the 6386E/33 WGS, remove the jumper between pins E34 and E35, and place it between pins E35 and E36.

Replacing Disk Drive Cables

If the disk drive cables have been disconnected either to allow insertion of additional memory or to make it easier to install the tape drive, they should be reconnected as follows:

1. The wide gray cable with two connectors attached near the back of the disk controller board is the hard disk data cable. Attach either connector (whichever fits better) to the matching connector on the hard disk.

2. The narrow gray cable next to the wide gray cable is the hard disk control cable. Attach the connector to the matching connector on the hard disk.

3. The yellowish-green cable with two connectors attached near the middle of the disk controller board is the floppy control and data cable. Attach the end connector to the matching connector on the floppy disk drive.

   ⇒ **NOTE:**
   Route and fold the cables carefully so that they will not interfere with the cover.

VDC600Board
Configuration and Installation

The VDC600 is the AT&T equivalent of a Video Graphics Array (VGA) board.

➡ **N O T E :**

> The 6386/SX WGS has a video controller built into the motherboard. The VDC600 should not be used with the 6386/SX WGS.

The VDC should be installed in the leftmost expansion slot on desktop configurations or in the rearmost expansion slot on floor models. Follow the general instructions for installing expansion boards described in *General Installation Instructions,* later in this chapter.

➡ **N O T E :**

> The VDC600 must be installed in a 16-bit expansion slot.

The default settings are used for the DIP switch and jumpers on the Video Display Controller. The locations and settings are shown in Figure 2-24. For more information on default settings, see the *Video Display Controller Installation Guide* packed with the board.
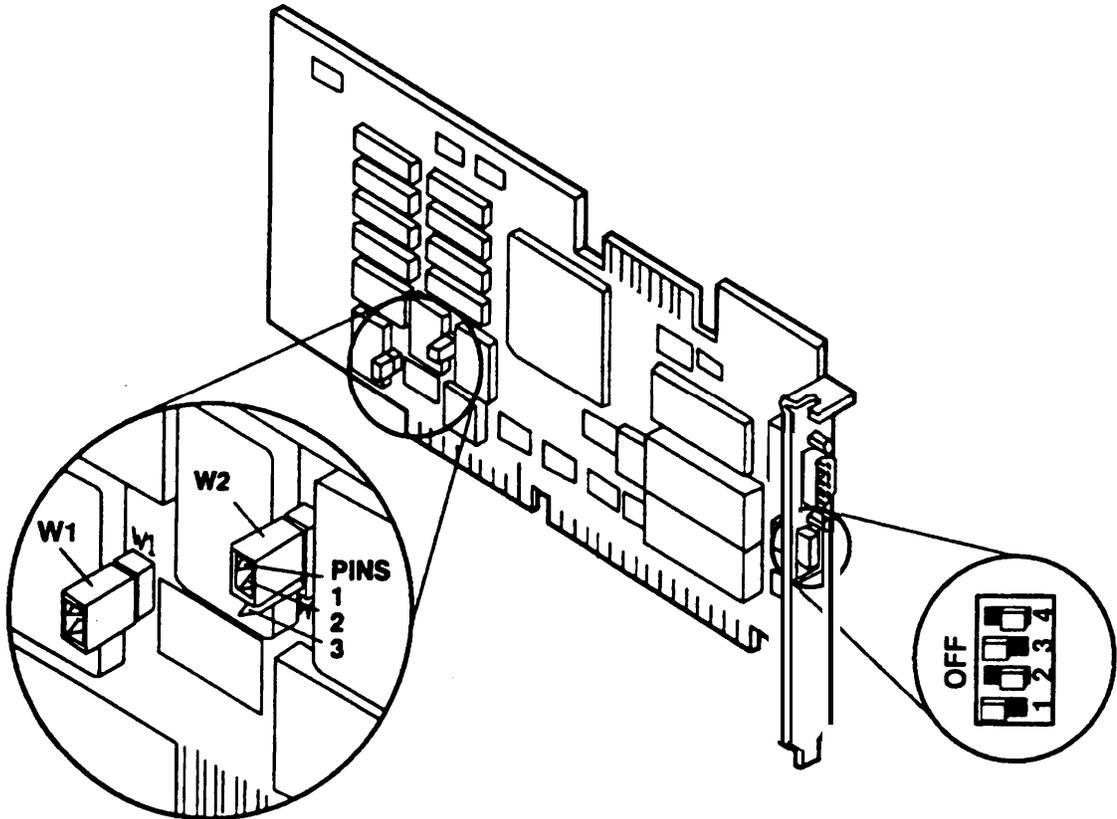
Figure 2-24. VDC600 Switch and Jumper Locations and Settings

IVP4 Board
Configuration and Installation

AUDIX Voice Power can use up to three IVP4 boards. Your system may be shipped with the IVP4 boards installed. If you need to add IVP4 boards to the system, the IVP4 board(s) must be configured before they are installed.

Each IVP4 board has two banks of switches. The location of the switches is shown in Figure 2-25.
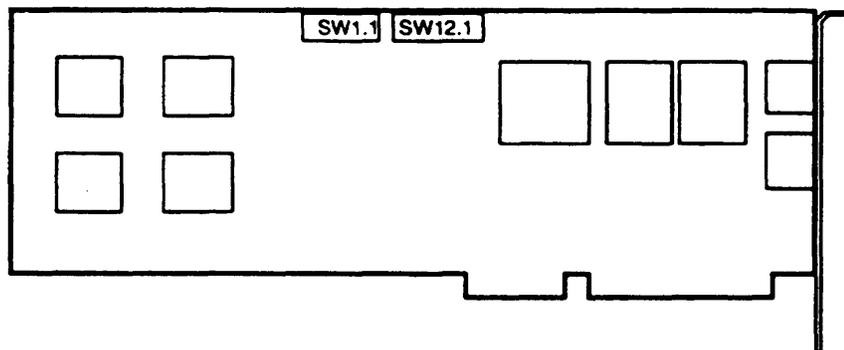
Figure 2-25. Location of Switches on IVP4 Board

Identifying the IVP4 Board Configuration

There are three versions of the IVP4 board that differ only in the type of switches used. To properly set the switches, you must identify which configuration is used on the board.

Configuration of New Boards

If your IVP4 board is new and is still packed in the factory box, *take note Of the type of switch and the factory switch settings.* The board should be shipped from the factory with the switches correctly set for use as board 1 (the first board in the system). If the board has rocker switches, it is always configuration **A** as shown in Figure 2-26. If the board has slide switches, it will have one of the configurations **(B** or **C)** shown in Figure 2-26. *Mark the board with a small label to indicate whether configuration* **A, B,** or **C** is used. If you do not mark the board, it maybe difficult to determine the correct configuration for future changes.

➤ NOTE:

Verify that the factory switch settings match one of the configurations shown in Figure 2-26. If the settings do not match, see *Determining the IVP4 Board Configuration by Testing* later in this chapter.
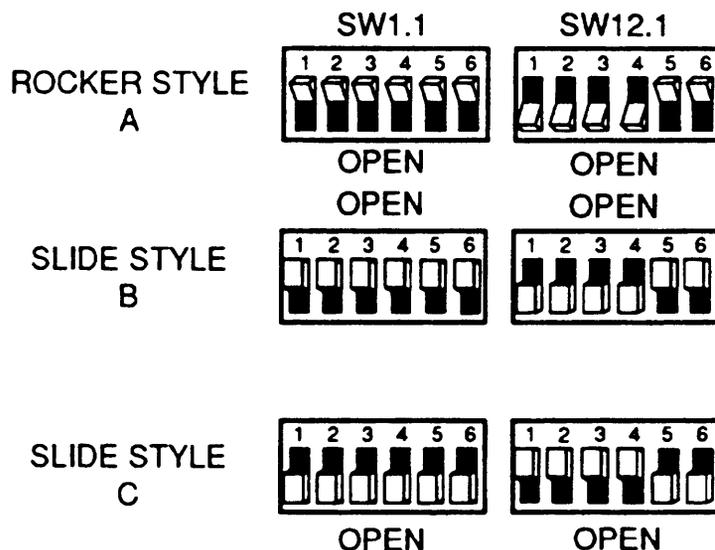
Figure 2-26. Factory Switch Configurations

Configuration of Previously Installed Boards

For boards which are already in use, examine the second bank of switches (SW12.1):

- If the board has rocker switches, the configuration is **A.**

- If the board has slide switches that are marked OPEN on the top or bottom (or on the side with an arrow toward the top or bottom), the configuration is **B** (top) or **C** (bottom) respectively.

- If the board has unmarked slide switches, the setting of the second switch (SW12. 1) should correspond to one of the settings shown in Figure 2-28. Use the configuration letter at the top of the column in which the match is found.

- If you are unable to determine the correct configuration by examining the switch settings, you will have to test the board as described later in this section to determine the correct configuration.

Mark the board with the corresponding configuration letter **(A, B,** or **C)** for reference in resetting the switches.

Setting Switch SW1.1

The first switch (SW1.1) controls the line impedance. The settings should *all* be set to the OPEN position initially (as shown in Figure 2-27 for each configuration). If problems are encountered with Touch-Tone recognition, change *all* of the switches on the first bank (SW1.1) to the opposite (closed)position.
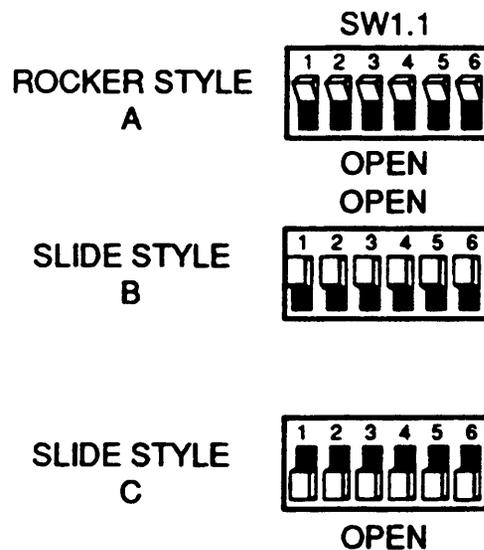
Figure 2-27. Settings for SW1.1

Setting Switch SW12.1

The second switch (SW1 2.1) sets the board address. Figure 2-28 shows the correct settings for up to three boards in each of the three configurations.
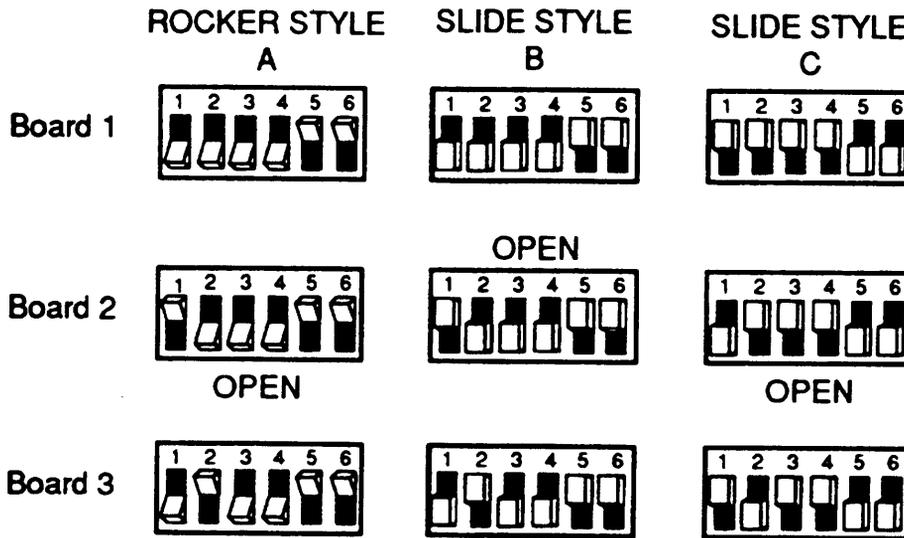
Figure 2-28. Settings for SW12.1

Determining the Board Configuration by Testing

If the board has slide switches, it maybe necessary to test the board to determine if it has configuration **B** or **C.** If you already know the configuration, use the test to confirm board operation.

To determine the configuration by testing:

1. Set the switches to match configuration **B** in Figure 2-28.

2. Install the board and close the case.

3. Install the application software.

    ⟹ **NOTE:**
    The application software has not been installed at this time. See Chapter 3 of this guide for instructions on installing all software.

4. Log in as *root.* At the # prompt, type */vs/bin/display card all* and press (Enter).

    — The following screen illustrates the data displayed when the boards have been correctly configured. Find the O.S. Index number. (The O.S. number is the switch [SW12.1] setting for each board as seen by the system.) The system sees Board 1 as Card 0, Board 2 as Card 1, and so on. O.S. Indexes 0, 1, and 2 are for the first, second, and third boards respectively.

    Verify that the card number and the O.S. Index number are the same. Also verify that the number of cards present is equal to the number of boards installed.

```
Card  0 is IVP4   O.S. Index:  0         Function: TipRing
                  State:   Inserv        Options:  master1,no tdm,tt
CD.PT CHN STATE   STATE-CHNG-TIME  SERVICE-NAME  PHONE  GROUP   OPTS   TYPE
 0.0  0   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 0.1  1   Iswerv  Jul 23 16:57:28  -             -        2     talk   IVP4
 0.3  2   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 0.4  3   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4

Card  1 is IVP4   O.S. Index: 1          Function: TipRing
                  State:   Inserv        Options:  master1,no tdm,tt
CD.PT CHN STATE   STATE-CHNG-TIME  SERVICE-NAME  PHONE  GROUP   OPTS   TYPE
 1.0  4   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 1.1  5   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 1.3  6   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 1.4  7   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4

Card  2 is IVP4   O.S. Index: 2          Function: TipRing
                  State:   Inserv        Options:  master1,no tdm,tt
CD.PT CHN STATE   STATE-CHNG-TIME  SERVICE-NAME  PHONE  GROUP   OPTS   TYPE
 2.0  8   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 2.1  9   Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 2.3  10  Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
 2.4  11  Inserv  Jul 23 16:57:28  -             -        2     talk   IVP4
```

5. If all the numbers agree, then the cards are properly installed. At this point, you have completed the configuration testing. You can proceed to the *Connecting Peripherals and Cables* section.

   If the numbers do not agree, proceed to Step 6.

6. The O.S. Index and card numbers may not match because of one of the situations described below. A screen illustrating the data displayed for each situation is included for your reference.

   a. A card may have the wrong switch setting. Find the card that has the wrong setting. It is usually the card whose Index number does not appear in the proper sequence. See the example in the screen below.

```
Card  0 is IVP4    O.S. Index:  0         Function: TipRing
                   State:  Inserv        Options:  master1,no tdm,tt
CD.PT CHN STATE    STATE-CHNG-TIME  SERVICE-NAME  PHONE  GROUP   OPTS   TYPE
 0.0  0    Inserv  Jul 23 16:57:28  -             -      2       talk   IVP4
 0.1  1    Inserv  Jul 23 16:57:28  -             -      2       talk   IVP4
 0.3  2    Inserv  Jul 23 16:57:28  -             -      2       talk   IVP4
 0.4  3    Inserv  Jul 23 16:57:28  -             -      2       talk   IVP4

Card  1 is IVP4    O.S. Index: 2          Function: TipRing
                   State:  Inserv        Options:  master1,no tdm,tt
CD.PT CHN STATE    STATE-CHNG-TIME  SERVICE-NAME  PHONE  GROUP   OPTS   TYPE
 1.0  4  Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4
 1.1  5  Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4
 1.3  6  Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4
 1.4  7  Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4

Card  2 is IVP4    O.S. Index: 3          Function: TipRing
                   State:  Inserv        Options:  master1,no tdm,tt
CD.PT CHN STATE    STATE-CHNG-TIME  SERVICE-NAME  PHONE  GROUP   OPTS   TYPE
 2.0  8  Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4
 2.1  9  Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4
 2.3  10 Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4
 2.4  11 Inserv    Jul 23 16:57:28  -             -      2       talk   IVP4
```

In the example above, Card 1 has an O.S. Index number of 2. Card 2 has an O.S. Index number of 3. You must change the DIP switch setting for Card 1 (the second board). Refer to Figure 2-28 for the correct switch settings. Go to Step 7 for instructions on making the change.

b. The number of cards displayed may not equal the number of cards installed. One of the cards has the slide switch settings reversed. Usually it is the card whose O.S. Index number does not appear. See the example in the screen below.

```
Card  0 is IVP4   O.S. Index:  1.          Function: TipRing
                  State:   Inserv          Options:  master1,no tdm,tt
CD.PT CHN STATE   STATE-CHNG-TIME  SERVICE-NAME  PHONE   GROUP   OPTS   TYPE
 0.0  0   Inserv  Jul 23 16:57:28  -            -       2       talk   IVP4
 0.1  1   Inserv  Jul 23 16:57:28  -            -       2       talk   IVP4
 0.3  2   Inserv  Jul 23 16:57:28  -            -       2       talk   IVP4
 0.4  3   Inserv  Jul 23 16:57:28  -            -       2       talk   IVP4

Card  1 is IVP4   O.S. Index: 2             Function: TipRing
                  State:   Inserv           Options:  master1,no tdm,tt
CD.PT CHN STATE   STATE-CHNG-TIME  SERVICE-NAME  PHONE   GROUP   OPTS   TYPE
 1.0  4   Inserv  Jul 23 16:57:28  -            -       2       talk   IVP4
 1.1  5   Inserv  Jul 23 16:57:28  -            -       2       talk   IVP4
 1.3  6   Inserv  Jul 23 16:57:28  -            -       2       talk   IVP4
 1.4  7   Inserv  Jul 23 16:57:28  -            -       2.      talk   IVP4
```

As an example, let us assume that you have installed three cards in your system. In the example above, only two of the three cards are recognized by the system. You now know that one of the cards has not been configured correctly.

You can see that Card 0 has an O.S. Index number of 1.
Card 1 has an O.S. Index number of 2. Therefore, you
need to change the DIP switch setting for Card 0, which is
the first board. Determine if the settings for Card 0 match
Configuration **B** or **C** in Figure 2-28. If the settings match
Configuration **B,** change the settings to those of
Configuration **C.** If they match Configuration **C,** then change
the settings to those of Configuration **B.** Proceed to Step 7.

7. Shut down the system and turn the power OFF.

8. Open the case and change the DIP switches.

9. Close the case and turn the power ON.

10. Follow the procedure outlined in *Renumbering Voice Channels*
    which immediately follows.

11. Now that you have renumbered the channels, you want to verify
    the status of the boards. Follow the instructions in Step 4. If the
    board is still not recognized properly and you have determined that
    the slide switches do not appear to be the problem, call the next
    tier of support for assistance.

Renumbering Voice Channels

After you have reset the board switch settings, you must administer the
changes in the AUDIX Voice Power system. Follow the steps below to
accomplish this.

1. Log into the system as *audix.*

2. At the User Login menu, move the cursor to Voice System
    Administration and press (Enter).

    — The Voice System Administration window appears.

3. Move the cursor to Configuration Management and press
    (Enter).

    — The Configuration Management window appears.

4. Move the cursor to System Control and press (<u>Enter</u>).

   — The System Control window appears.

5. Move the cursor to Renumber Voice Channels and press (<u>Enter</u>).

   — The Renumber Voice Channels window appears.

6. Press (<u>Enter</u>) to continue.

   — The screen shows the stop and start process.

7. The Voice Channels have now been renumbered.

8. Press [<u>F6</u>] (CANCEL) repeatedly until the main FACE menu appears.

9. Select Exit to return to the login prompt.

DCP Board
Configuration and Installation

Your system may be shipped with the DCP board installed. If you need to add the DCP board to the system, follow these steps:

1. Check the jumpers on the DCP board. The jumpers should be set as shown in Figure 2-29.
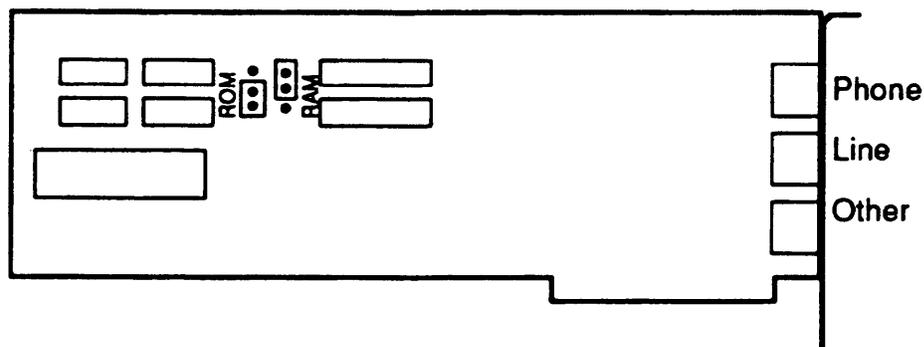
Figure 2-29. Location of Jumpers on DCP Board

2. Carefully insert the board in its proper location. The board goes into the leftmost available slot (after the IVP4 boards) on desktop configurations and into the rearmost available slot (after the IVP4 boards) on floor models.

Connecting Peripherals and Cables

Before connecting peripherals and cables, close the system module case by reversing the directions provided earlier for opening the case.

All peripherals and cables connect to the back panel of the system module. The position of each connector is shown in Figures 2-30 through 2-34 for the various processors.

Refer to the appropriate figure while connecting the cables as follows:

1   Connect the line cord to the AC power-in socket **(A).**

> **➡ N O T E :**
> On the 6386E/33 WGS floor model, this socket is located at the base of the system module in the rear. On the 6386E WGS floor model, this socket is located on the back of the power supply.

2.   Connect one end of the video monitor power cord to the video monitor and the other end to the monitor power outlet **(B).**

> **➡ N O T E :**
> On the 6386E/33 WGS floor model, this socket is located at the base of the system module in the rear. On the 6386E WGS floor model, this socket is located on the back of the power supply.

3.   Connect the video monitor signal cable to the VDC board connector **(C).**

4.   Connect the keyboard to the keyboard interface port **(D).**

5.   Connect the mouse (if any) to the mouse port **(E).**

6.   Connect a parallel printer (if any) to the parallel port **(F).**

7.   Connect a remote access modem (if any) to serial port 1 **(G).**
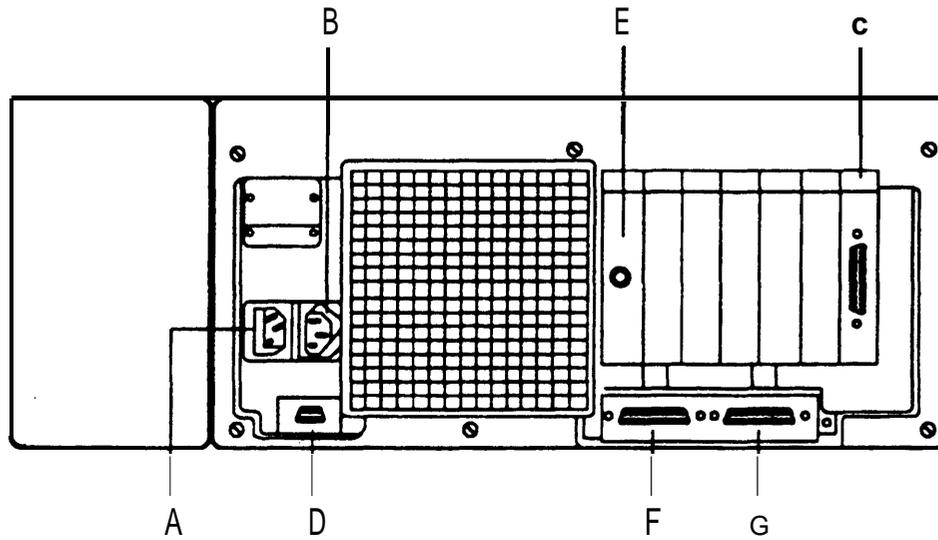
Figure 2-30. 6386 WGS System Module Back Panel
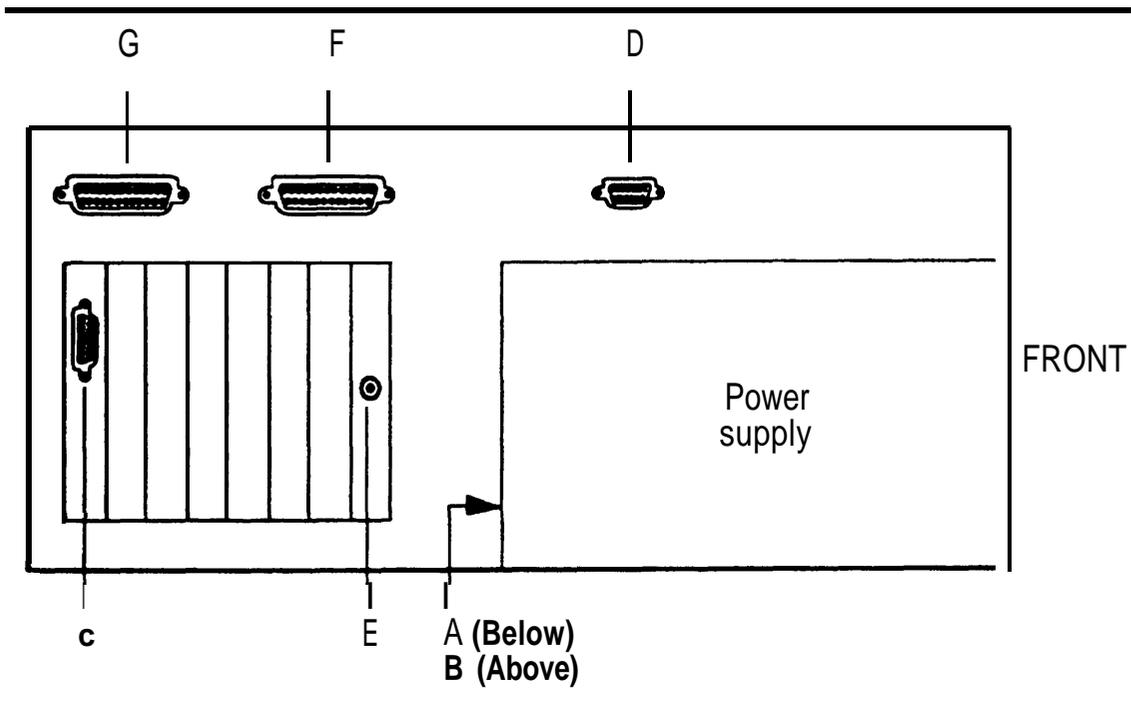
Figure 2-31. 6386E WGS System Module Back Panel
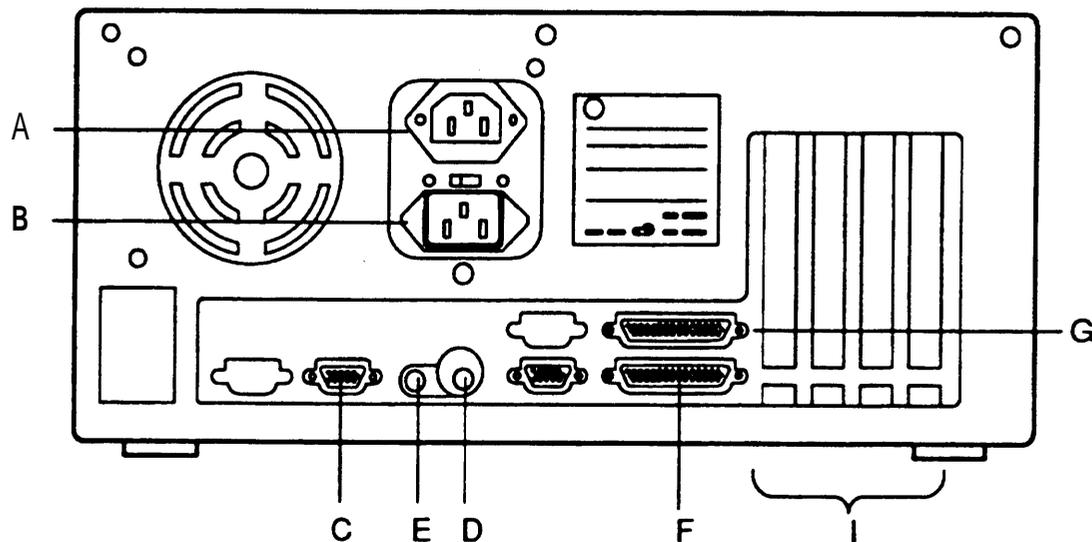
Figure 2-32. 6386/SX WGS System Module Back Panel
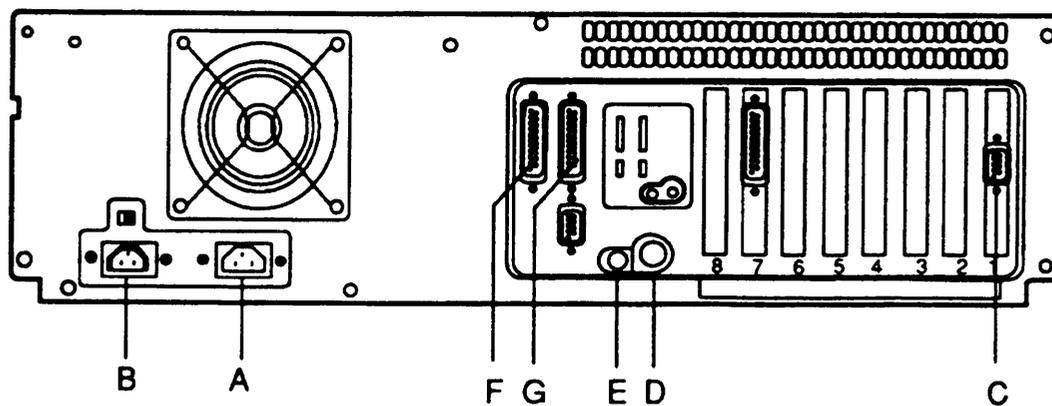
Figure 2-33. 6386/25 WGS System Module Back Panel
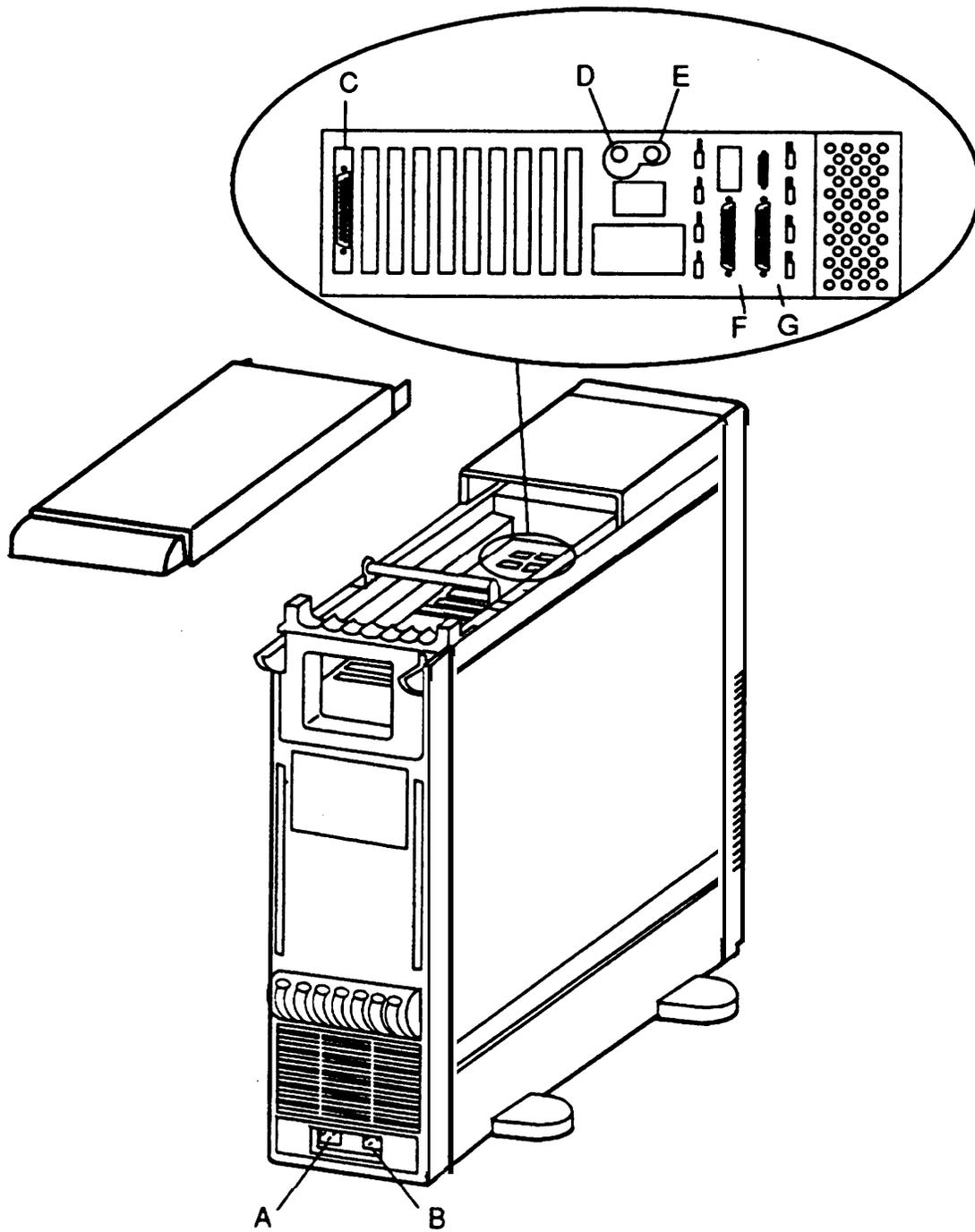
Figure 2-34. 6386E/33 WGS System Module Back Panel

Configuration the SETUP Utility

When you bring up the system after installing hardware, you must run the SETUP utility to store the system configuration information in the battery-backed CMOS memory. Until this information is stored, the system will not operate properly.

Each time the system is turned on or reset, the Power-On Self Test (POST) routine runs automatically and checks the CPU, keyboard, video display, memory, and most peripheral devices. The POST routine checks the stored setup information against the hardware configuration. If the stored configuration does not agree with the hardware found, POST displays an invalid configuration message.

You must run the SETUP utility whenever:

- the POST routine indicates that the configuration is invalid or specifically requests that the SETUP utility be run

- any hardware component is added, changed or removed

- the amount of memory is changed

- the system's clock/calendar battery fails or is replaced

The SETUP program can be run from a floppy disk or from the hard disk. The recommended way is to run the program from the hard disk. Run the SETUP program from a floppy disk if diagnostics are to be run. See the *User's Guide* for your processor to run the SETUP program from a hard disk.

Running SETUP from a Floppy Disk

To run the SETUP program from a floppy disk, follow these steps:

1.   Shut down the UNIX system before rebooting.

2.   Insert the Customer Test disk supplied with the system into drive A.
     If running SETUP on a 6386 or 6386E, use the Customer
     Diagnostics disk instead of the Customer Test disk.

3.   Boot the system by turning power ON or by pressing the (<u>Reset</u>)
     button if the system is already on.

     — The system boots from the Customer Test disk and displays
       the Customer Test introduction screen.

4.   Press (<u>Enter</u>) to continue.

     — The Customer Test main menu appears.

5. Use ⬇ to move the highlight to Setup Utility and press
    (Enter) .

    — SETUP displays the current settings for the system on a
    scrollable menu (6386/SX, 6386/25, and 6386E/33 WGS) or
    on two pages (6386, 6386E WGS). The settings (except for
    date, time, floppy disk drive, and hard disk drive) should be
    similar to the following:

    ```
    System  Date                     11-27-98 Mon
    System  Time                     10:52:59

    Base  Memory  Size               640 kB
    Base  Memory  Configuration All  Enabled
    Extended  Memory                 3072 kB
    Floppy  Drive  A:                3.5  inch,  1.44  MB
    Floppy  Drive  B:                Not  Present
    Hard  Disk  #1                   ESDI - 142 MB
    Hard  Disk  #2                   Not  Present
    80387 Numeric  Coprocessor Not  Present
    3167 Numeric  Coprocessor Not  Present
    Video  Display                   EGA  or VGA
    Keyboard                         Present
    System  Serial  Port  #1         Enabled  as  Com  1
    System  Serial  Port  #2         Disabled
    ROM  BIOS  Map  Address          1 MB Only
    Speaker:                         On
    Redirect  Corn  1:               Disabled
    Redirect  Corn  2:               Disabled
    CPU  Speed                       Fast
    Shadow  RAM Control              Disabled
    Cache  Control                   Enabled
    Power-on  Memory  Test           On
    Parallel  Port                   Enabled  as  LPT1
    ```

    You may find it necessary to modify the Extended Memory,
    System Serial Port #2, **and** Shadow RAM Control entries.
    You should also set the correct date and time.

6. To change any settings, use the cursor keys to highlight the desired item and press (Enter) to select the item. A menu appears offering the available selections.

> ➡ **N O T E :**
> For the 6386/SX, 6386/25, and 6386E/33 WGS, if you are
> uncertain about a specific option, press [F1] to display the
> Help description. After reading the Help information,
> press (Esc) to return to the SETUP screen.

7. If your display includes two pages, use (Esc) to switch to the second page.

8. To access other pages of information, use (PgUp) or (PgDn).

9. When all necessary changes have been made, use (Esc) to exit from the SETUP program.

   ■ If you use the ROM-resident version of the SETUP utility on the 6386/SX, 6386/25, or 6386E/33 WGS, on-line help is not available. For the 6386 and 6386E WGS, on-line help is not available at all.

For additional information, see the *WorkGroup System User's Guide* packed with the system.

Connecting Voice and Data Lines

Voice lines must be connected to the IVP4 board(s) and a data line must be connected to the DCP board if it is used.

Connecting the IVP Voice Lines

Each IVP4 board has two 6-position modular jacks. Each of these modular jacks is used to connect two voice lines in the RJ14C configuration. The top jack is used for line pairs 1 and 2. The bottom jack is used for line pairs 3 and 4.

If the line pairs are run two per jack (RJ14C), use two standard, 4-conductor modular cables.

If the line pairs are run individually (RJ11 C), a type 884A adapter maybe used to consolidate the four individual line pairs into two pairs (RJ14C) in each of two cables.

⚠ CAUTION:
There is a magnet on the back of the 884A adapter. Be sure that you **do not** place this near the hard disk drive or floppy disks.
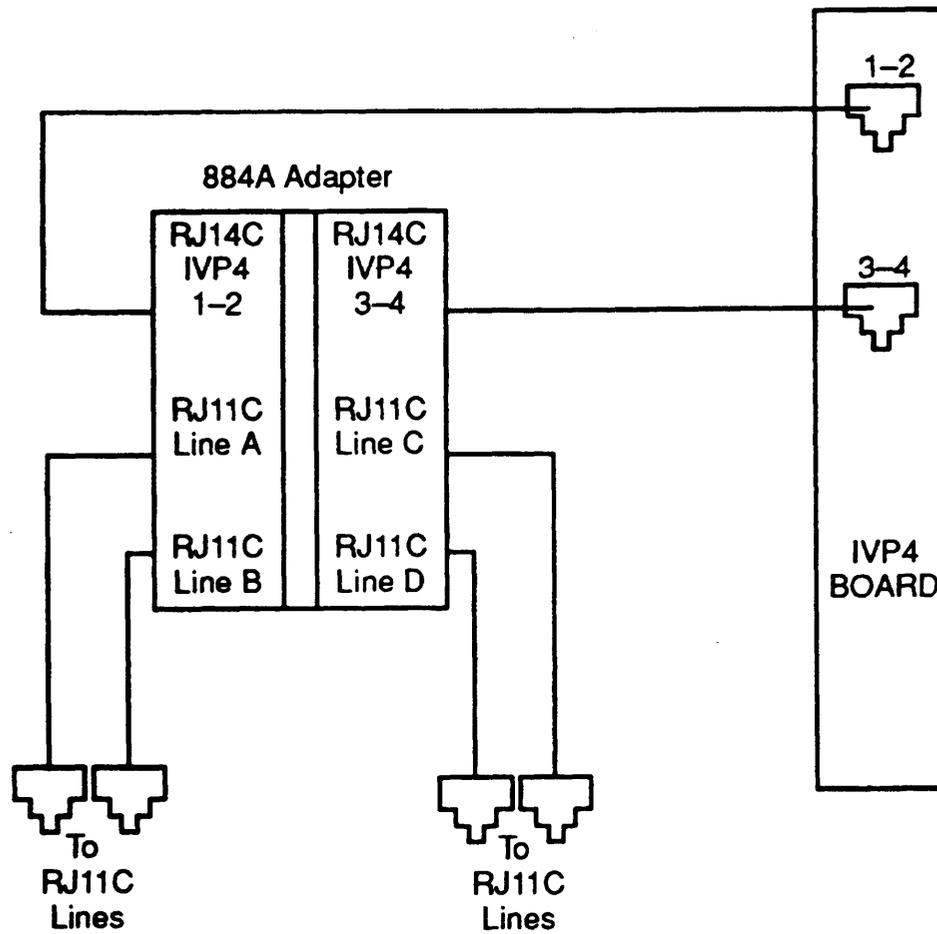
Figure 2-35. IVP4 Board with 884A Adapter for RJ11C

Connecting the DCP Data Line

The DCP board is used to obtain digital data from telephone systems that use DCP. There are three 8-position modular jacks on the back of the board labeled "phone," "line," and "other." The data circuit should be connected to the jack labeled "line." Use standard D8W cable.

A single port on a digital ports board in the telephone switch is required to provide the data to the DCP board. An available port on an existing board may be used. Otherwise, an additional digital ports board must be installed in the switch. Consult the switch documentation for information on installing boards and wiring to that end of the data connection.

Setting Up a Report Printer

AUDIX Voice Power supports the AT&T 470/471 and 570/571 printers. This section describes the setup of the AT&T 570 (80 column) or 571 (132 column) printer. For other printers, please refer to the documentation received with the printer.

The switches and lamps have different meanings in *Set Up Mode* than they do in *NormalPrint Mode.* The printer operation panel is shown in Figure 2-36 with the setup functions identified.
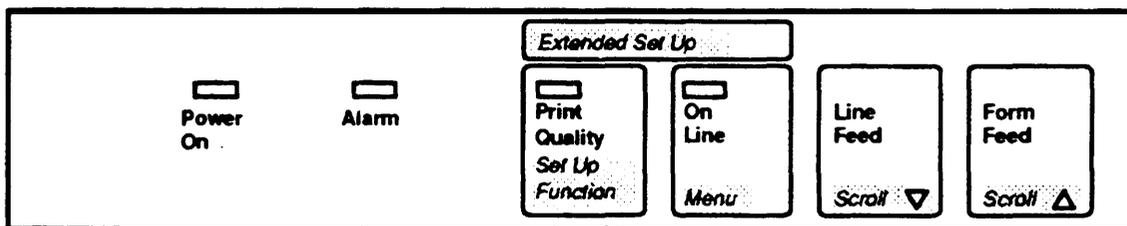
Figure 2-36. Printer Operation Panel

In the *Set Up Mode,* the switches have the following functions:

Set Up Function
:   When pressed while turning power ON, causes the printer to enter *Set Up Mode.* (The printer will be in *Function Mode* with function 01 selected. Also pressing Scroll ∇ when the power is turned ON causes the printer to be in *Function Mode* with function 99 selected.)

    When pressed while in *Function Mode,* causes the printer to return to *Normal Print Mode.*

    When pressed while in *Menu Mode,* causes the printer to store the selected value for the selected function.

Menu
:   When pressed, causes the printer to enter *Menu Mode* for the function selected.

Scroll ∇
:   When pressed in *Function Mode,* causes the next function to be selected.

    When pressed in *Menu Mode,* causes the next menu selection to be displayed for the selected function.

Scroll ∆
:   When pressed in *Function Mode,* causes the previous function to be selected.

    When pressed in *Menu Mode,* causes the previous menu selection to be displayed for the selected function.

█████████████████████████

Setting the Control Values

Follow this procedure to set the control values on the report printer:

1.   Unpack and set up the printer according to the instructions in the documentation supplied with the printer.

2.   Be sure that the printer has paper, the ribbon is properly installed, and the cover is closed. The printer will not enter *Set Up Mode* if it is out of paper or if the cover is open.

3.   Set the default values by following these steps:

   a. While holding down the [Function] and [Scroll v] switches, turn the power ON. When the SELF TEST functions complete, setup function number 99 is automatically displayed.

   b. Press the [Scroll ^] switch to select setup function number 98 (set default values).

   c. Press the [Menu] switch to enter Menu Mode.

   d. Press the [Scroll v] switch to select menu item 02.

   e. Press the [Function] switch once to set the default values.

   f. Turn the power OFF.

Connecting the Printer

One parallel printer cable is required to connect the printer.

Follow these steps to connect the printer:

1. Unpack and set up the printer according to the instructions in the documentation supplied with the printer. Do *not* plug in the printer.

2. Connect the 25-pin DB25 connector end of the parallel printer cable to the parallel port on the WGS system module. The cable connector has pins and the WGS connector has sockets. Secure the connector with the captive screws.

3. Connect the other end of the parallel printer cable to the matching Centronics® port (Amphenol connector) on the printer. Use the spring clips to secure it.

4. Plug in the printer.

Diagnostics

The only diagnostics that can be run at this time are those provided on the Customer Test disk for testing the basic system integrity. Additional diagnostics for the IVP4 boards cannot be run until the software is installed.

To run the Customer Test diagnostics, follow these steps:

1. Insert the Customer Test disk supplied with the system into floppy disk drive A.

   ### ➡ N O T E :
   Be sure to shut down the UNIX system before rebooting.

2. Boot the system by turning power ON or by pressing (Reset) if the power is already on.

   The system boots from the Customer Test disk and displays the Customer Test introduction screen.

3. Press (Enter) to continue.

   — The Customer Test main menu appears.

4. Use ⬇ to move the highlight bar to System Checkout or Test All Modules (the command displayed depends on the processor that you are using) and press (Enter).

   ### ➡ N O T E :
   If Test All Modules appears on the main menu, Customization Screen will also appear. On the Customization Screen the *interactive* mode must be set to *on* before you select Test All Modules if the speaker test, floppy disk drive test, keyboard keystrokes and typematic tests, and mouse tests are to be performed. If the *interactive mode* is *off*, these tests will not be performed.

5. Follow the directions on the screen to run the diagnostics.

Installing a Remote-Access Modem

On systems that do not provide an internal modem in the switch for remote access, you must connect an external modem to serial port 1 for remote dial-up access. On systems that provide an internal modem in the switch, the use of an external modem is not necessary.

To install a remote-access modem, do the following:

1. Place the modem in a convenient place, near enough to the system module, a power source, and access to a phone line.

2. Connect one end of the modem cable to the modem connector labeled **RS-232C** on the back panel of the modem.

3. Connect the other end of the cable to the communications port on your system module.

4. Using an RJ11 telephone cable, plug one end into the telephone wall jack.

5. Plug the other end of the RJ11 telephone cable into the jack labeled **TO LINE** on the back panel of the modem.

6. If you plan to use a telephone at this position, using another RJ11 telephone cable, plug one end of the cable into the plug labeled **TO PHONE** on the back panel of the modem. Plug the other end of the telephone cable into your telephone set.

7. Plug the rounded end of the supplied power cord into the jack labeled **POWER** on the back panel of the modem.

8. Plug the other end of the power cable into an AC outlet.

9. Refer to the documentation that accompanied your modem for further details.

Software Installation

3

This chapter explains how to install all software necessary for the operation of AUDIX Voice Power. AUDIX Voice Power can be installed on either a dedicated computer, or on a computer that is also used for controlling the telephone switch (Integrated Solution II environment). The installation procedures are different. Please see the *Switch Notes* for your telephone system to determine which procedure to use.

NOTE:

■ Procedures in this section that reference the UNIX command *installpkg* are written for a machine with one floppy disk drive. Additional steps, as indicated by the system, may be required for machines with additional drives.

■ For upgrade procedures, see Chapter 5, *Upgrade Procedures.*

■ See Appendix A for information about installing a second hard disk.

Pre-Installation Considerations

AUDIX Voice Power may already be installed when you receive your system. You need to install AUDIX Voice Power only when:

- your system is not preassembled by AT&T

- AUDIX Voice Power is added to the system after the initial purchase

- you are upgrading from a previous release of AUDIX Voice Power

- there has been an unrecoverable system failure.

To install AUDIX Voice Power, you need the following:

- UNIX Operating System V/386 Release 3.2.2 Foundation Set

  ➦ **NOTE:**

     UNIX Release 3.2.3 is not currently supported for AUDIX Voice Power.

  The set includes:

  — Base System Package

  — FMLI Package

  — FACE Package

  — FACE HELP Package

  — Editing Package

- AUDIX Voice Power File System Modification Software

- Integrated Voice Power System Software, Release 2.0

- AUDIX Voice Power Application Software, Release 2.1.1: Speech

- AUDIX Voice Power Application Software, Release 2.1.1: Software

■ AUDIX Voice Power Switch Integration Software R2.1.1
(Please see the *Switch Notes* for your telephone system for the
exact name of this software package.)

■ Remote Terminal Package

NOTE:

If you are upgrading AUDIX Voice Power from a previous release,
see Chapter 5, *Upgrade Procedures,* before proceeding. The
upgrade procedure will refer you to the necessary sections in this
chapter.

If you are adding AUDIX Voice Power to an existing system, or if you are
reinstalling application software after an unrecoverable failure, the UNIX
operating system must be reinstalled before you can install or reinstall
AUDIX Voice Power.

Verifying Hard Disk Size

Before beginning the software installation, you should verify the size of the
hard disk. To determine the hard disk size, follow these steps:

1. Insert the Customer Test disk supplied with the system into drive A.

2. Boot the system by turning power ON or by pressing (<u>Reset</u>) if the
   system is already on.

   The system boots from the Customer Test disk and displays the
   Customer Test introduction screen.

3. Press (<u>Enter</u>) to continue.

   The Customer Test main menu appears.

4. Use ⬇ to move the cursor to Setup utility and press (<u>Enter</u>).

5. Record the hard disk size for later use.

6. Press (<u>Esc</u>) to exit.

7. Move the cursor to Exit the program and press (<u>Enter</u>).

8. At the Want to Quit? prompt, select Yes and press (<u>Enter</u>).

9. Remove the Customer Test disk.

Installing the UNIX Operating System

Before you can load any other software packages, you must install (or reinstall) the UNIX Operating System V/386 Release 3.2.2. To install the UNIX operating system, follow these steps:

1. Insert disk 1 of the Base System Package of the UNIX Operating System V/386 Release 3.2.2 Foundation Set into the disk drive.

    ➡ **NOTE:**

    Whenever you are asked to insert a disk into the disk drive, always use the lowest numbered or lettered drive.

2. Press (Reset) if the system is on, or turn the system ON.

    Resident diagnostics run on the hardware and the results (PASS or FAIL) are indicated on the screen.

    ➡ **NOTE:**

    If resident diagnostics fail at any time, remove the disk. Insert the Customer Test (or Customer Diagnostics) disk for a more specific hardware check on the device that failed and perform the recommended corrective actions. The Customer Test disk is provided in the back of the *AT&T WGS User's Guide* for your machine. When the problem is corrected, restart the procedure for loading the UNIX operating system.

    On a 6386 or 6386E WGS, the resident diagnostics will give a false error indicating the Internal Serial Port failed if you use (Ctrl) + (Alt) + (Del) to reboot the machine.

    When diagnostics are completed, the software on disk 1 runs. Disk 1 is used to prepare the computer for the UNIX Operating System environment by partitioning and reformatting the hard disk.

    Wait for the following prompt to display:

    ```
    Strike ENTER to install the UNIX System on
    your hard disk.
    ```

3. Press (Enter) to proceed with the installation.

The system prompts you with the message:

```
Is this a new installation or a release
upgrade to your existing system?  (Strike 'n'
(new) or 'u'  (upgrade) followed by ENTER)
```

4. Type **n** and press (Enter).

The system prompts you with the message:

```
WARNING :  A new installation of the UNIX
System will destroy all files currently on
the system. Do you wish to continue (y or n)?
```

5. Type **y** and press (Enter).

The system prompts you to partition the hard disk with the following messages:

```
Total hard disk size is xxxx cylinders
                                Cylinders
Partition  Status  Type  Start  End Length   %
=========  ======  ===== ===== === ======  ===
THERE ARE NO PARTITIONS CURRENTLY DEFINED.
SELECT ONE OF THE FOLLOWING:

       1. Create a partition

       2. Change Active (Boot from) partition

       3. Delete a partition

       4. Exit (Update disk configuration and exit )

       5. Cancel (Exit without updating disk
          configuration)

    Enter Selection: 1
```

The default 1 for `Create a partition` is preentered on the screen.

➡ NOTE:

In some situations, you may see a partition definition as shown below:

```
                                    Cylinders
Partition   Status   Type     Start  End  Length  %
=========   ======   ======   =====  ===  ======  ===

1                    Active UNIX sys 0   <end> <max>    100
```

In this case, any existing partitions must be deleted and then recreated for the system to work properly. To delete any existing partitions, follow these steps:

a.   Type *3* for `Delete a partition` and press (<u>Enter</u>).

The system prompts you to enter the number of the partition to delete.

b.   Type the first partition number listed and press (<u>Enter</u>).

c.   Respond *y* to the confirmation prompt.

d.   Repeat steps a, b, and c until all existing partitions have been deleted.

After all partitions have been deleted, continue with Step 6.

6. Type *1* for `Create a partition` and press (<u>Enter</u>).

The system prompts you to indicate the type of partition to be created.

```
Indicate the type of partition you want to create
   (I=UNIX System, 2=DOS only, 3=Other, x=Exit)
```

7.   Type *1* for a UNIX partition and press (Enter).

The following message appears:

```
The UNIX System partition must use at least
xx% of the hard disk. Indicate the
percentage (xx-100) of the hard disk you
want this partition to use (or enter "c" to
specify in cylinders):
```

8.   Type *100* and press (Enter).

The following message displays:

```
Do you want this to become the Active
partition? If so, it will be activated each
time you reset your computer or when you
turn it on again. Please type "y" or "n".
```

9.   Type *y* and press (Enter).

The partition menu displays again:

```
Total hard disk size is xxxx cylinders


                                  Cylinders
Partition  Status   Type    Start  End  Length  %
=========  ======   ======  =====  ===  ======  ===
1          Active   UNIX  sys 0    <end> <max>   100
SELECT ONE OF THE FOLLOWING:

    1. Create a partition
    2. Change Active (Boot from) partition
    3. Delete a partition
    4. Exit (Update disk configuration and exit )
    5. Cancel (Exit without updating disk
       configuration)

Enter Selection:  ___
Partition 1 is now the active partition.
```

10. Type 4 for Exit (Update disk configuration and
    exit) and press (Enter).

    The system displays the following message:

    > Hard disk partitioning complete.
    > A surface analysis will now be done.
    > This will destroy all data on the hard disk.
    > Strike ENTER to continue or DEL to abort.

11. Press (Enter).

    The surface analysis takes 10 to 60 minutes to complete
    depending on the size of the disk. The results of the analysis
    display while the analysis is running.

    > Checking for bad sectors in the UNIX System
    > partition. . .   Checking cylinder: xxx

    The system also displays the default Filesystem assignments. The
    default Filesystem assignments will vary from system to system.

    At the end of the analysis, the following displays:

    > The UNIX System partition has xxxx cylinders
    > assigned to it.
    >
    > 1 cylinder will be used for alternate sectors.
    > This leaves xxxx cylinders (xxxxxxxxx bytes)
    > available.
    >
    > The following seems like a reasonable
    > partitioning of your UNIX system disk space.
    >
    > A root filesystem of xxx cylinders (xxxxxxx
    > bytes), a user (/usr) Filesystem of xxx
    > cylinders (xxxxxxx bytes), an extra user
    > Filesystem (/usr2) of xxx cylinders (xxxxxxx
    > bytes), and a swap/paging area of xxx
    > cylinders (xxxxxxx bytes).
    >
    > Is this allocation acceptable to you (y/n)? __

12. Write down the **total number of cylinders** as indicated in the message. You will need this number later.

13. Confirm the default file system assignments. Type *n* and press (<u>Enter</u>).

    The system displays:

    ```
    Do you wish to have separate root and usr
    filesystems (y/n)?
    ```

14. Type **y** and press (<u>Enter</u>).

    The system displays:

    ```
    Do you want an additional /usr2 filesystem
    (y/n) ?
    ```

15. Type **y** and press (<u>Enter</u>).

    The system displays the following:

    ```
    Do you want to allocate a crash/dump area on
    your disk? If you do not, the swap/paging
    area will be used to save the memory image
    in the event of a system panic (y/n)?
    ```

16. Type **n** and press (<u>Enter</u>).

    The system then prompts you to indicate the number of cylinders you want for the /swap, /root, /usr, and /usr2 areas on the disk by displaying:

    ```
    You will now be given the opportunity to
    specify size in cylinders of each
    Filesystem.

    How many cylinders would you like for
    swap/paging (1-<max allowed>)?

    How many cylinders would you like for /root
    (1-<max now allowed>)?

    How many cylinders would you like for /usr
    (1-<max now allowed>)?

    The remaining <remainder> cylinders will be
    assigned to /usr2.
    ```

17. Use the following table or worksheet and the numbers you recorded earlier for the size of your hard disk and the total number of cylinders to determine the appropriate cylinder allocations.

➡ **N O T E :**

You must use the worksheet if the exact disk size and total cylinders do not appear in the table on the following page.

Disk Size	Total Cylinders	File Area	Cylinders
68 MB	997	/swap	90
		/root	210
		/usr	255
		/usr2	441
68 MB	1024	/swap	96
		/root	224
		/usr	272
		/usr2	4 3 1
80 MB	977	/swap	78
		/root	182
		/usr	221
		/usr2	495
80 MB	1021	/swap	78
		/root	1 8 2
		/usr	221
		/usr2	539
135 MB	1021	/swap	48
		/root	1 1 2
		/usr	1 3 6
		/usr2	724
300 MB (single)	814	/swap	18
		/root	42
		/usr	51
		/usr2	702
300 MB (dual) Disk 1	814	/swap	18
		/root	42
		/usr	51
		/usr2	702
300 MB (dual) Disk 2	814	/spch101	111
		/spch201	702

If your disk size and associated number of cylinders are not present in the preceding table, use the following worksheet:

    a.   Enter size in MB.   ____
           (written down in the procedure
           Verifying Hard Disk Size)

    b.   Enter number of cylinders.   ____
           (written down in the procedure *Installation of the*
           UNIX Operating System)

    c.   Divide number of cylinders by number of MB (b / a)   ____
           and enter the result rounded up to the nearest integer.

    d.   Multiply the value in Step c above by *6.*   ____
           This is the number of cylinders for/swap.

    e.   Multiply the value in Step c above by *14.*   ____
           This is the number of cylinders for/root.

    f.   Multiply the value in Step c above by *17.*   ____
           This is the number of cylinders for/usr.

    g.   The system calculates the value for /usr2 after you have
           entered the values for /swap, /root, and /usr.

> **⇒ N O T E :**
>
> Please double check your calculations. If any of these calculations are incorrect, a reload of the system may be required.

A sample of a completed worksheet follows.

a. Enter size in MB.   *68*
(written down in the procedure
Verifying Hard *Disk Size)*

b. Enter number of cylinders.   *1024*
(written down in the procedure *Installation of the
UNIX Operating System)*

c. Divide number of cylinders by number of MB (b / a)
and enter the result rounded up to the nearest integer. *16*

d. Multiply the value in Step c above by *6.*   *96*
This is the number of cylinders for/swap.

e. Multiply the value in Step c above by *14.*   *224*
This is the number of cylinders for/root.

f. Mutliply the value in Step c above by *17.*   *272*
This is the number of cylinders for/usr.

g. The system calculates the value for /usr2   *431*
after you have entered the values for /swap,
/root, and /usr.

18. Enter the cylinder allocation for swap/paging.

19. Enter the cylinder allocation for root.

20. Enter the cylinder allocation for /usr.

Your disk allocation displays and the following prompt appears:

```
Is this allocation acceptable to you (y/n) ?
```

21. If it is correct, type **y** and press (<u>Enter</u>).

If it is incorrect, type **n** and press (<u>Enter</u>), then reallocate the cylinders.

After allocation, messages report that the UNIX operating system is being built on the hard disk. Disk 1 takes approximately 25 minutes to copy to the hard disk.

22. When prompted to reboot the system, remove disk 1 from the floppy disk drive. Press (<u>Ctrl</u>) + (<u>Alt</u>) + (<u>Del</u>) simultaneously to reboot.

23. At the prompt requesting the installation medium, type **f** for `Floppy Diskette.`

24. When prompted, insert disk 2 into the floppy disk drive and press(<u>Enter</u>).

25. Continue loading disks as prompted.

> **➡ N O T E :**
>
> Each remaining disk takes 3 to 5 minutes to copy to the hard disk.

After the last disk has been loaded, you will be prompted to remove it. The following message displays:

```
Enter password for the root or super-user.
```

> **➡ NOTE:**
>
> This password must be kept **EXTREMELY SECURE.** Follow your standard security procedures for password security.
>
> BE SURE the System Manager has all the necessary passwords.

26. Type the password that has been selected for *root* by the System Manager. The password does not appear. Press (<u>Enter</u>) after typing the password.

You are prompted to reenter the password.

27. Type the password a second time and press (<u>Enter</u>).

You are prompted for the *install* password.

28. Type the password that has been selected for *install* by the System Manager. The password does not appear. Press (<u>Enter</u>) after typing the password.

You are be prompted to reenter the password.

29. Type the password a second time and press (<u>Enter</u>).

   — The system displays

   ```
   The system will be rebuilt.
   ```

30. When prompted, reset the system by pressing (<u>Ctrl</u>) + (<u>Alt</u>) + (<u>Del</u>) simultaneously.

31. When you receive a login prompt, log in as root using the password you entered previously.

32. At the # prompt, type *installpkg* and press (<u>Enter</u>).

   For systems with an installed tape drive:

   — The system displays

   ```
   Please indicate the installation medium
   you intend to use.

   Strike C to install from CARTRIDGE TAPE
   or F to install from FLOPPY DISKETTE.

   Strike ESC to stop.
   ```

   — Type **f.**

   For systems with more than one floppy disk drive:

   — The system displays

   ```
   This system has two floppy drives.
   Strike ENTER to install from drive 0 or
   1 to install from drive 1.
   ```

   — Type *1* and press (<u>Enter</u>) to select drive 1, or just press (<u>Enter</u>) to select drive 0.

   ➡ **NOTE:**
   If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

3-15

33. Insert the FMLI package disk into the floppy disk drive and press(Enter).

    When the installation of the FMLI package is complete, you receive the # prompt.

34. Type **installpkg** and press (Enter).

35. Insert the first disk of the FACE package into the floppy disk drive and press (Enter).

36. For each additional disk of the FACE package, insert the disk in the floppy disk drive and press (Enter) when prompted by the system.

    When the installation of the FACE package is complete, you receive the # prompt.

37. Type **installpkg** and press (Enter).

38. Insert the FACE HELP package disk into the floppy disk drive and press(Enter).

    The FACE HELP package displays the following menu:

    ```
    1. Install Office HELP Files ONLY
    2. Install System Administration HELP Files
       ONLY
    3. Install Printer Operations HELP Files
       ONLY
    4. Install ALL HELP Files
    5. Terminate Installation
    ```

39. The first time, select option 4. Install ALL HELP Files by typing *4* and pressing (Enter).

40. The second time, select option 5. `Terminate Installation by` typing 5 and pressing (Enter).

    When the installation of the FACE HELP package is complete, you receive the # prompt.

41. Type ***installpkg*** and press (Enter).

42. Insert the Editing Package disk into the floppy disk drive and press (Enter).

    When the installation of the Editing Package is complete, you receive the # prompt.

43. At the # prompt, type ***exit*** and press (Enter) to log off the machine.

    ➧ **NOTE:**
    You must log off before continuing with the next step so that the installed programs will be running when you install the AUDIX Voice Power programs.

Verifying UNIX System Installation

To verify the UNIX System installation, follow these steps:

1. Log in as ***root*** (if not already logged in).

2. At the # prompt, type ***uname -a*** and press (Enter).

    The system should display the following message:

        unix unix 3.2 2.2 i386

Installing AUDIX Voice Power

At this point, the operating system software has been installed.
The remaining software is associated with AUDIX Voice Power.

➡ N O T E :

If the software installation fails, shutdown the UNIX system and
reboot. Then try to reinstall the software.

Creating a Login for Voice Administration

Before installing the Integrated Voice Power system software, you must
create a login for voice administration through AT&T FACE.

1. Log in as **root** (if you are not already logged in).

2. At the # prompt, type **face** and press (Enter).

    The AT&T FACE menu appears.

3. At the AT&T FACE menu, select system Administration and
    press(Enter).

    The System Administration menu appears.

4. At the System Administration menu, select User Logins and
    press(Enter).

    The User Logins menu appears.

5. At the User Logins menu, select ADD to add a user.

    A login form appears.

6. For the login name, use **audix** and for the full name, use **Audix
    Voice Adm**

7. Next, allow audix to have system administrative privileges by
    changing NO to **Yes** in this field.

    — Press [F2] (CHOICES) to select Yes and press (Enter).

8.   Press [F3] (SAVE).

     A Confirmation window appears confirming the information entered.

9.   Press [F3] (CONT) to confirm.

     The system now displays the `New Password` prompt for login *audix.*

10. Enter the new password to be used for voice administration and press (Enter).

     The system then prompts you to reenter the password.

11. Reenter the same password and press (Enter) to verify that the system accepts it.

➡ **N O T E :**

Be sure to provide the password to the customer.

12. Press (Enter) to continue.

     A confirmation message appears which states: `User audix has been added to the system.`

13. Press [F6] (CANCEL) repeatedly until the main FACE menu appears.

14. Select `Exit` and press (Enter).

15. Press [F3] (CONT) to confirm that you want to return to the UNIX operating system prompt.

You are now ready to install the AUDIX Voice Power File System Modification Software.

Installing AUDIX Voice Power File System Modification Software

The AUDIX Voice Power File System Modification Software *must* be installed before any other application package.

To install the AUDIX Voice Power File System Modification Software, follow these steps:

1. Log in as **root** (if you are not already logged in).

2. At the # prompt, type **installpkg** and press (Enter).

    For systems with an installed tape drive:

    — The system displays

    ```
    Please indicate the installation medium
    you intend to use.

    Strike C to install from CARTRIDGE TAPE
    or F to install from FLOPPY DISKETTE.

    Strike ESC to stop.
    ```

    — Type **f.**

    For systems with more than one floppy disk drive:

    — The system displays

    ```
    This system has two floppy drives.
    Strike ENTER to install from drive 0 or
    1 to install from drive 1.
    ```

    — Type 1 and press (Enter) to select drive 1, or just press (Enter) to select drive 0.

➡ N O T E :

If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

3. Insert the AUDIX Voice Power File System Modification Software disk into the floppy disk drive and press (<u>Enter</u>).

4. When the installation of the AUDIX Voice Power File System Modification Software is complete, the following message displays:

   ```
   The UNIX File System Modification Procedure
   has completed.
   ```

5. Press(<u>Enter</u>) to return to the # prompt.

Installing Integrated Voice Power System Software

To install the integrated Voice Power System software, follow these steps:

1. Log in as *root* (if not already logged in).

2. At the # prompt, type *installpkg* and press (<u>Enter</u>).

   For systems with an installed tape drive:

   — The system displays

   ```
   Please indicate the installation medium
   you intend to use.  Strike C to install
   from CARTRIDGE TAPE or F to install
   from FLOPPY DISKETTE. Strike ESC to
   stop .
   ```

   – Type *f.*

   For systems with more than one floppy disk drive:

   — The system displays

   ```
   This system has two floppy drives.
   Strike ENTER to install from drive 0 or
   1 to install from drive 1.
   ```

— Type *1* and press (<u>Enter</u>) to select drive 1, or just press
(<u>Enter</u>) to select drive 0.

➡ **N O T E :**

If the system configuration includes a tape drive or multiple
floppy disk drives, additional prompts may appear. Use the
preceding steps as a guide to responding to the system
prompts. The actual prompts may vary depending on the
system configuration.

3. Insert disk 1 of the Integrated Voice Power System software into
the disk drive and press (<u>Enter</u>).

4. After the system reads the last disk in the Integrated Voice Power
R2.0 system software set, it prompts you for the following
information:

■ Serial Ports

— The system displays

```
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.
```

— The system prompts you to DISABLE or ENABLE
each of the two serial ports and one parallel port, one
at a time.

```
For serial ports, would you like
to:
1 ) ENABLE both first and second
serial port.

2)DISABLE first and ENABLE second
serial port.
3)ENABLE first and DISABLE second
serial port.

Please enter your selection
[1,2,3]:
```

— Press *3* and (<u>Enter</u>) to enable the first and disable the
second serial port.

— The system confirms your choice.

■ Parallel Ports

— The system displays

```
For the parallel port (interupt
level 7), would you like to:
l)ENABLE the parallel port.
2)DISABLE the parallel port.

Please enter your selection
[1 or 2]:
```

— Press *1* and (<u>Enter</u>) to enable the parallel port.

■ Interrupts

— The system displays

```
Select interrupt number for TR
boards.
Press <Enter> for default value
[2] or one of [2, 3, 5,or 15] or q
to quit.
```

— Press (Enter) to select the default value 2.
You receive the following message:

```
Interrupt number <number selected>
will be used for TR boards.  Press
<Enter> to confirm or any other
key to reject.
```

— Press (Enter) again. The system displays the
following message:

```
Moving files for IVPSS Software!
It will take a few minutes!
```

■ Monitor Type

— The system displays

```
Select the monitor type:
1.   Color (AT386)
2.   Monochrome (at386-m)

Enter  selection:
```

If you do not know the type of monitor you are using,
refer to the documentation provided with the monitor.
Only those listed above are currently supported
by AT&T.

— Type your selection and press (Enter). You receive
the following message:

```
Confirm:  You are using monitor
type (selected number) [y/n]
```

— Type Y if the number matches the monitor type. Then
press (Enter).

■ Time Zone

— The system displays

```
Select the time zone for this
installation:

1.   Eastern
2.   Central
3.   Mountain
4.   Pacific


Enter selection:
```

— Type your selection and press (Enter). You receive
the following message:

```
Confirm:   the installation time
zone is (selected number) [y/n]
```

— Type Y if the number matches the correct time zone.
Press (Enter).

■ Daylight Savings

— The system displays

```
Is daylight savings time ever
used? [y/n]
```

— Enter the appropriate answer and press (Enter).

➯ **NOTE:**

If **y** is entered, the system will automatically change
the time for daylight savings. If **n** is entered, daylight
savings time will not be used.

■ Memory Configuration

(During installation of the Integrated Voice Power system software, you will probably not see the prompt below.)

➡ **NOTE:**
The install script automatically determines the system's memory configuration. The system lists this question if for some reason the install script was unsuccessful in determining the memory configuration. If this question is not displayed, proceed to the bullet item *Speech* in this installation procedure.

— The system displays

```
Select the appropriate memory
configuration:

1.   4 Megabytes
2.   8 Megabytes
3.   12 Megabytes

Enter  Selection:
```

— Type 2 for 8 MB and press (Enter). You receive the following message:

```
Confirm:  You have 8 megabytes of
memory [y/n]
```

— Type *Y* if the number matches the correct memory configuration. Then press (Enter).

■ Speech

— The system displays

> Reserving a disk slice for speech.
>
> Disk 0 Slice 4 will be reserved
> for speech (y/n).

— Type Y and press (<u>Enter</u>).

— The system displays

> Confirm: the speech file system
> will now be built on slice 0s4.
> (y/n)

— Type Y and press (<u>Enter</u>).

— The system displays

> Building speech file system on
> slice 0s4.
>
> Do you want to overwrite existing
> phrases in /dev/rdsk/0s4?

— Type Y and press (<u>Enter</u>).

— The system begins to build the speech file system.

It displays the following message:

> The UNIX Operating System will now
> be rebuilt.
> This will take approximately
> 2 minutes. Please wait.

– The UNIX Kernel has been rebuilt.

5. After the installation is complete, remove the floppy disk.

6. You are prompted to press (<u>Enter</u>) to shut down the system or (<u>Esc</u>)
    to skip the shutdown.

    Press (<u>Enter</u>)to shut down the system. When prompted to
    reboot, press (<u>Ctrl</u>) + (<u>Alt</u>) + (<u>Del</u>) simultaneously.

    ➡ **NOTE:**
    Proceed to Step 7 *only* if you are upgrading from AUDIX
    Voice Power 2.0 to AUDIX Voice Power 2.1.1 and upgrading
    to UNIX 3.2.2.

7. Restore the AUDIX Voice Power 2.0 backup files following the
    procedures in *Restoring Administrative Files* and *Restoring Speech
    Files* in Chapter 6 of this guide.

Installing AUDIX Voice Power Application Software

The number of disks in the application software set depends on the disk size being used.

Prior to AUDIX Voice Power application software installation, the **audix** login should have been created for the AUDIX Voice Power System Manager. If this has not been done, follow the steps in the preceding section, *Creating a Login for Voice Administration* before proceeding.

To install the AUDIX Voice Power application software, follow these steps:

> ➡ **NOTE:**
> The **Speech** section of the application software *must* be installed *before* the **Software** section.

1. Log in as **root** (if not already logged in).

2. At the # prompt, type **installpkg** and press (Enter).

    For systems with an installed tape drive:

    — The system displays

    ```
    Please indicate the installation medium
    you intend to use. Strike C to install
    from CARTRIDGE TAPE or F to install
    from FLOPPY DISKETTE. Strike ESC to
    stop.
    ```

    — Type **f.**

    For systems with more than one floppy disk drive:

    — The system displays

    ```
    This system has two floppy drives.
    Strike ENTER to install from drive O or
    1 to install from drive 1.
    ```

    — Type *1* and press (Enter) to select drive 1, or just press (Enter) to Select drive 0.

⟹ **N O T E :**

> If the system configuration includes a tape drive or multiple
> floppy disk drives, additional prompts may appear. Use the
> preceding steps as a guide to responding to the system
> prompts. The actual prompts may vary depending on the
> system configuration.

3. Insert disk 1 of the AUDIX Voice Power Application Software:
    Speech into the floppy disk drive and press (Enter).

⟹ **N O T E :**

> The **Speech** section of the application software *must* be
> installed *before* the **Software** section.

4. For each additional disk, insert the disk into the floppy disk drive
    and press (Enter) when prompted by the system.

    After all disks have been entered, the following messages display.

    ```
    Waiting 10 seconds for necessary processes
    to start up.

    Erasing any existing phrases supplied by
    AUDIX Voice Power to make room for new ones.
     (Any previously saved voice mail, names,
    greeting, or custom prompts WILL be
    preserved.)

    You will now see a series of  .'s. Each.
    indicates that a phrase has been added to
    the speech database.  Please wait.

    You may now remove the disk.
    ```

5. Remove the last disk from the disk drive.

    An installation confirmation message appears.

    ```
    Installation of the AUDIX Voice Power
    Application Software 2.1.1: Speech is now
    complete.
    ```

6. At the # prompt, type ***installpkg*** and press (Enter).

    For systems with an installed tape drive:

    — The system displays

    ```
    Please indicate the installation. medium
    you intend to use.

    Strike C to install from CARTRIDGE TAPE
    or F to install from FLOPPY DISKETTE.

    Strike ESC to stop.
    ```

    — Type *f.*

    For systems with more than one floppy disk drive:

    — The system displays

    ```
    This system has two floppy drives.
    Strike ENTER to install from drive 0 or
    1 to install from drive 1.
    ```

    — Type *1* and press (Enter) to select drive 1, or just press
      (Enter) to select drive 0.

    ➡ **NOTE:**
    If the system configuration includes a tape drive or multiple
    floppy disk drives, additional prompts may appear. Use the
    preceding steps as a guide to responding to the system
    prompts. The actual prompts may vary depending on the
    system configuration.

7. Insert disk 1 of the AUDIX Voice Power Application Software:
   Software into the floppy disk drive and press (<u>Enter</u>).

   ➥ **NOTE:**
   The **Speech** section of the application software *must* be
   installed before the **Software** section.

8. For each additional disk, insert the next disk and press (<u>Enter</u>) as
   prompted by the system.

   After the last disk has been entered, you are then prompted to
   enter the login of the AUDIX Voice Power System Administrator.

9. Type **audix** and press (<u>Enter</u>).

   You are asked to confirm.

10. Type **y** and press (<u>Enter</u>).

    A series of file names that are being moved scrolls on the screen.

11. When prompted, remove the last disk from the disk drive.

    An installation confirmation message appears.

    ```
    The installation of the AUDIX Voice Power
    Application Software R2.1.1: Software is now
    complete.
    ```

Installing the Switch Integration Software

The next step is to install the AUDIX Voice Power Switch Integration Software. For certain non-integrated applications, this software may be omitted. In that case, skip this section and continue with the section, *Installing Software for Remote Access.*

⚠️ **CAUTION:**
Do not use the disk included with the DCP board. It is for MS-DOS ® operating systems only.

1. At the # prompt, type ***installpkg*** and press (<u>Enter</u>).

    For systems with an installed tape drive:

    — The system displays

            Please indicate the installation medium
            you intend to use.

            Strike C to install from CARTRIDGE TAPE
            or F to install from FLOPPY DISKETTE.

            Strike ESC to stop.

    — Type ***f.***

    For systems with more than one floppy disk drive:

    — The system displays

            This system has two floppy drives.
            Strike ENTER to install from drive 0 or
            1 to install from drive 1.

    — Type *1* and press (<u>Enter</u>) to select drive 1, or just press (<u>Enter</u>) to select drive 0.

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➡ **NOTE:**

If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

2. Insert the Switch Integration Software disk into the floppy disk drive and press (Enter).

    Depending on which telephone system you have, you maybe asked which version of the switch you are using.

3. If asked, indicate the version of the switch and press (Enter).

    Files are listed on the screen as they are moved to the hard disk. When all copying has been completed, you are prompted to remove the disk.

➡ **NOTE:**

If the package will not load because of a conflict error, verify that serial port 2 is disabled. You should have disabled this port when you installed the Integrated Voice Power system software. If this is the reason for the conflict, see *DCP Conflict* at the end of the chapter for instructions on disabling serial port 2.

If this problem persists, call the next tier of support for assistance.

4. After the installation has completed, remove the diskette.

5. If prompted for shutdown, press (Enter) to shut down the system. When you are prompted to reboot the system, press (Ctrl) + (Alt) + (Del) simultaneously.

Installing Cartridge Tape Utility Software

If you have a cartridge tape drive, you must install the Cartridge Tape
Utility software.

> **NOTE:**
> The tape drive is not compatible with the DCP board.

Use the following procedures to install the cartridge tape utility software:

1. Log in as *root* (if you are not already logged in).

2. At the # prompt, type *installpkg* and press (<u>Enter</u>).

    For systems with an installed tape drive:

    — The system displays

        Please indicate the installation medium
        you intend to use.

        Strike C to install from CARTRIDGE TAPE
        or F to install from FLOPPY DISKETTE.

        Strike ESC to stop.

    — Type *f.*

    For systems with more than one floppy disk drive:

    — The system displays

        This system has two floppy drives.
        Strike ENTER to install from drive 0 or
        1 to install from drive 1.

    — Type *1* and press (<u>Enter</u>) to select drive 1, or just press
       (<u>Enter</u>) to select drive 0.

    > **NOTE:**
    > If the system configuration includes a tape drive or multiple
    > floppy disk drives, additional prompts may appear. Use the
    > preceding steps as a guide to responding to the system
    > prompts. The actual prompts may vary depending on the
    > system configuration.

████████████████████████

3. Insert the Cartridge Tape Utility Package disk in the floppy disk
    drive and press (Enter). (This is a UNIX package that comes with
    the UNIX Operating System Foundation Set.

4. The system displays

    ```
    Installing Cartridge Tape Utilities
    Available  interrupts(s)  for the Cartridge
    Tape Utilities:
    ```

    The system displays a list of interrupts. Then it displays

    ```
    Type the interrupt number and strike the
    ENTER key or type Q to cancel installation.
    ```

    Type *3* to choose interrupt 3 and press (Enter).

5. The system displays a message to confirm the settings.

    ```
    Confirm

    You are installing the Cartridge Tape
    Utilities using hardware interrupts number X
    and addresses XXX through YYY.  Be sure that
    these values are not in use by another
    add-on board.

    Strike ENTER when ready or ESC to stop.
    ```

    Press (Enter) to confirm your selection.

6. Remove the disk when the installation is complete.

7. The system prompts you for a shutdown. Press (Enter) to shut
    down the system. When you are prompted to reboot the system,
    press (Ctrl) + (Alt) + (Del) simultaneously.

Installing Software for Remote Access

Remote access for administration can be provided over dial-up lines.

Use the following procedures to install software to drive the modem.

1. Log in as *root* (if you are not already logged in).

2. At the # prompt, type *face* and press (Enter).

3. Move the cursor to System Administration and press (Enter).

4. Move the cursor to Peripheral Setup and press (Enter).

5. Move the cursor to Serial Port Setup and press (Enter).

6. Populate the fields as follows:

    ■ Serial Port Number: *01*   *(/dev/tty00)*

    ■ Device Type: *Modem*

    ■ Device Speed: *2400*

7. Press [F3] (SAVE).

    Another form appears. Populate the fields as follows:

    ■ Modem Name:

     Press [F2] (CHOICES). Select the modem type that you are
     installing. (The selection Hayes Smartm 2400 should be
     used for most 2400-baud modems. Hayes Smartm 1200
     will usually work for lower-speed modems.)

    ■ Device Connection:

     Press [F2] (CHOICES). Continue pressing
     [F2] (CHOICES) until the field reads Both Incoming and
     Outgoing calls.

8. Press [F3] (SAVE).

9. Press [F3] (CONT).

10. Use [F6] (CANCEL) to exit FACE back to the main menu.

11. Select `Exit` and press [0].

12. Press [F3] (CONT) to return to the UNIX operating system.

13. At the # prompt, type **installpkg** and press (Enter).

    For systems with an installed tape drive:

    — The system displays

          Please indicate the installation medium
          you intend to use.

          Strike C to install from CARTRIDGE TAPE
          or F to install from FLOPPY DISKETTE.

          Strike ESC to stop.

    — Type **f.**

    For systems with more than one floppy disk drive:

    — The system displays

          This system has two floppy drives.
          Strike ENTER to install from drive 0 or
          1 to install from drive 1.

    — Type *1* and press (Enter) to select drive 1, or just press
       (Enter) to select drive 0.

    ➡ **NOTE:**
    If the system configuration includes a tape drive or multiple
    floppy disk drives, additional prompts may appear. Use the
    preceding steps as a guide to responding to the system
    prompts. The actual prompts may vary depending on the
    system configuration.

14. Insert the Remote Terminal Package disk into the floppy disk drive
    and press (Enter). (This is a UNIX system package that comes with
    the UNIX Operating System Foundation Set).

15. At the `Selective Installation` of Remote Terminal `Package,` type *1* and press (<u>Enter</u>).

    The system displays the following message:

        Enter a filename, 'all', 'done', or 'files:'

16. Type **all** and press (<u>Enter</u>).

    File names will scroll across the screen. The system will then display:

        Enter a filename, 'all', 'done', or 'files:'

17. Type **done** and press (<u>Enter</u>).

18. Type *0* and press (Enter) to terminate the installation.

A remote user can now dial into the system.

Verifying Software Components

To verify the software components, follow these steps:

1. Log in as **root** (if not already logged in).

2. At the # prompt, type **displaypkg** and press (<u>Enter</u>).

   A listing of all software packages installed is displayed in alphabetical order. The packages listed below must be present.

   - AUDIX Voice Power Application Software, Release 2.1.1: Speech

   - AUDIX Voice Power Application Software, Release 2.1.1: Software

   - Editing Package

   - FACE HELP Package

   - FACE Package

   - FMLI Package

   - Integrated Voice Power System Software, Release 2.0

   - Remote Terminal Package

   If AUDIX Voice Power will be integrated with the telephone system, the following software package must also be listed:

   - AUDIX Voice Power Switch Integration Software R2. 1. (For the exact name of this package, please see the *Switch Notes* for your telephone system.)

If any of the above software packages are not listed, they have not been properly installed.

Printer Software Setup

To connect a printer to your system, you must tell the system which type of printer (printer model) you are connecting. Use the AT&T FACE utility to set up the printer software.

➡ **NOTE:**
Before you begin, be sure that the printer is physically connected to the parallel port.

Use the following steps to setup the printer software.

1. Log in as *root.*

2. At the # prompt, type *face* and press (Enter).

   The AT&T FACE menu appears.

3. From the AT&T FACE menu, highlight System Administration and press (Enter).

   The System Administration menu is displayed.

4. Highlight Peripherals Setup and press (Enter).

   The Peripherals Setup menu appears.

5. Highlight Printer Setup and press (Enter).

   The Printer Setup menu appears.

6. Highlight Parallel Printer Port and press (Enter).

   The Parallel Printer Port Setup form is displayed.

7. Enter a valid port number.

> ⇒ **NOTE:**
>
> The default port number is 01.
>
> If no add-on multiports board has been installed, port 01 is the only valid port number. If you have installed the multiport board, there are additional valid port numbers. There are two (2) additional parallel ports per multiport board.
>
> If you want to configure a port other than port 01, press [F2] (CHOICES). If a multiport board has been installed, the Parallel Port Number menu appears.

8. If a device has been configured for this port, enter the name of the device configured for the port. If no device has been configured, None appears.

9. To setup a different or new printer, other than the one that appears in the Printer Type field, use the following procedure.

   — Press [F2] (CHOICES).

     A list of available printers displays.

   — Use the arrow keys to scroll through the list to highlight the name of the printer model you are connecting and press (Enter).

10. Enter the name you wish to use for the printer.

11. Enter whether or not the printer output needs to be filtered to display appropriately for your printer type. Select yes if the printer output needs to be filtered or No. Press [F2] (CHOICES) and toggle until your choice appears in the field and press (Enter).

    In most cases the answer to this prompt is Yes. The only cases where you may need to answer No is where the application itself is doing its own filtering.

12. Press [F3] (SAVE).

 — A confirmation message appears that the printer you
 selected is set upon the port you selected. The printer
 is also set up as your default printer destination.

13. Press [F3] (CONT).

 — The Printer Setup menu displays.

14. Press [F6] (CANCEL) until the AT&T FACE menu displays.

15. Highlight Exit and press [F3] (CONT).

Completing Installation

At this point, all of the hardware and software components of the AUDIX
Voice Power system are installed. However, the AUDIX Voice Power
system is not operational until AUDIX Voice Power and the switch are
administered.

Acceptance Testing

Acceptance testing demonstrates that the system works. It consists of
running hardware diagnostics to verify that the hardware is installed
properly and that the hardware works, and then using a small sample
population of users to verify that the software is installed property and
that the software works properly.

To perform the acceptance testing, you need to have the switch and
AUDIX Voice Power administered. The administration of the switch, and
of any existing AUDIX Voice Power system, must be left to the customer
and arranged so as not to interfere with the customer's business.
The administration of any new AUDIX Voice Power system should be
undertaken jointly with the customer so as to familiarize the customer
with the process.

Acceptance testing should follow these steps:

1. Run any diagnostics available on the analog and digital switch boards and lines including verification of dial tone at the jacks where AUDIX Voice Power will be connected, and including ring checks to verify the assigned extension numbers.

2. Run the Power On Self-Test on the processor by turning it on. See *Power On Self-Test* in Chapter 4.

3. Run the general diagnostics on the Customer Test disk according to the instructions given in *General Diagnostics* in Chapter 4.

4. Establish that dial tone can be detected on all Integrated Voice Power channels by running the IVP4 diagnostics according to the instructions given in *IVP4 Board Diagnostics* in Chapter 4.

5. Verify the IVP4 switch settings are correct using the procedure *Testing the /VP4 Switch Settings* in Chapter 4.

6. Administer the switch for two test users for voice (Voice1 and Voice2).

   ➡ **N O T E :**

   The customer may supply real names and extension numbers for testing if this is more convenient.

7. Administer AUDIX Voice Power for the two test voice users. See the *AT&T AUDIX™ Voice Power System Manager's Guide* for instructions.

8. Run the call-through test on all analog ports.

9. Call the system and create personal greetings for test users.

10. Call the system and leave messages for test users.

11. Call the system and retrieve messages for test users.

12. Send and receive voice mail between test users.

These tests provide a good measure of overall system operation.

Testing the IVP4 Switch Settings

After setting the switches on each board correctly, to verify the correctness of the switch settings, go to Step 4 of the *Determining the IVP4 Board by Testing* section in Chapter 2.

DCP Conflict

If your system includes a DCP board, you must disable serial port 2. There is a conflict between the DCP board and the hardware used for serial port 2. To disable serial port 2, follow these steps:

1. Log in as **root** (if not already logged in).

2. At the # prompt, type **face** and press (Enter).

    The AT&T FACE menu appears.

3. At the AT&T FACE menu, select System Administration and press (Enter).

    The System Administration menu appears.

4. At the System Administration menu, select Peripherals Setup and press (Enter).

    The Peripheral Setup menu appears.

5. At the Peripheral Setup menu, select Enable/Disable Second Serial Port and press (Enter).

    The Enable/Disable Second Serial Port menu appears.

6. At the Enable/Disable Second Serial Port menu, select Disable Second Serial Port and press (Enter).

    The second serial port is disabled.

    The system will show a confirmation screen telling you to reboot the system as soon as possible.

7. Press [F3] (CONT).

8. When prompted for a shutdown, press (Enter) to shut down the system.

9. When prompted to reboot, press (Ctrl) + (Alt) + (Del) simultaneously.

Configuration Testing and Troubleshooting

4

Troubleshooting is limited to two areas:

■ **Hardware verification**

Hardware tests are limited to the Power-On Self Test (POST), the system diagnostics provided on the Customer Test disk, and diagnostics for additional boards that have been installed as part of the software packages.

After your system has been assembled, it should be tested before being put into service.

The same techniques are used for troubleshooting when you suspect hardware problems.

■ **Application operation problems**

When the system does not operate as anticipated, there maybe problems in the administration of the application or in the administration of the switch.

If the application problem is described in the troubleshooting tables, you may be able to fix the problem by taking the action indicated.

Hardware Verification

Power-On Self Test

When the Power-On Self Test (POST) is initiated upon booting the system, two columns of information appear on the screen. The left column identifies the item being tested; the right column indicates PASS or FAIL, or the amount of memory allocated.

The following table shows the item being checked and indicates possible causes for failure. If there is more than one cause listed, try to resolve the problem starting with the first item listed.

Screen Item	**Cause of Failure**
CPU	Motherboard problem
CMOS RAM	a. Battery backup problem b. Motherboard problem
ROM Checksum	a. ROM failure --replace ROM b. Motherboard problem
Memory Refresh	Motherboard problem
DMA Controllers	Motherboard problem
Interrupt Controller	Motherboard problem
Keyboard	a. Pressed key while booting - reboot system b. Keyboard not plugged in c. Keyboard bad - replace keyboard d. Motherboard problem
Dedicated memory	If not 0384 kB, a. Memory problem - replace memory b. Motherboard problem
Base memory	If not 0640 kB, a. Memory problem - replace memory b. Motherboard problem
Extended memory	If not 3072 kB or more, a. Memory problem - replace memory b. Motherboard problem
Total memory	a. Memory problem - replace memory b. Motherboard problem
Clock/Calendar	Motherboard problem
Floppy disks	a. Poor connection b. Bad drive c. Bad controller d. Motherboard problem
Hard disks	a. Poor connection b. Bad drive c. Bad controller d. Motherboard problem

Please use the Customer Test disk that was provided with the system to fully diagnose any problems. See the following sections for more information.

For additional information, refer to the following manuals:

■ *AT&T WGS Service Manual* (for the appropriate processor), especially Chapters 5-7

■ *AT&T WGS User's Guide* (for the appropriate processor), especially Chapter 5

Hard Disk Failure

If the hard disk fails, do the following:

1. Check all connections.

2. Reboot the system.

3. If the hard disk still fails, replace the disk controller (if separate from the motherboard).

4. If the hard disk still fails, replace the hard disk.

5. If you replaced the hard disk, it will be necessary to reload all operating system and application software. Refer to Chapter 3, *Software Installation,* for information on reinstalling the software. If the system has been in use, it will also be necessary to recover the system data files from disk or tape. Refer to Chapter 6, *Recovery from System Failure,* for information on recovering system data files.

Motherboard Failure

If the motherboard fails, do the following:

1. Insert the Customer Test disk in the floppy disk drive.

2. Run tests for each item whose status is FAIL. See the section *General Diagnostics* in this chapter for more information. If necessary, refer to *Problem Solving* in the *AT&T WGS User's Guide* for the appropriate processor.

3. Replace the motherboard (if defective). Refer to the *AT&T WGS Service Manual* for the appropriate processor.

4. Boot the Customer Test disk and select the **setup** utility. Set the configurations as follows:

    - Set up hard drive type

    - Setup monitor type

    - Disable shadow of BIOS

    - Save and reboot system

See the section *Configuration: the SETUP Utility* in Chapter 2.

➡ **NOTE:**

You do not need to recover the hard disk if only the motherboard fails.

Data Corruption

If the screen is garbled and/or the system is running, but error messages are displayed from the UNIX system or one of the installed applications, it may mean that there is corrupt data. If this is the case, you must reinstall the software and restore the system data files. Refer to Chapter 3, *Software Installation,* for information on reinstalling the software. Refer to Chapter 6, *Recovering from System Failure,* for information on recovering system data files.

General Diagnostics

The only general diagnostics other than the POST are those provided on the Customer Test disk for testing the basic system integrity. Additional diagnostics for the IVP4 boards run under the application software.

To run the Customer Test diagnostics, follow these steps:

1. Insert the Customer Test disk supplied with the system into floppy disk drive A.

    ⮞ **NOTE:**

    Be sure to shut down the UNIX system before rebooting.

2. Boot the system by turning power ON or by pressing (<u>Reset</u>) if the power is already on.

    The system boots from the Customer Test disk and displays the Customer Test introduction screen.

3. Press (<u>Enter</u>) to continue.

    The Customer Test main menu appears.

4. Use ⬇ to move the highlight bar to System Checkout or Test All Modules (the command displayed depends on the processor that you are using) and press (<u>Enter</u>).

    ⮞ **NOTE:**

    If Test All Modules appears on the main menu, Customization Screen will also appear. On the Customization Screen, the *interactive* mode must be set to ON before you select Test All Modules if the speaker test, floppy disk drive test, keyboard keystrokes and typematic tests, and mouse tests are to be performed. If the *interactive* mode is OFF, these tests will not be performed.

5. Follow the directions on the screen to run the diagnostics.

IVP4 Board Diagnostics

Diagnostics for the IVP4 boards can be run after the initial setup to determine whether everything is connected properly and there is a dial tone. The procedures for running IVP4 board diagnostics are sightly different when AUDIX Voice Power runs on a dedicated computer and when it runs on a computer that is also used for controlling the switch (IS II environment).

To run the IVP4 board diagnostics on a dedicated computer, follow these steps:

1. Log into the system as **audix.**

2. At the User Login menu, move the cursor to Voice System Administration and press (Enter).

   The Voice System Administration menu is displayed.

3. Move the cursor to Configuration Management and press (Enter)

   The Configuration Management menu is displayed.

4. Move the cursor to System Control and press (Enter).

   The System Control menu is displayed.

5. Move the cursor to Diagnose Equipment and press (Enter).

   The Diagnose Equipment screen is displayed.

6. Fill in the fields as follows:

   — Equipment: **card**

   — Equipment Number: **all**

   — Diagnose Immediately? **yes**

7. Press [F3] (SAVE) to begin execution.

   The system searches for dial tones (Loop Current) on the boards and then informs you if the IVP4 board passes the test. If the IVP4 board fails, you must replace the board. If neither dial tones nor loop current is found, check the phone line connections.

8. Press [F6] (CANCEL) repeatedly until the main FACE menu appears.

9. Select Exit to return to the login prompt.

Application Operation Problems

This section assists you in identifying and locating problems that occur with the application rather than with the hardware. If a symptom in the "Trouble Indication" column occurs, check the solution given in the "User Response" column.

If problems continue, contact a field service representative for assistance.

Trouble Indication	User Response
During installation of the AUDIX Voice Power package, you are prompted for a login for the voice administrator; however, one has not been created.	Stop the installation process by pressing (<u>Delete</u>) and create a login for the voice administrator.
Message Waiting Lamp will not turn on or off.	Check the PBX administration of the Message Waiting Lamp for that extension to verify that it was enabled. Also, make sure the Message Waiting Lamp fields in the System Parameter Administration form are correctly filled in. For telephone systems that use DCP, also check that Call Answer, Voice Mail, or Automated Attendant service has been assigned to channel 0 and that channel 0 is in the INSERV state.
Messages cannot be left because mailboxes are full.	Message Space Usage reports should be performed regularly. Check for subscribers who are approaching or exceeding the message space limit. Have subscribers delete old messages regularly. Also, make sure the Message Drop Service is checked and cleared on a regular basis.
Incoming Fax calls are not being transferred to the Fax extension.	Check to see if the Fax number is defined. Check to see if the calling machine is an autodial model that generates the CNG tone.

(continued)

Trouble Indication	User Response
Caller hears a ring, but receives no answer.	Check to see if each telephone line is properly connected to each channel. In addition, make sure the correct service has been assigned to each channel and that each channel is in the INSERV state. If any channel is in the facility-out-of-service (FOOS) state, change it to the manual-out-of-service (MANOOS) state. Diagnose the IVP4 card and then change the channel's status to the INSERV state. Also check the switch administration of each channel. For telephone systems that require channel-to-phone mapping, make sure that channel-to-phone mapping has been done correctly. (Seethe *Switch Notes* for your telephone system to determine if channel-to-phone mapping is required for your system.) For telephone systems that allow ambiguous extensions, check to make sure that no ambiguous extensions have been assigned to the AUDIX Voice Power channels. (See the *Switch Notes* for your telephone system to determine if your system allows ambiguous extensions.)

(continued)

Trouble Indication	User Response
Users' messages appear to be truncated. System terminates recording of name or greeting and message before user is finished.	A portion of the speech in the message being spoken by the user is simulating a touch tone. The false touch tone stops the recording which is in progress. If recording of a name or greeting still causes a problem after several attempts, try using a different telephone or have someone else record the user's name or greeting.
Unable to login to the Voice Mail Service.	Verify that the individual logging in is registered on the system. Check to see if the password being used is correct. If the password is incorrect, determine whether the user has been denied access (System Manager changed password) before allowing access.
Unable to leave messages.	Check to see if there is space available in the user's mailbox. If not, have the user clean up the mailbox. Also check to see if there is space available on the disk. Run the Space Usage Report and page down to the last page to determine the space left on the disk.
Occasional busy signals received when attempting to call into the Voice Mail Service.	Maintenance is in the process of diagnosing equipment or all lines are currently in use. Please wait.

(continued)

Trouble Indication	**User Response**
Problems with Touch-Tone recognition	Change all switches on SW1.1 on IVP4 boards to the opposite state. (See Chapter 2 of this guide.)
Constantly receiving a busy signal when attempting to call into the Voice Mail Service.	The switch interface software is not loaded or is incorrectly loaded. The second serial port is not disabled. For systems that use DCP, the DCP board in the system module or the digital ports board in the switch maybe bad.
Service hour administration does not work properly.	The system date or time has been changed. Use the *date* command to verify and if necessary correct the system date and time. Then reset the voice system by stopping and restarting it.
Outcalls not being made reliably.	The system date or time has been changed. Outcalls will work properly for messages left after the date or time change. Outcalls for messages left before the date or time change have the previous time stamp and may not work properly.

(continued)

Trouble Indication	User Response
Indication that maximum simultaneous ports exceed the number of ports available when changing the outcalling parameters.	Check that the total number of Voice Mail, Call Answer, and Automated Attendant ports is greater than or equal to the number of simultaneous ports requested. If not, lower the number of simultaneous ports. During system startup, this may occur if ports are still being initialized. Wait a few minutes and try again.
Many subscribers get messages about multiple logins to their mailboxes.	Stop and restart the voice system.
System is not performing call transfers properly.	Check to see if the user is transferring to a valid extension. Make sure the person being transferred to is registered on the system. If not, check to see whether the system is administered to allow transfers to non-registered numbers. If the problem regards transferring to an operator, check to see if an operator has been defined on the system.

Upgrade Procedures

5

As new releases of AUDIX Voice Power become available, you should update the customer system to make the latest features available and to simplify maintenance and troubleshooting.

Before any upgrade takes place (either for R2.0 or R1.1 systems), you should consider the following items:

- Ask subscribers to remove any unwanted voice mail, and the System Manager to remove any inactive subscribers. This helps ensure that there is enough room on the hard disk for the installation of AUDIX Voice Power, Release 2.1.1.

- The extension numbers 9999 (general mailbox) and 9998 (maintenance mailbox) are special in Release 2.1.1. If these extensions are in use for subscribers, the subscribers must be moved to different extensions.

- The name addressing feature of Release 2.1.1 makes it desirable for all subscribers to have a recorded name that is used to verify addressing of voice mail and that the correct person has been dialed when leaving a call answer message. Either the System Manager can record all names, or the subscribers can be asked to record their own names.

To upgrade from AUDIX Voice Power Release 1.1 to Release 2.1.1, it is necessary to first upgrade from Release 1.1 to Release 2.0, and then to upgrade from Release 2.0 to Release 2.1.1.

The procedure for upgrading from AUDIX Voice Power Release 1.1 to Release 2.0 is described in the following section. The procedure for upgrading from AUDIX Voice Power Release 2.0 to Release 2.1.1 is described later. If you are upgrading from Release 1.1, continue with the following section. If you are upgrading from Release 2.0, skip to the appropriately titled section.

Upgrading from Release 1.1 to Release 2.0

The procedure for upgrading from AUDIX Voice Power Release 1.1 to Release 2.0 is outlined below. The exact procedure for each step is included in the step or described elsewhere, either in this chapter, or in other parts of this document. *Note that you must reinstall the UNIX system as part of this procedure.*

1. Using FORM A from the *AT& T AUDIX™ Voice Power Planning Guide and Forms (Release 2.1. 1),* record the current Service Type and Extension for each channel. To determine the current Service Type and Extension, you must display the Voice Equipment window, as described in the chapter *Assigning Services to Channels* in your *Switch Notes* document. For each channel, write down the Service Type (the Service field on the Voice Equipment window). After the upgrade is complete, you reassign Service Types and Extensions to all channels.

2. Log into the system as **root.**

3. Insert the AUDIX Voice Power Upgrade Utility disk into the disk drive.

4 . At the # prompt, type *install pkg* and press (Enter).

For systems with an installed tape drive:

— The system displays

```
Please indicate the installation medium
you intend to use.

Strike C to install from CARTRIDGE TAPE
or F to install from FLOPPY disk.

Strike ESC to stop.
```

— Type *f.*

For systems with more than one floppy disk drive:

— The system displays

```
This system has two floppy drives.
Strike ENTER to install from drive 0 or
1 to install from drive 1.
```

— Type *1* and press (Enter) to select drive 1, or just press (Enter) to select drive 0.

➤ **NOTE:**

If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the following steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

5. If the program installation requires more than one floppy disk, the system cautions you to be sure to insert the disks in the proper order.

Insert the first floppy disk and press (Enter).

6. For each additional floppy disk, insert the disk and press (Enter) when prompted by the system.

7. Follow the instructions on the screen to complete these steps:

    a.   The voice system will be stopped automatically (if running) so that no more calls are accepted.

    b.   When prompted, remove the AUDIX Voice Power Upgrade Utility disk from the disk drive.

    c.   When prompted for the removable media to be used for backups, respond *F* for floppy disk. The system determines if 5 1/4-inch or 3 1/2-inch disks are needed.

    d.   The system computes the number of disks needed for the backup.

    e.   The system provides the option of formatting the disks. This step is strongly recommended for ensuring a good quality backup.

> **➡ NOTE:**
>
> If this formatting fails, use the procedure *Formatting a Floppy Disk* later in this chapter.

    f.   The speech files are then backed up.

> **➡ NOTE:**
>
> Be sure to use separate sets of floppy disks to back up the speech and administrative files.

    g.   The administrative files are then backed up.

    h.   The voice system is then started if it was previously stopped.

8. Rebuild the UNIX system with the new disk partitioning specified in Chapter 3. Follow the directions for *Installing the UNIX Operating System* in Chapter 3.

   This procedure includes the installation of the following packages:

   - FACE
   - FACE HELP
   - FMLI
   - Editing Package

9. Create an account for voice administration by following the directions in *Creating a Login for Voice Administration* in Chapter 3.

10. Install the AUDIX Voice Power File System Modification Software by following the directions in *Installing AUDIX Voice Power File System Modification Software* in Chapter 3.

11. Install the Integrated Voice Power System Software 1.1, by following the directions below.

    a. Log in as *root* (if you are not already logged in).

    b. At the # prompt, type *installpkg* and press (Enter).

    c. Insert disk 1 of the Integrated Voice Power system software into the floppy disk drive and press (Enter).

    d. For each additional disk, insert the disk into the floppy disk drive and press (Enter) when prompted by the system.

       Status messages are displayed as sections of the installation are completed.

e. The system prompts you for the following information after it reads the last disk in the Integrated Voice Power System Software set:

```
Select the time zone for this
installation:
        1. Eastern
        2. Central
        3. Mountain
        4. Pacific
Enter Selection:
```

f. Enter your selection and press (Enter). You will receive the following message:

```
Confirm: the installation time zone
number is <selected number> (y/n)
```

g. Type y if the number matches the correct time zone and press (Enter).

The following message appears:

```
is daylight savings time ever used?
(y/n)
```

h. Type **y** or **n** as appropriate.

➡ **NOTE:**

If **y** is entered, the system will automatically change the time for daylight savings. If **n** is entered, daylight savings time will not be used.

The names of files are displayed as they are copied to the hard disk, then the following prompt appears:

```
Reserving a disk slice for speech.
Disk 0 Slice 4 will be reserved for
speech (y/n)
```

i.   Type **y and** press (<u>Enter</u>).

The following message appears:

```
A speech filesystem does not exist on
slice 0s4.
Confirm: A speech filesystem will now
be built on slice 0s4.  (y/n)
```

j   Type **y** and press (<u>Enter</u>).

The following messages appear:

```
Building speech filesystem on slice 0s4

Inittab successfully rebuilt.

Voice System successfully installed.

Installing the IVP4 driver.
```

The following messages appear:

```
The UNIX® Operating System will now be
rebuilt.  This will take approximately 2
minutes.  Please wait.

The UNIX Kernel has been rebuilt.
```

k. Take out the last disk when complete.

When the installation is complete, the Integrated
Voice Power system software package is installed,
but not running.

l. The system will prompt you for a shutdown. Press (<u>Enter</u>) to
shut down the system. When you are prompted to reboot the
system, press (<u>Ctrl)</u> + (<u>Alt</u>) + (<u>Del</u>) simultaneously.

12.   Restore the administrative and speech files saved by the AUDIX
Voice Power Upgrade Utility. Use the instructions found in the
Restoring Administrative Files and *Restoring Speech Files* sections
of Chapter 6, *Recovery From System Failures.*

13. Install AUDIX Voice Power, Release 2.0. This automatically upgrades the AUDIX Voice Power Release 1.1 database to a Release 2.0 compatible database.

To install the AUDIX Voice Power Application software, follow these steps:

a. Log in as *root* (if not already logged in).

b. At the # prompt, type *installpkg* and press (<u>Enter</u>).

For systems with an installed tape drive:

— The system displays

```
Please indicate the installation
medium you intend to use. Strike C
to install from CARTRIDGE TAPE or
F to install from FLOPPY disk.
Strike ESC to stop.
```

— Type *f.*

For systems with more than one floppy disk drive:

— The system displays

```
This system has two floppy drives.
Strike ENTER to install from drive
0 or 1 to install from drive 1.
```

— Type *1* and press(<u>Enter</u>) to select drive 1, or just press (<u>Enter</u>) to select drive 0.

⇒ **N O T E :**

If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

c. Insert disk 1 of the AUDIX Voice Power Application software 2.0 into the floppy disk drive and press (<u>Enter</u>).

d. For each additional disk, insert the disk in the floppy disk
    drive and press (<u>Enter</u>) when prompted by the system.

    After all of the disks have been entered, a confirmation
    message displays.

    ```
    You will now see a series  of  .` s.
    Each . indicates that a phrase has
    been added to the speech database.
    Please wait.

    You may now remove the disk.
    ```

e. Remove the last disk from the disk drive.

    After the last disk has been entered, you are then prompted
    to enter the login of the AUDIX Voice Power System
    Administrator.

f. Type **audix** and press (<u>Enter</u>).

g. You are asked to confirm.

h. Type **y** and press (<u>Enter</u>).

    A series of file names that are being moved scrolls on the
    screen.

i. When prompted, remove the last disk from the disk drive.

    An installation confirmation message appears.

    ```
    The installation of the AUDIX Voice
    Power Application Software R2.0:
    Software is now complete.
    ```

14. Verify the software components.

To verify the software components, follow these steps:

a. Log in as *root* (if not already logged in).

b. At the # prompt, type *displaypkg* and press (<u>Enter</u>).

A listing of all software packages installed is displayed in alphabetical order. The packages listed below must be present.

- AUDIX Voice Power Application Software, Release 2.0: Speech

- AUDIX Voice Power Application Software, Release 2.0: Software

- Editing Package

- FACE HELP Package

- FACE Package

- FMLI Package

- Integrated Voice Power System Software, Release 1.1

If any of the above software packages are not listed, they have not been properly installed.

Upgrading from Release 2.0 to Release 2.1.1

The procedure for upgrading AUDIX Voice Power Release 2.0 to Release 2.1.1 is outlined below. The exact procedure for each step is included in the step or described elsewhere, either in this chapter or in other parts of this document.

Since you are upgrading to AUDIX Voice Power 2.1.1, you have to add additional memory to bring the total system memory capacity to 8 MB. To install additional memory, follow the instructions for the appropriate 6386 system in *installing Additional Memory* in Chapter 2, *Hardware Installation.*

⚠️ **CAUTION:**
Files that have been backed up using *Release 2.0* cannot be restored once the system has been upgraded to *Release 2.1.1.*

To restore files backed up using Release 2.0 to an upgraded AUDIX Voice Power 2.1.1 system, you must first remove the AUDIX Voice Power 2.1.1 application software. Then you restore the files and reinstall AUDIX Voice Power 2.1.1 application software. This automatically upgrades the files to AUDIX Voice Power 2.1.1 format.

1. Using FORM A from the *AT&T AUDIX™ Voice Power Planning Guide and Forms (Release 2.1. 1),* record the current Service Type and Extension for each channel. To determine the current Service Type and Extension, you must display the Voice Equipment window, as described in the chapter *Assigning Services to Channels* in your *Switch Notes* document. For each channel, write down the Service Type (the Service field on the Voice Equipment window). After the upgrade is complete, you reassign Service Types and Extensions to all channels.

2. The System Manager should perform the necessary backups before starting the upgrade procedure.

> ➥ **NOTE:**
>
> If you are also upgrading to UNIX 3.2.2, you **must** backup the system. See the *Backing Up Administrative Files* and the *Backing Up Speech Files* sections in this chapter. You will then use the information in Chapter 3, *Software Installation.* You restore the files **Immediately** after loading the Integrated Voice Power System Software.

   a. Use the *Backing Up Administrative Files* procedure found later in this chapter to back up all files in the following directories:

   ```
   /usr/vmdb
   /usr/ocdb
   /avp/data
   /gendb
   ```

   b. Use the *Backing up Speech Files* procedure found later in this chapter to backup the following speech files:

   ```
   talkfile 46 phrase all
   talkfile 47 phrase all
   ```

3. Remove the switch integration patch, the AUDIX Voice Power Application Software patch, and the Integrated Voice Power System Software patch (if any are present) in that order by following this procedure for each patch:

   a. Log in as *root* (if not already logged in).

   b. At the # prompt, type *removepkg* and press (Enter).

   A list of available packages appears.

   c. Select the number to remove and press (Enter).

   The system displays a confirmation request.

   ```
   Confirm.
   ```

```
Do you really want to remove <selected>
patch?

Strike ENTER when ready or ESC to stop.
```

d. Press (<u>Enter</u>) to confirm the removal of the package.

The package will be removed.

e. If prompted for a shutdown. press (<u>Enter</u>) to shut down the system. When you are prompted to reboot the system, press (<u>Ctrl</u>) + (<u>Alt)</u> + (<u>Del)</u> simultaneously.

4. Remove the switch integration software (if present) by following this procedure:

a. Log in as *root* (if not already logged in).

b. At the # prompt, type *removepkg* and press (<u>Enter</u>).

c. Select the number to remove AUDIX Voice Power Switch Integration Software and press (<u>Enter</u>).

The system displays a confirmation request.

```
Confirm.

Do you really want to remove AUDIX
Voice Power Switch Integration
Software?

Strike ENTER when ready or ESC to stop.
```

d. Press (<u>Enter</u>)to confirm the removal of the package.

The package will be removed.

e. If prompted for a shutdown, press (<u>Enter</u>) to shut down the system. When you are prompted to reboot the system, press (<u>Ctrl</u>) + (<u>Al</u>t) + (<u>De</u>l) simultaneously.

5. Remove the AUDIX Voice Power Application Software by following this procedure:

    a.   Log in as *root* if not already logged in.

    b. At the # prompt, type *removepkg* and press (<u>Enter</u>).

    c.   Select the number to remove AUDIX Voice Power application software and press (<u>Enter</u>).

    The system displays a confirmation request.

```
Confirm.

Do you really want to remove AUDIX
Voice Power Application Software?

Strike ENTER when ready or ESC to stop.
```

    d. Press (<u>Enter</u>)to confirm the removal of the package.

    The package will be removed. The system displays:

```
Do you wish to save voice messages,
personal names and greetings, and the
subscriber database information (y/n)?
```

    e.   Type *y* and press (<u>Enter</u>).

    It is possible that there will not be enough room on the hard disk to remove Release 2.0 and save the database, and then reinstall Release 2.0. In this case, the following text is displayed:

```
There is not enough room on your disk
to save your application data (e. g.,
subscriber data, group lists, etc.),
and later re-install this application
software.  If you wish to re-install
this application software, you must
answer 'no' to the question about
saving voice messages, personal names,
etc. However, you may backup your
```

```
application data and speech to
removable media via the FACE commands,
then subsequently restore the
application data and speech after
installation of the new application
software.Or you may abort removal,
remove unnecessary files from the /usr
directory,  and attempt removal again.

Do you wish to continue removal of
AUDIX Voice Power?
```

Reply *y* to this question. You have already backed up the files to removable media, and you will be installing Release 2.1.1, not Release 2.0.

There are additional messages about removing prompts supplied with AUDIX Voice Power, but all voice mail, greetings and custom prompts are preserved.

6.   Remove the Integrated Voice Power system software by following this procedure:

   a.   At the # prompt, type *removepkg* and press (Enter).

   b.   Select the number to remove Integrated Voice Power System Software and press (Enter).

   The system displays a confirmation request.

```
Confirm.

Do you really want to remove Integrated
Voice Power System Software?

Strike ENTER when ready or ESC to stop.
```

   c.   Press (Enter)to confirm the removal of the package.

   The package is removed.

d. Type **y** and press (Enter) when asked if you want to save the speech filesystem.

The system responds:

```
Leaving speech filesystem intact.
Removing the Tip/Ring.

The UNIX Operating System will now be
rebuilt.
This will take approximately 2 minutes.

Please wait.

Confirm

To complete the installation process a
shutdown is now being initiated
automatically.

Make sure the floppy drive is empty. If
you are installing or removing
controller boards, you may power  down
the system after the shutdown has
completed.

Strike ENTER when ready or
ESC to stop.
```

e. Press (Enter) to shut down the system. When you are prompted to reboot the system, press (Ctrl) + (Alt) + (Del) simultaneously.

7. To install the Integrated Voice Power system software, follow these steps:

    a.   Log in as **root** (if not already logged in).

    b.   At the # prompt, type **installpkg** and press (Enter).

        For systems with an installed tape drive:

            — The system displays

```
Please indicate the installation
medium you intend to use. Strike C
to install from CARTRIDGE TAPE or
F to install from FLOPPY disk.
Strike ESC to stop.
```

            − Type **f.**

        For systems with more than one floppy disk drive:

            — The system displays

```
This system has two floppy drives.
Strike ENTER to install from drive
0 or 1 to install from drive 1.
```

            __ Type *1* and press (Enter) to select drive 1, or just press (Enter) to select drive 0.

> ➩ **NOTE:**
> If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

    c.   Insert disk 1 of the Integrated Voice Power system software into the disk drive and press (Enter).

d. After the system reads the last disk in the Integrated Voice
   Power R2.0 system software set, it prompts you for the
   following information:

   ■ Serial Ports

   The system displays

   ```
   First serial port use interrupt
   level 4
   Second serial port use interrupt
   level 3
   Parallel port use 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.

   The system prompts you to DISABLE or ENABLE
   each of the two serial ports and one parallel port, one
   at a time.

   ```
   For serial ports, would you like
   to:
   1) ENABLE both first and second
   serial port.
   2) DISABLE first and ENABLE second
   serial port.
   3) ENABLE first and DISABLE second
   serial port.

   Please enter your selection
   [1,2,3] :
   ```

   Press *3* and (Enter) to enable the first and disable the
   second serial port.

   The system confirms your choice.

■ Parallel Ports

 The system displays

```
For the parallel port (interrupt
level 7), would you like to:
l) ENABLE the parallel port.
2) DISABLE the parallel port.

Please enter your selection
[1 or 2]:
```

 Press *1* and (<u>Enter</u>) to enable the parallel port.
 The system confirms your choice.

■ Interrupts

 The system displays

```
Select the interrupt number of T/R
boards.
Press <Enter> for default value
[2] or [2, 3, 5,or 15] or q to
quit.
```

 Press (<u>Enter</u>) to select the default value 2. You
 receive the following message:

```
Interrupt number<number selected>
will be used for TR boards.

Press <Enter> to confirm or any
other key to reject.
```

 Press (<u>Enter</u>) again. The system displays the
 following message:

```
Moving files for IVPSS Software!
It will take a few minutes!
```

■ Monitor Type

The system displays

```
Select the monitor type:
1. Color (AT386)
2. Monochrome (at386-m)

Enter selection:
```

If you do not know the type of monitor you are using, refer to the user's manual provided with the monitor. Only those listed above are currently supported by AT&T.

Type your selection and press (<u>Enter</u>). You receive the following message:

```
Confirm: You are using monitor
type (selected number) [y/n]
```

Type *y* if the number matches the monitor type. Then press (<u>Enter</u>).

■ Time Zone

The system displays

```
Select the time zone for this
installation:

1. Eastern
2. Central
3. Mountain
4. Pacific

Enter selection:
```

Type your selection and press (<u>Enter</u>). You receive the following message:

```
Confirm: the installation time
zone is (selected number) [y/n]
```

Type **y** if the number matches the correct time zone. Press (Enter).

■ Daylight Savings

The system displays

```
Is Daylight Savings time ever used?
[y/n]
```

Enter the appropriate answer.

➩ **NOTE:**

If you enter **y,** the system automatically changes the time for daylight savings. If you enter **n,** the system does not use daylight savings time.

■ Memory Configuration

(During installation of the Integrated Voice Power system software, you will probably not see the prompt below.)

➩ **NOTE:**

The install script automatically determines the system's memory configuration. The system lists this question if for some reason the install script was unsuccessful in determining the memory configuration. If this question is not displayed, proceed to the bullet item *Speech* in this installation procedure.

The system displays

```
Select the appropriate memory
configuration:

1.  4 Megabytes
2.  8 Megabytes
3. 12 Megabytes

Enter  Selection:
```

Type *2* for 8 MB and press (<u>Enter</u>). You receive the following message:

```
Confirm:  You have 8 megabytes of
memory [y/n]
```

Type *y* if the number matches the correct memory configuration. Then press (<u>Enter</u>).

■ Speech

The system displays

```
Reserving a disk slice for speech.

Disk 0 Slice 4 will be reserved for
speech (y/n) .
```

Type *y* and press (<u>Enter</u>).

The system displays

```
Speech file system on slice 0s4 OK, no
change.  Inittab successfully rebuilt.
Voice System successfully installed.

Successful enable of automatic starting
voice system.  Installing the Tip/Ring
Driver.
```

and adds the following message:

```
The UNIX Operating System will now be
rebuilt.
This will take approximately 2 minutes.
Please wait.
```

The UNIX Kernel has been rebuilt.

■ After the installation is complete, remove the floppy disk.

■ You are prompted to press (Enter) to shut down the system or (Esc) to skip the shutdown.

Press (Enter) to shut down the system. When prompted to reboot, press (Ctrl) + (Alt) + (Del) simultaneously.

8.   To install the AUDIX Voice Power Application software, follow these steps:

> **NOTE:**
> The **Speech** section of the application software *must* be installed *before* the **Software** section.

a.   Log in as *root* (if not already logged in).

b. At the # prompt, type *installpkg* and press (Enter).

For systems with an installed tape drive:

— The system displays

```
Please indicate the installation
medium you intend to use.

Strike C to install from CARTRIDGE
TAPE or F to install from FLOPPY
disk.

Strike ESC to stop.
```

— Type *f.*

For systems with more than one floppy disk drive:

— The system displays

```
This system has two floppy drives.
Strike ENTER to install from drive
0 or 1 to install from drive 1.
```

— Type *1* and press (Enter) to select drive 1, or just press (Enter) to select drive 0.

> ➡ **NOTE:**
> If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

c. Insert disk 1 of the AUDIX Voice Power Application Software R2.1.1:Speech into the floppy disk drive and press (Enter).

> ➡ **NOTE:**
> The **Speech** section of the application software *must* be installed *before* the **Software** section.

d. For each additional disk, insert the disk into the floppy disk drive and press (Enter) as prompted by the system.

After all disks have been entered, the following messages display.

```
Waiting 10 seconds for necessary
processes to start up.

Erasing any existing phrases supplied
by AUDIX Voice Power to make room for
new ones .  (Any previously saved voice
mail, names, greeting, or custom
prompts WILL be preserved.)

You will now see a series of .'s.
Each  . indicates that a phrase has been
added to the speech database.

Please wait.

You may now remove the disk.
```

e.   Remove the last disk from the disk drive.

An installation confirmation message appears.

```
The installation of the AUDIX Voice
Power Application Software R2.1.1:
Speech is now complete.
```

f. At the # prompt, type **installpkg** and press (Enter).

For systems with an installed tape drive:

— The system displays

```
Please indicate the installation
medium you intend to use.

Strike C to install from CARTRIDGE
TAPE or F to install from FLOPPY
disk.

Strike ESC to stop.
```

— Type **f.**

For systems with more than one floppy disk drive:

— The system displays

```
This system has two floppy drives.
Strike ENTER to install from drive
0 or 1 to install from drive 1.
```

— Type *1* and press (Enter) to select drive 1, or just press (Enter) to select drive 0.

⇒ NOTE:

If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

g. Insert disk 1 of the AUDIX Voice Power Application
    Software R2.1.1: Software into the floppy disk drive and
    press (Enter).

h. For each additional disk, insert the requested disk and press
    (Enter) as prompted by the system.

i. When prompted, remove the last disk from the disk drive.

    You are then prompted to enter the login of the AUDIX Voice
    Power System Administrator.

j. Type *audix* and press (Enter).

    You will be asked to confirm.

k. Press (Enter).

    After the last disk has been inserted, the following messages
    appear:

    ```
    *** Upgrading the AVP R2.0 database to
    the R2.1.1 format ***

    Upgrading .prompt file
    Upgrading the pwdb file and creating
    scr_pwdb
    Upgrading system parameter files
    Upgrading aaspeech files
    Upgrading AA menu files
    Upgrading voice mail names and
    greetings database
    ```

    A series of file names that are being moved will scroll on the
    screen.

    An installation confirmation message appears.

    ```
    The installation of the AUDIX Voice
    Power Application Software R2.1.1 is
    now complete.
    ```

9. Install the Switch Integration package (if necessary) by following this procedure:

> **⇒ N O T E :**
>
> If installing an integrated system, refer to the *Switch Notes* document for your telephone system for additional information.

a. At the # prompt, type *installpkg* and press (<u>Enter</u>).

For systems with an installed tape drive:

— The system displays

```
Please indicate the installation
medium you intend to use.

Strike C to install from CARTRIDGE
TAPE or F to install from FLOPPY
disk.

Strike ESC to stop.
```

— Type *f.*

For systems with more than one floppy disk drive:

— The system displays

```
This system has two floppy drives.
Strike ENTER to install from drive
0 or 1 to install from drive 1.
```

— Type *1* and press (<u>Enter</u>) to select drive 1, or just press (<u>Enter</u>) to select drive 0.

> **◢◤ N O T E :**
>
> > If the system configuration includes a tape drive or multiple floppy disk drives, additional prompts may appear. Use the preceding steps as a guide to responding to the system prompts. The actual prompts may vary depending on the system configuration.

b.   Insert the Switch Integration software disk into the floppy disk drive and press (<u>Enter</u>).

Depending on which telephone system you have, you may be asked which version of the switch you are using.

c.   If asked, indicate the version of the switch and press (<u>Enter</u>).

Files are listed on the screen as they are moved to the hard disk. When all copying has been completed, you will be prompted to remove the disk.

> **◢◤ NOTE:**
>
> > If the package will not load because of a conflict error, verify that serial port 2 is disabled.
> >
> > If this problem persists, call the next tier of support for assistance.

d.   After the installation has completed, remove the disk.

e.   If prompted for shutdown, press (<u>Enter</u>) to shut down the system. When you are prompted to reboot the system, press (<u>Ctrl</u>) + (<u>Alt</u>) + (<u>Del</u>) simultaneously.

10.   Install the remote access software (if not already loaded). Follow the procedure in *Installing Software for Remote Access* in Chapter 3.

11.   Using the information that was recorded in Step 1 of *Upgrading from Release 2.0 to Release 2.1.1.* in this chapter, assign Service Type and Extensions to the channels. (Refer to the *Assigning Services to Channels* section in your *Switch Notes* for a description of this procedure.)

12.   Verify the software components. Follow the procedure in *Verifying Software Components* in Chapter 3.

13.   Record all subscriber names that are not already recorded.
       See the *AT&T AUDIX™ Voice Power System Manager's Guide* for more information.

14.   Add name addressing information to all subscriber records.
       See the *AT&T AUDIX™ Voice Power System Manager's Guide* for more information.

Backing Up Administrative Files

The selective personal backup is used to back up administrative files.

> ⚠ **CAUTION:**
> Be sure to remove all channels from service by changing their state
> to MANOOS to prevent loss of data before beginning the backup
> procedure. Refer to *Changing the State of Voice Channels* for
> instructions.

Follow these steps:

1. Log into the system as *root.*

2. At the # prompt, type *face* and press (Enter).

   The AT&T FACE menu appears.

   > ⮕ **NOTE:**
   > Make sure that you have a supply of formatted disks on
   > hand before continuing this procedure. If necessary, format
   > disks using the procedure *Formatting a Floppy Disk* in this
   > chapter before continuing.
   >
   > If using a cartridge tape drive for backup, make sure that a
   > blank cartridge is on hand.

3. At the AT&T FACE menu, move the cursor to System
   Administration and press (Enter).

   The System Administration menu appears.

4. At the System Administration menu, move the cursor to Backup
   to Removable Media and press (Enter).

   The Backup to Removable Media menu appears.

5. At the Backup to Removable Media menu, move the cursor to
   Personal Backup and press (Enter).

   The Personal Backup menu appears.

6. At the Personal Backup menu, move the cursor to `Selective Backup of Files Under /` and press (<u>Enter</u>).

   If you have more than one floppy disk drive, or if you have a cartridge tape drive, the Select Removable Media menu appears. Make your choice and press (<u>Enter</u>).

   The Selective Backup of Files Under/screen appears.

7. Enter the names of the following directories as:

   /usr/vmdb /usr/ocdb /avp/data /gendb

   Be sure to separate the names with a space.

8. Press [<u>F3</u>] (SAVE).

   The system calculates the number of disks required and the amount of time the backup will take.

9. When prompted, insert the tape cartridge or the first formatted disk and press (<u>Enter</u>).

   The backup begins.

10. When the backup is complete, remove the last disk or the tape cartridge and press (<u>Enter</u>).

    The system returns to the Backup to Removable Media menu.

11. Continue with the procedure *Backing Up Speech Files.*

Backing Up Speech Files

The Selective Backup of Speech Files screen is used to backup speech files.

Follow these steps:

1. At the Backup to Removable Media menu, move the cursor to Speech Backup and press (Enter).

   The Speech Backup menu appears.

2. At the Speech Backup menu, move the cursor to Selective Backup of Talkfiles/Phrases and press (Enter).

   The Selective Backup of Speech Files screen appears.

3. Enter the following names. The exact format to use is:

   ```
   talkfile   46   phrase   all
   talkfile   47   phrase   all
   ```

4. Press [F3] (SAVE).

   If you have more than one floppy disk drive, or if you have a cartridge tape drive, the Select Removable Media menu appears. Make your choice and press (Enter).

   The system calculates the number of disks required.

➤ **NOTE:**
If more floppy disks are needed, follow these steps:

   a. Press (Del).

   b. Use the appropriate steps in the procedure *Formatting a Floppy Disk* in this chapter to format the disks needed. You do not need to log in again.

c.   When formatting has been completed, you do not need to exit FACE. Just press [F6] (CANCEL) repeatedly until the System Administration menu appears.

d.   Restart the procedure *Backing Up Speech Files.*

5.   When prompted, insert the cartridge tape or the first formatted disk and press (Enter).

The backup begins.

6.   When the backup is complete, remove the last disk or the cartridge tape and press (Enter).

The system returns to the Speech Backup menu.

7.   Press [F6] (CANCEL) repeatedly to return to the AT&T FACE menu.

8.   At the AT&T FACE menu, move the cursor to Exit and press (Enter).

A Confirm Exit screen appears.

9.   Press [F3] (CONT) to return to the # prompt.

10. Type *exit* and press (Enter) to return to the Console Login: prompt.

11. Be sure to return all channels to **INSERV.**

Formatting a Floppy Disk

To format a floppy disk, follow these steps:

1. Log into the system as *root.*

2. At the # prompt, type *face* and press (Enter).

    The AT&T FACE menu appears.

3. At the AT&T FACE menu, move the cursor to System Administration and press (Enter).

    The System Administration menu appears.

4. At the System Administration menu, move the cursor to Disk Operations and press (Enter).

    The Disk Operations menu appears.

5. At the Disk Operations menu, move the cursor to the size of floppy disk you want to format and press (Enter).

    A screen appears to verify the size of floppy disk you want to format.

6. Insert the floppy disk into the floppy disk drive.

7. Press [F3] (CONT) if it is the size you want to format, or press [F6] (CANCEL) if it is not.

8. The floppy disk is now formatted. A screen appears informing you that the floppy disk has been formatted.

9. Remove the floppy disk and press [F3] (CONT).

10. Repeat Steps 5 through 9 as many times as necessary.

11. Press [F6] (CANCEL) repeatedly to return to the AT&T FACE menu.

12. At the AT&T FACE menu, move the cursor to `Exit` and press (<u>Enter</u>).

     A Confirm Exit screen appears.

13. Press [F3] (CONT) to return to the # prompt.

Recovering from System Failures

6

You may be responsible for recovering the system from disks after a system failure at the customer site.

The procedures for reinstalling the operating system software are provided in Chapter 3, *Software Installation.* This chapter provides procedures for recovering system administrative and voice files.

➡

> The file restore procedures in this chapter are also used for upgrading from Release 1.1 to Release 2.0 of AUDIX Voice Power, and for upgrading from Release 2.0 to Release 2.1.1.

Before you can recover the system after a crash, you must first determine what caused the crash to occur and then try to fix it.

There are three possible problems that might have occurred:

- Hard disk failure
- Motherboard failure
- Data corruption

Refer to Chapter 4, *Configuration Testing and Troubleshooting,* to determine what the problem is and how to resolve it. The remainder of this chapter explains how to recover system administrative and voice files after hard disk failure or data corruption. (It is not usually necessary to recover the files after a motherboard failure.)

Recovering from Hard Disk Crash

If you are recovering the system from a hard disk crash, you must:

1. Replace the hard disk. Refer to the appropriate service manual for this information.

2. Reinstall the operating system and application software. Refer to Chapter 3, *Software Installation.*

3. Restore system administrative and voice files from backup (if available).

    If backup files are not available, you must restart the system from scratch. See the *AT&T AUDIX™ Voice Power Planning Guide and Forms* for initial implementation procedures.

4. Run the confidence test described in the procedure *Confidence Test.*

Recovering from Motherboard Failure

If you are recovering from motherboard failure, you must replace the motherboard. It is not necessary to restore the files.

Recovering from Data Corruption

If you are recovering the system from data corruption, you must restore system administrative and voice files from backup (if available). If backup files are not available, you must restart the system from scratch. See the *AT&T AUDIX™ Voice Power Planning Guide and Forms* for initial implementation procedures.

In more severe cases, you may have to use the hard disk recovery procedure. See *Recovering from Hard Disk Crash* earlier in this chapter for instructions.

Whenever the files are restored, you should run the confidence test described in the following section.

Confidence Test

These tests provide a good measure of overall system operation.

1. Administer the switch for two test users for voice (Voice1 and Voice2).

    ### NOTE:
    You may use real names and extension numbers already administered if this is more convenient.

2. Administer AUDIX Voice Power for the two test voice users. See *Subscriber Administration* in the *AT&T AUDIX™ Voice Power System Manager's Guide* for instructions.

    ### NOTE:
    You may use real names and extension numbers already administered if this is more convenient.

3. Call the system and create personal greetings for the test users.

4. Call the system and leave messages for the test users.

5. Call the system and retrieve messages for the test users.

6. Send and receive voice mail between the test users.

Materials Required for Restoring Files

You will need the following materials to recover the administrative and voice files after a hard disk crash or data corruption.

■ System administrative files backup disks

■ Voice files backup disks or cartridge tapes

Restoring Files

If the hard disk crashes or your disk data becomes corrupted, you must restore all or part of your system. You can restore only what you have previously backed up. It is therefore wise to back up the administrative and voice files according to the instructions given in the section *Backing Up and Restoring Files* in the *AT&T AUDIX™ Voice Power System Manager's Guide.*

If you are recovering from a hard disk failure or data corruption, follow these steps:

1. Reinstall the UNIX operating system and all software application files as described in Chapter 3, *Software Installation.*

2. The voice system starts automatically when the system is rebooted.

3. Restore all AUDIX Voice Power files containing administrative information using the *Restoring Administrative Files* procedure later in this chapter.

4. Restore all talk files and phrases using the *Restoring Speech Files* procedure later in this chapter.

Restoring Administrative Files

The voice system should be running before restoring files. Both the
administrative files and the speech files must be restored together.
You cannot restore the system without both.

> ⚠️ **CAUTION:**
> Be sure to remove all channels from service by changing their state
> to MANOOS to prevent loss of data before beginning the restore
> procedure. Refer to *Changing the State of Voice Channels* for
> instructions.

To restore the administrative files, follow these steps:

1. Log in as *root.*

2. At the # prompt, type **face** and press (Enter).

    The AT&T FACE menu appears.

3. At the AT&T FACE menu, move the cursor to System
    Administration and press (Enter).

    The System Administration menu appears.

4. At the System Administration menu, move the cursor to Restore
    from Removable Media and press (Enter).

    The Restore from Removable Media menu appears.

5. At the Restore from Removable Media menu, move the cursor to
    Personal Restore and press (Enter).

    The Personal Restore menu appears.

6. At the Personal Restore menu, move the cursor to Restore
    Files under / and press (Enter).

    If you have more than one floppy disk drive or a cartridge tape
    drive, the Select Removable Media menu appears. Make your
    choice and press (Enter).

    The Disk Restore form appears, asking if existing files on disk
    should be overwritten with files being restored.

7. Type **Yes** or press [F2] (CHOICES) to select Yes.

    ⟹ **NOTE:**
    If you type in **Yes,** you must type capital **Y** and lowercase
    es or you will get an Invalid input message. It is not
    necessary to press (Enter).

8. Press [F3] (SAVE).

    A restore confirmation message appears telling you to insert the
    disk or tape containing the files that you want to restore.

9. Insert the disk or tape and press (Enter).

    After the restore starts, the following message displays:

    > Restore in progress.

10. When the system informs you that it has completed the restore,
    remove the cartridge tape or the last disk and press (Enter).

11. Continue with the procedure *Restoring Speech Files* in this chapter.

Restoring Speech Files

The voice system should be running before restoring files. Both the administrative files and the speech files must be restored together. You cannot restore the system without both.

> ⚠ **CAUTION:**
> Be sure to remove all channels from service by changing their state to MANOOS to prevent loss of data before beginning the restore procedures. Refer to *Changing the State of Voice Channels* for instructions.

To restore speech files, follow these steps:

1. At the Restore from Removable Media menu, move the cursor to `Speech Restore` and press (Enter).

    The Speech Restore menu appears.

2. At the Speech Restore menu, move the cursor to `Restore All Talkfiles/Phrases` and press (Enter).

    If you have more than one floppy disk drive or a cartridge tape drive, the Select Removable Media menu appears. Make your choice and press (Enter).

    A restore confirmation message appears telling you to insert the disk or tape containing files you want to restore.

3. Insert the disk or tape and press (Enter).

    After the restore starts, the following message displays:

        Restoring speech.

4. When the system informs you that it has completed the restore, remove the cartridge tape or last disk and press (Enter).

5. Press [F6] (CANCEL) repeatedly to return to the AT&T FACE menu.

6. At the AT&T FACE menu, move the cursor to Exit and press (Enter).

    A Confirm Exit screen appears.

7. Press [F3] (CONT) to return to the # prompt.

8. At the # prompt, type **/vs/bin/stop_vs.**

    This stops the system.

9. At the # prompt, type **/vs/bin/stop_vs.**

    This starts the system and ensures the restore was successful.

10. Type **exit** and press (Enter) to return to the Console Login: prompt.

11. Be sure to return all channels to INSERV.

Installing a Second Hard Disk

A
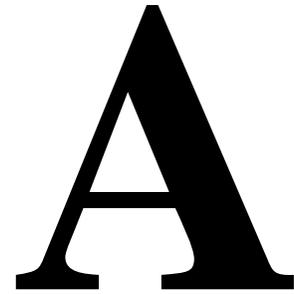
Introduction

In some systems you may want to increase the voice message space.

■ Before installing a second hard disk, you should replace the first hard disk with a hard disk with a maximum size of 300 MB.

■ If it is necessary to install a second hard disk, both the first and second hard disks should be 300 MB.

Follow the instructions in this appendix to install the second hard disk and make it operational.

Installing the Second Hard Disk

The procedure for installing the second hard disk is outlined below. The exact procedure for each step is included in the step or described elsewhere in this document.

1. If this is a new installation and installation has not yet been completed, skip this step. Otherwise, use the *Backing Up Administrative Files* procedure found in Chapter 5 to back up all files in the following directories:

   /usr/vmdb
   /usr/ocdb
   /avp/data
   /gendb

2. If this is a new installation and installation has not yet been completed, skip this step. Otherwise, use the *Backing Up Speech Files* procedure found in Chapter 5 to back up the following speech files:

   talkfile 46 phrase all
   talkfile 47 phrase all

3. Install the second hard disk. Follow the instructions packed with the disk or in the appropriate *Service Manual.*

4. Change the setup parameters to indicate that there are two hard disks. Use the *Configuration: the Setup Utility* procedure in Chapter 2 and change the entry for Hard Disk #2 to match the entry for Hard Disk #1. (Both should be 300 MB disks.)

5. Rebuild the UNIX system with the disk partitioning specified for dual 300 MB disks. Follow the directions for *Installing the UNIX Operating System,* in Chapter 3.

    This procedure includes the installation of the following packages:

    - FACE

    - FACE HELP

    - FMLI

    - Editing Package

6. Create an account for voice administration by following the directions in *Creating a Login for Voice Administration* in Chapter 3.

7. Install the AUDIX Voice Power File System Modification Software by following the directions in *Installing AUDIX Voice Power File System Modification Software* in Chapter 3.

8. Install the Integrated Voice Power system software by following the directions in *Installing Integrated Voice Power System Software* in Chapter 3.

9. Log in as **root.**

10. Type **/vs/bin/util/addspdisk** and press (Enter) to activate the second hard disk.

11. Restart the voice system using the following procedure:

    ➡ NOTE:

    Make sure that the system is shutdown normally before proceeding. Refer to Chapter 5, *System Operations* in the *AT&T AUDIX™ Voice Power System Manager's Guide* for additional information on the stopping or restarting the voice system or rebooting the system.

To stop the voice system, follow these steps:

a.   At the Configuration Management menu, move the cursor to `System Control` and press (<u>Enter</u>).

The System Control menu appears.

b.   Move the cursor to `Stop Voice System` and press (<u>Enter</u>).

The Specify Wait Time form appears.

c.   Press [<u>F3</u>] (SAVE).

The system stops answering calls immediately, but allows the specified amount of wait time for completion of calls already in progress. A number of messages appear on the screen.

d.   When prompted, press (<u>Enter</u>) to continue.

e.   Press [F6] (CANCEL) to return to the System Control menu.

f.   Reboot the system to start it.

12.   Restore the administrative and speech files saved previously. Use the instructions found in the *Restoring Administrative Files* and *Restoring Speech Files* sections of Chapter 6, *Recovery From System Failures.*

13.   Install AUDIX Voice Power, Release 2.1.1. Follow the procedure in *Installing AUDIX Voice Power Application Software* in Chapter 3.

14.   Install the switch integration software for your switch. Follow the procedure in *Installing the Switch Integration Software* in Chapter 3.

15.   Verify the software components by following the procedure in *Verifying Software Components* in Chapter 3.

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